Reference(s): Exhibit B, Tab 2, Schedule 1, Page 4 Supportive Tax Rulings Sought from the Ministry of Finance

a) Please explain how this consolidation application will be impacted, if the parties are unable to receive a supporting ruling from the Ministry of Finance.

Response:

1 The contemplated structure and transfer is beyond the scope of this Application, such that the 2 Applicants are not requesting any corresponding relief in this Application. The purpose of 3 including the disclosure lines 12-18 of Exhibit B, Tab 2, Schedule 1, page 4 was to advise the 4 OEB that the Applicants are contemplating and developing such a structure and would bring 5 such forward, subject to the disclosed conditions. 6 7 The contemplated structure has no implication to the benefits articulated in the Application. Consequently, the Applicants do not believe that the question is relevant to a decision on the 8 9 Application. 10 11 This notwithstanding, the following information is being provided in response to the question: 12 13 a) The Applicants are still developing the structure and have not yet finalized or filed 14 corresponding rulings requests. There are no consequences to the benefits outlined in the

- Application. The principal implication is the ability of the consolidated entity to obtain growth based capital to support endeavours such as further acquisitions or non-regulated business
 investment.
- 18
- The partnership is not a condition for proceeding with the merger transaction described inthe Application.

Reference(s): Exhibit B, Tab 2, Schedule 1, Page 5 Proposed Closing Date

It is stated that subject to the OEB approval, the applicants are planning for a January 1, 2019 closing of the proposed amalgamation.

a) Please explain what, if any, implications there are if the OEB decision in this application is not rendered in time to enable the transaction to close effective January 1, 2019.

Response:

1 a) The Applicants filed the Application with the OEB on March 7, 2018. In filing the Application, 2 the Applicants were guided by the adjudication targets identified on the OEB website for 3 Section 86 applications. The information on the OEB website indicates that for a Section 86 4 application that proceeds by way of written hearing, 130 calendar days are required until an 5 OEB decision; on that basis, a decision would be anticipated around July 15, 2018. Further, 6 the OEB website indicates that the timeline for the adjudication of a Section 86 application 7 that proceeds by way of oral hearing is 180 day until an OEB decision; on that basis, a 8 decision would be expected by September 3, 2018.

9

At the time that the Merger Participation Agreement was executed by the parties, there was
 no expectation that the closing would need to fall beyond December 31, 2018, as the
 Application decision was anticipated before that time, as identified above.

13

14 This notwithstanding, there are both tangible and intangible costs to the transaction, should 15 the OEB not render its decision in time to enable the transaction to close, effective 16 December 31, 2018.

17

Tangible costs include the necessity of undertaking a "stub period" financial audit that will likely be triggered for an "off-fiscal-period" close. In effect, two audits would have to be completed – one at year end and one prior to closing for each of Alectra Utilities and Guelph Hydro. There are costs that would normally end on December 31, 2018 (or soon after) due to the merger, including but not limited to Board of Director costs, memberships, etc. Further, Alectra Utilities cannot commence to realize synergies, as a result of this
 consolidation, until the transaction closes. A delay in receipt of approval by the OEB of this
 Application, will delay the integration activities and the financial benefits to be realized.

4

Intangible impacts include change management elements for employees, in terms of
reducing uncertainty, particularly for Guelph Hydro employees, and the commencement of
new roles in the amalgamated entity, as of the new year, i.e., January 1, 2019.

Reference(s): Exhibit B, Tab 2, Schedule 1, Page 8 Notices of Proposal under Sections 80 and 81

a) Please confirm for the record, whether notices of proposal under sections 80 and 81 have been filed with the OEB, in respect of Alectra Inc.'s acquisition of shares in the capital of Guelph Hydro and Guelph Municipal Holdings Inc.'s acquisition of shares in the capital of Alectra Inc.

Response:

- 1 a) The Applicants confirm that the Notice of Proposal under Sections 80 and 81 of the OEB Act
- 2 was filed with the OEB on April 23, 2018. A letter of no review of the proposal was received
- 3 on May 31, 2018. A copy of the aforementioned letter is included herewith as B-Staff-3-
- 4 Attachment 1.

B-STAFF-3 ATTACHMENT 1 ALECTRA UTILITIES/GUELPH HYDRO SECTION 80/81 APPLICATION LETTER OF NO REVIEW MAY 31, 2018

Ontario Energy Board P.O. Box 2319 27th Floor 2300 Yonge Street Toronto ON M4P 1E4 Telephone: 416- 481-1967 Facsimile: 416- 440-7656 Toll free: 1-888-632-6273 Commission de l'énergie de l'Ontario C.P. 2319 27e étage 2300, rue Yonge Toronto ON M4P 1E4 Téléphone; 416- 481-1967 Télécopieur: 416- 440-7656 Numéro sans frais: 1-888-632-6273



BY E-MAIL

May 31, 2018

Indy Butany-DeSouza Vice President Alectra Inc. 2185 Derry Road West Mississauga ON L5N 7A6

Dear Ms. Butany-DeSouza:

Re: Alectra Inc. Notice of Proposal under Sections 80 and 81 of the Ontario Energy Board Act, 1998 OEB File No. EB-2018-0162

On April 23, 2018 Alectra Inc. filed with the Ontario Energy Board (OEB) a notice of proposal under sections 80 and 81 of the Ontario Energy Board Act, 1998 (Act). The notice is in regards to Alectra Inc.'s proposed amalgamation with Guelph Hydro Electric Systems Inc., resulting in the acquisition by Alectra Inc. and its affiliate an interest in generation facilities, and the generators acquiring interests in a distribution system.

This letter is to inform you that the OEB does not intend to issue a notice of review of the proposal pursuant to sections 80 and 81 of the Act.

The OEB notes that this letter is independent of the review of the proposed amalgamation by the OEB in the EB-2018-0014 proceeding.

Yours truly,

Original signed by

Kirsten Walli Board Secretary

Reference(s): Exhibit B, Tab 3, Schedule 2, Page 3 Implications of the Merger Application on Village of Rockwood

The applicants state that Guelph Hydro is a partial embedded distributor in relation to Hydro One Networks Inc. for distribution services for the Village of Rockwood and that Guelph Hydro is charged by Hydro One Networks Inc. for low voltage distribution services.

a) Please explain if customers located in the Village of Rockwood will be affected any differently than other Guelph Hydro customers, if the application for consolidation is approved.

Response:

- 1 a) Customers located in the Village of Rockwood will not be affected any differently than other
- 2 Guelph Hydro customers. All rates and charges, including low voltage service rates, are the
- 3 same for customers located in the City of Guelph and the Village of Rockwood.

Reference(s): Exhibit B, Tab 4, Schedule 2, Page 1

Merger Participation Agreement (MPA) and Legal Agreement to Implement the Transaction

The applicants state that the MPA contemplates certain pre-closing transactions, i.e. to affect the amalgamation of Guelph Hydro and Envida Community Energy Inc. (Envida) to be entered into on the day prior to the Alectra Utilities-Guelph Hydro transaction.

a) Please confirm whether all the pre-closing transactions included in the MPA are in respect to Guelph Hydro and Envida amalgamation. If applicable, please provide information on any additional pre-closing transactions for the purpose of Alectra Utilities' and Guelph Hydro's merger application.

Response:

1 a) The Applicants confirm that there are no additional pre-closing transactions.

Reference(s): Exhibit B, Tab 5, Schedule 1, Page 2; Exhibit B, Tab 5, Schedule 4, Page 8; Green Energy & Technology Centre (GRE&T Centre)

- a) Please explain specifically what the purpose of GRE&T Centre would be and how it would benefit the Guelph rate zone ratepayers, if the application is approved.
- b) Would the benefits be shared with other rate zones in Alectra Utilities' service area, if the application is approved?
- c) What would happen to the proposed GRE&T Centre, if Alectra Utilities is unable to secure external provincial and/or Federal funding to run this centre?
- d) What would happen to the proposed merger and the merged entity (post consolidation), if for any reason, the proposed GRE&T Centre is not approved or its establishment never materializes?

Response:

- a) The purpose of the Green Energy and Technology ("GRE&T") Centre is to accelerate the
 creation of new green energy and technology services and products, such that customers
 have greater choice in managing their electricity costs. The incremental financial
 commitment to the GRE&T Centre is not being financed by ratepayers. The benefit to
 customers will be the innovative solutions that may be developed that would help customers
 manage their energy costs.
- 7

8 To the extent that the work at the GRE&T Centre leads to innovative technologies or 9 services that may be offered to customers, the Applicants are currently considering whether 10 those products and services will be offered by Alectra Utilities or through a non-regulated 11 business unit within the same entity, or an affiliate.

12

b) Please see the Applicants' response to part a), above. The expectation is that as new
 products and services are developed, Alectra will consider whether these would be offered
 to customers, through Alectra Utilities or through a non-regulated business unit or non regulated affiliate. Customers would benefit from these new product/ solution offerings.

- c) It is not possible to answer this question, at this time. Alectra Inc., the parent company of
 Alectra Utilities, will review its funding needs on an ongoing basis. The need for incremental
 investment, in order to develop commercially viable products, services and technologies, will
 be assessed periodically, as necessary.
- 5
- d) On the basis that the OEB approves the Application, the merger will be completed. There is
 no condition requiring an additional approval to proceed with the GRE&T Centre. Further,
 the GRE&T Centre is not a condition precedent to the amalgamation.

Reference(s): Exhibit B, Tab 5, Schedule 2, Page 1 Operating, Maintenance and Administration (OM&A) Costs

The proposed transaction is expected to result in reductions in operating, maintenance and administration (OM&A) costs. Figure 15 sets out the applicants' projected cost savings on a yearly basis for ten years. The projected savings are shown as the difference in costs between the *status quo* forecast, i.e., in the absence of the transaction.

- a) Figure 15 only shows OM&A cost savings and not any Capital savings. Please provide a similar analysis shown in Figure 15, for Capital savings.
- b) Please identify the specific areas of the distribution business where the projected cost savings (both OM&A and Capital) are expected to be generated as a result of the proposed transaction.
- c) Please provide a breakdown of the costs identified in the following sections:
 - i. OM&A Synergies
 - ii. OM&A Transition Costs
 - iii. As per Exhibit B-Staff-7(a), Capital Synergies, if applicable
 - iv. As per Exhibit B-Staff-7(a), Capital Transition Costs, if applicable
- d) Please explain all the assumptions the applicants have made with respect to the expected cost savings.

Response:

a) The Applicants have provided Table 1, below, that includes capital savings by year, relative

to Figure 15 from the Application.

3 4

1 2

Table 1 – Capital Savings

5

(\$ millions)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Alectra Capital Additions	\$283.54	\$257.87	\$285.52	\$257.68	\$272.94	\$281.60	\$272.62	\$287.46	\$296.17	\$305.95	\$296.50
GRE&T Centre Capital Exp.	\$ -	\$ 3.00	\$ 2.00	\$-	\$ -	\$-	\$-	\$-	\$ -	\$-	\$-
Guelph Hydro Capital Additions	\$ 10.53	\$ 10.83	\$ 11.14	\$ 21.95	\$ 12.18	\$ 12.43	\$ 11.95	\$ 17.20	\$ 12.42	\$ 12.69	\$ 12.97
Consolidated Capex	\$294.07	\$271.70	\$298.66	\$279.63	\$285.13	\$294.03	\$284.57	\$304.66	\$308.59	\$318.64	\$309.47
Capital Synergies	\$ -	\$ (0.47)	\$ (0.32)	\$ (0.46)	\$ (1.00)	\$ (0.57)	\$ (0.51)	\$ (0.51)	\$ -	\$-	\$-
Capital Transition Costs	\$ -	\$ 0.36	\$ 6.72	\$ 2.65	\$ -	\$-	\$-	\$-	\$ -	\$-	\$-
Post-Merge Alectra Capex	\$294.07	\$271.59	\$305.05	\$281.82	\$284.13	\$293.45	\$284.06	\$304.15	\$308.59	\$318.64	\$309.47

6

- b) The Applicants expect that the majority of cost savings are expected to be OM&A-related.
 OM&A savings before transition costs of \$37.04MM as compared to capital-related gross synergies. Please see the Applicants' response to a), above, where the capital gross synergies of \$3.84MM are identified.
- 5 OM&A cost savings result primarily from: reductions in labour; reduction of audit, legal, 6 consulting expenses; and Board of Director expenses.

		OM&A	٦	OM&A Fransition	Ca	apital	т	Capital ransition	
Synergy Categories	Category	Synergies		Costs	Syn	ergies	Costs		
	Centralized	\$ 3.43							
	Centralized	\$ 0.04							
	Centralized	\$ (7.02)	\$	3.74					
	Centralized	\$ 1.85			\$	0.95			
	Centralized	\$ 5.15							
	Centralized	\$ 5.45	\$	0.65	\$	2.89	\$	9.58	
	De-Centralized	\$ 4.10							
	De-Centralized	\$ 1.51							
	Centralized	\$ 3.53							
	Centralized	\$ 19.00	\$	0.15			\$	0.15	
Total		\$ 37.04	\$	4.54	\$	3.84	\$	9.73	

7 Table 2 – OM&A and Capital – Gross Synergies and Transition Costs (\$MM)

- 8 c) Synergy Breakdown by Distribution Business
- 9 The projected savings within each of the specific areas of the distribution business are 10 identified in the Applicants' response to B-Staff-7 b).
- 11

d) With respect to OM&A cost savings (synergies), the Applicants have assumed that
 approximately 30 FTEs that are currently in Guelph Hydro could become redundant, as a
 result of the merger. The staff impacts associated with these redundancies are expected to
 be dealt with, in large part, via retirements; a limited amount of attrition may occur.

16

17 The business case underpinning the merger proposal incorporated this level of reduction,

18 and assumed that the reductions would take place over a one to three-year period between

19 2019 and 2021.

1 Exit costs associated with staff reductions were also built into the business case, as shown 2 in the table, above. Other OM&A cost synergies were assumed to take place over a much 3 shorter period, as some functions will no longer be required. For example, Guelph Hydro's 4 Board of Directors will cease to exist and a single City of Guelph chosen representative will 5 transition to Alectra Utilities' Board of Directors within weeks of the merger. Memberships 6 that were held separately in both companies for the same organizations (e.g., the Electricity 7 Distributors Association) will transition to one membership, immediately. Further, one audit 8 firm will audit the books of the merged entity. The sum total of the synergies and costs 9 assumed to derive from the merger are shown in the Table 2 in part b), above.

10

11 Similarly, capital synergies and costs were assumed to take place over a number of years,

12 as major system integration projects are expected to take place over an extended period.

Reference(s): Exhibit B, Tab 5, Schedule 3, Page 1 OM&A Cost per Customer

a) Figure 16 shows OM&A cost per customer for Alectra Utilities and Guelph Hydro preconsolidation. Please expand Figure 16 to include the forecasted OM&A cost per customer for the merged entity (i.e. Alectra Utilities with all its various rate zones) from 2019 to 2029.

Response:

- 1 a) Total forecasted 2019 to 2029 OM&A costs per customer for the merged entity (i.e. all rate
- 2 zones, including Guelph Hydro) is provided in Table 1, below.

3 Table 1 – OM&A Cost per Customer 2019 – 2029 (\$MM)

Year	OM&A	Customers *	C C	OM&A / Customer		
2019	\$ 241.68	1,014,583	\$	238.21		
2020	\$ 233.19	1,031,911	\$	225.98		
2021	\$ 234.02	1,049,534	\$	222.98		
2022	\$ 238.48	1,067,459	\$	223.41		
2023	\$ 243.29	1,085,691	\$	224.09		
2024	\$ 248.19	1,104,234	\$	224.76		
2025	\$ 253.19	1,123,094	\$	225.44		
2026	\$ 258.28	1,142,276	\$	226.11		
2027	\$ 263.48	1,161,786	\$	226.79		
2028	\$ 268.79	1,181,630	\$	227.47		
2029	\$ 274.17	1,201,813	\$	228.13		

*Number of customers is the sum of Residential, General Service <50kW, >50kW, and Large Users; excludes USL, Sentinel and Street Lighting

Reference(s): Exhibit B, Tab 5, Schedule 4, Page 1

The application states that Alectra Utilities and Guelph Hydro will harmonize the engineering standards, which will enable more efficient and effective inventory management and ensure sufficient spare equipment for higher reliability.

The applicants further state that all policies for expansion of the distribution system will be standardized across the new geographic service territory.

- a) Please identify any current major differences between Alectra Utilities' and Guelph Hydro's engineering standards, project management standards and inventory and asset management practices.
- b) Please identify any current major differences between Alectra Utilities' and Guelph Hydro's policies and practices, including but not limited to service area expansion and Offer to Connect process.
- c) Please identify any current major differences between Alectra Utilities' and Guelph Hydro's human resources policies, including but not limited to employee benefits and compensation levels.

Response:

- a) A review of the current engineering standards at Alectra Utilities and Guelph Hydro did not
 identify any major differences in engineering standards between the two utilities. Regarding
 project management practices, Alectra Utilities has implemented a dedicated Project
 Management Office ("PMO") which utilizes the Project Web Access ("PWA") platform to
 manage enterprise projects. Alectra Utilities' Program Delivery Business Unit utilizes the
 Primavera P6 project management platform to: plan; schedule; and monitor the execution of
 distribution system projects.
- 8
- 9 Guelph Hydro currently manages project management practices within its existing business10 units.
- 11

A review of the current inventory practices at Alectra Utilities and Guelph Hydro did not
 identify any major differences in inventory practices between the two utilities.

In terms of asset management practices, Alectra Utilities completes asset condition
 assessments by using in-house health index-determining models and resources, whereas
 Guelph Hydro has utilized external third parties to complete asset condition assessment
 studies.

5

In addition, Alectra Utilities utilizes a multi-constrained asset investment optimization
platform, i.e., CopperLeaf C55, as the repository of its capital investment portfolio, whereas
Guelph Hydro leverages internal project prioritization and project selection processes based
on risk and benefit assessments.

10

11 b) Alectra Utilities and Guelph Hydro both have consistent policies and practices, regarding 12 service area expansions and Offers to Connect processes. Both organizations follow the 13 Ontario Energy Board's guidelines for Service Area Amendment and Asset Transfer 14 Applications. Consequently, there are no major differences in service area expansion 15 practices. Should the OEB approve this Application, Alectra Utilities will implement similar 16 practices for the treatment of cost allocation for system expansions respecting new 17 developments to service customers. Alectra Utilities and Guelph Hydro are consistent with and follow the OEB's Distribution System Code requirements for Offers to Connect 18

19

c) A detailed comparison between Alectra Utilities' and Guelph Hydro's human resources
 policies has not been completed at this time. Alectra Utilities and Guelph Hydro
 management expect to commence this activity in Q4, 2018.

23

Unionized Employees: Alectra Utilities' unionized employees are represented by the Power 24 25 Workers Union ("PWU"), while Guelph Hydro's unionized employees are represented by 26 International Brotherhood of Electrical Workers ("IBEW"). Alectra Utilities is currently in 27 negotiations with the PWU. These negotiations are ongoing and are not expected to be 28 completed until Q3, 2018. Negotiations must be completed before compensation and benefit 29 comparisons can take place between Alectra Utilities and Guelph Hydro. It is expected that a determination by the Ministry of Labour as to which union will represent Guelph Hydro 30 31 unionized employees will be made after the expected closing date of December 31, 2018.

Non-Union and Management Employees: A preliminary analysis of compensation for Alectra
 Utilities' and Guelph Hydro's non-union and management employees shows that there are
 no major differences between the two utilities' compensation philosophies and practices.
 Both provide annual short-term incentives linked to balanced corporate scorecards.
 Benefits for non-union and management employees are expected to be harmonized after
 PWU negotiations are completed.

Ref: Exhibit B, Tab 5, Schedule 4, Page 6 and 7 Centralized and De-centralized Functions

In the description provided on distribution system operations, a distinction is made between centralized and decentralized functions. Figure 19 provides a listing of centralized and decentralized functions.

- a) Please provide the anticipated reduction in operating expenditures in each of the functions listed in Figure 19.
- b) Please provide all the assumptions that the applicants are making for the anticipated operating expenditure reductions.

Response:

a) Table 1 below provides the OM&A and Capital Synergies in each of the functions listed in Figure 19.

Table 1 –	OM&A and	Capital Sy	nergies by	Function ((\$MM)
-----------	----------	-------------------	------------	------------	--------

				OM&A				Capital	
		OM&A	٦	Fransition	С	apital	Т	ransition	
Synergy Categories	Category	Synergies		Costs	Syr	nergies	Costs		
	Centralized	\$ 3.43							
	Centralized	\$ 0.04							
	Centralized	\$ (7.02)	\$	3.74					
	Centralized	\$ 1.85			\$	0.95			
	Centralized	\$ 5.15							
	Centralized	\$ 5.45	\$	0.65	\$	2.89	\$	9.58	
	De-Centralized	\$ 4.10							
	De-Centralized	\$ 1.51							
	Centralized	\$ 3.53							
	Centralized	\$ 19.00	\$	0.15			\$	0.15	
Total		\$ 37.04	\$	4.54	\$	3.84	\$	9.73	

b) Please refer to the Applicants' response to Interrogatory B-Staff-7 d).

Reference(s): Exhibit B, Tab 5, Schedule 4, Page 2 and 7 Guelph Service Centre Staffing

- a) Please provide the total number of employees currently working for Guelph Hydro (pre-consolidation) in table format, showing a breakdown by departments.
- b) What are your plans for Guelph Hydro's executive team and board of directors?
- c) Please confirm whether the applicants anticipate a reduction in local staff in Guelph Service Centre, post consolidation (i.e. 2019-2029). If so, please reflect year over year changes in the table provided in Exhibit B-Staff-11(a).
- d) Please identify all Alectra Utilities' centralized and decentralized functions that will be stationed in Guelph Service Centre, post consolidation.
- e) If applicable, please describe the applicants' plans, identifying the functions and positions that are expected to be eliminated and the expected impact on the operations of the merged entity.
- f) Please explain how Alectra Utilities will ensure continuity of staff knowledge and experience in Guelph Service Centre, post consolidation.

Response:

a) The Applicants have provided Table 1, below, which identifies the total number of employees in Guelph Hydro, by department, as at June 22, 2018.

Organizational Unit	Number of Employees
Senior Management Team	10
Board of Directors and Executive Support	2
Metering	7
Conservation and Demand Management ("CDM")	3
Metering and CDM Administrative Support	2
Control Room and SCADA	11(includes 1 vacancy)
Loss Prevention and Environmental Compliance	1
Engineering	15 (includes 1 vacancy)
Operations Lines, Fleet and Electrical Maintenance	35
Human Resources	3
Information Systems and GIS	8 (includes 2 vacancies)
Credit and Collections	5 (includes 1 vacancy)
Regulatory	2
Customer Service and Billing	16 (includes 2 vacancies)
Purchasing, Stores and Facilities	4
Finance and Accounting	6
Total	130

Table 1 – Number of Guelph Hydro Employees by Department

b) <u>Guelph Hydro's Board of Directors:</u> Guelph Hydro's Board of Directors continues to
govern Guelph Hydro until their accountabilities are transitioned to the Alectra Board of
Directors. The Guelph Hydro Board is expected to continue governing, likely in an advisory
capacity, for a brief transitional period following the expected merger date of January 1,
2019 to, for example, approve the final 2018 Guelph Hydro financial statements and related
auditor reports. Board terms for all Board members will end with the merger. Any
transitional change will be planned with the goal of not impacting customers.

9

10 Guelph Hydro's Executive Team: As of June 22, 2018, no decisions have been made with 11 regards to Guelph Hydro's Executive Team, with the exception of the CEO. Alectra Inc.'s 12 President and CEO, will remain the President and CEO of the amalgamated Alectra Inc. 13 The President of Alectra Utilities will continue as President of the amalgamated Alectra 14 Utilities. The Guelph Hydro Executive Team will continue to lead their organizational units, 15 until such time as a final organizational structure has been developed and approved. It is 16 expected that an organization design will be completed and approved in the fourth quarter of 17 2018. The goal of any changes is to not impact customers, and minimize impacts on system 18 and organizational transitions.

¹

c) A reduction in local staff is not anticipated in Guelph Service Centre, with respect to staff
 involved in responding to outages and power quality issues, year over year from 2019 to
 2029. The Applicants recognize that local qualified staff are required to maintain the same
 level of response times to outages and power quality issues that customers in the City of
 Guelph and Village of Rockwood currently enjoy.

6

Alectra Utilities has seven service centres across its current service territory. The functions at the Guelph Service Centre will be consistent with Alectra Utilities' other service centres in terms of de-centralized functions. These will include: construction and maintenance; trouble response; logistics; fleet services; and metering. As needs arise, centralized services may be located at the Guelph Service Centre.

12

e) Centralized functions and their associated positions will be moved to other locations.
 Current de-centralized outside construction and maintenance crews will be locally
 maintained. There are no negative impacts expected on reliability or operations due to the
 amalgamation.

17

f) Alectra Utilities will maintain the outside construction and maintenance work force from
 Guelph Hydro. The expectation is that the knowledge and experience will be retained in the
 Guelph Service Centre, notwithstanding attrition due to retirements or voluntary movement
 of staff.

Reference(s): Exhibit B, Tab 6, Schedule 1, Page 1-5 and Figure 20

The application provides that the proposed transaction is expected to result in cost savings in OM&A of approximately \$37 million and approximately \$3.8 million in avoided capital costs, which represent \$40.8 million in total cash savings, before transition costs of \$14.3 million. Figure 20 sets out a number of areas of the distribution business where projected cost savings are expected to be generated as a result of the proposed transaction.

- a) Please confirm the projected savings include the incremental transaction and integration costs identified in the application. If the projected savings do not include the transaction and integration costs, please provide an updated forecast that includes these costs.
- b) Please clearly describe the cost segments below (shown in Figure 20) and confirm whether the annual amounts shown in Figure 20 are savings that persist year over year or are incremental savings anticipated in each year:
 - i. "Total Synergy Savings- Labour"
 - ii. "Total Synergy Savings-Other"
 - iii. "One-time Synergy Savings"
 - iv. "Total Operating Savings"
 - v. "On-Going Costs"
 - vi. "Transition Costs (OM&A)"
 - vii. "Transition Costs (Capital)"
 - viii. "Total One-Time Capital Savings"
- c) Please provide a detailed breakdown for each of the segments (i) to (viii) identified in Exhibit B-Staff-12(b) and show which business area, function or activity they correspond to.
- d) Please provide all the assumptions the applicants have made in calculating the following segments, shown in Figure 20:
 - i. "Total Synergy Savings"
 - ii. "Total Net Operating Savings"
 - iii. "Total Transition Costs"
 - iv. "Total Capital Savings"
- e) Please explain why the applicants do not anticipate any "Avoided Costs", shown in Figure 20.
- f) Please identify significant risks that could negatively impact the projected cost savings

Response:

a) Project savings include integration costs but do not include transaction costs. The estimated
 transaction costs are approximately \$1.4MM. However, these costs are borne by the shareholders
 and do not in any way impact the ongoing cost structure of the utility.

5

1

b) Annual amounts for the cost segments shown in Figure 20 (excluding "One-time" savings and
"Transition Costs") reflect savings that persist, year over year. Labour savings increase each year
from 2019 to 2021 and sustain beyond 2021.

9 10

Table 1 – Annual Amounts by Cost Segment (\$MM)

11

Cost Segment	Initiative	Amount			
Total Synergy Savings- Labour		\$	38.45		
	General Administrative (Conference, Seminars, Training, Office Supplies, Meals, Mileage)	\$	4.25		
Total Synergy Savings-Other	IT Hardware & Software Maintenance & License	\$	2.60		
	Professional Services (Legal & Consulting)	\$	2.24		
	Total:	\$	9.10		
One-time Synergy Savings	Software Update and Building Renovations	\$	0.03		
On-Going Costs		\$	10.55		
		\$	3.74		
Transition Costs (OM8 A)	IT Projects	\$	0.65		
Transition Costs (OM&A)	Branding Costs	\$	0.15		
	Total:	\$	4.54		
	IT Projects	\$	9.58		
Transition Costs (Capital)	Branding Costs	\$	0.15		
	Total:	\$	9.73		
	System Integration - Network, Cyber Security, Firewall, HRIS, IBM, Software, etc.	\$	2.89		
Total One -Time Capital Savings	Rolling Stock - pool specialized equipment, reduce fleet vehicles	\$	0.95		
	Total:	\$	3.84		

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1 c) The breakdown of cost segments by business area is included in Table 2, below.

2 Table 2 – Total Net Synergies

	-											 ,
												TOTAL
Total Synergy Savings - Labour	\$	3,429,016	\$ -	\$ 2,136,559	\$ 1,849,486	\$ 4,808,388	\$ 2,349,046	\$ 4,099,856	\$ 1,134,255	\$ 3,532,872	\$ 15,118,721	\$ 38,458,199
Total Synergy Savings - Other	\$	-	\$ 40,800	\$ 1,392,300	\$ -	\$ 329,460	\$ 3,105,279	\$ -	\$ 372,300	\$ -	\$ 3,859,910	\$ 9,100,049
One-time Synergy Savings	\$	-	\$ -	\$ -	\$ -	\$ 15,300	\$ -	\$ -	\$ -	\$ -	\$ 20,400	\$ 35,700
TOTAL SYNERGY SAVINGS	\$	3,429,016	\$ 40,800	\$ 3,528,859	\$ 1,849,486	\$ 5,153,148	\$ 5,454,325	\$ 4,099,856	\$ 1,506,555	\$ 3,532,872	\$ 18,999,031	\$ 47,593,948
Total Avoided Costs - Labour	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Avoided Costs - Other	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
One-time Avoided Costs	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL AVOIDED COSTS	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Operating Savings	\$	3,429,016	\$ 40,800	\$ 3,528,859	\$ 1,849,486	\$ 5,153,148	\$ 5,454,325	\$ 4,099,856	\$ 1,506,555	\$ 3,532,872	\$ 18,999,031	\$ 47,593,948
LESS: On-Going Costs	\$	-	\$ -	\$ 10,550,690	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,550,690
TOTAL NET OPERATING SAVINGS	\$	3,429,016	\$ 40,800	\$ (7,021,830)	\$ 1,849,486	\$ 5,153,148	\$ 5,454,325	\$ 4,099,856	\$ 1,506,555	\$ 3,532,872	\$ 18,999,031	\$ 37,043,259
Transition Costs (OM&A)	\$	-	\$ -	\$ 3,738,203	\$ -	\$ -	\$ 650,000	\$ -	\$ -	\$ -	\$ 150,000	\$ 4,538,203
Transition Costs (Capital)	\$	-	\$ -	\$ -	\$ -	\$ -	\$ 9,579,974	\$ -	\$ -	\$ -	\$ 150,000	\$ 9,729,974
TOTAL TRANSITION COSTS	\$	-	\$ -	\$ 3,738,203	\$ -	\$ -	\$ 10,229,974	\$ -	\$ -	\$ -	\$ 300,000	\$ 14,268,177
Total Annual Capital Savings	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total One-Time Capital Savings	\$	-	\$ -	\$ -	\$ 950,000	\$ -	\$ 2,893,000	\$ -	\$ -	\$ -	\$ -	\$ 3,843,000
TOTAL CAPITAL SAVINGS	\$	-	\$ -	\$ -	\$ 950,000	\$ -	\$ 2,893,000	\$ -	\$ -	\$ -	\$ -	\$ 3,843,000

d) The Applicants provide the assumptions used to calculate Figure 20 as Table 3, below.

Table 3 – Assumptions used in Figure 20

Total Synergy Savings	Annual Labour Synergy Savings are increased by 1.5% per year
	until 2028.
	Synergy Savings (excluding labour) are not adjusted for inflation
	and/or other factors in succeeding years.
	Union/Management Harmonization Differential increased by
	1.5%/yr. until 2028.
	Labour Synergy Savings in 2019 are assumed to be 50%.
Total Net Operating Savings	No additional assumptions noted.
Total Transition Costs	Branding Transition Costs (\$150,000 Operating, \$150,000 Capital)
	based on Brampton branding experience
	Severance Cost Assumptions: All costing assumptions relating to an assumed 30 employees leaving the organization as part of this merger were based on a Voluntary Separation Program (VSP) plan awaiting approval later in 2018 and is expected to be communicated to targeted employees in 2019.
	Outplacement Services Assumptions: Outplacement services for employees leaving voluntarily, but not retiring, were also assumed in the cost.
	Management Salary Harmonization Assumptions: Salary harmonization costs were assumed based on the difference between 1) Alectra's average annualized actual salary and 2) Guelph Hydro's average annualized actual salary at the same level, and multiplied by the number of Guelph Hydro employees at that level.
	Union Salary Harmonization Assumptions: Salary harmonization costs were assumed based on the difference between 1) Alectra's highest hourly rate for similarly titled positions from Alectra's five Collective Bargaining Agreements annualized and aged as required to be comparable and 2) Guelph Hydro's average hourly rate for similarly titled positions from Guelph Hydro's Collective Bargaining Agreement annualized based on Alectra's weekly hours of work, and multiplied by the number of Guelph Hydro employees in that position. An additional 31% burden rate for benefits was also assumed.
	IT Capital Transition Costs for IT Projects include 20% contingency.
Total Capital Savings	No additional assumptions noted.

1 2 3 e) Total one-time capital savings of \$3.84MM represents avoided costs from IT and Fleet capital
 expenditures as outlined in Table 4, below.

3 Table 4 – Avoided Costs (\$MM)

Department	2019	2020	2021	2022	2023	2024	2025	Total
IT	\$0.20	\$0.32	\$0.43	\$0.41	\$0.50	\$0.50	\$0.50	\$2.89
Fleet	\$0.27	\$0	\$0.03	\$0.58	\$0.06	\$0	\$0	\$0.95
Total	\$0.48	\$0.32	\$0.46	\$0.99	\$0.57	\$0.50	\$0.50	\$3.84

f) There are effectively two risk areas that could impact the projected costs savings. Should the
projected savings actually come in lower than projected (say due to fewer positions becoming
redundant) or should actual costs come in higher than projected, net projected savings would be
adversely impacted based on;

8

Synergy savings from labour and "Other" identified in Table 2 of \$38.5MM and \$9.1MM,
 respectively, were based on critical assumptions that approximately 30 positions would become
 redundant in Guelph Hydro and that myriad operating expenses would simply not be needed
 post-merger as Alectra Utilities already carries out these functions (e.g., expenses pertaining to
 the Board of Directors and expenses pertaining to memberships in various organizations to
 which both utilities currently belong).

15

Net projected savings were predicated on capital, transition and on-going costs being incurred as shown in Table 2, above of \$9.6MM, \$3.7MM and \$10.6MM, respectively. These costs are based on the merger transaction effective January 1, 2019, any major delays may contribute to additional costs such as labour increases.

Reference(s): Exhibit B, Tab 6, Schedule 1, Page 3

It is stated that the total OM&A savings translate into an approximate decrease of 1.5% of revenue requirement versus what it otherwise would have been at the end of the proposed deferred rebasing period.

a) Please confirm whether the applicants anticipate ongoing OM&A savings beyond the proposed deferred rebasing period and the expected impact on the rates of the merged entity.

Response:

- 1 a) The Applicants confirm that further OM&A savings are anticipated beyond the rebasing
- 2 deferral period. The Applicants expect to share savings with customers following the
- 3 rebasing deferral period through distribution rates.

Reference(s): Exhibit B, Tab 6, Schedule 1, Figure 21; Exhibit B, Tab 5, Schedule 1, Page 1 Overall Impact of the Transaction

The applicants state that the proposed consolidation is expected to deliver lower distribution costs to Alectra Utilities customers averaging an aggregate of:

- i. \$3.9 million per year, or 0.5% through the entire forecast period of 20 years (2019-2038)
- ii. \$1 million per year, or 0.2% through the rebasing deferral period
- iii. \$7.5 million per year, or 0.9% following a transfer of merger benefits to customers in 2028.

The applicants state that Alectra Utilities' customers are expected to see cost savings from this merger application after the ten year rebasing deferral period in 2029.

- a) Please provide all the assumptions the applicants have made in reaching to conclusions in (i), (ii) and (iii).
- b) Please elaborate on how the \$7.5 million per year amount mentioned above will flow back to the customers. Please confirm whether the date should be 2028 or 2029.
- c) The applicants state that Alectra Utilities are expected to see cost savings from this merger application beyond the 10-year rebasing deferral period. What are the applicants' expectations with respect to cost savings for Guelph Hydro rate zone customers beyond the rebasing deferral period?

Response:

- a) The lower distribution costs to the customers have been estimated as the average annual difference between the total of distribution revenue for the two companies on a "stand alone"
 basis and the distribution revenue calculated for Alectra Utilities, following the amalgamation. To achieve the conclusions in (i), (ii) and (iii), the calculation has been done for the corresponding time period. Please refer to the Applicants' response to Interrogatory B-Staff-17 for the details on the rate setting (i.e., price cap and rebasing) assumptions.
- b) Assuming that the transaction closes on December 31, 2018, the ten-year rebasing deferral
 period for the Guelph Rate Zone would end in 2028. Therefore, in 2028, Alectra Utilities
 would file its rebasing application for electricity distribution rates effective January 1, 2029.
 The \$7.5MM identified in the interrogatory above is an average annual savings after the end

- 1 of rebasing deferral period; the annual savings are in range of \$6.3MM \$8.9MM. The last
- 2 bullet point on Exhibit B, Tab 6, Schedule 1, Figure 21 should read "following a transfer of
- 3 *merger benefits to customers <u>after</u> 2028*". The Applicants confirm that synergy savings will
- 4 flow to customers upon rebasing, following the rebasing deferral period.
- 5 c) Please see the Applicants' response to Interrogatory B-Staff-26.

Reference(s): Exhibit B, Tab 6, Schedule 2, Page 1-3

The applicants state that the aggregated consolidation costs are approximately \$14.3 million and that these costs will be funded through the anticipated productivity savings expected from the consolidation during the ten year rebasing deferral period and will not be included in the ratepayer funded Alectra Utilities revenue requirement. The consolidation costs

"...include, but are not limited to: due diligence on the part of all Parties; due diligence to negotiate the terms of the consolidation; costs associated with all regulatory, legal and statutory reviews in order to receive necessary regulatory approvals; integration costs of IT systems including CIS, ERP systems and other technology-related support systems; integration of operational systems including GIS, OMS and Supervisory Control and Data Acquisition ("SCADA") systems; alignment of financial and regulatory reporting processes; staff related costs and transition of assets and related management to one standard."

a) Please provide a breakdown of the \$14.3 million of aggregated consolidation costs into the categories outlined above by year. Please specify whether the anticipated savings are capital or expense dollars.

Response:

a) The breakdown of the \$14.3MM of aggregated consolidation costs is identified in Table 1, below. The anticipated capital and operating savings are provided in response to B-Staff-10 a).

1 Table 1 – Aggregated Consolidation Costs 2019-2021 (\$MM)

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Aggregated Consolidation Costs	2019	2020	2021	Total
Capital Integration costs of IT systems (including CIS /ERP and other tech-related support systems)	(\$0.36)	(\$6.57)	-	(\$6.92)
Capital Integration costs of IT Operational systems (including GIS, OMS and SCADA)	-	-	(\$2.65)	(2.65)
Total IT Capital Transition Costs:	(\$0.36)	(\$6.57)	(\$2.65)	(\$9.58)
OM&A Integration costs of IT systems (including CIS /ERP and other tech-related support systems)	-	(\$0.40)	-	(\$0.40)
OM&A Integration costs of IT Operational systems (including GIS, OMS and SCADA)	-	-	(\$0.25)	(\$0.25)
Total IT OM&A Transition Costs:	-	(\$0.40)	(\$0.25)	(\$0.25)
Corporate Capital Transition Costs	-	(\$0.15)	-	(\$0.15)
Corporate OM&A Transition Costs	-	(\$0.15)	-	(\$0.15)
Total HR/HSE/OE OM&A Transition Costs:	(\$3.73)	(\$0.06)	-	(\$3,73)
Grand Total:	(\$4.10)	(\$7.27)	(\$2.90)	(\$14.26)

3

Reference(s): Exhibit B, Tab 6, Schedule 2, Page 3, Figure 22 and 23

Figure 22 – Total Cash Savings and Figure 23-Total Operating Expenditure Savings are presented which provide savings by year for these two categories for the period 2019 to 2028.

a) Please provide a breakdown of the anticipated Total CAPEX savings shown in Figure 22 equivalent to what is provided for the Total OPEX savings in Figure 23.

Response:

- 1 a) The amounts for total CAPEX savings shown in Figure 22 are all non-payroll savings. No
- 2 capital labour savings have been built into the Alectra Utilities/Guelph Hydro merger
- 3 business case.

Reference(s): Exhibit B, Tab 2, Schedule 1, Pages 7, 10; Exhibit B, Tab 5, Schedule 1, Pages 1-2

- a) Please confirm that Guelph Hydro would rebase in 2021 and 2026 under the *status quo* scenario (i.e. in the absence of consolidation).
- b) Please identify the price cap index rate changes assumed for each rate year from 2019 to 2029.
- c) The applicants state that the merged entity would rebase in 2029. Does Alectra Utilities intend to rebase in 2027 (for Horizon, Enersource, Brampton and PowerStream rate zones) and again in 2029 (for Guelph Hydro), if this current merger application is approved? Has Alectra Utilities considered rebasing in 2027 for all the rate zones, including Guelph Hydro rate zone, if this merger application is approved? Please explain.

Response:

- a) The Applicants confirm that Guelph Hydro would rebase in 2021 and 2026 under the *status quo scenario* (i.e., in the absence of consolidation).
- 3
- b) The price cap index rate changes assumed for each rate year from 2019 to 2028 was5 1.60%.
- 6
- 7 c) If this current application is approved, Alectra Utilities intends to rebase in 2027 (for Horizon,
- 8 Enersource, Brampton and PowerStream rates zones) and again in 2029 (for the Guelph
- 9 Hydro rate zone, only). Alectra Utilities has not considered including Guelph Hydro rate zone
- 10 in its rebasing in 2027.

Reference(s): Exhibit B, Tab 6, Schedule 3, Page 1 Valuation of Assets and Shares

It is stated that "The assumption for future rate levels in the valuation was based on annual rebasing for the Applicants going forward from the time of the next rebasing application."

- a) Please elaborate on the above specifically discussing why annual rebasing was assumed from the time of the next rebasing, given that the OEB has three rate-setting options: Price Cap Incentive Regulation (IR), Custom IR and Annual IR Index, none of which include annual rebasing.
- b) Please re-evaluate the valuation of assets and shares assuming that rebasing would occur only every five years and compare results with the applicants' proposal to rebase annually.

Response:

- a) The valuation for the Applicants has been performed based on the following assumptions,
 consistent with the OEB's rate-setting options:
- i. Alectra Utilities Custom IR after the end of the original deferral rebasing period, i.e.,
 for electricity distribution rates effective January 1, 2027. For the purposes of
 modelling, the assumption of a Custom IR application every five years is the
 equivalent of calculating the revenue requirement for every year. Therefore, the term
 "annual rebasing" has been used. Applicants do not propose to rebase annually.
- 8 ii. Guelph Hydro Price Cap Incentive Regulation, with Cost of Service Applications in
 9 2021, 2026, 2031 and 2036.
- 10

b) The purpose of the valuation is one basis to negotiate relative shareholdings, as between
 the shareholders, the outcome of which has no implication to the no harm test. As identified
 by the OEB on page 9 of the Handbook to Electricity Distributor and Transmitter
 Consolidations:

15 "The OEB determined in the Combined Proceeding decision that it is not the
16 OEB's role to determine whether another transaction, whether real or potential,
17 can have a more positive effect than the transaction that has been placed before
18 the OEB. Accordingly, the <u>OEB will not consider, whether a purchasing or selling</u>
19 <u>utility could have achieved a better transaction than that being put forward for</u>
20 <u>approval in the application</u>." [Emphasis added]

Reference(s): Exhibit B, Tab 6, Schedule 1, Page 5, Figure 21 **Distribution Revenue Trends**

- a) Specifically in Figure 21, please explain the decrease in distribution revenue per customer between year 2026 and 2027.
- b) Please provide a comparison (similar to Figure 21) and compare total annual distribution revenue under the status quo scenario (i.e. in the absence of consolidation) with total annual distribution revenue of Alectra Utilities, post merger with Guelph Hydro with each figure shown on the chart.
- c) Please provide all the assumptions made in preparing the comparison provided in Exhibit B-Staff-19(b).

Response:

- 1 a) The decrease in distribution revenue per customer in 2027 is a result of the 2027 rebasing
- 2 of the original four Alectra Utilities rate zones, at the end of the original rebasing deferral 3 period. As synergies from the original merger are passed on to customers, the resulting 4 base revenue requirement decreases.
- 5 6
- b) The graph showing the total annual distribution revenue is provided below as Table 1. The table showing the total annual distribution revenue is provided below as Table 2.
- 8

10

7





11

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1 Table 2 – Total Distribution Revenue

2

\$MM	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Status Quo																				
GHESI	32.5	33.4	35.2	36.2	37.4	38.5	39.8	40.3	41.5	42.8	44.2	45.5	45.5	46.9	48.4	49.9	51.4	50.1	51.6	53.2
Alectra Utilities	548.6	566.9	582.1	601.3	620.9	641.1	661.9	683.4	651.5	669.5	687.9	706.9	724.8	742.5	760.4	778.2	797.0	815.9	834.7	853.5
Alectra Utilities +GHESI	581.1	600.2	617.3	637.5	658.3	679.6	701.7	723.7	693.1	712.3	732.1	752.5	770.3	789.4	808.7	828.1	848.4	865.9	886.4	906.8
MergeCo	581.1	600.2	616.8	636.9	657.6	678.9	700.9	723.6	692.8	712.1	724.9	745.1	764.2	782.7	801.3	819.9	839.4	859.1	878.8	898.4

3 4

5 c) Please refer to the Applicants' responses to Interrogatory B-Staff-20 a) and Interrogatory B-Staff-17 for rebasing and price cap assumptions.
Reference(s): Exhibit B, Tab 6, Schedule 3, Page 1 Shareholder Benefits

It is stated that subject to assumptions and risks, the proposed consolidation is expected to deliver the following shareholder benefits:

To the benefit of Alectra Utilities (the combined Alectra-Guelph Hydro) shareholders throughout the forecast period of 20 years:

- 1.2% average increase in dividends for Alectra Utilities (the combined Alectra-Guelph Hydro) shareholders or \$1.3 million per year over the *status quo*, for 25.4 million total increase in dividends
- a) Please state the rate-setting assumptions (e.g. annual rebasing, rebasing every five years with annual IR for the intervening years) that were assumed in both the *status quo* and merged scenarios, as well as the reasons for any differences between the two scenarios.
- b) Please state the impacts of these assumptions on the identified expected increase of approximately \$25.4 million.

Response:

- 1 a) The rate setting assumptions under *status quo* are as follows:
- Alectra Utilities Horizon Utilities Rate Zone Custom IR through 2019, inclusive; Price
 Cap Incentive Regulation ("IR") for all rate zones through 2026. This is during the
 original rebasing deferral period, i.e., until 2026. Custom IR from 2027, onward.
- Guelph Hydro Price Cap IR, with Cost of Service Applications in 2021, 2026, 2031
 and 2036.
- 7 The rate setting assumptions for the merged scenario are as follows:
- Alectra Utilities rate zones as above, i.e., Price Cap IR during the original rebasing deferral period, i.e. until 2026 and Custom IR thereafter. Guelph Hydro rate zone Price Cap IR, rebasing in 2029 on a Cost of Service basis; included in Alectra Utilities' (i.e., all five rate zones) Custom IR rebasing in 2032 and beyond. For the Guelph Rate Zone, during the rebasing deferral period, two applications (for 2021 and 2026) would be avoided.

b) As stated above, there is no change to the rate making assumptions for the Alectra Utilities
rate zones. The estimated increase in dividends is driven by the stated synergies and the
change in the dividend policy for Guelph Hydro shareholders (from a maximum of \$3MM or
50% of Net Income to 60% of Net Income, in accordance with Alectra Utilities' dividend
policy), and not by the change in the rate-setting assumptions.

Reference(s): Exhibit B, Tab 2, Schedule 1, Page 9; Exhibit B, Tab 7, Schedule 2, Page 1; OEB's Filing Requirements for Electricity Distribution Rate Applications for 2017 Rate Applications - Chapter 3, Incentive Rate-Setting Applications, 3.3.2 Incremental Capital Module, Page 18

It is stated that:

"Earnings in excess of 300 basis points above the Board's established regulatory return on equity ("ROE") for the consolidated entity would be divided on a 50/50 basis between LDC Co and its ratepayers. The ratepayer share of earnings will be credited to a newly proposed deferral account, for clearance at the next applicable annual IRM application filing. For example, if Alectra Utilities over-earned in year six post-consolidation, it would report the balance in the deferral account in the year eight IRM application which would be filed in year seven, and refund 50% of this balance to ratepayers over the twelve months commencing January 1 of year eight."

Chapter 3 of OEB's Filing Requirements Incentive Rate-Setting Applications states that "The ICM is not available for incremental funding if a distributor's regulated return exceeds 300 basis points above the deemed return on equity embedded in the distributor's rates."

- a) Are the applicants anticipating earnings in excess of 300 basis points starting year 6? Why? Why not?
- b) Do applicants foresee any capital spending that would normally have required an ICM between year 6-10 of rebasing deferral period?

Response:

1 a) The Applicants have identified in Exhibit B, Tab 2, Schedule 1, that for years six to ten of the 2 rebasing deferral period, an ESM that is consistent with the Report of the Board: Rate 3 Making Associated with Distributor Consolidation (EB-2014-0138) and with the Handbook to 4 *Electricity Distributor and Transmitter Consolidations* is proposed. Alectra Utilities may be 5 subject to an ESM-related rate adjustment after year six following the completion of the 6 consolidation should its adjusted earnings exceed 300 basis points above the regulated 7 ROE. Alectra Utilities will begin reporting on the ROE outcome for ESM purposes 8 commencing in year seven post consolidation, when audited results for year six are 9 available. At this time, the Applicants do not anticipate earnings in excess of 300 basis 10 points over the regulated ROE between years 6-10.

b) Alectra Utilities' current rate zones are eligible for ICM funding, which is evaluated on an
annual basis. Similarly, Alectra Utilities will also evaluate its need for capital funding in the
Guelph rate zone on an annual basis and consider whether it needs to seek relief through
ICM, accordingly. At this time, the Applicants have not evaluated incremental capital funding
requirements for years six through ten.

Reference(s): Reporting and record keeping requirements (RRR)

a) Does Alectra Utilities intend to report RRR data, such as ROE on a consolidated basis, if the merger application is approved? Please explain.

Response:

- a) Alectra Utilities intends to report RRR data on a consolidated basis, if this Application is
 approved by the OEB.
- 3

Alectra Utilities' approach to reporting is informed by its experience in its prior consolidation
 application (EB-2016-0025). The Applicants in that application had proposed separate
 reporting until the systems consolidation was complete.

7

8 On page 26 of the Decision and Order, the OEB indicated that:

9 "The Handbook, however, sets out that having consolidating entities operate as 10 one entity as soon as possible after the transaction is in the best interest of 11 consumers. The OEB is of the view that this principle continues to be applicable 12 in this case. The OEB does not require, nor encourage reporting on a "separate" 13 utility basis. Rather the expectation of the OEB is that LDC Co shall report in 14 accordance with the requirements of its licence. Consequently, the OEB considers that the applicants' proposed conditions are not necessary and will not 15 16 be included in the LDC Co licence. [emphasis added] 17

Therefore, Alectra Utilities proposes to continue with its consolidated approach to reportingon a single entity basis.

Reference(s): Exhibit B, Tab 2, Schedule 1, Page 10

The applicants are requesting approval to continue to track costs to the regulatory deferral and variance accounts currently approved by the OEB and to seek disposition of their balances at a future date. Regarding the applicants' plans for deferral and variance accounts:

a) Please confirm whether the applicants are seeking OEB approval for a new proposed deferral account in the current consolidation application to capture any potential over earning in years 6 to 10 due to the merger with Guelph Hydro. If not, please explain why not.

Response:

a) The Applicants expect to file a request for a deferral account, as necessary, to capture any
 over-earnings in excess of 300 basis points over the regulated ROE for years 6-10 in a
 future rate application post consolidation, and in advance of year 6, to permit
 implementation.

Reference(s): Exhibit B, Tab 2, Schedule 1, Figure 3-7

The applicants are requesting that the rate orders of Guelph Hydro be transferred to Alectra Utilities following the completion of the consolidation. Each of Alectra Utilities' rate zones has a rate order that contains a number of rate riders established in order to dispose of balances in specified deferral and variance accounts. The applicants provided their 2017 OEB approved rate riders.

a) Please confirm Figure 3, 4, 5, 6 and 7 show the most recent OEB approved rate riders for Alectra Utilities and Guelph Hydro. If Figure 3-7 rate riders are not the most recent ones, please provide the latest OEB approved rate riders for both Alectra Utilities and Guelph Hydro.

Response:

- a) The Applicants provided 2017 OEB-approved rate riders for the Enersource, Horizon
 Utilities, PowerStream and Brampton rates zones and 2018 OEB-approved rate riders for
 Guelph Hydro in Exhibit B, Tab 2, Schedule 1, Figure 3-7. As Alectra Utilities' 2018
 Electricity Distribution Rate Application was not approved at the time of this Application's
 filing, 2017 rate riders were provided.
- 6

The 2018 OEB-approved rate riders for Alectra Utilities' rate zones are provided in Figures 1
to 4, below.

1 2

Figure 1 – 2018 OEB-Approved Rate Riders for the Enersource Rate Zone

Schedule of Distribution Rate Rid	ers for May 1, 2018		Rates
Customer Class	Item Description	Unit	Rate \$
<u>Residential</u>	Smart Metering Entity Charge - effective until December 31, 2022 Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the	per month	0.57
	next cost of service based rate order Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next	per month	0.60
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.18
	Applicable only for Non-RPP Customers Pate Rider for Disposition of Defarral/Variance Accounts (2018) - effective until April 30, 2019	per kWh	(0.0005)
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Class B Customers	per kWh	(0.00005)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kWh	(0.0002)
General Service Less than 50 kW			
	Smart Metering Entity Charge - effective until December 31, 2022 Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the	per month	0.57
	next cost of service based rate order Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next	per month	1.10
	cost of service based rate order Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.29 0.35
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019 Applicable only for Non-RPP Customers	per kWh	(0.0005)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019	per kWh	(0.0007)
	Applicable Only for Class B Customers Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) -	per kW/b	(0.00005)
	effective until April 30, 2019 Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the	per kWh	0.0006
	next cost of service based rate order Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next	per kWh	0.0003
General Service 50 to 499 kW	cost of service based rate order	P	0.0001
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the next cost of service based rate order	per month	1.93
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per month	0.51
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per month	2.84
	Applicable only for Non-RPP Customers Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(0.0005) 0.1005
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Applicable only for Non-Wholesale Market Participants	per kW	(0.3538)
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Non-WMP Class B Customers	per kW	(0.01606)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kW	0.4585
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the next cost of service based rate order	per kW	0.1163
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per kW	0.0308
<u>General Service 500 to 4999 kW</u>	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the next cost of service based rate order	per month	44.00
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per month	11.65
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per month per kWh	16.18
	Applicable only for Non-RPP Customers Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(0.0005) 0.1272
	Age Rider for Disposition of Deferrarvariance Accounts (2018) - effective until April 30, 2019 Applicable only for Non-Wholesale Market Participants	per kW	(0.4465)
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Non-WMP Class B Customers	per kW	(0.01999)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kW	0.1410
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the next cost of service based rate order	per kW	0.0598
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per kW	0.0158

Enersource Rate Zone Schedule of Distribution Rate Rid	lers for May 1, 2018		May 1, 2018 Rates
Large Use			
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the		
	next cost of service based rate order	per month	346.90
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next		
	cost of service based rate order	per month	91.89
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	264.39
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(0.4054)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) -		. ,
	effective until April 30, 2019	per kW	0.0880
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the		
	next cost of service based rate order	per kW	0.0743
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next		
	cost of service based rate order	per kW	0.0197
Unmetered Scattered Load			0.0101
<u>onnotorou ocunorou zouu</u>	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the		
	next cost of service based rate order	per month	0.23
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next		0.20
	cost of service based rate order	per month	0.06
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	ner month	0.05
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	permonun	0.00
	Applicable only for Non-RPP Customers	per kWh	(0.0005)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	ner kWh	(0.0007)
	Rate Fider for Disposition of Canacity Based Recovery Account (2018) - effective until April 30, 2019	por kum	(0.0001)
	Applicable Only for Class B Customers	per kWh	(0.00005)
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the		(0.00000)
	next cost of service based rate order	per kWh	0.0004
	Pate Bider for Receiventy of ICM (2018) - in offect from May 1, 2018 until the effective date of the payt		0.0004
	vale (label of Needvery of Iow (200) - If effect from May 1, 2010 that the effective date of the field	per kWh	0.0001
Stroot Lighting			0.0001
Street Lighting	Pote Pider for Possivery of Incremental Capital Medule (2017) is effect until the effective date of the		
	rate role in recovery of incentential Capital Module (2017) - in ellect difficit the ellective date of the	per month	0.04
	The structure based rate of the line of the structure May 4, 2010 until the effective date of the post		0.04
	Rate Rider for Recovery of row (2018) - In effect from May 1, 2018 until the effective date of the field	per month	0.01
	Cost of service based rate order Bate Bider for Booguery of 2019 Eargape Boyenue, offective until December 21, 2019	por month	0.01
	Rate Rider for Recovery of 2016 Polegone Revenue - effective until December 31, 2018	permonun	0.01
	Rate Rider for Disposition of Global Adjustment Account (2016) - effective until April 30, 2019	per kWh	(0,0005)
	Applicable only for Non-RPP customers		(0.0005)
	Rate Rider for Disposition of Deferrar Variance Accounts (2018) - effective until April 30, 2019	рег күү	(0.2616)
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019	per kW	
	Applicable Only for Non-WMP Class B Customers		(0.01655)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) -	per kW	(
	effective until April 30, 2019	F	(33.3532)
	Rate Rider for Recovery of Incremental Capital Module (2017) - in effect until the effective date of the	per kW	
	next cost of service based rate order	P0	0.2905
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next	ner kW	
	cost of service based rate order	por ktt	0.0770

1 Figure 2 – 2018 OEB-Approved Rate Riders for the Horizon Utilities Rate Zone

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Horizon Utilities Rate Zone Schedule of Distribution Rate Riders fo	or May 1, 2018		May 1, 2018 Rates
Customer Class	Item Description	Unit	Rate \$
<u>Residential</u>	Smart Metering Entity Charge - effective until December 31, 2022 Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019 Applicable only for Non-RPP Customers	per month per month per month per kWh	0.57 (0.16) 0.03 (0.0029)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Class B Customers Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account	per kWh per kWh	(0.0006) (0.00005)
	(LRAMVA) (2018) - effective until April 30, 2019	per kWh	0.0003
General Service Less than 50 kW	Smart Metering Entity Charge - effective until December 31, 2022 Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019 Applicable only for Non-RPP Customers	per month per month per month per kWh	0.57 (0.25) (0.23) (0.0029)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Class B Customers Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019	per kWh per kWh per kWh	(0.0005) (0.00005) (0.0001)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kWh	0.0005
General Service 50 to 4999 kW	Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019 Applicable only for Non-RPP Customers	per month per month per kWh	(2.27) 0.70 (0.0029)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	0.1080
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Applicable only for Non-Wholesale Market Participants	per kW	(0.3086)
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Class B Customers	per kW	(0.01730)
	(LRAMVA) (2018) - effective until April 30, 2019 Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019	per kW per kW	0.0575 (0.0153)
Large Use	Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30	per month per month	(142.57) (55.64)
	2019 Applicable only for Non-RPP Customers	per kWh	(0.0029)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	0.1418
	Applicable only for Non-Wholesale Market Participants Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Class B Customers	per kW	(0.02611)
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kW	0.2338
Large Use with Dedicated Assets	Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019	per kW	(0.0084)
000 Will Doubled Added	Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month per month	(33.55) 12.64
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	0.1635
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Applicable only for Non-Wholesale Market Participants	per kW	(0.3761)
	Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kW per kW	(0.0020) 0.0049

Schedule of Distribution Rate Riders for May 1, 2018	Rates
Unmetered Scattered Load	
Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 per month	(0.05)
Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 per month	(0.04)
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30,	0.0020)
2019 Applicable only for Non-RPP Customers	0.0029)
	0.0005)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	0.0005)
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April	00005)
30, 2019 Applicable Only for Class B Customers	5.00003)
Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 per kWh (0	0.0001)
Sentinel Lighting	
Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 per month ((0.03)
Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 per month	0.01
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, per kWh (0	0 0029)
2019 Applicable only for Non-RPP Customers	0.0020)
per kW (C	0.1968)
Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	,
Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April per kW (0	0.01737)
30, 2019 Applicable Only for Class B Customers	,, ,
Rate Rider for Disposition of 2016 Earnings Sharing - effective until April 30, 2019 per kW (0	0.0900)
Street Lighting	(0.04)
Rate Rider for Disposition of 2016 Earning's Snaring - effective until April 30, 2019 per month ((0.01)
Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 per month ((0.10)
Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, per kWh (0	0.0029)
2019 Applicable only for Non-KPP Customers	
Pote Rider for Dispersition of Deferral/Variance Accounts (2019) offective until April 20, 2010 per kW (0	0.1955)
Rate Rider for Disposition of Cenarity Reset Recovery Account (2018) - effective unit April 30, 2019	
30 2019 Applicable Only for Class B Customers	0.01726)
Rate Rider for Discosition of 2016 Earnings Sharing - effective until April 30, 2019 per kW (0	0 0343)
Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account	0.00 .0)
(LRAMVA) (2018) - effective until April 30, 2019 per kW 0	0.7614

1 Figure 3 – 2018 OEB Approved PowerStream Rate Zone Rate Riders

PowerStream Rate Zone Schedule of Distribution Rate Ride	ers for May 1, 2018		May 1, 201 Rates
Customer Class	Item Description	Unit	Rate \$
Residential			
	Smart Metering Entity Charge - effective until December 31, 2022 Rate Rider for Disposition of Group 2 Deferral/Variance Accounts (2016) – effective until	per month	0.57
	September 30, 2018	per month	0.12
	Rate Rider for Recovery of Stranded Meter Assets (2016) – effective until September 30, 2018	per month	0.06
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	per month	0.11
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.14
	Rate Rider for Disposition of Global Adjustment Account (2016) - effective until September 30,	per kWb	0.0062
	2018 Applicable only for Non-RPP Customers	perkwii	0.0002
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	0.0004
	Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until September 30,		0.0000
	2018	perkvvn	0.0003
	Rate Rider for Disposition of Deferral/Variance Account – Power (2016) – effective until September	per kWh	(0.0003)
	30, 2018 Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kWh	(0.0030)
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30,	per kWb	0.0002
	2019 Applicable Only for Class B Customers	perkwii	0.0002
Seneral Service Less than 50 kW	Smart Matering Entity Charge - effective until December 31, 2022	ner month	0.57
	Rate Rider for Recovery of Stranded Meter Assets (2016) – effective until September 30, 2018	per month	0.21
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	per month	0 12
	next cost of service based rate order		0.10
	Rate Rider for Disposition of Global Adjustment Account (2016) - effective until December 30	permonun	0.40
	2018 Applicable only for Non-RPP Customers	per kWh	0.0062
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	0.0004
	Applicable only for Non-RPP Customers Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until September 30.		
	2018	per kWh	0.0003
	Rate Rider for Disposition of Deferral/Variance Account – Power (2016) – effective until September 30, 2018	per kWh	(0.0003
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kWh	(0.0030
	Rate Rider for Disposition of Group 2 Deferral/Variance Accounts (2016) – effective until	per kWh	0.0002
	September 30, 2018 Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the		
	next cost of service based rate order	per kWh	0.0001
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30,	per kWh	0.0002
	2019 Applicable Only for Class B Customers	P	
	(2018) - effective until April 30. 2019	per kWh	0.0009
General Service 50 to 4999 kW			
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	per month	0.57
	Next Cost of service based rate order Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	ner month	4 21
	Rate Rider for Disposition of Global Adjustment Account (2016) – effective until September 30,		0.0000
	2018 Applicable only to non-RPP non-Interval Metered Customers	регки	2.3303
	Rate Rider for Disposition of Global Adjustment Account (2016) – effective until September 30, 2018 Applicable only for Close R later of Material Account (2016) – effective until September 30,	per kW	(1.6412
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019		
	Applicable only for Non-RPP Customers	per kW	0.0004
	Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until September 30, 2018	per kWh	0.1169
	Rate Rider tor Disposition of Deferral/Variance Account – Power (2016) – effective until September 30, 2018	per kW	(0.1224
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30. 2019	per kW	0.0184
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(1 1367
	Applicable only for Non-Wholesale Market Participants	porkw	(1.1507
	Rate Rider for Disposition of Group 2 Deterral/variance Accounts (2016) – effective until September 30, 2018	per kW	0.0620
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per kW	0.0168
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kW	0.0796
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30,	per kW	0.0905
	2019 Applicable Only for Class B Customers	p	0.0000

PowerStream Rate Zone Schedule of Distribution Rate Rid	iers for May 1, 2018		May 1, 2018 Rates
Customer Class	Item Description	Unit	Rate \$
Large Use	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the		
	next cost of service based rate order	per month	24.34
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until Sentember 30	per month	97.02
	2018	per kW	0.1584
	Rate Rider for Disposition of Deferral/Variance Account – Power (2016) – effective until September 30, 2018	per kW	(0.1659)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(1.3235)
	Rate Rider for Disposition of Group 2 Deferral/Variance Accounts (2016) – effective until September 30, 2018	per kW	0.0840
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	per kW	0 0090
	next cost of service based rate order Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA)	por terr	0.0000
	(2018) - effective until April 30, 2019	per kW	(0.0723)
Unmetered Scattered Load	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the		
	next cost of service based rate order	per month	0.03
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2016) – effective until September 30	per month	0.08
	2018 Applicable only for non-RPP Customers	per kWh	0.0062
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	0.0004
	Applicable only for Non-RPP Customers Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until September 30.		
	2018	per kWh	0.0003
	Rate Rider for Disposition of Deferral/Variance Account – Power (2016) – effective until September 30, 2018	per kWh	(0.0003)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kWh	(0.0029)
	Rate Rider for Disposition of Group 2 Deferral/Variance Accounts (2016) – effective until	per kWh	0.0002
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30,	per k\//b	0.0002
	2019 Applicable Only for Class B Customers	perkwii	0.0002
	next cost of service based rate order	per kWh	0.0001
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA)	per kWh	(0.0005)
Sentinel Lighting	(2018) - effective until April 30, 2019		
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	per month	0.02
	next cost of service based rate order Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.04
	Rate Rider for Disposition of Global Adjustment Account (2016) – effective until September 30,	per kW	2 3977
	2018 Applicable only for non-RPP Customers Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	por terr	2.0011
	Applicable only for Non-RPP Customers	per kWh	0.0004
	Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until September 30,	per kW	0.1210
	Rate Rider for Disposition of Deferral/Variance Account – Power (2016) – effective until September	por kW	(0.1067)
	30, 2018	регки	(0.1207)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019 Rate Rider for Disposition of Group 2 Deferral/Variance Accounts (2016) – effective until	per kvv	(1.0740)
	September 30, 2018	per kvv	0.0641
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30, 2019 Applicable Only for Class B Customers	per kW	0.0895
	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	per kW	0.0396
	next cost of service based rate order Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA)	P	
	(2018) - effective until April 30, 2019	per kW	(0.3850)
Street Lighting	Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the		
	next cost of service based rate order	per month	0.00
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018 Rate Rider for Disposition of Global Adjustment Account (2016) – effective until September 30	per month	0.01
	2018 Applicable Only for Non-RPP Customers	per kW	2.2128
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	0.0004
	Rate Rider for Disposition of Deferral/Variance Accounts (2016) – effective until September 30,	por kW	0.1116
	2018	per kvv	0.1116
	Rate Rider for Disposition of Deferral/variance Account – Power (2016) – effective until September 30, 2018	per kW	(0.1169)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(1.0519)
	Rate Rider for Disposition of Group 2 Deferral/Variance Accounts (2016) – effective until September 30, 2018	per kW	0.0592
	Rate Rider for Disposition of Capacity Based Recovery Account (2018) - effective until April 30,	per kW	0.0870
	2019 Applicable Only for Class B Customers Rate Rider for Recovery of ICM (2018) - in effect from May 1, 2018 until the effective date of the	po	0.0070
	next cost of service based rate order	per kW	0.0253
	Rate Rider for Disposition of Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) (2018) - effective until April 30, 2019	per kW	0.5854

Figure 4 – 2018 OEB-Approved Rate Riders for the Brampton Rate Zone

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2	

Brampton Rate Zone Schedule of Distribution Rate Ride	ers for May 1, 2018		May 1, 2018 Rates
Customer Class	Item Description	Unit	Rate \$
Residential			
	Smart Metering Entity Charge - effective until December 31, 2022	per month	0.57
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	0.23
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.27
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kWh	(0.0010)
General Service Less than 50 kW		•	
	Smart Metering Entity Charge - effective until December 31, 2022	per month	0.57
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	0.24
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.40
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kWh	(0.0010)
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the	per kWh	0.0002
General Service 50 to 699 kW			
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	1.21
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	2.62
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30,	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30.	per kW	0.0055
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kW	(0.3626)
	2019 Pate Pider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the		· · /
	effective date of the next cost of service based rate order	per kW	0.0273
General Service 700 to 4999 kW			
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	10.89
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	28.18
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kW	0.0067
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 2019	per kW	(0.4225)
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the	ner kW	0.0317
	effective date of the next cost of service based rate order	perkw	0.0317
Large Use			45.00
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	45.33
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	119.38
	Cale Rider for Josposition of Global Adjustment Account (2016) - enective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kW	(0.5520)
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per kW	0.0240

Brampton Rate Zone Schedule of Distribution Rate Ri	ders for May 1, 2018		May 1, 2018 Rates
Customer Class	Item Description	Unit	Rate \$
Unmetered Scattered Load			
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	0.01
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.04
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kWh	(0.0010)
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per kWh	0.0002
Street Lighting			
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	0.02
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.03
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kW	(0.3219)
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective date of the next cost of service based rate order	per kW	0.1112
Embedded Distributor			
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	40.07
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	18.72
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30,	per kWh	(0.0009)
Distributed Generation			
	Rate Rider for Incremental Capital Module (ICM) - in effect from May 1, 2018 until the effective	per month	1.00
	Rate Rider for Recovery of 2018 Foregone Revenue - effective until December 31, 2018	per month	0.47
	Rate Rider for Disposition of Global Adjustment Account (2018) - effective until April 30, 2019	per kWh	(0.0009)
	Rate Rider for Disposition of Deferral/Variance Accounts (2018) - effective until April 30, 201	per kWh	(0.0009)

Reference(s): Decision and Rate Orders EB-2017-0024 (Alectra Utilities) and EB-2017-0044 (Guelph Hydro)

a) Please complete the table below with respect to Specific Service Charges for the two applicants and add/remove/modify any rows as necessary:

Specific Convice Charge	Cu				
Specific Service Charge	Alectra Utiliti	Cualab Uudra			
Customer Administration	Enersource	Horizon	PowerStream	Brampton	— Gueiph Hydro
Arrears Certificate					
Statement of Account					
Pulling post dated cheques					
Duplicate invoices for previous billing					
Request for other billing information					
Easement letter					
Income tax letter					
Notification charge					
Account history					
Credit reference/credit check (plus credit					
agency costs if applicable)					
Returned cheque (plus bank charges)					
Charge to certify cheque					
Legal letter charge					
Account set up charge/change of occupancy					
charge (plus credit agency costs if applicable)					
Account set up charge/change of occupancy					
charge					
Special meter reads					
Meter dispute charge plus Measurement					
Canada fees (if meter found correct)					
Non-payment of Account					
Late payment – per month					
Late payment – per annum					
Collection of account charge – no					
disconnection					
Collection of account charge – no					
disconnection – after regular hours					
Disconnect/reconnect at meter – during					
regular hours					
Disconnect/reconnect at meter – after regular					
hours					
Disconnect/reconnect at pole – during regular					
hours	ļ				
Disconnect/reconnect at pole – after regular					
hours					
Install/remove load control device – during					

regular hours			
Install/remove load control device –			
after regular hours			
Other			
Specific charge for access to power			
poles – per pole/year (with the			
exception of wireless attachments)			
Disconnect/reconnect charge at			
customer's request – at meter during			
regular hours			
Temporary service install and remove –			
overhead – no transformer			
Temporary service install and remove –			
overhead – with transformer			
Switching for company maintenance –			
charge based on time and materials			

- b) Please identify any differences in specific service charges, as well as the ones that may be currently charged by one, but not both of the applicants.
- c) Since the applicants propose that the amalgamated entity would only rebase rates after 10 years, please explain how Alectra Utilities, post merger, proposes to handle any differences in specific service charges identified in Exhibit B-Staff-25(b).
- d) Please explain how Alectra Utilities, post merger, intends to communicate with customers, and how it proposes to handle customer issues or complaints regarding differences in rates for the specific service charges identified in Exhibit B-Staff-25(b).

Response:

- 1 a) Table 1 has been updated with the Specific Service Charges for each of the Applicants.
- 2 Additional lines items were added or removed as necessary.

1 Table 1 – Applicants' Specific Charges

2

	Current Approved Charge				
Specific Service Charge	Alectra Utilities Gi				
Customer Administration	Enersource	Horizon	PowerStream	Brampton	Hydro
Arrears Certificate	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Statement of Account		\$15.00	\$15.00		
Pulling post-dated cheques		\$15.00		\$15.00	
Duplicate invoices for previous billing		\$15.00	\$15.00	\$15.00	
Request for other billing information	\$15.00	\$15.00	\$15.00	\$15.00	
Easement letter		\$15.00	\$15.00	\$15.00	
Income tax letter	\$15.00	\$15.00	\$15.00	\$15.00	
Notification charge		\$15.00			
Account history		\$15.00	\$15.00	\$15.00	
Credit reference/credit check (plus credit agency	¢45.00	¢45.00		¢45.00	
costs if applicable)	\$15.00	\$15.00		\$15.00	
Credit reference/credit check (plus credit agency	¢25.00				
costs if applicable- General Service)	φ25.00				
Returned cheque (plus bank charges)	\$12.50	\$15.00	\$15.00	\$15.00	\$8.55
Charge to certify cheque		\$15.00			
Legal letter charge		\$15.00	\$15.00	\$15.00	
Account set up charge/change of occupancy					
charge (plus credit agency costs if applicable)-	\$20.00				
Residential					
Account set up charge/change of occupancy	\$30.00	\$30.00	\$30.00	\$30.00	\$8 75
charge (plus credit agency costs if applicable)	\$00.00	\$00.00	\$00.00	<i>\</i>	\$ 011 0
Credit card convenience charge		\$15.00			
Special meter reads	\$30.00	\$30.00	\$30.00	\$30.00	
Interval meter request change	\$40.00				
Special billing service (aggregation)				\$125.00	
Special billing service (sub-metering charge per				\$25.00	
meter)				+	
Credit Service Charge for Paperless bill		ļ			(\$10.00)
Meter dispute charge plus Measurement Canada	\$10.00	\$30.00	\$30.00		\$10.00
fees (if meter found correct)					
Non-payment of Account	4.500/	4.500/	4.500/	4.500/	4 500/
Late payment – per month %	1.50%	1.50%	1.50%	1.50%	1.50%
Late payment – per annum %	19.56%	19.56%	19.56%	19.56%	19.56%
Collection of account charge – no disconnection	\$9.00	\$30.00	\$30.00	\$30.00	\$9.00
Collection of account charge – no disconnection –		\$165.00			
after regular nours					
Disconnect/reconnect at meter – during regular	\$20.00	\$65.00	\$65.00	\$65.00	\$20.00
Disconnect/reconnect of mater offer regular					
bours		\$185.00	\$185.00	\$185.00	\$50.00
Disconnect/reconnect at pole – during regular					ł
hours	\$185.00	\$185.00	\$185.00	\$185.00	\$50.00
Disconnect/reconnect at pole – after regular hours	\$415.00	\$415.00	\$415.00	\$415.00	\$95.00

Specific Service Charge	Current Approved Charge						
Specific Service Charge		Alectra Utilities					
Non-Payment of Account	Enersource	Horizon	PowerStream	Brampton	Hydro		
Arrears Certificate	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00		
Disconnect/reconnection for >300 volts - after regular hours				\$155.00			
Install/remove load control device – during regular hours		\$65.00	\$65.00				
Install/remove load control device – after regular hours		\$185.00	\$185.00				
Other							
Service Call - customer owned equipment		\$30.00			\$17.50		
Service Call - after regular hours		\$165.00			\$95.00		
Owner requested disconnection/reconnection - during regular hours				\$120.00			
Owner requested disconnection/reconnection - after regular hours				\$155.00			
Administrative Billing Charge		\$150.00					
Specific charge for access to power poles – per pole/year (with the exception of wireless attachments)	\$22.35	\$22.35	\$22.35	\$22.35	\$22.35		
Specific charge for access to power poles – per pole/year (with the exception of wireless attachments) - in effect from September 1, 2018 until December 31, 2018	\$28.09	\$28.09	\$28.09	\$28.09	\$28.09		
Specific charge for access to power poles – per pole/year (with the exception of wireless attachments)- in effect from January 1, 2019	\$43.63	\$43.63	\$43.63	\$43.63	\$43.63		
Overhead bond connection - per connection					\$105.00		
Underground bond connection - per connection					\$100.00		
Disconnect/reconnect charge at customer's request – at meter during regular hours							
Temporary service install and remove – overhead – no transformer	\$400.00	\$500.00	\$500.00				
Temporary service install and remove – underground – no transformer		\$300.00					
Temporary service install and remove – overhead – with transformer		\$1,000.00					

1 b) All differences in the Specific Service Charges have been identified in Table 1, above.

c) Alectra Utilities four rate zones are presently on a ten year rebasing deferral period. The
 Applicants have also identified a ten year rebasing deferral period in this Application. Alectra
 Utilities will operate individual rates zones (based on the predecessor utilities) during the

- rebasing deferral period. As a result, each rate zone will have its own tariff sheet and
 specific service charges until the next rebasing.
- 3 d) Please see the Applicants' response to part c), above. Alectra Utilities currently
- 4 communicates separate distribution charges to its customers on a rate zone basis. It will do
- 5 the same following the amalgamation of Guelph Hydro.

Reference(s): Decision and Rate Orders EB-2017-0024 (Alectra Utilities) and EB-2017-0044 (Guelph Hydro)

- a) When would Alectra Utilities anticipate harmonizing rates for its various rate zones, including Guelph Hydro rate zone, if this merger application is approved?
- b) If the merger application is approved, what is Alectra Utilities' expectations of the overall cost structures following the deferred rebasing period and the impact on Guelph Hydro customers?

Response:

a) Consistent with page 17 of the OEB's *Handbook to Electricity Distributor and Transmitter Consolidations*, Alectra Utilities anticipates that at the end of the deferral period and at the
time of rebasing the Guelph Hydro rate zone, rate harmonization options will be evaluated,
with a view to then available OEB policies and tools. Until its next rebasing, separate rate
zones with separate rate-setting methods will be maintained.

6

b) The Applicants have provided a year over year comparative cost structure analysis which
provides the *Status Quo* vs. Post Consolidation OM&A (\$MM) in the Application at Exhibit B,
Tab 5, Schedule 2 on page 1 of 1. The effect of the consolidation on underlying cost
structures will be positive and costs to serve customers will be lower, as a result of the
consolidation.

12

Alectra Utilities expects that, consistent with its first consolidation forming Alectra Utilities, rates will not be harmonized until the differences in cost structures are immaterial. As identified above, rate harmonization will be considered at the time of the next rebasing. Based on underlying differences in cost structures and drivers, an approach and timeline for harmonizing rate classes or a rationale endorsing or postponing harmonization will be provided at the time of the next rebasing.

Reference(s): Total Bill Amount for Typical Customers

Typical Monthly Consumption (kWh) – Rate Class	Total Monthly Bill Amount for Alectra Utilities Rate Zones (\$)				Total Monthly	Monthly Difference (\$)			
	Enersou rce (A)	Horizon (B)	PowerStre am (C)	Brampt on (D)	Bill Amount for Guelph Hydro Rate Zone (\$) (E)	(A)- (E)	(B)-(E)	(C)-(E)	(D)-(E)
Using 750 kWh									
for Residential									
Class									
Using 2,000									
kWh for GS<50									
kW Class									

a) Please provide the estimated total bill amount (\$ per Month) before taxes using the applicants' current approved Tariffs of Rates and Charges and compare a typical Guelph Hydro Residential and GS<50 kW customers with those of Alectra Utilities', using the table above. For typical monthly consumption for Residential rate class, please use 750 kWh per month and for GS<50 kW rate class, use 2,000 kWh per month.</p>

Response:

- 1 a) The estimated total bill amount per month, before taxes is provided in Table 1, below. The
- 2 estimated bill amounts are net of the 8% provincial rebate.

- 1 Table 1 Total estimated bill amount per month (before taxes) for a residential and GS<50 customer
- 2

Typical Monthly Consumption (kWh) – Rate Class	Total Monthly Bill Amount for Alectra Utilities Rate Zones (\$)				Total Monthly Bill Amount for Guelph Hydro Rate Zone (\$)	Monthly Difference (\$)			
	Enersource	Horizon	PowerStream	Brampton	(E)	(A)-(E)	(B)-(E)	(C)-(E)	(D)-(E)
	(A)	(D)	(6)	(U)					
Using 750 kWh for Residential Class	\$94.93	\$96.76	\$95.22	\$93.74	\$95.92	(\$0.99)	\$0.84	(\$0.70)	(\$2.18)
Using 2,000 kWh for GS<50 kW Class	\$255.78	\$245.73	\$216.82	\$240.75	\$221.35	\$34.43	\$24.38	(\$4.53)	\$19.40

3

Reference(s): Conditions of Service

- a) Please provide a copy of current Conditions of Service for Alectra Utilities and Guelph Hydro.
- b) Please identify any material differences in the current Conditions of Service of Alectra Utilities and Guelph Hydro.
- c) Please confirm that these current Conditions of Service are available on each of the applicants' websites and available at their business offices for viewing by customers.
- d) If there are any material differences, please identify how the merged entity intends to communicate and resolve these in dealing with customers if the application is approved.

Response:

- 1 a) Please find attached a copy of the current Conditions of Service Alectra Utilities, by rate 2 zone. Please also find attached the current Conditions of Service for Guelph Hydro. 3 4 B-Staff-28 Attachment 1 – Alectra Utilities – Brampton Rate Zone 5 B-Staff-28 Attachment 2 – Alectra Utilities – Enersource Rate Zone B-Staff-28 Attachment 3 – Alectra Utilities – Horizon Utilities Rate Zone 6 7 B-Staff-28 Attachment 4 – Alectra Utilities – PowerStream Rate Zone 8 B-Staff-28 Attachment 5 – Guelph Hydro 9 10 b) The Applicants are just beginning work on the transition and integration of Alectra Utilities 11 and Guelph Hydro. To date, material differences in the Conditions of Service have not been 12 identified. Both Alectra Utilities and Guelph Hydro adhere to good utility practice, and are 13 compliant with the relevant OEB codes and standards. As identified in the Exhibit B, Tab 5, 14 Schedule 4, page, 1 of the Application, "the Applicants expect that the adequacy, reliability and quality of electricity service will be maintained." 15 c) The Applicants confirm that the current Conditions of Service can be found on each of the 16 17 Applicants' websites and at their offices for viewing by customers.
- d) Please see the Applicants' response to b), above. If the OEB approves this Application,
 Alectra Utilities will work to consolidate the Conditions of Service, in due course. Alectra

- 1 Utilities would expect to inform stakeholders and customers of any proposed changes to the
- 2 Conditions of Service through stakeholdering initiatives and through its public notice
- 3 process.

B-STAFF-28 ATTACHMENT 1 ALECTRA UTILITIES CONDITIONS OF SERVICE – BRAMPTON RATE ZONE



Hydro One Brampton Networks Inc. Conditions of Service



Preface

The Distribution System Code (DSC) of the Ontario Energy Board requires each Distributor to prepare a "Conditions of Service" document that will serve to communicate the various types and levels of service available to Customers within a Distributor's Service Area, and requires these Conditions of Service to be readily accessible for review by the general public. The most recent versions of Conditions of Service documents will be retained by the OEB to facilitate the resolution of any disputes that cannot be resolved between Customers and their local Distributors.

This document follows the form and content requirements of the OEB's Conditions of Service template, which is appended to the DSC and provided to assist the Distributor in developing its Conditions of Service document, based on the DSC and the Distributor's current practice. Hydro One Brampton's Conditions of Service document encompasses the local Service Area and its characteristics, and other specific requirements.

The General section provides information about the services and requirements which are common to all Customer classes, including Rates, billing, hours of operation, Emergency response, power quality, available voltages, metering, back-up generation, and deposits.

The Customer (Class) Specific section provides information about the services and requirements specific to the respective Customer classes, including service entrance requirements, delineation of ownership, special contracts, etc.

Other sections include the Glossary of Terms, and Appendices.

Subsequent changes to these Conditions of Service will be incorporated by Hydro One Brampton into each submission to the OEB.



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1 INTRODUCTION

1.1 IDENTIFICATION OF DISTRIBUTOR & SERVICE AREA

Hydro One Brampton Networks Inc., referred to herein as Hydro One Brampton (HOB), is a Corporation under the laws of the Province of Ontario, and a Distributor of electricity.

HOB is licensed by the Ontario Energy Board (OEB) to supply electricity to Customers, as described in the Transitional Distribution License issued to HOB on 01 April 2000 by the OEB (i.e., Distribution License). Additional requirements are imposed on HOB by various Codes referenced in the License and by the *Electricity Act, 1998*, and the *Ontario Energy Board Act, 1998*.

HOB may only operate distribution facilities within its Licensed Territory, as defined in its Distribution License. This Service Area is subject to change with OEB approval.

Nothing contained in these Conditions of Service or in any contract for the supply of electricity by HOB shall prejudice or affect any rights, privileges, or powers vested in HOB by law under any Act of the Legislature of Ontario or the Parliament of Canada, or any Regulations thereunder.

1.1.1 Distribution Overview

HOB distributes electricity through its 13.8 kV, 27.6 kV and 44.0 kV primary Distribution Systems. Feeders on the 27.6 kV and 44.0 kV systems are arranged to run radially by maintaining open points between interconnections. The 44.0 kV feeders also supply distribution transformers through a 13.8 kV Subdistribution System.

HOB maintains an underground network system in a specific area of Brampton. This low voltage secondary network system may be available to some Customers in the City of Brampton's downtown core as a source of supply at 120/208 V, depending on the local capacity of the system and the Customer's Emergency requirements.

The supply of electricity by HOB to any Customer will be at one of the following primary voltage levels: 44.0 kV, 27.6 kV or 13.8 kV, depending on the proximity of the Customer's premises to the nearest distribution facility.

1.2 RELATED CODES & GOVERNING LAWS

The supply of electricity or related services by HOB to any Customer shall be subject to various laws, Regulations and Codes, including provisions of the latest editions of the following documents:

- 1) Electricity Act 1998 (p/o Energy Competition Act 1998);
- 2) Ontario Energy Board Act 1998 (p/o Energy Competition Act 1998);
- 3) Distribution License;
- 4) Affiliate Relationships Code;
- 5) Transmission System Code;
- 6) Distribution System Code;
- 7) Retail Settlement Code;
- 8) Standard Service Supply Code.



In the event of a conflict between these Conditions of Service (i.e., this document) and the Distribution License or regulatory Codes issued by the OEB, or the *Energy Competition Act, 1998* (Act), the provisions of the Act, the Distribution License and associated regulatory Codes shall prevail in the order of priority indicated above. If there is a conflict between a Connection Agreement with a Customer and Conditions of Service, these Conditions of Service shall govern.

When planning and designing for electricity service, Customers and their representatives shall refer to all applicable provincial and Canadian Electrical Codes, and all other applicable federal, provincial and municipal laws, Regulations, Codes and by-laws to ensure compliance with their requirements. Without limiting the foregoing, the work shall be conducted in accordance with the latest edition of the *Ontario Occupational Health and Safety Act (OHSA)*, the Regulations for Construction Projects, and the harmonized Infrastructure Health and Safety Association (IHSA) rule book.

1.3 INTERPRETATION

In these Conditions of Service, unless the context requires otherwise:

- Headings, paragraph numbers, underlining and other conventions are provided for convenience only, and do not affect the interpretation of these Conditions of Service;
- Words referring to the singular include the plural, and vice-versa;
- Words referring to a gender include any gender.

1.4 AMENDMENTS & CHANGES

The provisions of these Conditions of Service and any amendments made from time to time form part of any contract between HOB and any connected Customer, Retailer, or Generator, where these Conditions of Service shall supersede all previous oral or written Conditions of Service from HOB or any predecessor municipal electric utility as of the effective date. In the event of changes to these Conditions of Service, HOB shall issue a notice with the Customer's bill. HOB may also issue a public notice in a local newspaper.

The Customer shall be responsible for contacting HOB to ensure it has obtained the current version of these Conditions of Service. HOB may charge a reasonable fee for providing the Customer with a copy of this document.

1.5 CONTACT INFORMATION

For general inquiries, HOB can be reached during normal business hours (Monday to Friday) from 8:30 am to 4:30 pm EST at (905) 840-6300, by email at HydroOneBrampton.com, or by writing to:

Hydro One Brampton Networks Inc., 175 Sandalwood Pkwy W. Brampton, Ontario L7A 1E8

In an Emergency, Customers can call HOB at 905-840-6300, twenty-four (24) hours a day and seven (7) days a week.

1.6 CUSTOMER RIGHTS & OBLIGATIONS

HOB shall only be liable to a Customer and a Customer shall only be liable to HOB for any damages that arise directly out of the willful misconduct or negligence of:



- HOB in providing Distribution Services to the Customer;
- Customer in being connected to HOB's Distribution System;
- HOB or the Customer in meeting their respective obligations under these Conditions of Service, licence(s) and any other applicable law.

Accuracy of Information: HOB may request certain information from the Customer including the Customer's credit report, driver's license, date of birth, articles of incorporation and/or business registration, as appropriate. Customers are obligated to provide HOB with information that is true, complete, and correct. The information is used to provide Customer service, deliver and/or supply Emergency, manage Customer accounts and assess credit history regarding the need for a Security Deposit. HOB may, at any time, verify the accuracy of all information provided and may obtain additional credit information from a credit-reporting agency as required. If HOB is unable to establish the identity of a Customer based on the information provided by the Customer, HOB may disconnect the Customer in accordance with section 2.2.10.

Accounts With More Than One Person: If an account is opened in more than one Person's name, all those named are deemed to be the Customer and are jointly and severally responsible for compliance with these Conditions of Service, and for the payment of rates and charges in accordance with same.

Notwithstanding the above, neither HOB nor the Customer shall be liable under any circumstances whatsoever for any loss of profit or revenue, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damage that includes, but is not limited to, punitive or exemplary damage and regardless of whether any of the said liability, losses or damages arise in contract, tort or otherwise.

The Customer or embedded Generator shall indemnify and hold HOB harmless, including its directors, officers, employees and representatives, from any claims made by any third parties in connection with the construction and installation or operation of a Generator by or on behalf of the Customer or embedded Generator.

1.7 DISTRIBUTOR RIGHTS

Ability to Transfer Arrears from One Account to Another: HOB shall have the right to transfer arrears for Distribution Services, electricity supplied, or other services provided by HOB from one account in a Customer's name to any other account in that same Customer's name, irrespective of the Rate classification or whether either account is in the name of another Person or Persons in addition to the Customer.

1.7.1 Access to Customer Property

HOB shall have the right to access a Customer's property in accordance with Section 40 of the *Electricity Act, 1998.*

1.7.2 Safety of Equipment

The Customer shall comply with all aspects of the Ontario Electrical Safety Code (latest edition) with respect to insuring that installed equipment is properly identified and connected for metering and operational purposes, and shall take whatever steps necessary to correct any deficiencies in a timely fashion. If the Customer does not take such action within a reasonable time, HOB shall advise the Electrical Safety Authority (ESA) of any deficiencies and may disconnect the supply of power to the Customer.


The Customer shall not construct, plant or maintain or cause any structure, tree, shrub or landscaping to be constructed, planted or maintained that would or could obstruct the running of distribution lines, endanger HOB's equipment, interfere with the proper and safe operation of HOB's facilities, or adversely affect compliance with any applicable legislation in the sole opinion of HOB.

The Customer is responsible for ensuring that the slope of the grading from the Building permits natural drainage of water away from the Building. The Customer is also responsible for any settling of the grade that causes damage to HOB's underground plant.

The Customer shall not use or interfere with the facilities of HOB, except in accordance with a written agreement with HOB. The Customer shall also grant HOB the right to seal any apparatus where an electrical connection could potentially be made on the line side of the revenue metering equipment (i.e., unauthorized unmetered load).

The Customer shall provide a convenient and safe location which is satisfactory to HOB for installing, maintaining and operating its equipment in, on, or about the Customer's premises. HOB assumes no risk and shall not be held liable for damages resulting from locating its equipment on the Customer's premises or approaches thereto; or from any action, omission or occurrence beyond its control, or negligence of any Persons over whom HOB has no control.

Customers shall be required to pay the cost of repairs or replacement of any HOB equipment which has been damaged or lost and caused by the direct or indirect act or omission of the Customer or its representatives.

1.7.3 Operating Control

The physical location on a Customer's premises at which a Distributor's responsibility for operational control of distribution equipment ends is defined by the DSC as the "Operational Demarcation Point" (i.e., Customer's primary isolation to its transformer).

Operational Demarcation Points for services that are not flat Rate are identified in Table 5-1, Table 5-2, Table 5-3, Table 5-4, and Table 5-5.

For unmetered (i.e., flat Rate) overhead services, the demarcation point is the connection point at the Customer's service mast. For unmetered underground services, the demarcation point is either in the Customer's handwell (if used) or the secondary spades of HOB's mini-pad transformer.

HOB shall define its point of operating control for each site, as required. No Person shall operate remove, replace, alter, repair, inspect or tamper with HOB's equipment unless the Person is a HOB employee or representative, or another Person lawfully entitled to do so.

1.7.4 Repairs of Defective Customer Electrical Equipment

The Customer shall be required to repair or replace any Customer-owned equipment that may affect the integrity or reliability of HOB's Distribution System. If the Customer does not take such action within a reasonable time, HOB may disconnect the supply of power to the Customer. HOB's policies and procedures with respect to the Disconnection process are described further in these Conditions of Service.

1.7.5 Repairs to Customer's Physical Structures

Construction and maintenance of all civil works on private property owned by the Customer which include items, such as Transformer Vaults, transformer pads, cable



chambers, cable pull rooms and underground conduit, shall be the Customer's responsibility. All civil work on private property that facilitates HOB equipment shall be inspected and accepted by HOB.

The Customer is responsible to HOB for the maintenance and safe-keeping of the Customer's structural and mechanical facilities located on private property.

1.7.6 Force Majeure

Except for any amounts due and payable by the Customer to HOB or by HOB to the Customer, neither HOB nor the Customer shall be held to have committed a default with respect to any obligation under these Conditions of Service if prevented from performing that obligation, in whole or in part, because of a Force Majeure event.

If a Force Majeure Event prevents either party from performing any of its obligations under these Conditions of Service, that party shall:

- a) Other than for Force Majeure Events related to acts of God, promptly notify the other party of the Force Majeure Event and its assessment in good faith of the event's effect on its ability to meet any of its obligations. If the initial notification is not provided in writing, it shall be confirmed in writing as soon as reasonably practical;
- b) Not be entitled to suspend the performance of any of its obligations under these Conditions of Service to any greater extent or for any longer time that any Force Majeure requires it to do;
- c) Use its best efforts to mitigate the effects of the Force Majeure Event, remedy its inability to perform, and resume the full performance of its obligations;
- d) Keep the other party continually informed of its efforts;
- e) Other than for Force Majeure Events related to acts of God, provide written notice to the other party when it resumes performance of any obligations affected by the Force Majeure Event;
- f) If the Force Majeure Event is a strike or lock-out of HOB's employees or authorized representatives, HOB shall be entitled to discharge its obligations by notifying its Customers in writing by placing an ad in the local newspaper.

1.8 DISPUTES

Initial contacts for Customer complaints should be made by calling HOB at 905-840-6300 during normal business hours (i.e., Monday to Friday from 8:30 am to 4:30 pm EST).

To resolve disputes, HOB shall follow the terms in Section 23 of the Transitional Distribution Licence, which state that the Licensee shall:

- a) Establish proper administrative procedures for resolving complaints by Customers and other market participants regarding services provided under the terms of this License;
- Publish information that will facilitate access to the complaints resolution process by Customers;
- c) Refer unresolved complaints and subscribe to an independent third-party complaints resolution agency which is approved by the Board;



- d) Make a copy of the complaints resolution procedure available for inspection by members of the public at each of the Licensee's premises during normal business hours;
- e) Provide or send a free copy of the procedure to any Person who reasonably requests it;
- f) Maintain a record of all complaints, whether resolved or not, including the name of the complainant, the nature of the complaint, the date resolved or referred, and the results of any dispute resolution.

2 DISTRIBUTION ACTIVITIES (GENERAL)

2.1 CONNECTIONS: PROCESS & TIMING

Under the terms of the Distribution System Code, HOB is obligated to either connect or make an "Offer to Connect" any Customers in HOB's distribution Service Area.

The Customer or representative shall consult with HOB regarding the availability of supply, Supply Voltage, service location, metering, and any other relevant details. These requirements are separate from and in addition to those of the Electrical Safety Authority. HOB shall confirm the characteristics of its electric supply to the Customer in writing.

The Customer or representative shall apply for new or upgraded electricity services and temporary power services in writing. The Customer shall provide HOB with sufficient lead-time for ensuring:

- a) Timely provision of supply to new and upgraded premises; or
- b) Availability of adequate capacity for connecting additional loads in existing premises.

For the Connection of Generators, see section 3.5.3.

HOB shall make every reasonable effort to respond promptly to another Distributor's request for Connection. HOB shall provide an initial consultation with another Distributor regarding the Connection process within 30 days of receiving a written request for Connection. A final "Offer to Connect" the Distributor to HOB's Distribution System shall be made within 90 days of receiving the written request for Connection, unless other necessary information outside the Distributor's control is required before the offer can be made.

HOB, at its discretion, may require a Customer, Generator or Distributor to enter into a Connection (Operating) Agreement with HOB, including terms and conditions in addition to those described in these Conditions of Service.

If any special equipment is required or equipment delivery problems occur then longer lead times may be necessary, HOB shall notify the Customer of any extended lead times.

In addition to any other requirements in these Conditions of Service, the supply of electricity is conditional upon HOB being permitted and able to provide such a supply, obtaining the necessary apparatus and material, and constructing works to provide the service. If HOB is not permitted or able to do so, it is under no obligation to the Customer whatsoever, and the Customer shall release HOB from any liability in respect thereto.



2.1.1 Building that Lies Along

For the purpose of these Conditions of Service, "lies along" means a Customer property or parcel of land directly adjacent to or abutting onto the public road allowance where HOB has distribution facilities of the appropriate voltage and capacity.

Under the terms of the Distribution System Code, HOB is obligated to connect (under Section 28 of the *Electricity Act, 1998*) a Building or facility that "lies along" its distribution line, provided that:

- a) Building can be connected to HOB's Distribution System without Expansion or Enhancement; and
- b) Service installation meets the conditions listed in these Conditions of Service for the Distributor that owns and operates the distribution line.

The location of the Customer's service entrance equipment shall be subject to approval by HOB, and the Electrical Safety Authority.

2.1.2 Expansions / Offer to Connect

For Residential Subdivision or Commercial/Industrial Subdivision services, refer to the sample subdivision agreements outlined in Appendix 2B, Appendix 6B and Appendix 7B, respectively, which are available from HOB's website at <u>www.hydroonebrampton.com</u>, or by contacting HOB's Technical Service Department (see section 5.2). The following describes HOB's relationship with a Customer wishing to connect.

Under the terms of the Distribution System Code, HOB is required to make an "Offer to Connect" if HOB must construct new Distribution System facilities or increase the capacity of such existing facilities (i.e., "Expansion" of its system) in order to connect a Customer. In making such an offer, HOB shall include the following requirements, without limitation, as applicable:

- Capital contribution;
- Security deposit.

The cost associated with the expansion shall be fair and reasonable. For basic and Capital Contribution fees for each Customer Class, and the respective Ownership Demarcation Point, see Table 5-1, Table 5-2, Table 5-3, Table 5-4, and Table 5-5.

HOB shall perform an economic evaluation to determine whether the future Customer's revenue will pay for the capital and ongoing maintenance costs of the Expansion project (refer to methodology and assumptions in Appendix B of the Distribution System Code). At HOB's discretion, the capital costs for Expansion may include incremental costs associated with the full use of HOB's existing spare facilities or equipment, which may result in adverse impact on future Customers. The economic evaluation shall be based on the Customer's proposed load.

In performing the economic evaluation, should the net present value (NPV) of costs and revenues associated with the Expansion be less than zero, a Capital Contribution to cover the shortfall amount is required. HOB has the choice of either:

- Collecting this shortfall from the Customer; or
- Absorbing this shortfall.

HOB may charge a Customer that chooses to pursue an alternative bid for any costs incurred by HOB associated with the Expansion project, which include, but are not limited to:



- Costs for additional design, engineering, or installation of facilities required to complete the project that were made in addition to the original Offer to Connect;
- Costs to review designs prepared by the Customer or its representative;
- Costs for the inspection or approval of work performed by the contractor that was hired by the Customer.

2.1.2.1 Offer to Connect

HOB's "Offer to Connect" shall include the estimated costs to construct the Expansion and shall not be a firm offer, where the final amount charged to the Customer shall be based on the actual costs incurred. HOB shall calculate the first estimate and the final payment at no charge to the Customer.

2.1.2.2 Capital Contributions

If applicable, the Capital Contribution charges collected from the Customer shall be consistent with the respective Customer Class, as outlined below:

- Class 1: Residential Single Service;
 - Overhead: Contribution is not collected for up to a 200 A 120/240 V service and the utility supplying a maximum 30 metres of service cable. Consult with the utility for rural services or services more than 200 A at 120/240 V;
 - Underground: Contribution is collected for work involved in supplying and installing a service from the street line into the Customer's meter base. A credit equivalent to the cost of supplying and installing up to 30 meters of overhead secondary conductor and an overhead transformer rated for 200 A and 120/240 V capacity shall be applied to the recoverable costs incurred.
- Class 2: General Service (below 50 kW);
 - No transformation required on private property (i.e., overhead or underground):
 - Contribution is collected from the Customer.
- Class 3: General Service (50 kW to 1499 kW);
 - Single Building (50 kW to 250 kW) (no transformation on Customer's property): Contribution is collected from Customer;
 - Single Building (50 kW to 1499 kW) (transformation on Customer's property);
 - Contribution is collected from the Customer;
 - o Subdivisions, multi-unit or townhouse complex/developments;
 - Contribution is collected from the Customer.
- Class 4: General Service (1500 kW and greater);
 - Contribution is collected from the Customer.

Note: Customers serviced from HOB's 44 kV or 27.6 kV Distribution System that own high-voltage switchgear/transformer equipment and whose monthly Demand is less than 1500 kW are included in Class 4.



2.1.2.3 Settlement of Capital Contributions: Residential Subdivisions

The initial Demand proposed by the Customer shall be reasonable and subject to acceptance by HOB. However, if after two years from the in-service date, the Customer's 12-month rolling average monthly Demand is less than 90% of the incremental Demand for the Expansion, the Customer and HOB shall agree to:

- Revise the economic evaluation based on the Customer's actual 12-month average monthly Demand;
- Recalculate the amount of Capital Contribution;
- Readjust the expected incremental revenue accordingly;
- Customer or HOB shall reduce the difference in the Capital Contribution to zero by paying the balance no later than 30 days after the date of HOB's notice of Capital Contribution settlement.

2.1.2.4 Rebates Related to Expansions: Residential Subdivisions

In scenarios where HOB is required to install a new plant solely for a Customer Connection, the Customer shall pay HOB 100% of the calculated shortfall. If any nonforecasted Customers shall contribute their share within five years of the Connection date, the first Customer shall be entitled to a rebate as outlined in HOB's rebate process.

2.1.2.5 Supply Agreement & Securities

To keep HOB harmless as a result of HOB agreeing to reduce the amount of its Capital Contribution required for the Expansion, the General Service Class 3 and Class 4 Customers (i.e., 700 kW and greater) shall enter into a Supply Agreement and provide a Security Deposit to cover the difference between the actual costs incurred by HOB, and the Capital Contribution(s) paid by the Customers.

With each subsequent renewal of a Security Deposit, the Customer's liability shall be reduced by an amount equal to the actual incremental revenue collected since the in-Service Date. The residual debt, if any, is due five years after the in-Service Date, or upon termination of the Supply Agreement. However, the obligation to pay HOB any outstanding amount shall survive termination of the Supply Agreement. An irrevocable (i.e., standby) letter of credit or letter of guarantee from a chartered bank, trust company or credit union is acceptable in lieu of a cash deposit. This Security Deposit is required in addition to any other charges or deposits that may be required by HOB, and shall be provided prior to the Connection of service.

2.1.3 Connection Denial

The Distribution System Code includes provisions for a Distributor to deny connections. A Distributor shall not be obligated to connect a Building within its Service Area if such a Connection would result in any of the following:

- Contravention of existing laws of Canada and the Province of Ontario;
- Violation of any conditions in HOB 's License;
- Use of a Distribution System line for a purpose that it does not serve, and the Distributor does not intend to serve;
- Adverse effect(s) on the reliability or safety of the Distribution System;
- Public safety reasons, or the imposition of unsafe working conditions beyond normal risks;





- A material decrease in the efficiency of the Distributor's Distribution System Connection;
- Discriminatory access to Distribution Services;
- Refusal by the Customer to sign and deliver any agreements required for execution under these Conditions of Service;
- Person requesting the Connection owes HOB money for Distribution Services, including amounts owed under any judgment, writ or other judicial order;
- Customer refuses or is unable to provide current and valid identification or references, if requested;
- Potential increases in outstanding Distributor payment amounts that are already in arrears;
- Electrical Connection to HOB's Distribution System does not meet HOB's design requirements;
- Any other conditions specified in these Conditions of Service.

HOB shall notify the Customer of the Connection denial, and provide the reasons for same in writing. Remedies will be suggested to the Customer where HOB is able to do so. If HOB is unable to resolve the issue, the Customer shall be responsible for resolution as above before a Connection can be made.

2.1.4 Inspections Before Connection

For Residential Subdivision or Commercial/Industrial Subdivision inspection requirements, refer to the sample subdivision agreements provided in Appendix 2B and Appendix 6B, respectively (see section 5.2). For all other projects (i.e., connections), the Customer (or representative) shall coordinate a pre-construction meeting at which the utility and Customer representatives will review the planned work.

All Customer electrical installations shall be inspected and approved by the Electrical Safety Authority, and shall meet HOB's requirements. HOB requires written notification from the Electrical Safety Authority of this approval prior to energizing a Customer's electricity supply. Other conditions specified in these Conditions of Service shall also be met before a Connection is made. Prior to reconnection, if a Customer's services have been disconnected for six months or longer, they shall be re-inspected and approved by the ESA.

Temporary Services that are typically used for construction purposes shall be approved by the Electrical Safety Authority, and re-inspected if the period of use exceeds 12 months.

Customer-owned substations shall be inspected by both the Electrical Safety Authority and HOB. The Customer shall hire an independent high-voltage contractor to inspect the Customer-owned station using a checklist provided by the utility, and provide its findings to HOB prior to Connection.

Transformer Vaults, manholes, pulling rooms and pad-mounted transformer bases shall be inspected and approved by HOB prior to equipment installation.

Duct banks shall be inspected and approved by HOB prior to pouring concrete, and again before backfilling. The completed ducts shall be constructed according to HOB's requirements, and be clear of all foreign material. In the presence of HOB's inspector, a mandrel approved by HOB for a nominal duct diameter shall be passed through each duct by the Owner's representative. If the duct becomes blocked by ice after the inspection but before HOB installs any cables, the Owner's representative shall be responsible for clearing the ducts prior to cable installation.



Connections at existing concrete Duct Banks or manholes shall be made by a HOBapproved contractor. All work performed on the existing HOB plant shall be authorized by HOB and carried out in accordance with all applicable safety-related Acts and Regulations.

Provision for metering shall be inspected and approved by HOB prior to energization.

2.1.5 Relocation of Plant

When requested to relocate a distribution plant, HOB shall exercise its rights and discharge its obligations in accordance with all existing and applicable Acts, including the *Public Service Works on Highways Act*, and with federal, provincial and municipal laws, Regulations, Codes and by-laws, formal agreements, and easements. In the absence of existing agreements, HOB shall not be obligated to relocate the plant. However, HOB shall resolve the issue in a fair and reasonable manner that will include responding to the requesting party, explaining the feasibility or unfeasibility of the relocation, and charging a fair and reasonable amount for the relocation based on cost recovery principles.

2.1.6 Easements

To maintain the reliability, integrity and efficiency of its Distribution System, HOB has the right to have supply facilities on private property, and to have easements registered against the title to the property. Easements are required where the connected facilities will serve other facilities located on another property, and/or where HOB deems it necessary.

Subdivision Developers or Owners shall prepare and submit, at their own cost, any required reference plan to HOB's satisfaction. Four copies of the submitted reference plan shall be submitted to HOB before the preparation of easement documents. Details shall be provided by HOB upon application for service.

For Commercial or Industrial projects, Owners shall arrange for the preparation of reference plans, and the preparation and registration of easement documents at their own cost, and shall forward these to HOB's Survey and Records Supervisor for review and acceptance.

In the event of failure by the Owner/Developer to grant any easement required by HOB pursuant to the terms of these Conditions of Service, the same may be acquired by exercising the powers available to HOB under the *Expropriations Act of Ontario*. Notwithstanding any provision of the above Act, no compensation or costs shall be payable by HOB to the Owner/Developer for any easement, including the market value of interest taken, disturbance damages, injurious affection, or any other compensation. The Owner/Developer hereby waives all claims and HOB shall not be obliged to comply with any provision of the above Act, where the purpose is to determine the compensation payable to the Owner/Developer. The costs incurred by HOB in expropriating an easement pursuant to the above shall be payable by the Owner/Developer.

2.1.7 Contracts

2.1.7.1 Contract for New or Modified Electricity Service

At the present time, a Customer is generally not required to sign a contract for service. HOB shall only connect a Building for new or modified electricity supply upon receipt of a completed and signed Commercial/Industrial Customer Data Form, payment of any



applicable Connection charge, and inspection and approval of electrical and civil equipment by the Electrical Safety Authority and HOB for the new service.

2.1.7.2 Implied Contract

In all cases, notwithstanding the absence of a written contract, HOB shall have an implied contract with any Customer connected to HOB's Distribution System that receives Distribution Services from HOB. Terms of the implied contract are embedded in these Conditions of Service, HOB's Rate schedules, HOB's License, and the Distribution System Code as amended from time to time.

Any Person or Persons who take or use electricity from HOB shall be liable for payment of such electricity. Any implied contract for the supply of electricity by HOB shall be binding upon the heirs, administrators, executors, successors or assigns of the Person or Persons who have taken and/or used electricity supplied by HOB.

2.1.7.3 Special Contracts

Special contracts may be customized in accordance with the service requested by the Customer and would normally include, but not necessarily be limited to:

- Construction sites;
- Mobile facilities;
- Non-permanent structures;
- Special occasions, etc.;
- Generation;
- Street lighting services;
- Flat-Rate services;
- Multi-line electrical supply applications.

2.1.7.4 Landlord & Tenant Agreements

When a tenant opens an account for the distribution of services to a property, the tenant agrees to be a HOB Customer and accepts responsibility for electricity charges provided to a specific service address. Therefore, the contract is between HOB and that tenant. When a tenant closes the account, HOB shall adhere to the date provided by the tenant, regardless of the terms of any lease or verbal agreement between that tenant and the landlord or Owner, and shall issue a final bill for the account.

A landlord or Owner may enter into an agreement with HOB to accept responsibility for any and/or all units listed at a service address for which they are the landlord or Owner, and shall be responsible for any electricity charges for services provided at that property any time that a Person has not assumed responsibility for services delivered to the property until:

- a) New tenant opens an account and agrees to accept responsibility for the charges at the service address; or
- b) Landlord/Owner terminates the agreement.

A landlord or Owner may enter into the above-mentioned agreement by telephone or in writing. If a new account is established in the name of the landlord/Owner pursuant to such an agreement, the following terms and conditions shall apply:



- a) HOB shall open (an) account(s) for Electric Service to the properties in the name of the landlord/Owner as soon as any vacating tenant's account is closed;
- b) Landlord/Owner shall be responsible for the new account(s) and any charges for electricity service provided at any and all units listed at a service address, and shall comply with these Conditions of Service;
- c) New account set-up charge shall apply to the new account(s) and appear on the first electricity bill for any new account(s). Even though the property may be vacant, monthly service charges and any electricity used shall be billed to the new account(s).

The above agreement shall remain in place until HOB is advised otherwise, either verbally or in writing. For example, if a tenant has closed an account and a new tenant or landlord/Owner has not yet assumed responsibility for services delivered to the property, HOB may disconnect and remove its facilities and equipment from the property according to section 2.1.7.5 of these Conditions of Service.

The landlord is responsible for ensuring that HOB is aware of any changes in contact information, or mailing and/or billing details. If the landlord information is unknown, the above shall not apply and HOB will disconnect the service without an active account.

A Building Owner wishing to terminate the supply of electricity to the Owner's Building shall notify HOB in writing. Until HOB receives such written notice, the Building Owner or occupant(s), as applicable, shall be responsible to pay HOB for the supply of electricity to the Owner's Building.

HOB may refuse to terminate the supply of electricity to an Owner's Building until notice has been provided to the Building occupant(s) that the Owner has requested Disconnection. Prior to Disconnection, the Owner shall also pay HOB the Disconnect/Reconnect Fee.

2.1.7.5 **Opening & Closing of Accounts**

A property Owner or occupant requesting to open an account shall agree to be a HOB Customer and assume responsibility for distribution service charges for a service address by setting up an account by telephone and completing HOB's account application in writing. This will establish a contract with HOB, and the Customer shall accept the responsibility for charges related to the account.

HOB may require a Security Deposit for the account as outlined in section 2.4.3. Connection charges may also be payable to HOB by the Customer at the time of setting up the account, or at a later date. In the case where a Customer is a Corporation or Limited Partnership, an authorized signing officer of the Corporation shall be required to execute the agreement. A Solicitor or Person with Power of Attorney can agree to open an account on behalf of the Customer.

Customers requesting to close an account shall provide five business days advance notice to allow HOB time to read the meter at the service address, and to issue a final bill. If a Customer requests the cancellation of a Service Agreement and no longer wishes to have electricity provided to the service address, HOB may remove certain delivery equipment, such as power lines, transformers and meters. If a request is subsequently made for reconnection, the new Customer account for the service address shall incur applicable costs for HOB to reinstall the appropriate delivery equipment. If service has been disconnected from a service address for six months or longer, an ESA inspection shall also be required.



In all cases, HOB shall not maintain a meter or provide service without an active Customer account. When a Customer advises HOB that it is no longer responsible for an account or requests to close an account, a final bill shall be issued for the account. If, at that time, a new Customer has not yet assumed responsibility for services provided to the property, HOB may disconnect its service to the property and may also remove its facilities and equipment from the property.

2.2 DISCONNECTION

2.2.1 Disconnection & Reconnection: Process & Charges

2.2.1.1 Disconnection / Load Control / Timed Device

HOB reserves the right to disconnect or control the amount of electricity that a Customer can use by installing a load control device or timer for any of the following reasons:

- a) Failure to pay HOB any amounts due and payable for the distribution or supply of electricity under Section 29 of the *Electricity Act*,
- b) Failure to pay HOB any amounts due and payable on a Distributor-Consolidated Bill;
- c) Failure to pay any connection costs which are due and payable;
- Failure to notify HOB of the Customer's responsibility for an electricity account when a new party moves into an existing connected property and uses electricity;
- e) Non-payment of Security Deposits identified as a condition of service, or a condition of continuing service;
- f) Any contravention of the laws of Canada or Ontario;
- g) Unsafe worker conditions beyond the normal risks inherent in the operation of the distribution system;
- h) Adverse effects on the reliability and safety of the distribution system;
- i) Material decrease in the efficiency of the distribution system;
- j) Materially adverse effect(s) on the quality of distribution services for an existing connection;
- k) Inability of HOB to perform meter reading (i.e., manually, automatically or remotely), planned inspections, maintenance, repairs or replacement of all or any part of a meter installation;
- Failure of the Customer to comply with a directive of HOB for the purpose of meeting its License obligations;
- m) Failure of the Customer to comply with any requirements of these Conditions of Service, including the requirement for a Customer to complete the account set-up process over the telephone and/or in writing, and to assume responsibility for distribution services charges or the terms of any agreement between the Customer and HOB, which includes, but is not limited to, a Connection (Operating) Agreement, Connection Cost Agreement or Connection and Cost Recovery Agreement;
- n) Failure of the Customer to enter into a Connection (Operating) Agreement required by these Conditions of Service;



- o) Compliance with a court order;
- p) By order of the Electrical Safety Authority;
- q) By order of the IESO; or
- r) Reasons identified in section 2.2.1.3.

2.2.1.2 Process for Non-Payment of Account

Immediately following the due date, steps shall be taken by HOB to collect the full amount of a Customer's bill. Bill payment is due 16 calendar days after the bill is printed. Seven calendar days after the due date, the collection process shall begin in accordance with Section 4.2 of the Distribution System Code. Once a disconnect notice has been provided to the Customer, the service may be disconnected by HOB and not restored until satisfactory arrangements have been made for Customer payment, including reconnection costs. Reconnection of service shall only take place between the hours of 08:30 and 16:30. Additional charges shall apply for reconnections performed outside of these hours, and shall be at HOB's discretion. Disconnection notices shall be provided in writing, and if delivered by mail shall be deemed as being received on the third business day after mailing.

2.2.1.3 Electrical

Upon the discovery of a hazardous condition or disturbance propagation (i.e., feedback), HOB shall notify the Customer to rectify the condition at once. If the Customer fails to make satisfactory arrangements to remedy the condition within seven calendar days of receiving a Disconnection notice (i.e., request to rectify) from HOB, the service may be disconnected and not restored until satisfactory arrangements to remedy the condition have been made. HOB shall not be held liable for any damage to the Customer's premises resulting from such discontinuance of service. Disconnection notices shall be provided in writing, and if delivered by mail shall be deemed as being received on the third business day after mailing.

2.2.1.4 **General**

Upon receipt of a written Disconnection request by the Customer, HOB shall disconnect and/or remove its Connection Assets at the Customer's expense, as outlined in Table 5-1, Table 5-2, Table 5-3, Table 5-4, and Table 5-5.

2.2.2 Unauthorized Energy Use

HOB reserves the right to disconnect the supply of electricity to a Customer for causes not limited to Emergency diversion, fraud or abuse. Electricity supply may not be reconnected until the Customer rectifies the condition, obtains an ESA inspection and provides full payment to HOB for all costs incurred by HOB arising from the Customer's unmetered Energy use, including inspections, damages, repair costs, and the cost of Disconnection and reconnection.

2.2.3 Restricted Access to Meter Located on Residential Property

Pursuant to Section 40 of the *Electricity Act, 1998*, and section 1.7 of these Conditions of Service, HOB has the right to enter a Customer's property for the purposes of reading, inspecting, maintaining, repairing or replacing the meter. Furthermore, as per section 2.2.1 of these Conditions of Service, HOB reserves the right to physically disconnect or limit the amount of electricity that a Customer can use for the following reason:



 HOB's inability to perform meter reading (i.e., manually, automatically or remotely), planned inspections, maintenance, repairs or replacement of all or any part of a meter installation.

If a residential Customer willfully or otherwise restricts access to a meter located on a residential Customer's property for the purpose of preventing Disconnection due to non-payment, HOB reserves the right to make an application to the court for an order to enter the Customer's property, and to request a court-appointed sheriff to escort HOB employees (or representatives) to the Customer's property. If required, HOB shall also request the assistance of a bailiff and locksmith. The Customer shall be responsible for all costs incurred by HOB for the purpose of entering the Customer's property in accordance with the *Electricity Act, 1998*, and with these Conditions of Service, including court fees, sheriff's fees, and the costs of a bailiff and locksmith.

2.2.4 Disconnection Process for Reasons Other Than Non-Payment

Subject to HOB's rights, as specified in section 2.2.5, HOB shall provide the Customer with a notice of Disconnection for reasons other than non-payment by personal service or prepaid mail, or by posting notice on the Customer's property in a conspicuous place. If the Customer does not remedy the situation that gave rise to HOB's right to disconnect the Customer from its distribution system within the time period specified by HOB in the notice, HOB may disconnect the Customer from the distribution system or interrupt the distribution of electricity to the Customer on or after the date specified by HOB in the notice of Disconnection.

2.2.5 Immediate Disconnection Without Notice

HOB may immediately interrupt a Customer's electricity service without notice in accordance with a court order, a request from the fire department or for Emergency or public safety Reasons, including the potential for loss of life or limb, system reliability reasons; or to inspect, maintain, repair, alter, remove, replace or disconnect electrical cables and/or other equipment and facilities used to distribute electricity; or where there is an Energy Diversion, fraud or abuse on the part of the Customer.

2.2.6 Liability for Disconnection

Disconnection of service does not relieve the Customer of the liability for arrears or payment of minimum bills for the balance of the contract terms. The Customer shall be liable for any third-party costs incurred by HOB which are necessary to affect a Disconnection, which include, but are not limited to, court fees, bailiff and sheriff's fees, and the cost of having a locksmith attend the property. Such costs shall be included in the Customer's bill.

Under no circumstances shall HOB be held liable for any damage resulting from or associated with or related to the Disconnection or control of the distribution of electricity, including damage to the Customer's premises, and any business or other losses suffered by the Customer as a result of the Disconnection.

2.2.7 Reconnection

Where the reason for the Disconnection has been remedied to HOB's satisfaction, HOB shall reconnect the Customer. All costs associated with service Disconnection and reconnection, including inspections, shall be paid by the Customer prior to HOB reconnecting the service.



Under any of the following circumstances, HOB shall require the Customer to obtain the approval of the Electrical Safety Authority before HOB reconnects the service, where:

- a) HOB has reason to believe that Customer wiring may have been damaged or altered;
- b) Service was disconnected due to modification of Customer wiring;
- c) Service has been disconnected for a period of six months or longer;
- d) Service was disconnected as a result of (an) adverse effect(s) on the reliability and safety of the distribution system;
- e) Requirement of the Electrical Safety Code.

2.2.8 Disconnection & Reconnection Related Charges

Unless otherwise specified in these Conditions of Service, a charge shall apply in cases where it is necessary for HOB personnel (or representatives) to visit the Customer's premises to collect payment for an overdue account, disconnect service, install a timer or load controller, or reconnect the service. The Customer shall also be responsible for any incidental charges.

2.2.9 Unauthorized Energy Use

HOB reserves the right to disconnect the distribution of electricity to a Customer without notice for causes, including Energy Diversion, fraud, or abuse on the part of the Customer. Electricity service shall not be reconnected until the Customer rectifies the condition and pays all uncollected charges, including any late payment charges as determined by HOB, and any other costs incurred by HOB arising from unauthorized Energy use by the Customer, such as inspections and repair costs, and the cost of Disconnection and Reconnection.

2.2.10 Fraudulent Account Set-Up

HOB reserves the right to disconnect service and/or maintain service interruption if it has reasonable grounds to believe that the Customer(s) of electricity (i.e., where the Customer is an occupant who owns or rents the property, and where the property is used for either Residential or Commercial purposes) has willfully and intentionally avoide d bill payment of outstanding charges by applying or re-applying for a new HOB Customer account under a different account holder name. Furthermore, as a condition of establishing a new account for electricity supply, HOB reserves the right, pursuant to Section 3.1.G of the Distribution System Code and section 2.1.3 of these Conditions of Service, to validate the identity of a new account applicant by requesting official verification of the applicant's identity. Acceptable documentation for this purpose includes, but is not limited to, photo identification, credit bureau report, property tax documents, or a letter from a solicitor confirming the new account applicant's identity and that the applicant is no way affiliated with any previous account holder for the property who used electricity with stranded arrears.

2.2.11 Service Cancellation

If a Customer requests a service cancellation, HOB shall remove certain delivery equipment, such as power lines, transformers and meter. If reconnection is requested, the Customer shall incur a cost to reinstall appropriate delivery equipment, and shall follow the steps and processes for new connections according to these Conditions of Service.



2.3 CONVEYANCE OF ELECTRICITY

2.3.1 Limitations on the Guarantee of Supply

HOB shall endeavor to use reasonable diligence in providing a regular and uninterrupted electricity supply, but does not guarantee a constant supply or the maintenance of unvaried frequency or voltage, and shall not be held liable for damages to the Customer by reason of any failure with respect to the above.

Customers requiring a higher level of reliability or security than a normal supply shall be responsible for providing their own uninterruptible power supply (UPS), back-up or standby facilities. Because momentary power interruptions may affect a Customer's facility, the Customer shall protect itself from same.

Customers requiring three-phase electrical supply should install protective apparatus to avoid damaging their equipment, which may be caused by the interruption of supply to one phase, or the non-simultaneous switching of any of the three phases of HOB's electricity supply. Any damages resulting from the failure by the Customer to install protective apparatus shall be at the Customer's expense.

In an Emergency, HOB may interrupt electricity supply to a Customer in response to a shortage of supply, or to effect repairs on the Distribution System, or while repairs are being made to Customer-owned equipment. HOB shall have the right to access a Customer's property in accordance with Section 40 of the *Electricity Act, 1998,* and any successor acts thereto.

To assist in resolving Distribution System outages or for Emergency response, HOB may require a Customer to provide Emergency access to Customer-owned distribution equipment that would normally be operated by HOB, or HOB-owned equipment installed on the Customer's property.

2.3.2 Power Quality

2.3.2.1 **Power Quality Testing**

In response to a Customer's power quality concern, and where the use of electrical power adversely affects the performance of electrical equipment, HOB shall perform investigative analysis to identify the underlying cause. Depending on the circumstances, this may include a review of relevant power interruption data, trend analyses, and/or use of diagnostic measurement tools.

Upon determining the cause of the Customer's power quality concern, and where it is deemed a system delivery issue and/or if industry standards are not being met, HOB shall recommend and/or take appropriate mitigation measures and/or actions to control any power disturbances found to be detrimental to its Customers. If HOB is unable to correct the problem without adversely affecting other Customers, HOB shall not be obligated to make any corrections. HOB shall use appropriate industry standards, such as IEC (International Electrotechnical Commission) or IEEE (Institute of Electrical and Electronics Engineers) standards, and Good Utility Practice as guidelines.

If the power quality concern lies on the Customer side of the Distribution System, HOB shall seek reimbursement from the Customer for costs incurred in its investigation. However, HOB shall not be obligated to identify the source of the power quality concern on the Customer's side of the Electric Service.



2.3.2.2 **Prevention of Voltage Distortion in Distribution**

Customers with non-linear loads shall not be connected to HOB's Distribution System, unless the power quality is maintained by implementing corrective measures, such as installing proper filters and/or grounding. Furthermore, to ensure that the Distribution System is not adversely affected, any installed power electronics equipment shall comply with IEEE Standard 519-1992 (latest edition). The limit on individual voltage harmonic distortion is 3%, and the limit on total voltage harmonic distortion is 5%.

2.3.2.3 **Obligation to Assist the Investigation**

During the course of a power quality investigation conducted by HOB or its representative, the Customer shall be obligated to assist HOB by providing required equipment information, relevant data, and necessary access for equipment monitoring.

2.3.2.4 Timely Correction of Deficiencies

If an undesirable system disturbance is being caused by a Customer's equipment, the Customer shall cease operation of the equipment until satisfactory remedial action is taken by the Customer, at its expense. The Customer shall be responsible for all costs incurred by the utility in its effort to identify and correct the source(s) of disturbance. If the Customer does not take such action within a reasonable time, HOB may disconnect the Customer's electricity supply.

2.3.2.5 Notification for Interruptions

Although it is HOB's policy to minimize Customer inconvenience, it may be necessary for HOB to occasionally interrupt a Customer's electricity supply to allow work on the electrical system. HOB shall endeavor to provide its Customers with reasonable advance notice of any planned power interruptions. Notice may not be provided where the nature of the work is an Emergency involving possible injury to Persons, or damage to property or equipment.

2.3.2.6 Third-Party Notification to Customers

HOB offers a service to Customers who require assistance communicating with staff due to language difficulties, age, etc. Upon receipt of written instructions from the Customer, HOB shall record the name and telephone number of a designated third party for HOB personnel (or representatives) to contact regarding the Customer's account. The account record will instruct HOB's representatives how to contact the third party instead of the Customer.

2.3.2.7 Emergency Interruptions for Safety

HOB shall endeavor to notify its Customers prior to interrupting the supply of any service. However, if an unsafe or hazardous condition is found to exist, such as missing ground connections at Customer-owned stations, or if the use of electricity by apparatus, appliances or other equipment is found to be unsafe or damaging to HOB or the public, the service may be interrupted without notice.

2.3.2.8 **Emergency Service (Trouble Calls)**

HOB shall exercise reasonable care and diligence to deliver continuous electricity service to its Customers. However, HOB cannot guarantee a supply of electricity free from interruption.



If electrical power has been interrupted, the Customer should first ensure that power failure is not internal on the Customer's property. If there is a partial power failure, the Customer should contact HOB's control room operator (available 24 hours a day and 7 days a week at 905-840-6300 ext. 7250) before requesting the services of an electrical contractor. After HOB confirms that its electrical supply has failed, it shall initiate restoration efforts as soon as reasonably possible.

2.3.2.9 Outage Reporting

In the event of a major loss of power and depending on the duration of the outage, HOB may issue a news bulletin or press release to advise the general public of the outage. Local television and radio stations may contact HOB for information on a 24-hour basis when they hear of an outage.

2.3.3 Electrical Disturbances

HOB shall not be held liable for the failure to maintain Supply Voltages within standard levels due to Force Majeure, as defined in section 2.3.5.

Customers that require an uninterrupted source of Electric Service or a supply completely free of fluctuation and disturbance shall provide and maintain their own power conditioning equipment for such purposes.

2.3.3.1 Voltage Fluctuations

Voltage fluctuations and other disturbances can cause lights to flickering of lights and other serious difficulties for Customers connected to the HOB's Distribution System. Electrical equipment that may cause disturbances includes, but is not limited to, large motors, welders, arc furnaces, variable speed drives, etc.

The Customer shall be responsible for ensuring that its equipment does not introduce any voltage disturbances into the utility's supply system that could adversely affect other Customers. If the Customer's equipment is causing such a disturbance in the utility's supply system, it shall immediately cease operating the equipment causing the disturbance (see section 2.3.2.4).

2.3.3.2 Motors, Welders, Arc Furnaces, Etc.

Customer-owned motors, resistance welders, arc furnaces and other electrical equipment shall be of approved designs, and operated so that the quality of Electric Service to other Customers will not be affected. See also Note #3 under Table 5-12 in section 5.1).

As provided in Table 5-11 and Table 5-12, the motor and welder starting current limitations and nameplate kVA ratings do not imply that Customer voltage is "flicker free". Rather, these are the limits on Customer equipment that should not disturb the utility's electrical supply system.

2.3.3.3 Three-Phase Reclosure, Single-Phase Operation & Loss of Phase

HOB's Distribution System incorporates circuit reclosure as a normal operating function of all primary voltages. This should be taken into account by the designers of any electrical systems and equipment that is sensitive to automatic electrical reclosure operations.



The Distribution System operates such that "single phasing" (i.e., loss of one or two phases) can be expected to occur from time to time.

Any Customers using three-phase supply should install protective apparatus to avoid damaging their equipment, which may be caused by the interruption of one phase, or the non-simultaneous switching of the Distributor's supply phases.

2.3.3.4 System Switching

HOB and Hydro One Networks Inc. perform system switching during normal operation of the Distribution System. During some switching operations, transients can occur that may cause operational difficulties with the electrical equipment of some Customers. HOB recommends that Customers should consult with the manufacturers of any affected equipment for transient mitigation (e.g., the effect of capacitor bank switching operations on small variable speed drives).

2.3.3.5 Electric & Magnetic Fields

Some types of electronic equipment, such as video display terminals, can be affected by the close proximity of large electrical currents that may be present in transformers. HOB shall assist in attempting to resolve any such difficulties at the Customer's expense.

2.3.4 Standard Voltage Offerings

2.3.4.1 **Primary Voltage**

The primary voltage to be used shall be determined by HOB for both HOB-owned and Customer-owned transformers. Depending on the distribution voltage of the HOB plant that "lies along", the preferred primary voltage will be a 27.6 kV grounded wire, three-phase, four-wire system for utility-owned transformers. For Customer-owned transformers, the preferred primary Supply Voltage will be 44.0 kV when both 27.6 kV and 44.0 kV "lies along" the proposed facility. All Customer-owned transformers shall be Delta-connected primary, three-phase and three-wire, with HOB's system neutral connected to the Customer's station ground when the primary voltage is 27.6 kV. As outlined in these Conditions of Service, the Customer shall consult with HOB to confirm the primary voltage to be provided.

2.3.4.2 **Supply Voltage**

Depending on the secondary voltage of the plant that "lies along" HOB's Distribution System, the preferred secondary voltage will be at 120/240 V, single phase, 120/208 V, three-phase, four-wire; or 600/347 V, three-phase, four-wire. The supply voltage shall govern the limit of supply capacity for any Customer. General guidelines for electricity supply from overhead street circuits are as follows:

- 1) 120/240 V: Single phase, up to 100 kVA Demand load; or
- 2) 600/347 V: Three-phase, four-wire up to 200 kVA Demand load if a transformer bank (i.e., with spare capacity) already exists; or
- 3) 208/120 V: Three-phase, four-wire up to 150 kVA Demand load if a transformer bank (i.e., with spare capacity) already exists; or
- 4) Where street circuits are buried, the supply voltage and limits shall be determined upon application to HOB; or



- 5) When the Customer or Developer provides a precast concrete (approved by HOB) transformer pad installed on private property;
 - a) 120/240 V: Single phase supply up to 100 kVA; or
 - b) 208/120 V: Three-phase, four-wire up to 500 kVA Demand load; or
 - c) 600/347 V: Three-phase, four-wire up to 1500 kVA Demand load when HOB's primary Supply Voltage is 27.6 kV, or 500 kVA when HOB's primary supply is 13.8 kV., or
- 6) When the Customer or Developer provides a Transformer Vault (approved by HOB) on private property;
 - a) When HOB's primary supply is provided from 13.8 kV primary 208/120 V or 600/347 V, three-phase, four-wire up to 500 kVA, depending on system availability in the area (limited application, consult with HOB); or
 - b) When HOB's primary supply is provided from 27.6 kV primary 208/120 V or 600/347 V, three-phase, four-wire up to 1500 kVA Demand load., or
- 7) When the Customer or Developer provides an outdoor transformer station on private property; or
- 8) When the Customer provides its own transformer substation, primary switchgear and protection to meet the Ontario Electrical Safety Code (latest edition). Consult with HOB's Technical Services Department to confirm the primary voltage, winding configuration, minimum acceptable transformer losses, and other required characteristics.

2.3.5 Voltage Guidelines

HOB maintains service voltage at the Customer's service entrance according to the guidelines of CSA Standard CAN3-C235-87 (latest edition), which allows the following variations from nominal voltage:

- 5% for normal operating conditions;
- 8% for extreme operating conditions.

Where voltages lie outside the indicated limits for normal operating conditions but within the indicated limits for extreme operating conditions, improvement or corrective action should be taken on a planned and programmed basis, but not necessarily on an Emergency basis. Where voltages lie outside the indicated limits for extreme operating conditions, the improvement or corrective action should be taken on an Emergency basis. The urgency for taking such action will depend on many factors, such as the location and nature of the load or circuit(s) involved, and the extent of exceeded limits with respect to voltage levels, duration, etc.

HOB shall exercise reasonable diligence in maintaining voltage levels, but is not responsible for variations in voltage from external forces, such as operating contingencies, exceptionally high loads, and low voltage supply from the Provincial Transmission Grid Company or host Distributor. HOB shall not be held liable for any delay or failure in the performance of any of its obligations under these Conditions of Service due to any events or causes beyond the reasonable control of HOB, which include (without limitation) severe weather, flood, fire, lightning and other forces of nature, acts of animals, epidemic, quarantine restriction, war, sabotage, act of a public enemy, earthquake, insurrection, riot, civil disturbance, strike, restraint by court order or public authority, action or non-action or inability to obtain authorization or approval from



any governmental authority, or any combination of these causes (Force Majeure) (see section 1.7.6).

2.3.6 Back-Up Generators (Open & Closed Transition Operation)

Customers with portable or permanently connected generation capability used for Emergency back-up shall specifically comply with, but not be limited to, the Ontario Electrical Safety Code (latest edition) Section 28-900, Section 46, Section 14-612, and all other applicable criteria. Back-up generators will generally operate in open transition (i.e., no paralleling) mode with the utility supply. In the event that closed transition (i.e., parallel operation) is required for a specified duration, the Customer's Emergency backup system shall meet or exceed the requirements of IEEE 1547, and CSA 22.3 No. 9-08 (latest edition). For generators with permanent connections to HOB's Distribution System that are not classified as back-up generators, see section 3.5 for additional information on parallel operation.

Customers with permanently connected Emergency back-up generation equipment shall notify HOB regarding the presence and routine testing of such equipment. Customers planning to install (a) back-up generator(s) shall submit two copies of relevant drawings and support documentation for review and comment with details regarding the control philosophy, and how the relevant standards have been met. HOB reserves the right to witness the commissioning and/or operation of a Customer installation and its Connection to the distribution system.

2.3.7 Metering

HOB shall supply and arrange for installation, and shall own and maintain all meters, instrument transformers, ancillary devices, and secondary wiring required for revenue metering.

Metered market participants in the Electricity System Operator (IESO) administered wholesale market shall meet or exceed all IESO metering requirements. Refer to the IESO for standards and details. The Customer shall agree to provide the utility with remote access to the metering point (at the Customer's expense) for the purpose of data collection to enable the utility to conduct settlement.

2.3.7.1 General

HOB shall normally meter the Customer's load at the utilization voltage. Except for secondary supply from the street, secondary metering equipment shall be located as close as is practically possible to the supply transformer, regardless of its ownership. Consult with HOB's Technical Services Department before determining any new secondary metering location.

All residential and small Commercial/Industrial Customers under 200 kW shall be metered by a HOB-approved "Smart Meter", as mandated by the Ontario Government.

No Person, except as authorized by HOB, may remove, connect, or otherwise interfere with any HOB meters, wires, or ancillary equipment.

Each Customer shall be normally restricted to one metering point.

The Customer shall be responsible for the care and safekeeping of HOB meters, wires and ancillary equipment installed on the Customer's premises. If any such installed HOB equipment is damaged, destroyed or lost other than by ordinary wear and tear, temperature or lightning, the Customer shall be liable to pay HOB the lesser value of such equipment, or the cost of repairing same.



The location assigned by the Owner for HOB metering equipment shall provide HOB personnel (or representatives) with direct access, and be subject to environmental conditions that include the following:

- Clear minimum working space of 1 metre shall be maintained in front of all equipment and from all side panels to provide a minimum headroom of 2.1 metres;
- Meter sockets, cabinets and other meter-mounting devices shall be mounted and/or installed to be free from vibration and located away from sources of heat, dust and chemical vapors;
- Where sprinkler equipment is located in the vicinity of any metering equipment, drip shields shall be installed over all meters and related equipment;
- Where moving machinery is in the vicinity, guards may need to be installed to protect workers.

The above requirements shall apply equally to both new installations and existing installations requiring additional Electric Services.

Any compartments, cabinets, boxes, sockets, or other workspace for the installation of HOB's metering equipment shall be provided for the exclusive use of HOB.

2.3.7.1.1 Multi-Unit Residential Suite Buildings

Under Ontario Regulation 442/07, all new multi-unit condominium Buildings shall be either individually metered by a licensed Distributor, or smart sub-metered by an alternative licensed service provider. For existing Buildings, individual smart meters or smart sub-meters will be installed at the discretion of the condominium's Board of directors.

HOB shall provide a single, bulk-metered point for all multi-unit sites at no charge to Customers.

Customers wishing to equip multi-unit sites with individual tenant metering may install their own additional meters or sub-metering systems. Owners of sub-metering systems, or any other electricity meters used for revenue billing purposes shall register as contractors with Measurement Canada, and ensure that all regulatory requirements are met.

HOB may, at its discretion, provide individual metering for multi-unit Buildings under the following conditions:

- Customer pays all additional costs necessary to provide the individually metered services;
- Building Owner shall provide adequately-sized and secure metering rooms within the Building for installing the sub-metering system;
- Customer supplies and maintains a dedicated telephone line installed up to the metering point;
- Building Owner supplies standard meter bases or meter load centres for meters;
- All common areas are separately metered.

2.3.7.1.2 Main Switch & Meter Mounting Devices

The Customer's main switch immediately preceding the meter shall be installed so that the top of the switch is 1.83 m or less from the finished floor, and to permit the sealing and padlocking of:



- a) Handle in the "open" position; and
- b) Cover or door in the "closed" position.

Meter mounting devices for use on three-phase Commercial/Industrial accounts shall be installed on the load side of the Customer's main switch, and located indoors.

When the utility meter is not installed on the main level of a Building, the Customer shall ensure that a staircase is constructed according to the Ontario Building Code.

The Owner shall supply and install a HOB-approved meter base for use with HOB's selfcontained socket meters according to the main switch ratings and Supply Voltages listed in Table 5-8.

A list of approved meter sockets is available upon request. The centre of meter sockets shall be set at 1.65 m above the finished floor (refer to standard drawing #27-15, which is available from the HOB website at <u>www.HydroOneBrampton.com</u>).

The Owner shall supply and install a meter cabinet to contain HOB's metering equipment according to the main switch ratings and Supply Voltages listed in Table 5-9.

Requests for meter load centres shall be submitted to HOB for approval prior to ordering any material for a project. The minimum socket mounting height of 600 mm above the finished floor shall be maintained. For additional details, see Table 5-10.

The Customer shall permanently and legibly identify each metered service by its specific address, including unit or apartment number. This identification shall be applied to all service switches, circuit breakers, meter cabinets, and meter-mounting devices. All ganged meter bases shall be properly identified and marked, both inside the socket and on the cover.

2.3.7.1.3 Service Mains Limitations

The metering provision and arrangement for service mains in excess of 600 A shall be submitted to HOB's Technical Services Department for approval before proceeding with Building construction.

2.3.7.1.4 Special Metering Enclosures

Specially constructed meter enclosures may be permitted for outdoor use. Customers should submit a written application with a complete description to HOB's Technical Services Department.

2.3.7.1.5 Meter Loops inside Meter Cabinets

Meter loops with a length of 1 metre (36 inches) shall be provided in addition to the loop length between the line and load entry points. Consult with HOB's Meter Department to confirm entry and exit points in the meter cabinet. Line and load entry points shall be restricted to opposite ends, and the lower half of the meter cabinet (refer to standard drawing #27-15, which is available from the HOB website at <u>www.HydroOneBrampton.com</u>). These entry points shall be correctly marked as "line"

and "load".

Mineral insulated, solid and hard-drawn wire conductors are not acceptable for use with meter loops.

The neutral conductor shall be terminated on an insulated block at the bottom center of the meter cabinet at a distance of 7 cm (3 inches) from the front edge of the cabinet, if the neutral is not required after the metering point. If the neutral is required after the



metering point, conductors shall run along the bottom of the cabinet and not looped like the other phases. HOB shall supply a split bolt and connect a "tickler wire" to the neutral inside the meter cabinet.

2.3.7.1.6 Barriers

Permanently constructed barriers are required in each section of the switchgear or service entrance equipment installed between metered and unmetered conductors, and/or between sections reserved for use by HOB and sections provided for Customer use.

2.3.7.1.7 Doors

Side-hinged doors shall be installed over all live electrical equipment where HOB personnel may be required to work, such as splitter boxes, unmetered sections of switchgear, circuit breakers, switches, utility metering compartments, meter cabinets and enclosures.

These hinged doors shall include provisions for sealing and padlocking. Where bolts are used, they shall be the captive knurled type. All outer-hinged doors shall open no less than 135 degrees. All inner-hinged doors shall open to a full 90 degrees.

2.3.7.1.8 Auxiliary Connections

All connections to circuits, such as fire alarms, exit lights and Customer monitoring instrumentation, shall be made to the load side of HOB's metering facilities.

Customer equipment shall not be connected to HOB's metering compartment or facilities, except as authorized by HOB.

2.3.7.1.9 Working Space

A clear minimum working space of 1 metre shall always be maintained in front of all equipment and from all side panels, with a minimum headroom of 2.1 metres. HOB's revenue metering installations shall not protrude into doorways or be located behind water sprinkler systems, or built into a closet with less than 1 metre of clearance in front of the meter. Safety guards shall be installed on all machinery located within 3 metres of metering equipment to prevent injury to HOB personnel when working on the equipment. All self-contained meters shall provide at least 450 mm of clearance from the side of the meter base to an inside corner of a wall or equipment that protrudes more than 300 mm from the wall beside the meter base.

Where a hinged door in an open position would block an exit route, an additional 600 mm of clearance shall be provided from the edge of the open door to provide an egress route.

2.3.7.2 Current & Potential Transformer Boxes and/or Utility Compartment

When instrument transformers are incorporated into low voltage switchgear, the Customer shall provide a separate meter cabinet for utility revenue meters. This meter cabinet shall be located to the satisfaction of HOB and as close as possible to the utility compartment(s). The meter cabinet and utility compartment(s) shall be connected using empty 1.25 inch conduit(s), where the length shall not exceed 30 metres. The meter cabinet shall be installed on the wall with a minimum of four fasteners, and the cabinet back panel shall be removable. To meet ESA requirements, the meter cabinet shall also be properly connected to the utility compartment ground using a #6 stranded green



copper conductor on the cabinet exterior, instead of using through-the-meter wiring conduit (ESA requirement).

A 120 V convenience receptacle shall be installed inside meter cabinets for single tenant applications. For existing meter installations, the Customer shall provide a receptacle for use by HOB to connect a radio repeater or telephone line sharing device, if required to read the meter.

The Customer's electrical contractor shall install HOB's instrument transformers in the low voltage switchboard. Arrangements shall be made with HOB's Meter Department for delivering instrument transformers to the Customer site prior to meter installation.

The conduit for the HOB metering circuit shall run continuously from the utility compartment to the metering cabinet, and enter the utility compartment in an unobstructed location.

Where instrument transformers are incorporated into low voltage switchgear, the size and layout of the utility compartment shall be approved by HOB prior to equipment fabrication, and shall include:

- Neutral tap of 12.7 mm x 6.3 mm (0.5" x 0.25") bus suitably terminated in the instrument transformer compartment, such that the service neutral does not pass through the instrument transformer compartment;
- Grounding studs installed in all low voltage switchboards, as per section 2.3.7.8;
- Final layout and component arrangement approved prior to equipment fabrication.

2.3.7.2.1 Primary Metering: Overhead & Underground Installations

Depending on the number of circuits to be totalized, sometimes it will be more economical to install primary metering. In such cases, HOB shall provide the primary metering unit(s) for installation by the Customer. HOB shall supply and install its metering circuit wiring harness and metering equipment inside the Customer's meter cabinet. No Capital Contribution is required from the Customer, provided that metering unit(s), meter cabinet, and connecting conduit are installed. Coordination with HOB's Meter Department is required.

If a Customer specifically requests the use of primary metering in circumstances where HOB would normally install secondary metering, the Customer shall provide a Capital Contribution equivalent to the difference in HOB's recoverable cost between secondary and primary metering. For underground installations, the Customer shall be responsible for mounting the primary high voltage instrument transformers (i.e., CTs and PTs) in their switchgear, and for supplying and wiring all primary connections to instrument transformers inside a sealable junction box.

Consultation with HOB is required when proposing two or more totalized circuits, or where remote totalizing is involved, or where instrument transformers are incorporated into high-voltage switchgear (i.e., greater than 750 V). HOB shall issue specific metering requirements in such circumstances.

2.3.7.3 Interval Metering

An Interval Meter shall be installed by HOB for all new or upgraded services, where the monthly average peak Demand is estimated to be 50 kW or greater over the calendar year. HOB shall interrogate Interval Meters remotely via a HOB approved communication platform. At the time of the metering installation HOB will prescribe which remote interrogate method is available. Depending on the method available the



customer may have to install, maintain and pay the cost of a communication system that satisfies the requirements of HOB and provide an ongoing communication line or communication link with the interval meter. HOB will implement the following methods for meeting the remote integration requirements associated with the retrieval of Interval Meter data:

- Method 1: Standard analog voice quality telephone line provided by the Customer to the meter, and maintained at the Customer's expense; or
- Method 2: HOB approved communication system used for remote interrogation, where available.

For method 1 the Customer shall arrange for the installation of a telephone line terminating at the metering point for the exclusive use of HOB to retrieve Interval Meter data. This dedicated telephone line shall be active 24 hours per day, and energized prior to meter installation. Failed Customer telecommunications lines shall be repaired within 48 hours of receiving failure notification from HOB. If repairs are not completed within this time frame, HOB will need to manually collect the Interval Meter readings every second day following Customer notification, and shall invoice the Customer for all costs associated with manually reading the Customer's Interval Meter data.

Customers connected to service under 50 kW that request interval metering shall compensate HOB for all incremental costs associated with an Interval Meter, including the capital cost and associated installation costs; ongoing maintenance (including allowance for meter failure), verification and re-verification of the meter; and installation and ongoing provision of the communication line and/or telecommunications costs associated with interrogating the Customer's meter.

2.3.7.4 Meter Reading & Access to Meter Equipment

The Customer shall provide or arrange for free, safe and unobstructed access by any authorized HOB representative during regular business hours for the purposes of meter reading, meter changing, or meter inspection. Where the Customer premises are closed during HOB's normal business hours, upon reasonable notice the Customer shall arrange for such access at a mutually convenient time.

2.3.7.5 Final Meter Reading

When a service is no longer required, the Customer shall provide sufficient notice of the date requested for the service to be discontinued, so that HOB can obtain a final meter reading as close as possible to the final reading date. The Customer shall provide access to HOB or its representative for this purpose. If a final meter reading is not obtained, the Customer shall pay HOB a sum based on the estimated Demand and/or electricity used since the last meter reading.

2.3.7.6 Faulty Registration of Meters

Metering of electricity use for the purpose of billing is governed by the federal *Electricity* and Gas Inspection Act and associated Regulations under the jurisdiction of Measurement Canada and Industry Canada. HOB's revenue meters shall comply with the accuracy specifications established by Regulations under the above Act.

In the event of incorrect electricity use registration, HOB shall determine the correction factors, based on the specific cause of metering error and the Customer's history of electricity use. The Customer shall pay HOB for all electricity supplied, based on the reading of any meter previously or subsequently installed on the premises by HOB, with due regard for any change in the characteristics of installation and/or electricity Demand.



If Measurement Canada determines that the Customer was overcharged, HOB shall reimburse the Customer for the incorrectly billed amount. Conversely, HOB shall follow the recommendation for billing adjustment if Measurement Canada determines that the Customer was undercharged.

If an incorrect measurement is made due to reasons other than meter accuracy, such as incorrect meter connection, incorrect connection of auxiliary metering equipment, or incorrect use of the meter multiplier in calculating the bill, the billing correction shall apply for the duration of the error. HOB shall correct the bills for that period in accordance with the Regulations under the *Electricity and Gas Inspection Act*.

2.3.7.7 Meter Dispute Testing

Most billing inquiries can be resolved between the Customer and HOB without the use of Measurement Canada's meter dispute test.

Either HOB or the Customer may request the services of Measurement Canada to resolve a dispute involving the meter.

2.3.7.8 Working Ground Points: 120 V to 46 kV Metering Applications

The following requirements apply equally to all revenue metering installations, including utility metering compartments rated from 120 V to 46 kV.

In compliance with the Ontario Occupational Health and Safety Rules in effect at the relevant time, working ground points complete with a permanently mounted 25 mm (1.0") diameter ball type ground stud, Hubbell Chance C600-2102 (or equivalent), shall be provided at all of the following locations within the instrument transformer compartment:

- 1) For 3-wire, 2-element revenue metering applications (i.e., total of 6 ground studs):
 - a) On each side of phase A CT;
 - b) On each side of phase C CT;
 - c) On phase B;
 - d) On ground bus.
- 2) For 4-wire, 3-element revenue metering application (i.e., total of 7 ground studs):
 - a) On each side of phase A CT;
 - b) On each side of phase B CT;
 - c) On each side of phase C CT;
 - d) On ground bus.

2.4 TARIFFS & CHARGES

2.4.1 Service Connections

Charges for Distribution Services according to the Schedule of Rates available from HOB Notice of Rate revisions shall be published by HOB in major local newspapers. Information regarding any changes shall also be mailed by HOB to all Customers together with the first billing issued at revised rates.



2.4.1.1 Customers Switching to Retailer

There are no physical differences between the service connections provided between Standard Service Supply (SSS) Customers and third-party Retailer Customers. Both Customer Energy supplies are delivered through the local Distributor according to the same distribution requirements. Therefore, all service Connection requirements that apply to SSS Customers also apply to third-party Retailer Customers.

2.4.1.2 Supply Deposits & Agreements

Where an Owner proposes the development of premises that require HOB to place equipment orders for a specific project, before any construction begins the Owner shall enter into the necessary Supply Agreement and pay a suitable deposit before such equipment is ordered by HOB.

An irrevocable letter of credit or letter of guarantee from a chartered bank, trust company or credit union is acceptable in lieu of a cash deposit.

2.4.2 Energy Supply

2.4.2.1 Standard Service Supply

Any existing HOB Customer is deemed to be a Standard Service Supply (SSS) Customer until HOB is informed about the Customer switching to a competitive electricity supplier. Either the Customer or the Customer's authorized Retailer shall make the service transfer request (STR).

2.4.2.2 Retailer Supply

Customers transferring from Standard Service Supply (SSS) to a Retailer shall comply with service transfer request (STR) requirements as outlined in Section 10.5 through Section 10.5.6 of the Retail Settlement Code.

All requests shall be submitted as electronic files and transmitted through EBT Express. STRs shall include all required information as per Section 10.3 of the Retail Settlement Code.

If the information is incomplete, HOB shall notify the Retailer or Customer about the specific deficiencies, and shall wait for a reply before processing the transfer.

2.4.2.3 Wheeling of Energy

All Customers considering delivery or receiving electricity from HOB's Distribution System shall contact HOB regarding technical requirements and applicable tariffs.

2.4.3 Deposits

HOB purchases electricity on behalf of its Customers, and then recovers this cost and the cost of distribution through Customer billing.

According to Section 2.4.6.1 and Section 2.4.6.2 of the Distribution System Code, a Distributor may use any risk mitigation option available under law to manage Customer non-payment risk. A Distributor may also impose an amount and type of security requirement on a Customer, depending on the Distributor's assessment of the Customer's likely risk of non-payment. A Distributor shall also not discriminate between Customers with similar risk profiles or risk-related factors.



As Customers switch to competitive Retailers and depending on the billing options, the level of HOB's risk exposure will vary. For this reason, the Security Deposit amount may be adjusted to reflect the new level of exposure.

The following HOB policy shall apply for each billing option:

- Standard Supply Service: Under this option, HOB will continue to issue a bill to the Customer. Because HOB is responsible for Customer non-payment risk, payment of a Security Deposit may be required depending on HOB's assessment regarding the risk of non-payment by the Customer;
- Distributor-Consolidated Billing (DCB): Under this option, HOB will issue a bill to the Customer and assume responsibility for Customer non-payment risk. HOB may require the payment of a Security Deposit, depending on its assessment of the likely risk of non-payment by the Customer;
- Retailer-Consolidated Billing (RCB): Under this option, HOB will not issue a bill to the Customer, and will not require a Security Deposit from the Customer. The Retailer shall be responsible for issuing the bill, and for assuming the responsibility for Customer non-payment risk;

If HOB is holding a Security Deposit when a Customer switches to Retailer-Consolidated Billing, the Customer's deposit shall be applied to the final bill, and any excess deposit amount shall be returned to the Customer.

4) Split Billing (if approved in future): Under this option, HOB and the Retailer will both assume responsibility for Customer non-payment risk for billing issued by each party to the Customer.

If the Customer has already provided a Security Deposit, HOB shall retain a portion of the deposit that reflects the non-payment risk associated with the new billing option, and shall return any excess deposit amount to the Customer.

2.4.3.1 Security Deposit Requirements

HOB shall require a Security Deposit from any Residential and Non-Residential Customer that does not demonstrate a good payment history (refer to Section 2.4.10 of Distribution System Code). For example, a Security Deposit is required if a Customer has received more than one Disconnection notice from the Distributor, or if more than one cheque or pre-authorized payment has been returned for insufficient funds, or if a disconnect/collect trip has occurred.

The form of payment from a residential Customer can be either cash or cheque. A nonresidential Customer can provide cash, a cheque, or an automatically renewing irrevocable letter of credit from a bank or financial institution as defined in the *Bank Act*.

Residential Customers may request to pay the Security Deposit in up to six equal monthly installments, and Non-Residential Customers may request to pay the Security Deposit in up to four equal monthly installments.

2.4.3.2 Exemption from Paying Security Deposit

For the purpose of the criteria outlined below, the time period considered by HOB for a Customer's good payment history shall be the most recent period, with a portion of this time occurring within the previous 24 months.

Customers shall not be required to provide a Security Deposit to HOB by meeting one of the following exemption criteria:

• Residential Customer;



- 1 year good payment history (i.e., for existing Customers); or
- Reference letter provided by another electricity or natural gas utility in Canada which indicates the Customer's good payment history for 1 year; or
- Credit check (at the Customer's expense) provided by a credit agency listed in HOB's Deposit Policy, and which identifies the Customer as a good credit risk. HOB reserves the right to request updated credit checks from time to time at its discretion;
- Qualified eligible low-income Customers under LEAP.
- Non-Residential Customer (<50 kW Demand Rate class);
 - o 5 years good payment history (i.e., for existing Customers); or
 - Reference letter from another electricity or natural gas utility in Canada which indicates the good Customer's payment history for 5 years; or
 - Credit check (at the Customer's expense) provided by a credit agency listed in HOB's Deposit Policy, and which identifies the Customer as a good credit risk. HOB reserves the right to request updated credit checks from time to time at its discretion.
- Non-Residential Customer in any other Rate class (excluding Customers >5,000 kW);
 - o 7 years good payment history (i.e., for existing Customers)*; or
 - Reference letter from another electricity or natural gas utility in Canada which indicates the Customer's good payment history for 7 years; or
 - Credit check (at the Customer's expense) provided by a credit agency listed in HOB's Deposit Policy, and which identifies the Customer as a good credit risk. HOB reserves the right to request updated credit checks from time to time at its discretion; or

*To qualify for one of the following reductions, the Customer shall provide a credit rating from either Dominion Bond Rating Service (DBRS), Standard & Poors (S&P) or Moody's. The reduction shall be calculated as per below. HOB reserves the right to request updated credit ratings from time to time at its discretion.

- Credit Rating: Allowable Reduction;
 - o Using Standard and Poor's Rating Terminology:
 - AA- and above or equivalent (100%);
 - AA-, AA, AA+ or equivalent (95%);
 - A-, from a, A+ to below AA or equivalent (85%);
 - BBB-, from BBB, BBB+ to below A or equivalent (75%);
 - Below BBB- or equivalent (0%).
 - Non-Residential Customers >5,000 kW:
 - 7 years good payment history** (for existing Customers, HOB is only required to refund 50% of the deposit); or
 - Reference letter from another electricity or natural gas utility in Canada which indicates the Customer's good payment history for 7 years; or

**To obtain a refund higher than 50%, the Customer shall provide a credit rating from Dominion Bond Rating Service (DBRS), Standard & Poors (S&P) or Moody's. The reduction shall be calculated as per below. HOB reserves the right to request updated credit ratings from time to time at its discretion.



- Credit Rating: Allowable Reduction;
 - Using Standard and Poor's Rating Terminology:
 - AA- and above or equivalent (100%);
 - AA-, AA, AA+ or equivalent (95%);
 - A-, from a, A+ to below AA or equivalent (85%);
 - BBB-, from BBB, BBB+ to below A or equivalent (75%);
 - Below BBB- or equivalent (0%).

2.4.3.3 Security Deposit Limits

The maximum amount which can be requested by HOB for a Customer Security Deposit is equal to 2.5 times the estimated Customer bill, based on the Customer's average monthly load during the most recent 12 consecutive months within the past two years. If such information on the Customer's use of electricity is not available, the Customer's average monthly load shall be based on a reasonable estimate determined by HOB.

Customers with more than one Disconnection notice within a relevant 12-month period shall have their deposit calculation based on the highest actual or estimated monthly load.

2.4.3.4 **Retention of Security Deposits**

HOB shall review all Security Deposits annually to determine whether all or some Customer deposit amounts shall be returned based on re-calculating the maximum allowable Security Deposit amount, as outlined in Section 2.4.12 of the Distribution System Code.

Customers with a good payment history of one year in the case of residential Customers, five years in the case of non-residential Customers in <50kW Demand Rate class, or seven years in the case of non-residential Customers in any other Rate class, shall have Security Deposits credited to their accounts.

In cases where an account is final billing, the Security Deposit and interest shall be applied to the final bill, and any credit balance shall be refunded within six weeks of the final billing date.

A Customer may, no earlier than 12 months following the payment of a Security Deposit or making a prior request for review, demand in writing that HOB undertake a review to determine whether the entire amount of the Security Deposit shall be returned.

2.4.3.5 Interest on Security Deposits

Interest shall accrue monthly on Security Deposits paid in cash or by cheque upon receipt of the total deposit required. The interest rate shall be the prime business rate as published on the Bank of Canada website, less two percent updated quarterly. Accrued interest shall be paid out at least once every 12 months, or upon the application or return of the Security Deposit or closure of the account (whichever comes first), and shall be paid by crediting the Customer's account.

2.4.3.6 Enforcement for Unpaid Security Deposits

Non-payment of a Security Deposit can result in discontinuation of service, and shall be subject to HOB's regular Disconnection procedure (see section 2.2.1).



2.5 BILLING

In this section, references to monthly time periods are notational and approximate periods only, and shall not be construed as calendar-based time periods.

2.5.1 Billing Frequency

HOB may, at its option, issue bills to its Customers on a monthly basis. Billing for the use of electricity may be based on either a metered Rate or a flat Rate, as determined by HOB.

A Customer may dispute the charges shown on HOB's Customer bill or other matters by contacting and advising HOB of the reason for the dispute. HOB shall promptly investigate all disputes and advise the Customer of the results.

2.5.2 Use of Estimates

In months where a bill is issued and no reading is obtained, HOB shall estimate the Energy and Demand to determine the billing quantities. This estimate is based on historical electricity use for the premises, or a predetermined quantity if no information on historical use is available. A Customer without an Interval Meter or a Customer not yet transitioned to time-of-use pricing may avoid receiving bills based on estimated meter readings, if a Customer-obtained meter reading is provided that passes validation checks according to the processes and timing established by HOB for billing purposes.

2.5.3 **Pro-Rating of Accounts**

Accounts shall be pro-rated where the Customer's bill is for a period shorter or longer than the standard billing period, or where rates have been revised and effective on a date not coincident with the Customer's billing or meter reading date.

2.5.4 Equal Payment Plan

An equal payment plan is available to all HOB Standard Supply Service (SSS) Customers on Distributor-Consolidated Billing (DCB). Reviews are performed quarterly, and periodic adjustments to regular billing amounts may be made by HOB due to rate or changes in electricity use.

2.5.5 Billing Errors

Where a billing error from any cause has resulted in a Customer or Retailer being overbilled, and where Measurement Canada has not become involved in the dispute, HOB shall credit the Customer or Retailer with the amount erroneously billed for up to a two-year period. Where the billing error is not the result of HOB's standard billing practices (i.e., estimated meter reads), HOB shall pay interest on the amount credited at the same interest rate as in the Retail Settlement Code.

Where a billing error from any cause has resulted in a Customer or Retailer being underbilled, and where Measurement Canada has not become involved in the dispute, the Customer or Retailer shall pay to HOB the amount not previously billed. If the Customer is not responsible for the error, the allowable time period for which the Customer may be charged is two years for residential Customers, and all other Customers. If the Customer is responsible for the under-billing, whether by tampering, willful damage, unauthorized Energy use or other unlawful actions, the Customer shall pay a late payment charge as determined by HOB in accordance with these Conditions of Service. Refer also to Section 7.7 of the Retail Settlement Code.



2.5.6 Annual Reclassification of Class

For all general service Customers, consumption and billed Demand shall be reviewed annually by HOB to determine whether any Customer accounts should be reclassified for billing purposes, and a Demand Meter installed.

The review is conducted in the first quarter of the year, with a measurement period from January 1st through December 31st of the previous year, where the average monthly Billing Demand calculated is based on measurements taken for bills issued within that time period. Customer account reclassification with no retroactive adjustment shall be effective on the next scheduled bill following the annual review. Such a review will not take place more than once every calendar year.

2.6 PAYMENTS & OVERDUE ACCOUNT INTEREST CHARGES

2.6.1 HOB Payment Options

Customers may pay their electricity bills either by cheque, money order, telephone banking, internet banking; or e-payment through HOB's website or a local bank, trust company, credit card, MoneyGram, or Western Union. All payments shall be in Canadian dollars.

HOB also offers a pre-authorized payment option.

Customers with past due accounts can refer to their notices or visit HOB's website at <u>www.hydroonebrampton.com</u> to find out how long it takes for payment to reach HOB's office. Payment must be received at the HOB office by the due date on the Disconnection notice to stop any collection process.

2.6.2 Late Payment Charges

Customer bills are due on the billing date. A late payment charge shall apply if payment is not received by HOB within 19 days of the billing date. HOB provides Customers with a 16-day payment period, plus an allowance of three days for payment to be received by mail. When a required payment date is on a weekend or holiday, payment is required on the next business day.

HOB's late payment charge is 1.5% per month, compounded monthly (19.56% annually). Late payments are calculated from the billing date to the issue date of the next bill. A late payment charge of 1.5% is applied to the outstanding balance. If partial payment is made within 19 days of the billing date, the late payment charge shall apply only to the amount outstanding after deducting the partial payment. Late payment charges will be added to the Customer's next bill.

Customers using electronic funds transfer or pre-authorized payment shall have their payment amounts automatically withdrawn from designated bank accounts on the bill due date. The withdrawal date and amount are clearly indicated on each bill.

2.6.3 Allocation of Payments

Any payments received by HOB shall be applied to the total outstanding balance of the Customer's electricity account, which could include billed amounts, Security Deposits, late payments, or other charges. However, payments cannot be directed to specific portions of a Customer's outstanding balance.



2.6.4 Return Payments

The Customer shall pay additional charges for the processing of returned payments due to insufficient funds (NSF).

2.6.5 Specific Service Charges

Customer accounts with past due balances may incur additional service charges, as outlined in the Electricity Rates on HOB's website at <u>www.hydroonebrampton.com</u>, and may have their requirements for Security Deposits reviewed according to these Conditions of Service (see section 2.4.3).

2.6.6 Arrears Management Program

2.6.6.1 Residential Customer

A residential Customer may request to enter into a Payment Agreement for the total outstanding balance of the electricity account, where any Security Deposit held by HOB shall be applied to the outstanding balance. The Customer may also be required to repay the Security Deposit, and pay a down payment of up to 15% of the total outstanding balance as part of the Payment Agreement.

2.6.6.2 Eligible Low-Income Residential Customer

An eligible low-income Customer may be required to repay the Security Deposit, and pay a down payment of 10% of the electricity charge arrears accumulated, inclusive of any applicable late payment charges, but excluding other service charges as part of the Payment Agreement.

Where an eligible low-income Customer enters into a Payment Agreement, HOB shall waive any service charges related to collection, Disconnection, non-payment or load control devices, and shall not include such charges in the Payment Agreement only if the eligible low-income Customer is entering into the Payment Agreement for the first time, or after subsequently and successfully completing a previous Payment Agreement as an eligible low-income Customer. HOB shall not impose any late payment charges after such Customers have entered into Payment Agreements for amounts subject to these agreements. Notwithstanding the above, HOB shall not be required to waive any accrued late payment charges up to the Payment Agreement date.

2.7 CUSTOMER INFORMATION

A third party which is not a Retailer may request historical information on Customer electricity use following written authorization from the Customer to provide such information. HOB shall provide sufficiently aggregated information as appropriate for operational purposes, such that an individual's Customer information cannot be reasonably identified at no charge to another Distributor or Transmitter, the ESO or the OEB. HOB may charge a fee approved by the OEB for all other requests for aggregated historical information on Customer electricity use.

Upon request by the Customer, HOB shall provide a list of Retailers with Service Agreements in effect within its distribution Service Area. The list will inform the Customer whether choosing an alternative Retailer is necessary, and will ensure that the Customer receives electricity according to the terms of service available under HOB's Standard Supply Service.



Upon receiving an inquiry from a Customer connected to its Distribution System, HOB shall either respond to the inquiry if it pertains to its own Distribution Services, or provide the Customer with contact information for the entity in question in accordance with Chapter 7 of the Retail Settlement Code.

An embedded Distributor that receives electricity from HOB shall provide load forecasts or any other information related to the embedded Distributor's system load to HOB, as determined and required by HOB. A Distributor will not require any information from another Distributor, except as required for the safe and reliable operation of either Distributor's Distribution System, or to meet Distributor license obligations.

2.8 FORESTRY

To ensure public safety and the continued reliable operation of its distribution system, Hydro One Brampton shall maintain the clearance around its distribution lines on a cyclical or as-needed basis in close cooperation with the City of Brampton's forestry department. The tree trimming cycle may vary depending on the extent of storm damage, the health of trees, and type of vegetation.

HOB shall coordinate and maintain tree clearance around all its distribution lines located on the public allowance, and shall also maintain tree clearance around its overhead lines over 750 Volts that may be located on private property at no cost to the Customer. HOB will endeavor to discuss any planned re-clearing with property owners before any work is performed to mitigate the impact to the environment and property. However, in an Emergency, HOB may be unable to notify the property owner before performing the work.

Customers shall be responsible for all initial tree trimming for all new overhead lines that will be located on private property, and for continued tree trimming and tree and brush removal around dedicated service lines less than 750 Volts located on private property, and around overhead lines over 750 Volts when these lines are owned by the Customer. The Customer shall be responsible for ensuring that only qualified arborists (contractors) work near overhead lines. Hydro One Brampton will provide advice to assist the Customer in meeting the above conditions in the safest manner possible. All clearances shall conform to the Electrical Safety Code.

To permit the safe clearance of trees and vegetation from overhead lines over 750 Volts located on private property, HOB shall disconnect and reconnect the Customer's supply without charge once each year during normal business hours upon at least ten days prior notice from the Customer.

3 CUSTOMER (CLASS) SPECIFIC

When the property requiring Electric Service is supplied by a single metered service with mixed Commercial or Industrial and Residential use, the metered service shall be classified by HOB as a General Service account.

3.1 **RESIDENTIAL**

Combined Services: All services supplied to single-family dwelling units for domestic or household purposes, including seasonal occupancy, shall be classified as Residential Service. This includes, but is not limited to, detached houses or one unit of a semidetached, duplex, triplex or quadraplex house with residential zoning. Separately metered dwellings within a townhouse complex shall also qualify as Residential Service.



For the Point of Demarcation, Standard Allowance and Connection Fees for Residential Service, see Table 5-1.

HOB recommends servicing all new houses in existing residential areas from underground on the Customer's property.

For Residential Service where the revenue meter is located inside the Customer's premises and installed after the main disconnect switch, other connections inside the main disconnect switch are not permitted. Any unauthorized connections found as above shall be removed by the Customer in a timely matter at the Customer's expense. Back billing may be charged to the Customer following the investigation of any unbilled loads.

3.1.1 Overhead Services

3.1.1.1 Minimum Requirements

The following conditions shall apply, in addition to Ontario Electrical Safety Code requirements (latest edition):

- 1) A clevis type insulator supplied and installed by the Customer, where this pointof-attachment device is located:
 - a) Not less than 4.5 metres (15 feet) or more than 5.5 metres (18 feet) above grade;
 - b) Between 150 millimetres and 300 millimetres (6-12 inches) below the top of the service mast;
 - c) Within 914 millimetres (3 feet) of the Building front (i.e., when service is supplied from the street).
- Clearance shall be provided between utility conductors and finished grade at least 6 metres (19 feet) over travelled portions of the road allowance, and 4.5 metres (15 feet) over all other areas. A minimum horizontal clearance of 1.0 metre (3 feet) shall be provided between utility conductors and second storey windows;
- A 4-jaw meter socket from an approved manufacturer shall be provided. Certain areas will require a 5-jaw socket, as determined by HOB. The Customer should contact HOB to confirm details;
- Clear unobstructed access shall be maintained up to and in front of the meter location;
 - a) Service locations requiring access to adjacent properties (i.e., mutual drives, narrow side setbacks, etc.) shall require the completion of easements from the property Owners involved;
 - b) Approved meter base shall be mounted directly below the service mast, such that the midpoint of the meter is 1.73 m (±100 mm) above finished grade within 914 mm of the Building face and in front of any existing or proposed fence, unless otherwise approved by HOB.

3.1.1.2 Electrical Services in Vicinity of Swimming Pools

Any electrical conductors located above a swimming pool or underground in the vicinity of a swimming pool shall meet the minimum clearances, as identified in the Ontario Electrical Safety Code. HOB shall inspect a Customer's application before approval is granted.



When underground electrical circuits are installed in the vicinity of a proposed swimming pool, the Customer shall provide the utility with a site plan that clearly identifies the new swimming pool location. The Customer will have also obtained "locates" for all Electric Services (i.e., high voltage and low voltage), and shall provide this information to HOB.

If the proposed swimming pool location conflicts with any clearances required by the Ontario Electrical Safety Code, the swimming pool shall be relocated to permit the minimum clearances. Alternatively, the Customer may choose to relocate the underground Electric Services. In such cases, the Customer shall be responsible for all costs incurred directly and by HOB for the work. Approval shall be granted by HOB after the minimum clearances have been achieved and verified.

Where any overhead electrical conductors are located over a proposed swimming pool, the Customer shall (if necessary) increase the height of the existing electrical conductors to meet the minimum clearances as per the Ontario Electrical Safety Code. The Customer shall be responsible for all costs incurred directly and by HOB in this work. Approval shall be granted by HOB after the minimum clearances have been achieved and verified.

Customers requesting underground service in an overhead Service Area shall pay all Connection costs for the underground service, less HOB's Standard Allowance for 200 A 120/240 V overhead service.

The Owner shall also pay the cost of any necessary road crossings.

Any trench route on the Customer's property shall be approved by HOB, and follow the route indicated on the underground drawing supplied by HOB. Any deviation from this route shall be approved by HOB. The Customer shall be responsible for HOB's costs associated with re-design and inspection services due to changes or deviations initiated by the Customer (or representative).

The Owner shall ensure that provisions for the service entrance and meter meet with HOB's approval.

The Owner or its contractor shall be responsible for obtaining clearances from all involved utility companies, including HOB, before digging.

The Owner shall be responsible for contacting HOB to inspect each trench and duct structure prior to the installation of HOB's service cables.

The Owner shall provide HOB with unimpeded access to install the electricity service.

3.1.2 Underground Services for Individual Residences

Customers requesting underground service in an overhead Service Area shall pay 100% of the Connection costs for underground service, less HOB's Standard Allowance for 200 A 120/240 V overhead service.

The Owner shall pay the cost of any necessary road crossings.

Any trench route on the Customer's property shall be approved by HOB, and follow the route indicated on the underground drawing supplied by HOB. Any deviation from this route shall be approved by HOB. The Customer shall be responsible for HOB's costs associated with re-design and inspection services due to changes or deviations initiated by the Customer (or representative).

The Owner shall ensure that provisions for the service entrance and meter meet with HOB's approval.

The Owner or its contractor shall be responsible for obtaining clearances from all involved utility companies, including HOB, before digging.


The Owner shall be responsible for contacting HOB to inspect each trench and duct structure prior to the installation of HOB's service cables.

The Owner shall provide HOB with unimpeded access to install the electricity service.

3.1.3 MicroFIT Solar & Micro Generator Installations

Home owners planning to install solar panels or micro generators shall contact HOB's Project Engineering Department prior to commencing work or ordering materials.

3.1.4 Residential Upgrades

Any and all alterations to existing Residential Services shall cause HOB's installation to be upgraded to current standards at the Owner's expense. All HOB-owned equipment shall be relocated to the exterior of the dwelling (see section 3.1).

3.1.5 Addition of Second Residential Account

Where a second metered service for an apartment, etc., is requested, the Owner shall provide a letter from the City of Brampton that verifies the City's approval and the assigned address of the second metered service.

3.2 GENERAL SERVICE (BELOW 50 KW)

3.2.1 Transformer Vaults for HOB Use

It may be necessary for proposed Buildings to incorporate an on-grade Transformer Vault to facilitate the installation of HOB's electrical equipment. HOB shall confirm the required size of the vault, the size and quantity of ducts, configuration of the primary concrete-encased duct structure, and the routing of Secondary Services from the Transformer Vault.

3.2.1.1 **Common**

The Customer shall provide the following to HOB when initially proposing a new project:

- 1) Completed Commercial & Industrial Customer Electrical Service Request Form;
- 2) Proposed service entrance equipment rated capacity (Amperes), in addition to voltage rating and metering requirements;
- 3) Proposed total load details in kVA and/or kW (i.e., both winter and summer);
- 4) Details regarding heating equipment, air conditioners, and generation (i.e., backup or parallel operation);
- 5) Legal survey plan and site plan indicating the proposed location of service entrance equipment with respect to public rights-of-way and lot lines;
- For General Service Class (i.e., 50 kW to 1499 kW, 1500 kW and greater) Customers: Electrical, architectural, site servicing, and/or mechanical drawings, as required by HOB;
- 7) Non-refundable deposit (cheque) to cover internal resource costs during the initial design phase.

The Customer shall construct or install all civil infrastructure that includes, but is not limited to, poles, U/G conduits, cable chambers, cable pull rooms, transformer



room/vault/pad, and switchgear foundations on private property deemed as required by HOB as part of its Connection Assets. All civil infrastructure shall be provided in accordance with HOB's current standards, practices, specifications and these Conditions of Service, subject to HOB inspection and acceptance:

- a) HOB shall be responsible for the maintenance and repair of its Connection Assets, except for the Transformer Vault or pad(s) or any other civil structure that forms part or is part of the Customer's assets;
- b) When effecting changes, the Customer shall maintain sufficient clearances between electrical equipment and Buildings and other permanent structures to meet the requirements of the Ontario Electrical Safety Code, and the Occupational Health & Safety Act and Regulations;
- c) Owner or its contractor shall be responsible for obtaining clearances from all involved utility companies, including Hydro One Brampton, before digging;
- d) HOB shall undertake the necessary programs to maintain and enhance its distribution plant at its own expense. In the event that services or facilities to a Customer must be restored as a result of such HOB construction or maintenance activities, they shall be restored to an equivalent condition;
- e) Project Delays: Penalty charges shall apply when a Customer's actual in-Service Date is delayed more than 180 days following the initial confirmed in-Service Date. A penalty of 1% per month shall be applied to the cost of materials purchased for the project, and to the final project invoice/statement;
- f) Restocking Charges: A 15% restocking charge shall apply to all materials ordered for a project which is no longer required due to changes initiated by the Customer, based on written direction received from the Customer. This includes materials in HOB's inventory or materials on order from a supplier. This restocking charge shall be added to the final project invoice/statement;
- g) Downtown Network Services: Demand load limits for Customers supplied from HOB's network system in Brampton's downtown core shall be determined upon application to HOB's Technical Service Department. Only copper conductors shall be accepted by HOB for services supplied from its network system in Brampton's downtown core.

In addition, HOB shall undertake the necessary construction and electrical work to maintain existing supplies by providing standard overhead or underground supply services to Customers affected by HOB's construction activities. If a Customer requests any special construction in addition to the normal HOB standard installation in accordance with the program, the Customer shall pay the additional cost, including engineering and administration fees.

For Point of Demarcation and Connection Fees for General Service, see Table 5-1, Table 5-2, Table 5-3, Table 5-4, and Table 5-5.

3.2.1.2 Customer Rate Class Eligibility Criteria

Class 2 (Less than 50 kW): All services supplied to premises except those designated as Residential or Municipal Street Lighting shall be classified as General Service less than 50 kW, providing they have a monthly peak Demand of less than 50 kW. Multi-unit



residences, such as apartment Buildings supplied through one service (i.e., bulk metered), shall be normally classified as General Service.

Where service is provided to combined residential and business Customers, or residential and agricultural Customers, whether for seasonal or all-year premises and the wiring does not provide for separate metering, the service shall be normally classified as General Service.

This classification also includes traffic signals and control lighting (except Municipal Street Lighting), sign and display lighting, telephone booths, cable television amplifiers, and other similar small loads supplied throughout HOB's service territory.

Class 3A (Greater Than or Equal to 50 kW, But Less Than or Equal to 699 kW): All services supplying accounts with a monthly average peak greater than or equal to 50 kW or forecast to be greater than or equal to 50 kW, but less than or equal to 699 kW.

Class 3B (Greater Than or Equal to 700 kW, But Less Than or Equal to 4,999 kW): All services supplying accounts with a monthly average peak greater than or equal to 700 kW or forecast to be greater than or equal to 700 kW, but less than or equal to 4,999 kW.

Class 4 (Large User): Customer accounts with a monthly peak Demand or forecasted Demand averaged over 12 consecutive months which is greater than or equal to 5000 kW shall be classified as Large User accounts.

3.2.2 Electrical Requirements (Applicable): Regulatory

For low voltage supply, the Customer's service entrance equipment shall be suitable for accepting conductors installed by HOB. Customer cables shall be brought to a point as determined by HOB for Connection to its supply.

3.2.2.1 Electrical (Utility) Room

When two or more metered services are required, the Owner shall supply and maintain an Electrical (Utility) Room of sufficient size to accommodate the service entrance and meter requirements of tenants, and to provide clear working space in accordance with the Ontario Electrical Safety Code.

To allow for increased load, the Owner shall provide spare wall space so that at least 30% of Customer-supplied through-meter sockets can accommodate meter cabinets at a later date.

The Owner shall identify each Customer's metered service by address and/or unit number in a permanent and legible manner. This identification shall apply to all main switches, breakers, and all meter cabinets or meter-mounting devices that are not immediately adjacent to the switch or breaker. The Electrical (Utility) Room shall be visibly identifiable from the outside. The Customer or landlord shall be responsible for all costs incurred by HOB for sorting and identifying any mislabelled meter bases and disconnect switches. In the event of multiple transformers feeding a facility, the transformer number shall be clearly legible on the associated meter equipment cabinet.

Access doors, panels, slabs and vents shall be kept free from obstructing objects. The Customer shall provide unimpeded and safe access to HOB at all times for the purpose of installing, removing, maintaining, operating or changing the revenue metering and all associated equipment.

Electrical rooms are required when there is more than one metered service, and shall include a door opening to the outside, or 24-hour access if located inside a Building.



The Electrical (Utility) Room entry door shall be constructed of steel to open outward and equipped with a door closer that includes a pull-handle on the exterior, and a push-bar on the interior. The push-bar shall extend across the full width of the door. The Building Owner shall be responsible for purchasing, installing and maintaining a Von Duprin model 22EO Panic Bar, complete with 210NL or 230NL door trim (or HOB-approved equivalent) and a HOB-coded Primus lock cylinder on the Electrical (Utility) Room door(s). Refitted Electrical (Utility) Room doors shall be upgraded to this standard.

The Primus lock cylinder shall be purchased through HOB. Arrangements for purchasing this cylinder and obtaining extra keys shall be coordinated with HOB's Meter Department Supervisor.

The Customer shall be responsible for maintaining the Electrical (Utility) Room door, including its replacement and repair (as required) to keep the Electrical (Utility) Room secure.

The customer shall be also responsible for maintaining a HOB-issued lock on the Electrical (Utility) Room door. All doors originally fitted with HOB-issued locks which have been removed without HOB's authorization shall be replaced by the Customer at the Customer's expense. Door locks shall be purchased through HOB.

Any Electrical (Utility) Room equipped with a second door that leads inside a Building shall be locked (bolted) from inside the Electrical (Utility) Room.

All new Electrical (Utility) Rooms shall be equipped with a fire extinguisher, and provided with an up-to-date Building unit layout plan mounted on the Building's inside wall showing the unit layout, and the Emergency contact names and telephone numbers of property managers and/or maintenance personnel.

All new services in a multiple unit Building shall have unit numbers clearly identified on the tenant entry doors and switches located inside the units. Access to the main switch inside each unit is required for verifying the connections before the meter is installed.

For service upgrades of existing tenant Electric Services, HOB requires all meter bases to be identified with the correct unit number(s), and any existing meter base(s) with the same unit numbers from previous metering installations to be changed to reflect the new layout. The Building Owner shall be responsible for informing HOB about any metered services not required during upgrades so they can be removed.

The Customer shall grant HOB permission to operate the Customer's main disconnect switch for the purpose of meter re-verification and maintenance. The Customer shall continue to be liable for the integrity and replacement of the disconnect switch, should the switch fail or fault while HOB is performing the work described above.

Any free-standing Building housing a financial institution shall not incorporate a common Electrical (Utility) Room.

Electrical (Utility) rooms installed either on or below grade shall be provided with a drain which includes a "P" trap, complete with a non-mechanical priming device and a one-way back-water valve connected to the sanitary sewer.

Below grade or interior Electrical (Utility) Rooms shall require the installation of 1/2 inch PVC conduit from the Electrical (Utility) Room to a location outside the Building which is eight feet above grade for installing a radio repeater for meter reading purposes.

HOB recommends that the Building design should exclude the entry of Electric Service into a below-grade Electrical (Utility) Room. If this is not possible, the Customer shall be responsible for sealing the underground ducts at both ends of the secondary (or primary) duct structure.



The Electrical (Utility) Room shall not be used for storage or for containing any equipment which is foreign to the electrical installation and within the area designated as a safe working space. All stairways leading to Electrical (Utility) Rooms above or below grade shall be located indoors with a handrail provided on at least one side, as per the Ontario Building Code. Ladders and steep stairways are not permitted.

The Electrical (Utility) Room shall be provided with a clear minimum ceiling height of 2.2 metres and adequate lighting in accordance with Illuminating Engineering Society (IES) standards, including a switch provided at the entrance to the room, and a 120 V convenience outlet. The above lighting and convenience outlet, and any required vault circuit shall be supplied from a clearly identified panel located in the Electrical (Utility) Room.

Electrical (Utility) Room doors that open onto driveways shall be protected by bollards.

Any deficiencies in Electrical (Utility) Rooms shall be rectified before any meters are installed.

3.2.3 Underground Service Requirements

The Customer shall construct or install all civil infrastructure that includes, but is not limited to, poles, underground conduit, cable chambers, cable pull rooms, and Transformer Vaults/pads, on private property that is considered required by HOB as part of its Connection Assets. All civil infrastructure shall be provided in accordance with HOB's current standards, practices, specifications and these Conditions of Service, subject to HOB inspection/acceptance.

The Customer shall be responsible for maintaining all of its structural and mechanical facilities on private property in a safe condition, which is satisfactory to HOB.

The trench route and any deviation from this route shall be approved by HOB. The Customer shall be responsible for HOB's costs associated with re-design and inspection services due to changes or deviations initiated by the Customer (or representative) or any other body with jurisdiction.

The Owner or its contractor shall be responsible for obtaining clearances from all involved utility companies, including the local distribution company, before digging.

The Owner shall be responsible for contacting HOB within two full business days prior to any planned installation of primary concrete-encased duct structures, or any other civil facilities that will house HOB's plant. HOB shall observe and inspect this construction.

3.2.4 Temporary Services

A Temporary Service is a metered service provided for construction purposes or special events. Temporary Services can be supplied either overhead (O/H) or underground (U/G). The Customer shall be responsible for all costs associated with the installation and removal of equipment required for a Temporary Service to HOB's Point of Supply. Following a two-year period from the date of Connection, a Temporary Service shall be considered as permanent and final-billed as such. Any subsequent Disconnection charges shall be treated as a separate project.

Temporary Services shall not be connected to any transformer that is dedicated for use by traffic lights.

Where meter bases are required, they shall be approved by HOB and securely mounted on minimum 152 mm diameter poles or an alternative approved by HOB, such that the meter midpoint is 1.73 m (±100 mm) above the finished grade.



In the case of temporary overhead services, the Customer shall provide an additional 760 mm of cable at the masthead for Connection purposes.

In the case of temporary underground services, the Customer's cable shall extend to HOB's Point of Supply.

3.2.5 Reference Guides & Standards for Commercial & Industrial Contribution

For a complete listing of construction standards and typical standard drawings, refer to Appendix 4B (see section 5.2).

3.3 GENERAL SERVICE (ABOVE 50 KW)

All non-residential Customers with an average peak Demand between 50 kW and 1499 kW over the past twelve months shall be classified as General Service above 50 kW. For new Customers with no prior billing history, the peak Demand may be based on 90% of the proposed capacity or installed transformer.

Telecommunications and communications type services constructed inside a fenced enclosure shall include a lockable walk-through gate for use by HOB to access and read meters, and to perform necessary maintenance.

3.3.1 New Residential Subdivisions or Multi-Unit Developments

New Residential Subdivisions or Multi-Unit Developments that include the construction of new city streets and roadways are treated as Non-Residential Class Customers that require Capital Contribution for "Expansion" work, in addition to any applicable Connection Charges. Should the economic evaluation identify a shortfall for the Expansion, the Developer may choose to either complete the portion of the plant not yet connected to HOB's system, or have HOB complete this work in accordance with Section 3.3 of the Distribution System Code, titled "Alternate Bids". The Customer shall not be permitted to complete any construction work on HOB's existing Distribution System.

New residential subdivisions or multi-unit complexes that do not include any new city streets and roadways, but only private property, shall follow the general terms and conditions for Connection charges and Capital Contribution for appropriate General Class Customers.

In all cases, the full Electric Service shall be constructed according to HOB's standards and in compliance with the Ontario Electrical Safety Code, applicable laws, Regulations and Codes. The Developer shall enter into a Supply Agreement with HOB and to pay deposits to HOB for ordering equipment, and for associated design and construction work to install the proposed underground electrical Distribution System. Such (an) amount(s) shall be paid concurrently with the signing of the Supply Agreement.

In case of any conflicts between the Supply Agreement and the terms contained herein, the Supply Agreement shall be binding. All design work, including service locations and trench routes, shall be approved by HOB. For the conditions found at <u>www.hydroonebrampton.com</u>, refer to the sample agreement provided in Appendix 2B (see section 5.2).



3.3.2 General Service (50 kW to 1499 kW)

3.3.2.1 Electrical Requirements

Only one Customer-owned secondary supply shall be permitted for each legally severed lot. Sites requiring service to multiple Buildings shall feed such Buildings from a single common Electrical (Utility) Room as Subservices, and these Subservices shall be metered from the load side of the main disconnect switch according to HOB's specifications.

Where the size of the Customer's Electric Service warrants, the Customer shall provide facilities on the property, and an easement on the premises to be served (as required) which is acceptable to HOB for housing the necessary transformer(s) and/or switching equipment. HOB will provide planning details upon application for Electric Service.

HOB shall supply, install and maintain the electrical equipment within the Transformer Vault or pad, as outlined in section 2.3.4.2.

HOB shall not be responsible for damages resulting from the incorrect identification of any services or equipment.

3.3.2.2 Electrical (Utility) Room

For Electrical (Utility) Room details, see section 3.2.2.1.

3.3.3 Technical Information

Where project drawings are required by HOB for the approval of items under its jurisdiction, the Customer (or representative) shall ensure that proposal drawings are provided in full compliance with HOB's standards. Approval of project drawings by HOB shall not relieve the Customer of its responsibility for full compliance with HOB's standards. In all cases, one copy of all relevant drawings shall be submitted to HOB. Where the Customer requires an approved copy to be returned, two copies of all drawings shall be submitted.

Before HOB prepares for designing a service, the Customer shall provide the following information, including a completed HOB Electrical Demand Load Information Form (or Load Guarantee Form) that identifies the Customer's approximate required date for Electric Service. Hard copies of documents shall be printed from electronic files, and electronic copies shall be submitted on CD/DVD disk or other standard electronic media.

3.3.3.1 Architectural Site & Grading Plans

The lot number, plan numbers and street number shall be indicated, when available. The site plan shall show the Building's location on the property relative to the property lines, any driveways and parking areas, and the distance to the nearest intersection. All elevations shall be shown for all structures and proposed installations. All details regarding land use shall be provided. This site plan drawing shall indicate all utility poles along the street(s) facing the project.

3.3.3.2 Site Services Plan

The locations of all services proposed and/or existing on the property, such as water, natural gas, storm and sanitary sewers, telephone, etc., shall be shown.



3.3.3.3 Landscaping Site Plan

One copy of the Landscaping Site Plan shall be provided for the property that shows the planned installation in the vicinity of HOB's plant or easements.

3.3.3.4 Electrical Site Plan

The preferred locations of the Electrical (Utility) Room, transformer (or vault), and preferred routing of the primary concrete-encased Duct Bank on the property shall be indicated.

3.3.3.5 Single Line Diagram

The Main Service entrance and switch capacity, required Supply Voltage, and the number and capacity of all Sub-services showing provisions for metering facilities shall be shown, including the connected load breakdown for lighting, heating, ventilation, air conditioning, etc. Sufficient information shall be provided for protection equipment, where coordination is required between HOB and Customer-owned equipment.

3.3.3.6 Secondary Switchboard

Three copies of any service entrance (switchboard) to be installed for HOB's approval shall be submitted, including any interlocking arrangement (if required).

3.3.4 Technical Considerations

3.3.4.1 **Protective Equipment: Short-Circuit Ratings**

- 44,000 V Supply: Customer's protective equipment shall have a three-phase, short-circuit rating of 1500 MVA symmetrical, or 32,000 A asymmetrical;
- 16,000/27,600 V Supply: Customer's protective equipment shall have a threephase, short-circuit rating of 800 MVA symmetrical, or 26,000 A asymmetrical (1.6 factor used);
- 13,800 V Supply: Customer's protective equipment shall have a three-phase, short-circuit rating of 330 MVA symmetrical, or 25,000 A asymmetrical;
- 8,320 V Supply: Customer's protective equipment shall have a three-phase, short-circuit rating of 270 MVA symmetrical, or 25,000 A asymmetrical;
- 600/347 V Supply: Customer's protective equipment shall be capable of interrupting a fault current, as defined in HOB standard drawing #25-40, which is available from the HOB website at <u>www.HydroOneBrampton.com</u>;
- 208/120 V Supply: Customer's protective equipment shall be capable of interrupting a fault current, as defined in HOB standard drawing #25-40, which is available from the HOB website at <u>www.HydroOneBrampton.com</u>.

3.3.4.2 **Primary Fusing**

All equipment connected to HOB's Distribution System shall meet the short-circuit ratings specified in section 3.3.4.1. The Customer and/or its consultant shall specify the fuse link rating and demonstrate coordination with HOB's upstream protection, including station breakers and/or distribution fuses. The Customer shall also submit a coordination study to HOB for verification to ensure proper coordination with upstream protection, including station breakers and/or distribution fuses. The Customer shall maintain an adequate supply of spare fuses.



3.3.4.3 Ground Fault Protection

Where ground fault protection is required in compliance with the Ontario Electrical Safety Code, the method and equipment used shall be compatible with HOB's practice of grounding the transformer neutral terminals in vaults. Zero sequence sensing will normally apply.

Where ground strap sensing is used, the ground sensing devices shall operate at 600 A if transformer and switchboard buses are not bonded, and 400 A if the buses are bonded.

Ground fault protection proposals for dual secondary supply arrangements shall be submitted to HOB for approval before construction of the switchboard.

3.3.4.4 Lightning Arresters

Customer installations that are directly supplied from HOB's primary underground system may not be protected by lightning arresters. If the Customer wishes to install lightning arresters, they shall be located on the load side of the first protective devices. For Customer installations supplied from HOB's primary overhead system, HOB may install lightning arresters at the pole, and the Customer may install lightning arresters at the switchgear on the load side of the incoming disconnect device. The proposed diagram shall indicate the presence of such devices in the switchgear.

3.3.4.5 Basic Impulse Level

The Customer's apparatus shall provide a minimum Basic Impulse Level (BIL) in accordance with the following:

- a) 2,400/4,160 Supply Voltage: 75 kV BIL;
- b) 4,800/8,320 Supply Voltage: 95 kV BIL;
- c) 8,000/13,800 Supply Voltage: 95 kV BIL;
- d) 16,000/27,600 Supply Voltage: 150 kV BIL;
- e) 44,000 Supply Voltage: 250 kV BIL.

3.3.4.6 Unbalanced Loads

For three-phase service, the unbalance due to single-phase loads shall not exceed 20% of the Customer's balanced phase loading expressed in kilowatts (kW).

3.4 GENERAL SERVICE (ABOVE 1500 kW): CUSTOMER-OWNED SUBSTATIONS

All Customers requiring Electric Service with an anticipated average peak Demand of 1500 kW or greater shall be classified as Customers over 1500 kW. The Customer shall consult with HOB to confirm the primary voltage supply.

3.4.1 Initial Installation or Upgrade/Replacement

All Customer-owned transformers in a Customer-owned substation supplied with primary voltage at 27.6 kV or 44 kV shall have a Delta-connected primary and Wye-grounded secondary winding configuration:

• HOB's Technical Services Department shall issue a copy of its Protective Equipment Specifications at the time of confirming the characteristics of electrical





supply. The Customer shall be responsible for ensuring that primary fusing protects its high-voltage equipment and transformers;

- All Customer-owned transformers shall be metered at the secondary voltage, unless the Customer's proposed transformer losses exceed the limits prescribed by Canadian Standards Association Specification C802, including subsequent revisions. For transformer sizes not covered by C802, losses shall be as outlined in HOB standards #19-15, #19-16 and #19-17 (available from the HOB website at www.HydroOneBrampton.com);
- Upgrade/Replacement Installation: Consult with HOB's Technical Services Department prior to installation. HOB requirements (i.e., winding losses, preservice, required drawings, etc.) shall apply equally to an upgrade/replacement transformer application;
- HOB requires that prior to energizing a Customer-owned substation, the substation shall pass a pre-service inspection by a qualified contractor approved by HOB and independent of the installing contractor. All results of such testing shall be presented to HOB's Technical Services Department at least one week prior to the expected date of energization. The Customer shall be responsible for all costs incurred during such testing. A copy of the required checklist is available from HOB upon request;
- HOB shall have Operating Control of the Customer-owned LIS, and switch operation shall be performed by HOB in radio communication with its control room;
- HOB shall lock all station access gates (if applicable).

HOB recommends that Customer transformers provide voltage taps in their primary windings, as shown in Table 5-7. Although transformers not listed in this table may also be suitable, they shall not be connected without written approval from HOB.

Customer-owned substations shall be inspected by both the Electrical Safety Authority and HOB. The Owner shall provide a pre-service inspection report to HOB. A contractor acceptable to HOB shall prepare a certified report for submission to HOB.

To facilitate and encourage the maintenance of Customer-owned equipment, HOB shall provide the Customer with one no-charge power interruption annually as a service to be scheduled during normal working hours (i.e., Monday to Friday), but will not necessarily be guaranteed. Customers shall be charged by HOB for arranging power interruptions at different times than indicated above.

3.4.2 Customer-Owned Substation with Customer-Owned 44 kV Transformer

Three copies of each substation drawing and transformer nameplate data shall be submitted to HOB's Technical Services Department for approval prior to ordering materials. These copies are required in addition to drawings submitted to the Electrical Safety Authority Inspection Department.

Protective equipment specifications follow.

3.4.2.1 Primary LIS

A 46 kV, 600 A, 250 BIL, 3 pole, double break outdoor type station structure-mounted load breaking switch equipped with an operating mechanism and operating handle shall be mounted at the bottom of the structure. The switch shall include provision for locking.



3.4.2.2 Fuses

The Customer and Electrical Safety Authority shall together determine the fuse ratings and specifications. Three spare fuses shall be maintained by the Customer at its location. The Customer shall advise HOB regarding the specifications of installed fuses.

3.4.2.3 Lightning Arresters

Lightning arresters shall be 39 MCOV (minimum 48 kV duty) and rated as intermediate class, with a housing consisting of non-fragmenting polymer material. These lightning arresters shall be mounted on the transformer and if not possible, on the load side of the Customer-owned primary fuses.

3.4.2.4 Maintenance

Maintenance of the transformer and associated primary protective equipment shall be the Customer's responsibility. However, access to this equipment and enclosure shall be provided to HOB. HOB shall install one of its locks on the enclosure gate.

The Customer shall also be responsible for the station installation of transformer primary leads, and transformer grounding. HOB shall connect the conductor ends to the transformer.

3.4.3 Customer-Owned Substation (U/G) with Customer-Owned 27.6 kV Transformer

Three copies of each substation drawing and transformer nameplate data shall be submitted to HOB's Technical Services Department for approval prior to ordering materials. These copies are required in addition to drawings submitted to the Electrical Safety Authority Inspection Department.

Protective equipment specifications follow.

3.4.3.1 Primary LIS

A 46 kV, 600 A, 250 BIL, 3 pole, double break outdoor type station structure-mounted load breaking switch equipped with an operating mechanism and operating handle shall be mounted at the bottom of the structure. The switch shall include provision for locking.

3.4.3.2 **Fuses**

The Customer and Electrical Safety Authority shall together determine the fuse ratings and specifications. Three spare fuses shall be maintained by the Customer at its location. The Customer shall advise HOB regarding the specifications of installed fuses.

3.4.3.3 Lightning Arresters

Lightning arresters shall be 17 kV MCOV (minimum 21 kV duty) rated intermediate class, with a housing consist of non-fragmenting polymer material. These lightning arresters shall be mounted on the load side of Customer-owned primary fuses.

3.4.3.4 Maintenance

Maintenance of the transformer and associated high voltage primary switchgear shall be the Customer's responsibility. However, access to this equipment and enclosure shall be provided to HOB.



3.4.3.5 General

The Customer-owned transformer shall be directly connected to a 34.5 kV high-voltage metal-clad primary switchgear.

Service Entrance Equipment: The Customer's Primary Service and Secondary Service entrance equipment shall be constructed according to the Ontario Electrical Safety Code.

3.4.4 Electrical Requirements

For electrical requirements, see section 0.

3.4.5 Technical Information & Considerations

The same information and considerations shall apply, as with other General Service Customers. For applicable requirements, see section 3.3.3 and section 3.3.4.

3.5 EMBEDDED GENERATION

3.5.1 Introduction

HOB Customers may choose to supply some or all of their electrical Energy needs by installing an on-site, Customer-owned generation facility. HOB shall provide Generators with non-discriminatory access to its Distribution System, and make every effort to respond promptly to a Generator's request for Connection. For the purposes of this document, a Generator requesting Connection to HOB's Distribution System shall be referred to as an "embedded Generator". Embedded Generators may either be net metered installations, or installations with parallel metering. Unlike net metered Generators, those Generators with parallel metering shall require a valid contract with the Ontario Power Authority before Connection can be facilitated. However, all other requirements for both types of embedded Generators are applicable, as described in these Conditions of Service.

The following outlines the typical technical requirements and procedural activities required by a prospective embedded Generator of 10 MW or less for connecting to HOB's electrical Distribution System to ensure safe and reliable Distribution System operations. Generation facilities of 10 MW or higher shall be reviewed on a case-by-case basis, because the Connection of such facilities is more difficult, resulting in significantly higher costs. This will also ensure compliance with Section 6.2 of the OEB's Distribution System Code, and Section 84 of the Ontario Electrical Safety Code by both HOB and embedded Generators. The Distribution System Code is available from the OEB website at <u>www.oeb.gov.on.ca</u>. The embedded Generator may also need to meet additional requirements of the Independent Electricity System Operator (IESO) and Hydro One Networks Inc.

An embedded Generator facility rated at 10 MW or higher shall require IESO review and approval to determine whether the facility will impact the bulk Transmission System, and whether additional Reactive Power compensation will be required. Such a facility shall meet the applicable IESO Performance Standards identified in Chapter 4 of the "Market Rules for the Ontario Electricity Market". These rules are available from the IESO website at <u>www.IESO.com</u>.

The Ontario Energy Board has defined four embedded generation classifications, as provided in Appendix F of the Distribution System Code (revised 13 June 2013) (see Table 3-1).



Generator Classification	Rating
Micro	≤10 kW
Small	≤500 kW connected on Distribution System voltage <15 kV
	≤1 MW connected on Distribution System voltage ≥15 kV
Mid-Sized	≤10 MW but >500 kW connected on Distribution System voltage <15 kV
	>1 MW but ≤10 MW connected on Distribution System voltage ≥15 kV
Large	>10 MW

Table 3-1, EOB-Defined Embedded Generation Classifications

3.5.2 Renewable Energy Generators: MicroFIT & FIT

In 2009, the Province of Ontario directed the Ontario Energy Board to promote the use of Green Energy Generation options, and has enacted *Bill 150, The Green Energy Act 2009.* The Act is intended to encourage the installation of privately-owned Renewable Energy Generation facilities. At the present time, the Ontario Power Authority (OPA) is encouraging Renewable Energy Generation through its Feed-in-Tariff (FIT) program and MicroFIT program. HOB is committed to supporting Renewable Energy Generation. Both FIT and MicroFIT Generators are considered as embedded Generators.

Additional current information about these programs is available from the OPA website at <u>www.powerauthority.on.ca</u>, or the HOB website at <u>www.hydroonebrampton.com</u>.

Process for MicroFIT or Micro-Embedded Generation Connection: HOB shall respond to a proposal for a MicroFIT or Micro-embedded generation facility as follows, according to Section 6.2.6 of the Distribution System Code:

- For a proposed micro-embedded generation facility located at an existing Customer Connection where a site connection and site assessment is not required, HOB shall make an "Offer to Connect" within 15 days of receiving the application, or provide reasons for refusing to connect the proposed generation facility;
- 2) For a proposed micro-embedded generation facility located at an existing Customer Connection where a site assessment is required, HOB shall make an "Offer to Connect" within 30 days of receiving the application, or provide reasons for refusing to connect the proposed generation facility. A Connection deposit shall be required for an "Offer to Connect" that requires a site visit;
- 3) For a proposed micro-embedded generation facility located other than an existing Customer Connection, the Distributor shall make an "Offer to Connect" within 60 days of receiving the application, or provide reasons for refusing to connect the proposed generation facility.

For details regarding small embedded generation facilities or FIT generation facilities, refer to Section 6.2.8 of the Distribution System Code, and consult the Ontario Power Authority website for updated rules related to the program.

Regardless of classification, the generation proponent shall contact HOB at <u>FITMicroFIT@hydroonebrampton.com</u> (or 1-905-452-5534 or 1-905-452-5685) to initiate the approval and Connection process. Alternatively, a proponent can visit the HOB website at <u>www.hydroonebrampton.com</u> to obtain more information on the FIT and MicroFIT programs, including the following relevant application forms:

- MicroFIT:
 - Form E: Pre-MicroFIT Consultation Application;
 - Form C: Micro Generation Connection Application;
 - Form D: MicroFIT Generation Facility Connection Agreement;



- Photovoltaic Cell Array Description.
- FIT:
 - Form A: Pre-FIT Consultation Application;
 - Form B: Connection Impact Assessment (CIA) Application;
 - o CIA Study Agreement;
 - Photovoltaic Cell Array Description.

For a Sample Connection (Operating) Agreement (i.e., small FIT project), refer to Appendix 3B (see section 5.2).

Process for FIT Generation Connection: HOB shall respond to a proposal for a FIT generation facility as follows, according to Section 6.2.6 of the Distribution System Code:

- OPA recommends the proponent to submit a Pre-FIT Consultation Application Form (Form A) to HOB to verify capacity availability and provide details on the feeder number, feeder voltage, transformer station name, and transformer station bus;
- 2) Proponent shall submit an application to the OPA for evaluation in alignment with the most recent program rules. If successful, a contract will be awarded;
- Proponent with awarded OPA contract shall complete and submit Form B to HOB together with all required supporting documentation and payments, as detailed on HOB's website for conducting a Connection Impact Assessment (CIA) study;
- 4) "Offer to Connect" with estimated Connection cost shall be submitted to the proponent with the completed CIA study;
- 5) Proponent shall submit the CIA Study to the OPA, which in turn, shall issue a Notification to Proceed;
- Proponent shall construct the FIT generation facility after receiving the OPA's Notification to Proceed in alignment with HOB's most recent standard requirement for Renewable Energy Generation facilities, and the Ontario Electrical Safety Code;
- Proponent shall obtain the necessary Electrical Safety Authority approvals for the installation before HOB disconnects, reconnects and installs the Renewable Energy Generation (REG) meter;
- 8) HOB shall require a signed Connection Agreement with the proponent, and shall witness the necessary testing and commissioning procedures for the installation before final approvals are granted.

Process for MicroFIT Generation Connection: HOB shall respond to a proposal for a MicroFIT generation facility as follows, according to Section 6.2.6 of the Distribution System Code:

- OPA recommends the proponent to submit a Pre-MicroFIT Consultation Application Form (Form E) to HOB to verify capacity availability and provide details on the feeder number, feeder voltage, transformer station name, and transformer station bus;
- 2) HOB shall issue a conditional "Offer to Connect" according to Form E upon confirmation of capacity;
- 3) Proponent shall submit an application to the OPA for evaluation in alignment with the most recent program rules. If successful, a contract will be awarded;



- Proponent with an OPA contract shall complete and submit Form C to HOB together with all required supporting documentation and payments, as detailed on HOB's website;
- 5) Proponent shall construct the generation facility and obtain all necessary ESA approvals and permits before HOB disconnects, reconnects and installs the Renewable Energy Generation (REG) meter.

3.5.3 HOB Distribution System

Hydro One Networks Inc. (HONI) owns the high-voltage Transmission System, and four of the five transformer station facilities located in Brampton that supply power to HOB at 44.0 kV and 27.6/16 kV levels that HOB distributes, in turn, to various Customers throughout its electrical Distribution System. HOB owns and operates the fourth transformer station in Brampton. Due to this arrangement, an embedded Generator shall also comply with HONI requirements for Connection, because the embedded Generator can seriously impact HONI's system under fault conditions.

It is assumed that the embedded generating facility will be designed, constructed, owned and operated by a party independent of HOB. All embedded Generator interconnection arrangements shall be acceptable and approved by HOB, and for some specific relay protections shall also be approved by HONI.

3.5.4 HOB Utility Practices

3.5.4.1 Mid-Size & Large Embedded Generators

The major components of a utility Connection for an embedded generation facility with a nameplate rating in excess of 500 kW include a circuit breaker (switcher) for fault current interruption, a transformer for matching the generator and utility system voltages, a connecting line to utility facilities, and a fully-integrated HOB SCADA system for monitoring power quality, breaker/switch positions, generator operating condition, any other parameter that HOB may deem relevant, and for control purposes. Metering and protective relaying facilities are also necessary for both the embedded Generator and HOB operations. HOB shall have local and remote Operating Control of the circuit breaker (switcher) at the demarcation point between the embedded Generator and HOB's Distribution System.

Protection systems are required at the generation facility, and shall be capable of automatically isolating the embedded Generator from HOB's Distribution System. The embedded Generator should provide protection systems to cover the following conditions:

- Internal faults within the embedded Generator;
- External faults (i.e., faults within HOB's system to which the embedded Generator is connected);
- Certain abnormal system conditions that could result in embedded Generator islanding (e.g., conditions where the embedded Generator becomes separated from the HOB system, together with some load).

These Conditions of Service outline Connection and protection requirements that serve the following purposes:

• Considering the health and safety of the general public, and HOB employees in the performance of their duties;



- Preserving the security and reliability of HOB's distribution and HONI transmission systems;
- Preserving the acceptable quality of electrical supply to other HOB Customers;
- Ensuring HOB's operating flexibility during normal or Emergency conditions.

Once a prospective embedded Generator decides to proceed with the installation of a generation facility, it shall be responsible for reimbursing the cost as reasonably incurred by HOB in making an "Offer to Connect" a Generator. Costs that could be reasonably incurred by HOB include those associated with:

- Preliminary review for meeting Connection requirements;
- Detailed study to determine Connection requirements;
- Final proposal to connect the Generator.

This guideline is provided for one embedded Generator connected to a HOB distribution feeder. If a second embedded Generator will be connected to the same feeder, then consideration for total generation versus maximum feeder load shall be made, and the equipment protection package designed accordingly. If additional equipment protection is required for the embedded Generator already connected to the feeder, the second embedded Generator may be responsible for modification costs.

An embedded Generator shall comply with all of Section 5.2 of the Distribution System Code regarding metering requirements for a generating facility. For an OEB-licensed Generator connected to HOB's system that sells Energy and settles through HOB's settlement process, the embedded Generator shall install a Four-Quadrant Interval Meter. HOB shall meter Customers with generation that do not require an OEB license, such as back-up capability or generation for load displacement in the same manner as other HOB load Customers.

An embedded Generator that wishes to be connected to HOB's Distribution System shall enter into a Connection (Operating) Agreement with HOB that will contain specific terms and conditions relating to Connection, operation, maintenance and communication requirements of both the Generator and HOB.

3.5.4.2 Small Embedded Generators

Small embedded Generators greater than 10 kW, but less than and including 500 kW, shall meet the same requirements as Generators discussed in section 3.5.4, in addition to the following clarifications:

- No mandatory requirements exist for installing circuit breaker protection, and fuse protection is permitted;
- All Generators shall install an automated disconnect switch within the demarcation point to be integrated with HOB's SCADA system;
- Generators rated 250 kW and greater shall install a power quality monitor with the capability for remote monitoring;
- Remote status monitoring of all switches (i.e., manual and automated) is mandatory.

All aspects regarding cost, justification and the Connection (Operating) Agreement as described in section 3.5.4 shall apply to small embedded Generators.



3.5.5 Small, Mid-Size & Large Embedded Generator Interconnection: Requirements & Procedure

Because Connection costs shall be paid by the generating facility (as outlined in the OPA FIT program), most applicants will need to determine the demarcation point and expected costs before committing to a project. This information can only be provided following a preliminary review conducted by HOB and HONI.

The preliminary review shall include a verification of the voltage and power ratings of the embedded Generator's installation to confirm whether they are compatible with HOB's Distribution System. Also assessed will be the impact of the proposed Connection on reliability, power quality, equipment and personnel safety, and the Generator's contribution to HOB's distribution system. Following the preliminary review, if the embedded Generator installation will be pursued further, a more detailed analysis in addition to specifications and information shall be provided to HOB by the embedded Generator.

Listed below are the recommended steps to be taken by an embedded Generator for connecting to HOB's electrical Distribution System.

3.5.5.1 Initial Contact & Embedded Generator Interconnection Application

- Contact HOB to identify an interest in connecting a Generator to HOB's electrical Distribution System, and to obtain a copy of HOB's Conditions of Service, and its Embedded Generator Connection Review Form (i.e., Form A or Form B);
- 2) Provide HOB with a written request for Connection, including two copies of preliminary technical information describing the proposed embedded Generator facility. As a minimum, this would include the following information as pertaining to the Connection:
 - a) Site location, including a scaled map referencing the site with respect to existing lot lines, easements, road allowances and power lines that identify the facility location;
 - b) Completed copy of the Embedded Generator Connection Review Form (i.e., Form B);
 - c) Brief description of the proposed plant design and operating characteristics, including expected monthly peak power and net Energy production for each month of the year. If the embedded Generator intends to purchase power from HOB to supplement its embedded Generator production and meet its total plant load Demand, a monthly estimate of this expected purchase should also be provided;
 - d) Short-term and long-term site development plans, installation schedule, and the preferred demarcation point to HOB's Distribution System;
 - Preliminary single-line diagram showing the generator(s), transformer(s), grounding arrangements and main isolating devices, one of which shall be external to the facility and available to HOB at all times. This switch shall be clearly labeled DG1;
 - f) Type and rating of main isolating device, generator(s), transformer(s), and nameplate data if available;
 - g) Proposed preliminary relay protection schemes;
 - h) Proposed revenue-metering equipment (i.e., Four-Quadrant Interval Meter).



After receiving the required information, HOB will begin its analysis by conducting a preliminary review of the embedded Generator's Connection requirements.

3.5.5.2 Preliminary Review for Connection Requirements: Customer Request

- 1) Applicant shall be responsible for reimbursing HOB for all costs incurred in completing the preliminary review;
- 2) HOB shall review the preliminary information, including all supporting documentation. If insufficient information has been provided, HOB shall advise the embedded Generator of its requirements and place the review on hold until sufficient data is provided. In general, HOB's preliminary review will be conducted as follows:
 - a) Determine the acceptability of the proposed location and voltage level for Connection to HOB's Distribution System;
 - b) Determine the embedded Generator's plant capacity limitations with respect to the proposed Connection;
 - c) Confirm that voltage and power ratings of the embedded Generator's installation are compatible with HOB's distribution feeder. Where a mismatch between HOB's feeder and the embedded Generator's capacity ratings is identified, the feeder shall require upgrading. To determine this compatibility, the completed checks shall include feeder current rating, surge impedance loading, voltage regulation, reliability, power quality, and safety considerations;
 - d) Depending on the total generation proposed for Connection to HOB's distribution feeder and the minimum feeder load, remote trip protection facilities may be required between the transformer station (i.e., HONI or HOB supply) and the embedded Generator. HOB and HONI shall determine if such protection facilities are necessary;
 - e) Size and configuration of the generator and embedded Generator's transformer shall determine the requirements for feeder protection and/or modification at the HONI or HOB transformer station. This information will also help to determine any specific Connection and equipment requirements (e.g., requirement for a remote trip protection scheme).
- HOB shall consult with HONI regarding any possible relay protection modifications or additions;
- HOB shall provide the applicant with a written response within 30 calendar days of starting its preliminary review for the requested Connection, including a preliminary cost estimate for connecting the Generator to HOB's Distribution System;
- 5) Prospective embedded Generator shall confirm its acceptance of the preliminary review in writing to HOB, and provide HOB with a completed Connection Assessment Form (i.e., Form B) for proceeding with a detailed review. The prospective embedded Generator shall also commit to reimbursing HOB for reasonable costs incurred while completing its detailed review, as defined in the OPA FIT program. For large Generator projects, HOB shall request a Connection Impact Assessment (CIA) from the IESO. The Customer shall be responsible for costs incurred by HOB, HONI, and the IESO during the detailed review.



3.5.5.3 Connection Impact Assessment: Detailed Study to Determine Connection Requirements

HOB shall conduct a Connection Impact Assessment (CIA) for any embedded generation facility with a nameplate rated capacity greater than 10 kW to assess the impact of connecting the proposed facility to HOB's Distribution System, and where connection is feasible to specify the Connection requirements using an "Offer to Connect" that also includes a cost estimate. Generators are reminded that for projects subject to the Ontario Power Authority Program Rules for Renewable Energy Generation, a valid OPA contract is recommended before commencing the CIA study. The embedded Generator shall also submit the following to HOB before the CIA study can proceed:

- Completed Form B: Connection Impact Assessment (CIA) Application, signed and stamped by a Professional Engineer registered with the Professional Engineers of Ontario (PEO);
- Full deposit (i.e., cheque or money order) payable to HOB Networks Inc. (HOB);
- Signed CIA Study Agreement;
- Single line diagram signed and stamped by a Professional Engineer registered with the PEO.

HOB shall provide the embedded Generator with an "Offer to Connect", where feasible, within 60 calendar days of starting the detailed review, unless other necessary information outside of HOB's control is required before an offer can be made. The embedded Generator should also note the following:

- 1) HOB, in association with HONI, shall review the detailed electrical package to determine the acceptability of the interface design as it affects HOB and HONI systems, and to provide written comments to the embedded Generator;
- Embedded Generator should not begin the procurement of electrical equipment until HOB, the Electrical Safety Authority and HONI (through HOB) have provided written notification regarding the acceptability of the embedded Generator's interface design;
- 3) After the embedded Generator has agreed to proceed with construction of the generating facility, it shall enter into various agreements with HOB;
- In the case of Renewable Energy Generation (REG) projects, the Generator is responsible for obtaining a Notification to Proceed from the OPA before commencing construction.

Note: HOB shall not provide any consulting services to an embedded Generator, and will only evaluate the proposed generating facility with respect to how it may impact its Distribution System.

3.5.5.4 Agreements

Before a small, mid-size or large Generator installation can begin operation, the prospective embedded Generator (Owner) shall enter into various agreements with HOB that will clearly define the obligations and privileges of each party. The embedded Generator may be required to enter into all or some of the following agreements:

• **Construction Agreement:** This agreement between the embedded Generator and HOB shall detail the Connection requirements and cost recovery terms, and include a provision for the embedded Generator to reimburse HOB for any and all costs associated with Expansions and/or Enhancements of its Distribution





System and/or the HONI Transmission System that may be necessary to accommodate the embedded Generator's operation;

- **Construction Agreement (HONI):** In the event that HONI's transmission or Distribution System requires modifications to connect the embedded Generator, this agreement shall describe the obligations of both HOB and HONI to complete the Connection, and the cost recovery terms;
- **Customer Account Contract:** If the embedded Generator is also a load Customer of HOB, this contract shall describe the terms and applicable rates for General Service Customers, including standby power, and the conditions under which standby power is granted and revoked;
- **Connection (Operating) Agreement:** This technical document identifies the common language and procedures to be used for normal and Emergency situations, installed protection equipment, ownership and Operating Control of equipment, expected levels of maintenance and testing by both parties, relevant contact names and telephone numbers, and all necessary schematic diagrams for proper communication between HOB and the embedded Generator.

The Connection (Operating) Agreement shall include provisions for the safe and effective operation of the embedded Generator's equipment which is connected to HOB's Distribution System.

An embedded Generator shall enter into a Connection (Operating) Agreement with HOB. Until such an agreement has been executed between the embedded Generator and HOB, the embedded Generator shall be deemed to have accepted and agreed to be bound by these Conditions of Service, and any operational schedules delivered to the embedded Generator from time to time by HOB.

3.5.5.5 **Commissioning**

Before an embedded Generator's facility is connected to HOB's electrical Distribution System, HOB personnel (or representatives) shall review and witness the embedded Generator's commissioning tests as necessary to ensure the acceptable security of HOB's and HONI's Distribution Systems and Transmission Systems. The cost of witnessing the commissioning tests shall be paid by the embedded Generator.

3.5.6 General Responsibilities

3.5.6.1 Embedded Generator Responsibilities

- Design the generating facility's electrical and protection package to meet HOB, HONI and DSC Connection requirements, and Electrical Safety Authority inspection requirements. For electrical inspection requirements, refer to Section 84 of the Ontario Electrical Safety Code, ESA bulletins relevant to embedded Generators, CSA C22.3 No. 9-08 Interconnection of Distributed Resources and Electricity Supply Systems (latest edition), and IEEE Std 1547 Standard for Interconnection of Distributed Resources with Electric Power Systems (latest edition);
- Ensure that the generating facility produces no objectionable harmonics or voltage flicker on HOB's Distribution System. Should any objectionable harmonics or voltage flicker exist, the embedded Generator shall be responsible for modifying the generating facility to correct the problem;
- HOB's Distribution System is operated according to CSA Standard C235 Preferred Voltage Levels for AC Systems 0-50,000 Volts, which recommends





limits for voltage variation on Customer circuits. Any embedded Generator interconnected with HOB's supply system shall not cause any voltages measured at Customer service entrances to deviate more than indicated in CSA Standard C235;

- Embedded Generator output, when connected in parallel with HOB's supply system, shall not adversely affect the voltage, frequency or wave shape of HOB's electrical Distribution System;
- For any remote trip protection scheme and/or voltage supervision scheme that may be required by HONI or HOB, or HONI and/or HOB to operate or modify equipment at HONI-owned and/or HOB-owned transformer stations, the embedded Generator shall be responsible for covering reasonable costs that would be incurred;
- All embedded Generators with a nameplate rating greater than 10 kW shall require a remote trip protection scheme. Large Generators shall provide for, maintain and pay the leased circuit costs of any data communication circuits used to support such a scheme;
- HOB shall require the installation of a remote terminal unit (RTU) that will provide input data for HOB's SCADA system. HOB shall require the embedded Generator to provide space within its generation facility for the RTU, and to provide an AC supply circuit for the unit. The embedded Generator shall be responsible for the RTU cost, including its integration.

The embedded Generator shall detect and isolate any electrical faults or disturbances in HOB's Distribution System to protect HOB's system and other Customers connected to the Distribution System. Although the embedded Generator should consider the following as typical protection requirements when preparing the proposed protection package for review by HOB, these guidelines are not intended to take the place of any detailed final design(s) that should be completed by a competent Person or organization. The detailed final design(s) should consider the proposed power and protective equipment in addition to local conditions, including both existing and future equipment loading, and operating conditions.

The Connection and operation of a Customer's embedded Generator shall not endanger workers, jeopardize public safety, or adversely affect or compromise any equipment owned or operated by HOB. Furthermore, the security, reliability, efficiency and quality of electrical supply provided to other Customers connected to HOB's Distribution System shall not be adversely affected. If any damage or increased operating costs result from an embedded Generator's Connection, the embedded Generator shall be required to reimburse HOB for these costs.

The embedded Generator shall disconnect its equipment from HOB's Distribution System when:

- 1) Remote trip is included in the interface protection;
- Any changes made by the embedded Generator to normal feeder arrangements as per the operating agreement executed between HOB and the embedded Generator;
- 3) Telecommunications link between the HONI (or HOB) transformer station control and the Generator is not operational.

A mid-size or large embedded Generator shall provide an incoming circuit breaker (switcher) of the required rating with sufficient protection for use as the first protective device, which shall be coordinated with HOB's protection. For a small embedded



Generator, an automated disconnect switch shall be required at the demarcation point that will be integrated with HOB's SCADA system.

When SCADA monitoring is required by HOB and a radio link is not used, the embedded Generator shall arrange for a Type 4, 4-wire (i.e., data line) data communications circuit for the SCADA unit, and shall pay the monthly charges for this leased circuit. HOB shall control and/or monitor the following, as a minimum:

- a) Status and control of the incoming circuit breaker or disconnect switch;
- b) Status of the generator circuit breaker;
- c) Status of any other switches or devices that may affect HOB's ability to operate;
- d) Metering of total Energy delivered by HOB (i.e., kW, kVA, PF);
- e) Metering of total Energy delivered by the Generator (i.e., kW, kVA, PF);
- f) Power quality parameters for Generators 250 kW and above.

The following additional responsibilities shall apply to embedded Generators.

- Large embedded Generator connected to HOB's Distribution System shall install its own meter according to HOB's metering requirements, and provide HOB with technical details of the meter installation;
- Embedded Generator's meter must be installed at the demarcation point;
- Embedded Generator must complete all SCADA and associated wiring and make this available to HOB at a designated point (i.e., termination cabinet). All wiring and equipment installation shall meet the standards and specifications of HOB, and the Ontario Electrical Safety Code;
- Embedded Generator's substation shall include space for a metering compartment for the installation of instrument transformers and other devices required for revenue metering;
- Embedded Generator shall forward a detailed electrical documentation package to the Electrical Safety Authority for its review of the proposed generation facility;
- Embedded Generator shall obtain all appropriate permits for the construction and operation of its generation facility (e.g., ESA approvals, Generator licenses, municipal construction permits, etc.);
- Embedded Generator shall advise HOB of the timetable for Generator commissioning tests in order for HOB (or representative) to review and witness the tests.

3.5.6.2 HOB Responsibilities

- Identify and explain its cost recovery policy to the prospective embedded Generator;
- Install, integrate, test and commission the Remote Terminal Unit and SCADA system;
- Review the embedded Generator's electrical design package and determine if it meets the minimum requirements for Connection to the HOB's Distribution System;
- Design and modify its facilities according to current HOB standards for connecting the embedded Generator;



- Discuss and review any relay protection modifications that may be required on its supply feeder(s) with HONI;
- HOB control room: Coordinate the parallel connection between the embedded Generator and HOB's electrical Distribution System;
- Initiate the preparation of agreements between the embedded Generator and HOB;
- Provide notification to the IESO regarding the embedded generation Connection, as required according to the defined "Market Rules for the Ontario Electricity Market".

3.5.7 Important Technical Requirements for Connecting Mid-Size & Large Embedded Generation Projects

The embedded Generator's electrical and protection package shall include the following:

- Three-phase, gang-operated, visible load breaking switch with provision for padlocking at the demarcation point of HOB's Distribution System that shall be accessible by HOB personnel (or representatives). HOB shall have Operating Control of this isolating point;
- Fault interrupting/synchronizing device with suitable rating for each Generator;
- Automatic Generator tripping for all faults on the embedded Generator side of the connection point;
- Automatic Generator tripping for all phase and ground faults on HOB's electrical Distribution System;
- Appropriate transformer connection between the embedded Generator and HOB's electrical Distribution System:
 - Preferred transformer connections for Generator units connected through a Customer-owned transformer rated higher than 1.5 MVA are: Primary (Delta), and Secondary (Wye-grounded);
- Suitable transformer protection;
- Protective relays installed to prevent the embedded Generator from delivering power to HOB's feeder line when that line has become isolated or islanded from the rest of HOB's system. This will usually include over/under frequency relays, and over/under voltage relays;
- Directional protection is required for embedded Generator load displacement projects that do not purchase power from HOB;
- Normal reclosure time of HOB's supply station feeder breaker could range from 0.1 to 0.5 seconds, with no intentional delay incorporated into the feeder breakers. This short time delay for reclosure will increase the risk of generator damage, and may emphasize the need for a remote trip protection and voltage supervision scheme to support the embedded Generator's islanding protection (response) that may be too slow;
- Remote trip may be required between the embedded Generator and the feeder circuit breaker. This feature will isolate the embedded Generator when certain faults or system disturbances are detected at the feeder circuit breaker (switcher) location, or when the communications link between HONI (or HOB) transformer station control and the Generator is not operational;
- Synchronizing facilities for each synchronous generator;
- Ground potential rise study to meet HOB and Electrical Safety Authority requirements for step/touch potential, and to meet the telecommunications



service provider's incoming voice/data circuit and personnel protection requirements;

- Telecommunications requirements for HOB's revenue metering, SCADA equipment and remote trip circuit shall be confirmed with HOB before installation;
- Induction generators shall provide a Power Factor (PF) greater than 0.9, which may require the installation of automatically disconnecting capacitors. Embedded Generators with synchronous generators shall be required to operate as near to unity Power Factor as possible.

Note: HOB continually strives to provide the most up-to-date information to its Customers, and therefore reserves the right to amend this guideline and related requirements at its sole discretion at any time.

3.5.8 Maintenance Schedules

Embedded Generators with nameplate ratings higher than 10 kW shall implement and follow a regular scheduled maintenance plan to provide assurance that all connection devices in addition to protection and control systems are operated and maintained in good working order. The provisions of this scheduled maintenance plan shall be included in the Connection (Operating) Agreement. The embedded Generator shall also perform a re-verification of its connection at least once every 48 months, or as specified in the Connection (Operating) Agreement, and provide a written report to HOB signed by a Professional Engineer licensed by the Province of Ontario and registered with the PEO.

HOB, at its sole discretion, may request at any time to witness the re-verification of any protections that could adversely impact HOB's distribution system. The embedded Generator shall pay HOB for this re-verification and provide a copy of the report to HOB containing the re-verification results.

3.5.9 Reporting Requirements

Embedded Generators with nameplate ratings higher than 100 kW shall report any and all significant events to HOB within five business days of their occurrence. The Connection (Operating) Agreement may include a list of events deemed significant, and a standard reporting format.

The embedded Generator shall maintain a written log with details regarding the operation of installed protections resulting from tripping interrupting devices. Upon request, the embedded Generator shall provide a copy of the log with the following information to HOB at a minimum:

- Dates and times of all protection operation events;
- Specific relay and/or protection feature of the relay initiating the trip;
- Conditions and unit output at the time of the trip event that may be related to operation (e.g., lightning, feeder outage, etc.);
- Event sequence records that may be available from the relay(s).

3.5.10 Disconnection of Embedded Generation Facility

HOB has the right to disconnect an embedded generation facility from its distribution system if, in the sole opinion of HOB, any of the following conditions exist:

a) Material deterioration of the distribution system reliability resulting from the performance of an embedded Generator's equipment;



- b) Material negative impact on the quality of power provided to an existing or new Customer resulting from the performance of equipment at the embedded generation facility;
- c) Embedded Generator has failed to re-verify its protection and control systems at least once every 48 months or as specified in the Connection (Operating) Agreement, or has failed to submit the report to HOB within 30 days;
- d) Embedded Generator's report on the re-verification of protection and control systems indicates unacceptable deficiencies;
- e) Embedded Generator has made material changes to the embedded generation facility's capacity and/or mode of operation and/or protective devices without obtaining prior written consent from HOB;
- f) Embedded generation facility does not meet one or more of the technical requirements specified in Appendix F2 of the Distribution System Code, or any relevant CSA and IEEE requirements and OESC standards;
- g) Embedded Generator has failed to cease generating electricity at a capacity greater than allocated by HOB upon completion of its Connection Impact Assessment within 15 days of being notified by HOB in writing of the excess generated output.

3.6 EMBEDDED MARKET PARTICIPANT

An Embedded Market Participant is a Customer who is registered as a market participant with the IESO, and whose facility is not directly connected to the IESOcontrolled grid, but is connected to the distribution system. Once approved by the IESO, all embedded market participants within the service jurisdiction of HOB shall inform HOB of their approved status in writing at least 60 days prior to their participation in the IESOadministered market.

A Connection (Operating) Agreement, which includes an operating schedule, shall be required between each embedded market participant and HOB.

An embedded market participant shall be responsible for the ownership, installation and maintenance of the meter, and contracting the services of a registered meter service provider. Responsibility for an existing meter installation shall be transferred from HOB to the embedded market participant upon the meter seal expiry date.

3.7 EMBEDDED DISTRIBUTOR

All embedded Distributors within HOB's service jurisdiction shall inform HOB regarding their status in writing at least 30 days before Energy supply is provided by Hydro One Brampton. Applicable terms and conditions for connecting an embedded Distributor shall be included in the Connection (Operating) Agreement with HOB.



3.8 UNMETERED CONNECTIONS

3.8.1 General

- 3.8.1.1 There are certain instances where the service may be connected to Hydro One Brampton's distribution system without being metered. These unmetered connections typically draw a small and uniform electrical load. Hydro One Brampton reserves the right to review all cases for eligibility for such unmetered service, and to determine, at its sole discretion, whether to allow an unmetered connection or require that a meter be installed at the connection.
- 3.8.1.2 Examples of services that are considered for unmetered supply include but are not limited to street lighting, traffic signals, pedestrian cross-walk signals/ beacon, bus shelters, telephone booths, signs and miscellaneous unmetered loads.
- 3.8.1.3 Unmetered connections are mainly intended for use within the road right-of-way and are permitted at the discretion of Hydro One Brampton. This type of service offering is specifically made available to companies that are in good standing with Hydro One Brampton and licensed for equipment access with the road authority, such as telecommunication companies and government agencies.
- 3.8.1.4 Customers with existing unmetered connections, or requiring new unmetered connections are subject to the terms and conditions identified herein.
- 3.8.1.5 Where an unmetered customer wishes to affix its attachments to Hydro One Brampton's assets, Hydro One Brampton must approve the method of attachment and location of installations and the owner must enter into an additional customerspecific Joint Use Agreement.
- 3.8.1.6 The ownership demarcation point is:
 - for overhead service, the top of the Customer's service standpipe/mast; and
 - for underground service, the secondary spades of the transformer.

3.8.2 Rate Structure

- 3.8.2.1 As established in Hydro One Brampton's Tariff of Rates and Charges, all unmetered loads fall under two Rate Structures: Street Lighting Service Classification and Unmetered Scattered Load Service Classification.
- 3.8.2.2 The Street Lighting Service Classification includes all electric service supplied to roadway lighting equipment, owned by or operated by the City of Brampton, the



Regional Municipality of Peel or the Ministry of Transportation, and are controlled by photo cells.

3.8.2.3 The Unmetered Scattered Load Service Classification includes traffic signals, pedestrian cross-walk signals/ beacon, bus shelters, telephone booths, signs and miscellaneous unmetered loads.

3.8.3 Customer(s) Obligations

- 3.8.3.1 The Customer shall comply with the requirements of Hydro One Brampton's standards and the *Ontario Electrical Safety Code* to ensure public safety. Further, the Customer shall provide an ESA Connection Authorization prior to the service being connected.
- 3.8.3.2 The Customer shall provide approved documentation, duly signed and stamped by a professional engineer registered with the Professional Engineers of Ontario (PEO), indicating electrical demand and consumption of the proposed unmetered load. A completed load study acceptable to Hydro One Brampton may be required for determination of load and hours of usage.
- 3.8.3.3 The Customer shall retain all information provided to and by Hydro One Brampton pursuant to the terms in *Section 3.8.6 "Data Quality Auditing Requirements and Records Retention"*. Hydro One Brampton may choose not to retain record details with each unmetered connected service and thus will not be held responsible for any incomplete records.
- 3.8.3.4 The Customer shall notify Hydro One Brampton in writing prior to making any changes to existing equipment or adding new equipment that is to be supplied from the Hydro One Brampton distribution system.
- 3.8.3.5 Unmetered Load Customers cannot allow other Customers to use unmetered electrical power from their system without the written consent of Hydro One Brampton.
- 3.8.3.6 The Customer shall provide timely and accurate energy consumption data. Accepted energy consumption is based on either:
 - The maximum continuous calculated load, or
 - The results of a Hydro One Brampton accepted audit.
- 3.8.3.7 Where installations involve Hydro One Brampton owned poles, the method and location of attachment are subject to the approval of Hydro One Brampton. Hydro



One Brampton may, in its sole discretion, require the Customer to enter into agreement with Hydro One Brampton governing such attachments.

- 3.8.3.8 The Customer might be asked to relocate, at the Customer's expense, the secondary conductors of an unmetered service to another designated Supply Point at Hydro One Brampton's request.
- 3.8.3.9 The Customer shall construct, at its expense, the civil infrastructure (including but not limited to poles, UG conduits, tap boxes) on public road allowances or private property that is deemed required by Hydro One Brampton to house or support Hydro One Brampton's electrical equipment. These civil infrastructures shall be in accordance with Hydro One Brampton current standards, practices, specifications and this Conditions of Service and are subject to inspection and acceptance by Hydro One Brampton. The customer shall own and maintain any equipment after the demarcation point.

3.8.4 Distributor Obligations

- 3.8.4.1 All unmetered connections to Hydro One Brampton's distribution facilities are permitted at the sole discretion of the distributor.
- 3.8.4.2 Hydro One Brampton shall assign an Unmetered Service Load (USL) energy account and Site Number, or increase the number of connections for an existing energy account for each new connection load.
- 3.8.4.3 Hydro One Brampton shall assign an Unmetered Scattered Load (USL) energy account and Site Number, or increase the number of connections for an existing energy account for each new connection load.
- 3.8.4.4 Hydro One Brampton shall ensure that unmetered service billing information accurately reflects the calculated electrical consumption by unit, quantity, load profile and demand.
- 3.8.4.5 Hydro One Brampton will provide reasonable notice in accordance with the Conditions of Service and any other third party agreement to the unmetered customer should the supply point require relocation.
- 3.8.4.6 Hydro One Brampton reserves the right to undertake its own electrical usage profile study of any unmetered loads customers. If any deviations from the agreed usage detected, the Customer shall be responsible for all costs incurred as the result of this study. This cost includes both the study and the variance in the agreed upon energy usage.
- 3.8.4.7 In the process of preparation of its rate rebasing application, Hydro One Brampton will engage all unmetered load customers in stakeholder sessions in order to allow the



customers to understand the assumptions used in the application and the resulting impact.

3.8.5 Data Requirements

- 3.8.5.1 New unmetered connected load services shall meet with the data quality requirements described in *Section 3.8.6 "Data Quality Auditing Requirements and Records Retention*".
- 3.8.5.2 New unmetered customers shall provide Hydro One Brampton with the necessary information to complete each unmetered connected service layout.
- 3.8.5.3 Throughout the lifecycle of the unmetered connected service, unmetered customers are required to submit updated and accurate data to Hydro One Brampton when it becomes known by the unmetered customer that there have been changes to the connections, or is requested by Hydro One Brampton.

3.8.6 Data Quality Auditing Requirements and Records Retention

In the event that Hydro One Brampton or the unmetered customer identifies or causes a billing error, Hydro One Brampton will rectify the matter consistent with this section and the OEB Retail Settlement Code. The unmetered customer shall meet the following data requirements:

3.8.6.1 Data Quality Requirements

- 3.8.6.1.1 The unmetered Customer shall collect and retain accurate GPS coordinates and provide such to Hydro One Brampton when requested.
- 3.8.6.1.2 Electrical profile, power quality, and usage accuracy studies are required when new unmetered equipment is introduced or when these are requested by Hydro One Brampton. The unmetered customer, has two options with which to develop and provide the information to Hydro One Brampton:
 - an in-house test plan (covering scope, applicability, conditions, quality control, measurement devices, timing, staff competencies, control documents, error resolution process, and external references) for Hydro One Brampton approval.



Final results and report shall be signed and sealed by a Professional Engineer of Ontario; or

 a signed and sealed certified test report from the Standards Council of Ontario or ANSI compliant laboratory having competencies in electrical equipment testing.

Costs for either option will be borne by the unmetered Customer.

3.8.6.2 Data Auditing Requirements

3.8.6.2.1 Hydro One Brampton may initiate an audit at regular intervals or on notice.

3.8.6.3 **Records Retention**

- 3.8.6.3.1 The unmetered customer shall retain information provided to and by Hydro One Brampton for a minimum period of seven years.
- 3.8.6.3.2 The retained information shall include the information discussed in this section 3.8.6.3 and any other relevant correspondence or agreements regarding the unmetered connected service, including the associated service connections and load.
- 3.8.6.3.3 If the unmetered Customer does not retain such records, Hydro One Brampton may incur costs associated with research and reconstruction of the missing information as described in *Section 3.8.10 "Audit Costs"* and *Section 3.8.11 "Error Costs"*. Hydro One Brampton reserves the right to recover all of such costs from the unmetered customer.

3.8.7 Unmetered Load Types Defined

The method of determining, and the location of Supply Points may vary for each unmetered service connection application and shall be established based on consultation with Hydro One



Brampton. The following sections outline the types of unmetered service connections, each of which has specific requirements captured within each section.

3.8.7.1 Street Lighting

- 3.8.7.1.1 This section pertains to the distribution and supply of electrical energy for street lighting. Street lights are devices owned by or operated for the road authority and/or the municipal corporation.
- 3.8.7.1.2 The energy consumption for street lights is based on Hydro One Brampton's profile for street lighting load, which provides the hours for each month when the street lights are operating. The energy charge is based on installed load.
- 3.8.7.1.3 Street lighting plant, facilities, or equipment owned by the unmetered customer are subject to the requirements of the Electrical Safety Authority.
- 3.8.7.1.4 The unmetered Customer is responsible for paying the Actual Cost of the work related to the connection of Street Lighting performed by Hydro One Brampton. Streetlights attached on Hydro One Brampton's line poles will require the owner to enter into an agreement to use such poles. The location and method of attachment is subject to Hydro One Brampton approval. Hydro One Brampton will make the electrical service connection of all streetlights to the Distribution System.
- 3.8.7.1.5 The unmetered customer will provide the secondary conductor to the supply point. Hydro One Brampton will install and connect the service conductor at the supply point.

3.8.7.2 **Telecommunication Power Supplies**

3.8.7.2.1 This section pertains to the distribution and supply of electrical energy for telecommunication power units. The standard service with no accessories (heaters or air conditioners, etc.) can be unmetered. A completed load study will be required; otherwise the account will be set up on full name plate rating. Energy



consumption will be based on connected wattage on the line side power supply and based on twenty-four hours of use.

- 3.8.7.2.2 Power units that have additional accessories such as heaters or air conditioners, etc. shall require metering.
- 3.8.7.2.3 Each power supply will be set up as an individual account.
- 3.8.7.2.4 The method, location, service voltage and size will vary and will be established for each application through consultation with Hydro One Brampton.

3.8.7.3 Traffic Signals

- 3.8.7.3.1 This section pertains to the distribution and supply of electrical energy for traffic signals and crosswalks. These are the devices owned and maintained by the road authority and/or the municipal corporation.
- 3.8.7.3.2 The service may be unmetered for small intersections, while larger loads may require metering. Energy consumption will be based on the connected wattage and the calculated hours of use.
- 3.8.7.3.3 The method, location, service voltage and size will vary and will be established for each application through consultation with Hydro One Brampton.
- 3.8.7.3.4 The unmetered customer will provide the secondary conductor to the supply point. Hydro One Brampton will install and connect the service conductor at the supply point.

3.8.7.4 **Decorative Lighting**

3.8.7.4.1 This section pertains to the distribution and supply of electrical energy for decorative street lighting installations. Such installations could be lighting for



festive occasions or streetscaping. These are privately owned and maintained and subject to Electrical Safety Authority and Hydro One Brampton service conditions.

- 3.8.7.4.2 This section does not apply to street lighting that is owned by or operated by the road authority and/or the municipal corporation.
- 3.8.7.4.3 Hydro One Brampton shall determine whether metering is required on a case-bycase basis by considering the demand, load profile, location, accessibility, duration of the Connection, and municipal agreement.
- 3.8.7.4.4 The method, location, service voltage and size will vary and will be established for each application through consultation with Hydro One Brampton.

3.8.7.5 Other Small Services

3.8.7.5.1 Telephone booths, small power supplies, communication amplifiers and antennas, road and utility cathodic protection, railway signals, flasher beacons, and similar small unmetered Customer loads within the public road right-of-way may qualify for unmetered connected servicing.

3.8.8 Service Costs

There are three life cycle states for an unmetered connected load service. They are as follows:

- i. Proposed;
- ii. In-service; or
- iii. Permanently removed.

In each state, the minimum billing period remains as one month regardless of when the unmetered connected load service lifecycle state changes. Also, billing of the energy and fixed charges continues monthly in all lifecycle states until the service has been permanently removed.

3.8.8.1 Proposed

3.8.8.1.1 On request of a new connection, the unmetered customer's proposal will initiate the service point as "Proposed" for a period of up to 90 days.

3.8.8.2 **In-Service**

3.8.8.2.1 An unmetered connected load service is deemed to be "in-service" when it has been energized or it has been electrically isolated (removed from any electrical



energy source) at any time between being energized or permanently removed. The two in-service lifecycle states are described as follows:

(i) Energized

An existing unmetered connected load service that has been physically connected to the Hydro One Brampton distribution network is deemed to be "Energized".

(ii) Electrically Isolated

An existing unmetered connected load service that has been physically detached from the Hydro One Brampton distribution network is deemed to be "Electrically Isolated". Isolation of the unmetered connected load service may be initiated by Hydro One Brampton for power quality, outage events, or data issues or by the unmetered Customer through written request.

In this lifecycle state, Hydro One Brampton continues to calculate the bill (energy and fixed charges) on a per month basis for not more than six consecutive months. Following the sixth month of being "electrically isolated", the unmetered connected load service must be either placed back "in-service" or "permanently removed" from service. Hydro One Brampton retains the right to disconnect the service per the terms defined in Section 2.2.

3.8.8.3 **Permanently Removed**

- 3.8.8.3.1 An unmetered connected load service is deemed "permanently removed" following the sixth consecutive month in the "electrically isolated" state, or when the unmetered customer requests that the unmetered connected load service be permanently cancelled and physically detached from the Hydro One Brampton distribution network energy source.
- 3.8.8.3.2 When an unmetered connected load service has been deemed "permanently removed", billing charges (energy and fixed charges) shall cease as of the next scheduled billing date.
- 3.8.8.3.3 Re-energization of an unmetered connected load service in this lifecycle state shall be treated as a new unmetered connected load service and be subject to the



requirements contained within this document for new unmetered connected load service requests.

3.8.9 Work by Hydro One Brampton

Hydro One Brampton's connection, isolation and re-energization fees will apply. Note that extra work by Hydro One Brampton beyond a simple, basic connection onto the overhead or underground system is at the unmetered customer's expense.

3.8.10 Audit Costs

Any costs or expenses that are incurred by the unmetered customer in supporting or responding to the requirements of a Hydro One Brampton audit shall be the responsibility of the unmetered customer.

3.8.11 Error Costs

- 3.8.11.1 Hydro One Brampton encourages voluntary data error disclosure and data quality improvement.
- 3.8.11.2 Recurring data errors, or data quality problems, may result in an unmetered Customer being "electrically isolated" or "permanently removed" from the Hydro One Brampton distribution network, with the option for the unmetered Customer to upgrade to a metered service from a Hydro One Brampton designated supply point.
- 3.8.11.3 When an unmetered customer volunteers corrected or improved data before commencement of a joint audit, the unmetered customer will be held responsible for the corrected consumption usage.
- 3.8.11.4 To improve the quality of the unmetered connected load service data, Hydro One Brampton encourages the unmetered customer to cooperate in a joint audit as described in Section 3.8.6 "Data Quality Auditing Requirements and Records Retention". In this case, the unmetered customer will be responsible for the associated costs and the corrected consumption usage.
- 3.8.11.5 If the unmetered Customer provides Hydro One Brampton unmetered data that is of insufficient quality (i.e. not meeting audit standards), no data, or late data, the unmetered customer shall pay Hydro One's Brampton field verification and data correction costs, equivalent costs per each unmetered connected load service, and the corrected consumption usage.



4 GLOSSARY OF TERMS

Specific terms used in this document are listed below and defined according to the following sources:

- A *Electricity Act, 1998*, Schedule A, Section 2 Definitions;
- MR Market Rules for the Ontario Electricity Market, Chapter 11 Definitions;
- TDL Transitional Distribution License, Part I Definitions;
- TTL Transitional Transmission License, Part I Definitions;
- DSC Distribution System Code Definitions;
- RSC Retail Settlement Code Definitions.

Accounting Procedures Handbook means the handbook approved by the Board and in effect at the relevant time, which specifies the accounting records, accounting principles and accounting separation standards to be followed by the distributor; (TDL, DSC)

Affiliate Relationships Code means the code, approved by the Board and in effect at the relevant time, which among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies; (TDL, DSC)

Ancillary services means services necessary to maintain the reliability of the IESOcontrolled grid; including frequency control, voltage control, reactive power and operating reserve services; (MR, TDL, DSC)

Apartment building means a structure containing four or more dwelling units having access from an interior corridor system or common entrance;

Apparent power means the total power measured in kilovolt Amperes (kVA);

Application for service means the agreement or contract with HOB under which electrical service is requested;

Bandwidth means a distributor's defined tolerance used to flag data for further scrutiny at the stage in the VEE (validating, estimating and editing) process where the current reading is compared to a reading from an equivalent historical billing period. For example, a 30 percent bandwidth means a current reading that is either 30 percent lower or 30 percent higher than the measurement from an equivalent historical billing period that will be identified by the VEE process as requiring further scrutiny and verification; (DSC)

Billing Demand means the metered demand or connected load after necessary adjustments have been made for power factor, intermittent rating, transformer losses and minimum billing. A measurement in kilowatts (kW) of the maximum rate at which electricity is consumed during a billing period;

Board or OEB means the Ontario Energy Board; (A, TDL, DSC)

Building means a building, portion of a building, structure or facility; and "complex metering installation" means a metering installation where instrument transformers, test blocks, recorders, pulse duplicators and multiple meters may be employed; (DSC)

Conditions of Service means the document developed by a distributor in accordance with subsection 2.4 of the Code that describes the operating practices and connection rules for the distributor; (DSC)


Connection means the process of installing and activating connection assets in order to distribute electricity to a Customer; (DSC)

Connection Agreement means an agreement entered into between a distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to that connection; (DSC)

Connection Assets means that portion of the distribution system used to connect a Customer to the existing main distribution system, and consists of the assets between the point of connection on a distributor's main distribution system and the ownership demarcation point with that Customer; (DSC)

Consumer means a person who uses, for the person's own consumption, electricity that the person did not generate; (A, MR, TDL, DSC)

Customer means a person that has contracted for or intends to contract for connection of a building. This includes developers of residential or commercial subdivisions; (DSC)

Demand means the average value of power measured over a specified interval of time, usually expressed in kilowatts (kW). Typical demand intervals are 15, 30 and 60 minutes; (DSC)

Demand Meter means a meter that measures a Customer's peak usage during a specified period of time; (DSC)

Developer means a person or persons owning property for which new or modified electrical services are to be installed;

Disconnection means a deactivation of connection assets that results in cessation of distribution services to a Customer; (DSC)

Distribute, with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less; (A, MR, TDL, DSC)

Distribution losses means energy losses that result from the interaction of intrinsic characteristics of the distribution network, such as electrical resistance with network voltages and current flows; (DSC)

Distribution loss factor means a factor or factors by which metered loads must be multiplied, such that when summed equal the total measured load at the supply point(s) to the distribution system; (RSC)

Distribution Services means services related to the distribution of electricity and the services the Board has required distributors to carry out, for which a charge or rate has been approved by the Board under section 78 of the Ontario Energy Board Act; (RSC, DSC)

Distribution System means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose. A distribution system comprises the main system capable of distributing electricity to many Customers, and the connection assets used to connect a Customer to the main distribution system; (A, MR, TDL, DSC)

Distribution System Code means the code, approved by the Board and in effect at the relevant time, which among other things establishes the obligations of the distributor with respect to the services and terms of service to be offered to Customers and retailers, and provides minimum technical operating standards of distribution systems; (TDL, DSC)

Distributor means a person who owns or operates a distribution system; (A, MR, TDL, DSC)



Duct Bank means two or more ducts that may be encased in concrete used for the purpose of containing and protecting underground electric cables;

Electricity Act means the Electricity Act, 1998, S.O. 1998, c.15, Schedule A; (MR, TDL, DSC)

Electrical Safety Authority or "ESA" means the person or body designated under the Electricity Act regulations as the Electrical Safety Authority; (A)

Electric Service means the Customer's conductors and equipment for energy from HOB;

Embedded distributor means a distributor who is not a wholesale market participant and that is provided electricity by a host distributor; (RSC, DSC)

Embedded generator or "embedded generation facility" means a generator whose generation facility is not directly connected to the IESO-controlled grid, but instead is connected to a distribution system; (DSC)

Embedded retail generator means an embedded generator that settles through a distributor's retail settlements system, and is not a wholesale market participant; (DSC)

Embedded wholesale Customer means a Customer who is a wholesale market participant whose facility is not directly connected to the IESO-controlled grid, but is connected to a distribution system; (DSC)

Embedded wholesale generator means an embedded generator that is a wholesale market participant; (DSC)

Emergency means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity that could adversely affect the reliability of the electricity system; (DSC)

Emergency backup means a generation facility that has a transfer switch that isolates it from a distribution system; (DSC)

Energy means the product of power multiplied by time, usually expressed in kilowatthours (kWh);

Energy Competition Act means the Energy Competition Act, 1998, S.O. 1998, c. 15; (MR)

Energy Diversion means the electricity consumption unaccounted for but that can be quantified through various measures upon review of the meter mechanism, such as unbilled meter readings, tap off load(s) before the revenue meter or meter tampering;

Enhancement means a modification to an existing distribution system that is made for the purposes of improving system operating characteristics, such as reliability or power quality or for relieving system capacity constraints resulting, for example, from general load growth; (DSC)

Expansion means an addition to a distribution system in response to a request for additional Customer connections that otherwise could not be made; for example, by increasing the length of the distribution system; (DSC)

Extreme operating conditions means extreme operating conditions, as defined in the Canadian Standards Association ("CSA") Standard CAN3-C235-87 (latest edition);

Four-Quadrant Interval Meter means an interval meter that records power injected into a distribution system, and the amount of electricity consumed by the Customer; (DSC)

General Service means any service supplied to premises other than those designated as Residential and less than 50 kW, Large User, or Municipal Street Lighting. This



includes multi-unit residential establishments, such as apartments buildings supplied through one service (bulk-metered);

Generate, with respect to electricity, means to produce electricity or provide ancillary services other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system; (A, TDL, DSC)

Generation facility means a facility for generating electricity or providing ancillary services other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose; (A, MR, TDL, DSC)

Generator means a person who owns or operates a generation facility; (A, MR, TDL, DSC)

Geographic distributor, with respect to a load transfer, means the distributor that is licensed to service a load transfer Customer, and is responsible for connecting and billing the load transfer Customer; (DSC)

Good Utility Practice means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period; or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others; but rather to be acceptable practices, methods or acts generally accepted in North America; (MR, DSC)

Host distributor means the registered wholesale market participant distributor who provides electricity to an embedded distributor; (RSC, DSC)

House service means that portion of the electrical service in a multiple occupancy facility which is common to all occupants (i.e., parking lot lighting, sign service, corridor and walkway lighting, etc.);

IEC means International Electrotechnical Commission;

IEEE means Institute of Electrical and Electronics Engineers;

IESO means the Independent Electricity Market Operator established under the Electricity Act; (A, TDL, DSC)

IESO-controlled grid means the transmission systems with respect to which, pursuant to agreements, the IESO has authority to direct operation; (A, TDL, DSC)

Interval Meter means a meter that measures and records electricity use on an hourly or sub-hourly basis; (RSC, DSC)

Large User means a Customer with a monthly peak demand of 5000 kW or greater, regardless of whether the demand occurs in peak or off-peak periods, averaged over 12 months;

Load factor means the ratio of average demand for a designated time period (usually one month) to the maximum demand occurring in that period;

Load transfer means a network supply point of one distributor that is supplied through the distribution network of another distributor, and where this supply point is not considered a wholesale supply or bulk sale point; (DSC)

Load transfer Customer means a Customer that is provided with distribution services through a load transfer; (DSC)



Main Service refers to HOB's incoming cables, bus duct, and disconnecting and protective equipment for a Building or from which all other metered sub-services are taken;

Market Rules means the rules made under section 32 of the Electricity Act; (MR, TDL, DSC)

Measurement Canada means the Special Operating Agency established in August 1996 by the Electricity and Gas Inspection Act, 1980-81-82-83, c. 87., and Electricity and Gas Inspection Regulations (SOR/86-131; (DSC)

Meter service provider means any entity that performs metering services on behalf of a distributor; (DSC)

Meter installation means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data, and monitor the condition of the installed equipment; (RSC, DSC)

Meter socket means the mounting device for accommodating a socket type revenue meter;

Metering services means installation, testing, reading and maintenance of meters; (DSC)

MIST meter means an interval meter from which data is obtained and validated within a designated settlement timeframe. MIST refers to "Metering Inside the Settlement Timeframe"; (RSC, DSC)

MOST meter means an interval meter from which data is only available outside of the designated settlement timeframe. MOST refers to "Metering Outside the Settlement Timeframe"; (RSC, DSC)

Multiple dwelling means a Building which contains more than one self-contained dwelling unit;

Municipal Street Lighting means all services supplied to street lighting equipment owned and operated for a municipal Corporation;

Non-competitive electricity costs means costs for services from the IESO that are not deemed by the Board to be competitive electricity services plus costs for distribution services, other than Standard Supply Service (SSS); (RSC)

Normal operating conditions means the operating conditions that comply with the standards set by the Canadian Standards Association ("CSA") Standard CAN3-C235- 87 (latest edition);

Ontario Energy Board Act means the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B; (MR, DSC)

Operational Demarcation Point means the physical location at which a distributor's responsibility for operational control of distribution equipment, including connection assets, ends at the Customer; (DSC)

Ownership Demarcation Point means the physical location at which a distributor's ownership of distribution equipment, including connection assets, ends at the Customer; (DSC)

Performance Standards means the performance targets for the distribution and connection activities of the distributor, as established by the Board pursuant to the Ontario Energy Board Act, and the Rate Handbook; (DSC)



Person includes an individual, a corporation, sole proprietorship, partnership, unincorporated organization, unincorporated association, body corporate, and any other legal entity;

Physical distributor, with respect to a load transfer, means the distributor that provides physical delivery of electricity to a load transfer Customer, but is not responsible for connecting and billing the load transfer Customer directly; (DSC)

Plaza means any Building containing two or more commercial business tenants;

Point of Supply, with respect to an embedded generator, means the connection point where electricity produced by the generator is injected into a distribution system; (DSC)

Power Factor means the ratio between Real Power and Apparent Power (i.e., kW/kVA);

Primary Service means any service which is supplied with a nominal voltage greater than 50 volts;

Private property means the property beyond the existing public street allowances;

Rate means any rate, charge or other consideration, and includes a penalty for late payment; (TDL, DSC)

Rate Handbook means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates; (RSC, DSC)

Reactive Power means the power component which does not produce work but is necessary to allow some equipment to operate, and is measured in kiloVolt Amperes Reactive (kVAr);

Real power means the power component required to do real work, which is measured in kiloWatts (kW);

Regulations means the regulations made under the Ontario Energy Board Act, or the Electricity Act; (TDL, DSC)

Residential Service means a service which is less than 50 kW supplied to single-family dwelling units for domestic or household purposes, including seasonal occupancy. At HOB's discretion, residential rates may be applied to apartment buildings with six units or less by simple application of the residential rate, or by blocking the residential rate by the number of units;

Retail, with respect to electricity means:

- A) to sell or offer to sell electricity to a Customer;
- B) to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity; or
- C) to act or offer to act as an agent or broker for a Customer with respect to the sale or offering for sale of electricity. (A, MR, TDL, DSC)

Retail Settlement Code means the code approved by the Board and in effect at the relevant time, which, among other things, establishes a distributor's obligations and responsibilities associated with financial settlement among retailers and Customers, and provides for tracking and facilitating Customer transfers among competitive retailers; (TDL, DSC)

Retailer means a person who retails electricity; (A, MR, TDL, DSC)

Secondary Service means any service which is supplied with a nominal voltage less than 750 Volts;



Service Agreement means the agreement that sets out the relationship between a licensed retailer and a distributor, in accordance with the provisions of Chapter 12 of the Retail Settlement Code; (RSC)

Service Area with respect to a distributor, means the area in which the distributor is authorized by its license to distribute electricity; (A, TDL, DSC)

Service Date means the date that the Customer and HOB mutually agree upon to begin the supply of electricity by HOB;

Standard Supply Service Code means the code approved by the Board and in effect at the relevant time, which among other things, establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under section 29 of the Electricity Act; (TDL)

Sub-service means a separately metered service that is taken from the main Building service;

Supply Voltage means the voltage measured at the Customer's main service entrance equipment (typically below 750 Volts). Operating conditions are defined in the Canadian Standards Association ("CSA") Standard CAN3-C235 (latest edition);

Temporary Service means an electrical service granted temporarily for such purposes as construction, real estate sales, trailers, etc.;

Terminal pole refers to HOB's distribution pole on which the service supply cables are terminated;

Total losses means the sum of distribution losses and unaccounted for energy; (DSC)

Transformer Vault means an isolated enclosure built to applicable codes to house transformers and associated electrical equipment;

Transmission System means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose; (A, MR, TDL, DSC)

Transmission System Code means the code approved by the Board that is in force at the relevant time, which regulates the financial and information obligations of the Transmitter with respect to its relationship with Customers, as well as establishing the standards for connection of Customers to and expansion of a transmission system; (DSC)

Transmit, with respect to electricity, means to convey electricity at voltages higher than 50 kiloVolts; (A, TDL, DSC)

Transmitter means a person who owns or operates a transmission system; (A, MR, TDL, DSC)

Unaccounted for energy means all energy losses that cannot be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and unmetered loads, energy theft, and non-attributable billing errors; (DSC)

Unmetered loads means electricity consumption that is not metered, and is billed based on estimated usage; (DSC)

Validating, estimating and editing (VEE) means the process used to validate, estimate and edit raw metering data to produce final metering data, or to replicate missing metering data for settlement purposes; (MR, DSC)

Wholesale buyer means a person that purchases electricity or ancillary services in the IESO-administered markets or directly from a generator; (TDL, DSC)



Wholesale market participant means a person that sells or purchases electricity or ancillary services through the IESO-administered markets; (RSC, DSC)

Wholesale settlement cost means costs for both competitive and non-competitive electricity services billed to a distributor by the IESO or a host distributor, or provided by an embedded retail generator or by a neighboring distributor; (RSC, DSC)

Wholesale supplier means a person who sells electricity or ancillary services through the IESO-administered markets or directly to another person, other than a Customer. (TDL, DSC)



5 APPENDICES

5.1 APPENDIX A

This appendix contains reference tables and related information forming part of these Conditions of Service. Additional details are provided in supporting notes.

For external appendices, see section 5.2.



$ abic J^{-} $	Table 5-1	Demarcation Points & Char	aes for Connection Assets	& Disconnection for Class 1	1 Residential: Single Service	& Rural Service
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Rate / Customer Class	Operational & Ownership Demarcation Point	Standard Allowance (Basic Connection)	Basic Connection Fee (for Standard Allowance)	Capital Contribution Fee	Additional Services Charged to Customer	Service Disconnection Fee (Initiated by Customer Request)
Residential Overhead	Top of Customer's Service Mast	Up to 30 m OH service lines from Distributor's "feed" pole or lines. Include connections at feed poles or lines, at Customer's service mast	Recovered through Distributor's rates	Customer charged Actual costs for Connection Assets beyond Standard Allowance	Customers requesting an UG service in OH areas shall be required to pay 100% connection costs less the Standard Allowance for an OH service	Recovered through Distributor's Tariffs or rates
Rural Overhead Primary Connection	Primary Connection point at Distributors pole line	See Residential Overhead	Customer charged actual costs for Connection of assets	Customer charged Actual costs for Connection Assets beyond Standard Allowance	See Residential Overhead	Recovered through Distributor's Tariffs or rates
Rural Overhead Secondary Connection	Top of Customer's Service Mast	See Residential Overhead	Recovered through Distributor's rates	Customer charged Actual costs for Connection Assets beyond Standard Allowance	See Residential Overhead	Recovered through Distributor's Tariffs or rates
Underground	Line side of Customer's Meter base	Equivalent of above is credited to underground service	Equivalent of above is credited to underground service	Customer charged Actual costs for Connection Assets, including street crossing. If the Customer's load requires transformation facilities on the Customer's property, refer to "General Service" Rate Class category for Underground service with Transformation	N/A	Recovered through Distributor's Tariffs or rates



Rate / Customer Class	Operational & Ownership Demarcation Point	Capital Contribution Fee	Additional Services Charged to Customer	Service Disconnection Fee (Initiated by Customer Request)
Overhead Single Service	Top of Customer's Service Mast	Customer charged Actual costs for Connection Assets	 Additional or redesign due to changes in Customer initial proposal, or electrical inspections more than expected 	 Recovered through Distributor's Tariffs or rates
Underground Single Service	 Connection point at property line 	 Customer charged Actual costs for Connection Assets 	 Additional or re-design due to changes in Customer initial proposal, or electrical inspections more than expected, and all civil inspections 	 Recovered through Distributor's Tariffs or rates

Table 5-2, Demarcation Points & Charges for Connection Assets & Disconnection for Class 2 Customers: General Service (0-50 kW)

Table 5-3, Demarcation Points & Charges for Connection Assets & Disconnection for Class 3 Customers Not Requiring Transformation Facility on Private Property: Class 3A General Service (50 kW to 1499 kW)

Rate / Customer Class	Operational & Ownership Demarcation Point	Capital Contribution Fee	Additional Services Charged to Customer	Service Disconnection Fee (Initiated by Customer Request)
Overhead Single Building (Not requiring Transformation Facilities on private property)	 Top of Customer's Service Mast 	 Customer charged Actual costs for Connection Assets 	 Additional or redesign due to changes in Customer initial proposal, or electrical inspections more than expected 	 Customer charged actual costs associated with Disconnection and/or removal of Connection Assets up to the demarcation point
Underground Single Building (Not requiring Transformation Facilities on private property)	 Line side of Customer's Service Conductor Connection point at the property line 	 Customer charged Actual costs for Connection Assets, including cable, chamber(s) and U/G conduits as required 	 Additional or re-design due to changes in Customer initial proposal, or electrical inspections more than expected, and all civil inspections 	 Customer charged actual costs associated with Disconnection and/or removal of Connection Assets up to the demarcation point



Table 5-4, Demarcation Points & Charges for Connection Assets & Disconnection for Class 3 Customers Requiring Transformation Facilities on Private Property: Class 3B General Service (50 kW to 1499 kW)

Rate/ Customer Class	Operational & Ownership Demarcation Point	Capital Contribution Fee	Additional Services Charge to Customer	Service Disconnection Fee (Initiated by Customer Request)
Overhead Single Building (Requiring Transformation Facilities on private property) (existing Building only)	 Load side of Distributor's transformer (secondary U/G) or top of Customer's service mast (secondary OH) 	 Customer charged Actual costs for Connection Assets including, associated switching equipment, transformer poles(s), cable chamber(s), U/G conduits as applicable. 	 Additional or redesign due to changes in Customer initial proposal; or electrical inspections more than expected allowance and all civil inspections and related feeder switching/scheduling. 	 Customer charged actual costs associated with the Disconnection and/or removal of Connection Assets, including cables, transformers and related vault equipment up to demarcation point, and related feeder switching and scheduling.
Underground Building (Requiring Transformation Facilities on private property)	 Load side of Distributor's transformer 	 Customer charged actual costs for Connection Assets including, TX connections, associated switching equipment, u/g conduits and cable and road crossings (as applicable). 	 Additional or redesign due to changes in Customer initial proposal: or electrical inspections more than expected and all civil inspections and related feeder switching/scheduling 	 Customer charged actual costs associated with the Disconnection and/or removal of Connection Assets, including cables, transformers and related vault equipment up to demarcation point, and related feeder switching and scheduling.

Table 5-5, Demarcation Points & Charges for Connection Assets & Disconnection for Class 4 Customers: Class 4 General Service (1500 kW & Above)

Rate/Customer Class	Operational & Ownership Demarcation Point	Capital Contribution Fee	Additional Services Charge to Customer (p/o Var. Connection)	Service Disconnection Fee (Initiated by Customer Request)
Underground or overhead (Requiring Customer Transformation Facilities on private property)	 27.6 kV at line side of Customer's primary HV switch 44 kV Overhead at the point where Customer's primary HV aerial cable connects to Distributor's circuit; or 44 kV Underground at line side of Customer's Primary HV switch 	Customer charged actual costs for Connection Assets, including connections, fusing, fault indicators associated with switching equipment, and SCADA	 Additional or redesign due to changes in Customer initial proposal, electrical inspection more than Standard Allowance and all civil inspections and related feeder switching / scheduling 	 Customer charged actual costs associated with the Disconnection and/or removal of Connection Assets, including cables and related equipment up to the demarcation point, and related feeder switching and scheduling

Type of Street Lighting, Distribution Systems	Operational & Ownership Demarcation Point	Capital Contribution Fee
Municipality-owned lights attached to Distributor's pole and connected to distributor's 120/240 V "house lighting" secondary bus/lines via photocell	 a) Line side of fuse b) If no fuse, point of connection on Distributor's feed pole/lines 	 Customer charged actual costs for Connection Assets
Municipality-owned street lighting "controlled" circuits, poles, and equipment/lights (i.e., municipality-owned street light distribution plant) totally separate from Distributor's system	 First point of connection past Distributor's system. Overhead: First Point of connection at Municipal owned plant. Underground: Line side of the first protective device (e.g., fuse) 	 Customer charged actual costs for Connection Assets

Table 5-6, Street Lighting Service: Points of Demarcation & Connection Charges

Table 5-7, Customer-Owned Transformers (Article 3.4)

Transform		Recomn	nended Pi	imary Tap	Voltage		
Primary	Secondary	+5%	+2.5%	0	-2.5%	-5%	-7.5%
44000 Delta	Less than 750	46200	45100	44000	42900	41800	
27600 Gnd. Delta	Less than 750						
		28980	28290	27600	26910	26220	
27600	2400/4160 Y		28290	27600	26910	26220	25530

Table 5-8, Meter Sockets (Article 2.3.7.1.2)

Self-Contained Socket Metering						
Voltage	Phase	Wire	Maximum Service Switch Size Rating Amperes	Number of Jaws Socket		
120/240	1	3	200	4		
208/120	3	3	200	5		
208/120	3	4	200	7		
600/347	3	4	200	7		
600*	3	3	200	5		

*Used only where grounded supply is not available

Notes:

- 1) A list of approved meter sockets is available upon request.
- 2) Meter sockets must be mounted so that the midpoint of the meter is set at 1650 mm above the finished floor.
- 3) Where the supply is grounded 600 V, metering must be 4-wire. Where the Customer does not require a neutral, a full-size neutral conductor sized in accordance with Table 17 of the Ontario Electrical Safety Code must be provided for all meter cabinets or sockets. The neutral conductor must be terminated in the socket (or cabinet) on an insulated block at the bottom centre of the cabinet, approximately 50 mm from the front edge as per the Ontario Electrical Safety Code.



Meter Cabinet Sizes for Transformer Rated Metering						
Voltage	Phase	Wire	Amperage	Cabinet Requirement		
120/240	1	3	201 to 400	Meter base with built-in current Tx***		
120/240	1	3	401 to 800	48"x48"x12"		
120/240	1	3	Over 800	48"x48"x12"+30"x30"x12"		
120/208	3	3	201 to 400	48"x48"x12"		
120/208	3	3	401 to 800	48"x48"x12"		
120/208	3	3	Over 800	48"x48"x12"+30"x30"x12"		
120/208	3	4	201 to 400	48"x48"x12"		
120/208	3	4	401 to 800	48"x48"x12"		
347/600	3	4	201 to 400	48"x48"x12"		
347/600	3	4	401 to 800	48"x48"x12"		
347/600	3	4	Over 800	48"x48"x12"+30"x30"x12"		
600*	3	3	201 to 400	48"x48"x12"		
600*	3	3	401 to 800	48"x48"x12"		
600*	3	3	Over 800	48"x48"x12"+30"x30"x12"		

Table 5-9, Meter Cabinets (Article 2.3.7.1.2)

Notes:

- 1) Owner must supply and install a meter cabinet to contain HOB's metering equipment for main switch ratings and Supply Voltages, as shown in Table 5-9 (above).
- 2) Any service over 600 amps with more than 2 conductors per phase requires a second meter cabinet 30" x 30" x 12' connected to the first by a 1 1/4" conduit.
- 3) *Use only where grounded supply is not available (consult with HOB's Technical Services Department).
- 4) HOB will supply only the following lugs for connections to current transformers:
 - a) 250 mcm single conductor;
 - b) 250 mcm double conductor;
 - c) 350 mcm double conductor;
 - d) 500 mcm single conductor.
- 5) For all other wiring arrangements the Customer is required to supply the lugs. Contractors will supply llsco or Burndy Allen screw mechanical lugs, with a 3/8" hole for services 400 A and under and with a 0.5 hole for over 400 A.
- 6) ***If residential application, use 400 A socket identified in TS-08.
- 7) A meter cabinet must conform to the following specifications:
 - a) Fabricated from minimum 16 gauge steel;
 - b) Equipped with steel back plate of minimum 12 gauge, and more than 3 inches shorter than cabinet height;
 - c) Back plate must be removable and mounted to provide a clearance of 0.5 inches behind the plate;
 - d) Side-hinged doors opening at the centre;
 - e) Equipped with three-point latching and provision for padlocking;



- f) Where the Customer wishes to view meter readings, cabinet doors may be equipped with wired glass viewing windows installed in the upper door section.
- g) All meter cabinets must be installed 1.8 meters to the top (i.e., from the finished floor).

Table 5-10, Meter Load Centres (Article 2.3.7.1.2)

Ref.	Meter Load Centre Specifications (Rated 750 V or Less)
1	Side-hinged doors or panels must be installed over all sections of the switchboard where HOB may be required to work, such as un-metered sections and those sections containing breakers, switches and meter mounting devices. Hinged doors or panels must include provision for sealing and padlocking in the closed position. Where bolts are used, they must be of the captive knurled type
2	Breakers or switch handles must include provision for positive sealing and padlocking in the "OFF" position
3	Meter-mounting devices must be wired to be on the "load" side of breakers or switches
4	Each combination meter socket and breaker panel must provide adequate space for permanent Customer identification of street address and/or unit number
5	Centre of the bottom row of meter sockets must be not less than 600 mm from the finished floor, and centre of the top row of meter sockets must not exceed 1800 mm above the finished floor
6	Distance between adjacent meter socket rims in the horizontal plane must not be less than 152 mm
7	Distance between adjacent meter socket rims in the vertical plane must be as follows:
8	(a) For 100 A, 4 or 5-jaw, not less than 76 mm
9	(b) For 100 A, 7-jaw, not less than 152 mm
10	Meter mounting socket and sealing ring must be acceptable to HOB
11	Where a neutral is required, the meter-mounting device must include a pre-wired, ungrounded neutral connection to the 5th or 7th terminal. The connection, if not made directly to the neutral bus, must not be less than 12 AWG copper or equivalent
12	Meter Centre must be securely mounted to the floor and wall (site-specific), and braced to prevent movement
13	Load centres must be have HOB approval prior to purchasing

Note: Meter load centres rated 750 V or less must meet the specifications according to Table 5-10 (above).

Table 5-11, Motors: Starting Current Limitations

System Supply Voltage	Maximum Permissible Starting Current
120 V (1 Phase)	40 A
240 V (1 Phase)	75 A
208 V (3-Phase)	Starting current specified upon application to the Technical Services Department
600 V (3-Phase)	As above
4160 V (3-Phase)	As above
8320 V (3-Phase)	As above
13800 V (3-Phase)	As above
27600 V (3-Phase)	As above
44000 V (3-Phase)	As above

Notes:

- 1) Motors are subject to the starting current limitations shown in Table 5-11 (above).
- Incremental starters may be used provided that current increments occur at not less than one second intervals, and do not exceed the specified limits for starting current.



Supply Voltage	Welder Type	Maximum Permissible Nameplate Rating
120/240 V	1-Phase Resistance	9 kVA
120/208 V	3-Phase Resistance	Determined upon application to the Technical Services Department
600 V, 600/347 V	3-Phase Resistance	As above
4160 V, 8320 V	3-Phase Resistance	As above
13800 V, 27600 V	3-Phase Resistance	As above
44000 V	3-Phase Resistance	As above

Table 5-12, Welders: Starting Current Limitations

Notes:

- Due to their lower Demand and operating characteristics, in general arc welder installations do not cause flicker problems. However, installations with a significant number of arc welders should be reviewed by HOB prior to installation by the Customer.
- 2) Resistance welders are subject to kVA nameplate limitations as per Table 5-12 (above).
- 3) Due to the continuous fluctuations caused by the operation of arc furnaces, Customers are required to submit design features for arc furnaces to HOB's Technical Services Department for review and approval before installation.

Table 5-13 (A), Maximum Losses for Power Transformers: 3001 kVA to 5000 kVA (Min. Low Voltage of 600 V & High Voltage 44 kV & Lower

Rating		Impedance Voltage Range (%)		Maximum Loss (W)	
KVA	Minimum Low Voltage (V)	Min.	Max.	No Load (NL)	Load (L)
3001-3500	600	5	7.5	6300	18650
3501-3750	600	5	7.5	6700	19400
3751-4000	600	5	7.5	7000	20500
4001-4500	600	5	7.5	7700	22600
4501-5000	600	5	7.5	8400	24750

Table 5-14 (B), Maximum Losses for Power	Transformers: 501 kVA to 5000 kVA (Min. Low Voltage
of 480 V & High Voltage 44 kV & Lower)	

Rating		Impedance Voltage Range (%)		Maximum Loss (W)	
KVA	Minimum Low Voltage (V)	Min	Max.	No Load (NL)	Load (L)
501-750	480	5	7.5	2200	5900
751-1000	480	5	7.5	2700	7200
1001-1500	480	5	7.5	3500	9800
1501-2000	480	5	7.5	4200	12200
2001-2500	480	5	7.5	5000	14100
2501-3000	480	5	7.5	5600	16200
3001-3500	480	5	7.5	6300	18650
3501-3750	480	5	7.5	6700	19400
3751-4000	480	5	7.5	7000	20500
4001-4500	480	5	7.5	7700	22600
4501-5000	480	5	7.5	8400	24750



5.2 APPENDIX B

The external appendices listed below contain reference material, sample agreements and other supporting information for use by HOB Customers and Developers according to these Conditions of Service. These appendices are available from HOB's website at <u>www.hydroonebrampton.com</u>, or by contacting HOB's Technical Services Department (see section 5.2.1).

- Appendix 1B Methodology & Assumptions for an Economic Evaluation;
- Appendix 2B Sample Offer to Connect (Residential Subdivision);
- Appendix 3B Sample Embedded Generator Connection Agreement;
- Appendix 4B Reference Guides & Technical Services (Standards/Drawings for Commercial/Industrial Services);
- Appendix 5B Reference Guides/Standards for Residential Subdivision Construction;
- Appendix 6B Sample Offer to Connect (Commercial/Industrial Subdivision);
- Appendix 7B Sample Offer to Connect (Condominium Townhouse Subdivision).

5.2.1 Guide to Appendices

The following guide provides a high-level summary of the appendices listed above.

Appendix 1B Methodology & Assumptions for an Economic Evaluation: HOB recovers the cost of expanding its distribution system according to calculations approved by the Ontario Energy Board. This appendix provides explanations for those calculations, including the rationale behind them, and explores the variables to consider for adding Commercial Industrial loading. Also included are descriptions of revenue forecasting, capital costs, expense forecasting, specific parameters/assumptions, and net present value (NPV).

Refer to this appendix before undertaking the initial design of a Commercial/Industrial project.

Appendix 2B Sample Offer to Connect (Residential Subdivision): This appendix (similar to Appendix 7B, but more specific to Residential Subdivisions) provides information on meter base locations, and servicing options. HOB provides Developers with two options (i.e., either Option A or Option B) for connecting new Residential Subdivisions.

- Option A: Turnkey Design & Installation by HOB;
- Option B: Alternative Bid Design & Installation by Developer.

The sample Residential Subdivision "Offer to Connect" explains each option and its obligations, including financial responsibilities and required commitments, enabling Developers to choose the most suitable option.

Refer to this appendix before undertaking the initial design of a Residential Subdivision.

The Underground Subdivision Data Form must be completed and submitted to the Engineering and Development Department before initiating a new Residential Subdivision project. Space is provided for contact details and other information required for a new project.

Appendix 3B Sample Embedded Generator Connection Agreement: This appendix contains an agreement which establishes the contractual relationship between HOB and



the Generator, and describes the responsibilities of each party in addition to those described in these Conditions of Service.

Refer to this appendix before completing the application to connect embedded generation within HOB's service territory.

The contacts and other information provided in this agreement will assist the Generator during the process. For additional information on embedded generation and the OPA-managed FIT/MicroFIT program, visit HOB's website at:

http://www.hydroonebrampton.com/FIT.html

http://www.hydroonebrampton.com/microFIT.html

or email HOB: <u>fitMicroFIT@hydroonebrampton.com</u>.

Appendix 4B Reference Guides & Technical Services (Standards/Drawings for Commercial/Industrial Services): This appendix provides HOB's requirements regarding transformers, transformer pads, Duct Banks, and metering if applying for a new Commercial/Industrial service, or upgrading the electricity supply capacity of an existing facility. Guidelines and descriptions are provided for overhead and underground supply, Transformer Vaults, and other information that Customers will need to know before initiating a new Commercial/Industrial project.

Refer to this appendix before undertaking the initial design of a Commercial/Industrial project.

The Customer Commercial & Industrial Data Form (TS-01) must be completed and submitted to HOB's Technical Services Department before initiating a project. This form will provide HOB with details regarding Customer electrical requirements.

Appendix 5B Reference Guides/Standards for Residential Subdivision Construction: This appendix provides a chart of applicable "Standards and Design Criteria for Underground Residential Subdivisions" that Developers and/or their consultants must consider when designing new Residential Subdivisions.

Refer to this appendix before undertaking the initial design of a Residential Subdivision.

Appendix 6B Sample Offer to Connect (Commercial/Industrial Subdivision): This appendix contains a sample agreement which describes the Developer's obligations, including financial responsibilities and required commitments, when requesting the installation of primary distribution feeders in a Commercial/Industrial Subdivision, and includes additional information on financial arrangements.

Refer to this appendix before undertaking the initial design of a Commercial/Industrial Subdivision.

The Underground Subdivision Data Form must be completed and submitted to HOB's Engineering and Development Department before initiating a new Commercial/Industrial Subdivision project. This form will provide HOB with details regarding Customer electrical requirements.

Appendix 7B Sample Offer to Connect (Condominium Townhouse Subdivision): This appendix (similar to Appendix 2B, but more specific to townhouse subdivisions) provides information on meter base locations, and servicing options. HOB provides Developers with two options (i.e., either Option A or Option B) for connecting new Condominium Townhouse subdivisions.

- Option A: Turnkey Design & Installation by HOB;
- Option B: Alternative Bid Design & Installation by Developer.



The sample Condominium Townhouse "Offer to Connect" explains each option and its obligations, including financial responsibilities and required commitments, enabling Developers to choose the most suitable option.

Refer to this appendix before undertaking the initial design of a Condominium Townhouse Subdivision.

The Underground Subdivision Data Form must be completed and submitted to the Engineering and Development Department before initiating a new Condominium Townhouse Subdivision project. Space is provided for contact details and other information required for a new project.

B-STAFF-28 ATTACHMENT 2 ALECTRA UTILITIES CONDITIONS OF SERVICE – ENERSOURCE RATE ZONE



Conditions of Service

Effective January 1, 2015



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PREFACE

CONDITIONS OF SERVICE

The Distribution System Code (DSC) requires that every Distributor produce its own "Conditions of Service" document. The purpose of this document is to provide a means for communicating the types and level of service available to Customers within Enersource Hydro Mississauga Inc.'s (Enersource) service territory. The DSC requires that the Conditions of Service be readily available for review by the general public. In addition, the most recent version of the document must be provided to the Ontario Energy Board (OEB), who will in turn retain it on file for the purpose of facilitating dispute resolution in the event that a dispute cannot be resolved between the Customer and its distributor.

This document follows the form and general content of the Conditions of Service template appended to the DSC. The template was prepared to assist distributors in developing their own Conditions of Service document based on current practice and the DSC. The text of the template is shown in *italics* throughout this document, right after each of the subheadings. The template outlines the minimum requirements. However, as suggested by the DSC, Enersource has expanded on the contents to encompass local characteristics and other specific requirements.

Enersource's Conditions of Service contains three major sections:

Section 1 (Introduction): contains references to the legislation that covers the Conditions of Service, the rights of the Customer and of Enersource, and the dispute resolution process.

Section 2 (General Distribution Activities): contains references to services and requirements that are common to all the Customer classes. This section covers items such as Capital Contribution, Billing, Hours of Work, Emergency Response, Power Quality and Availability Voltages.

Section 3 (Customer Specific): contains references to services and requirements specific to the respective Customer class. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Special Contracts, and Metering etc. Other sections include the Glossary of Terms, Tables and Appendices.



1 INTRODUCTION

1.1 IDENTIFICATION OF DISTRIBUTOR AND TERRITORY

In this section, the distributor should identify their service territory as defined in the distributor's License.

Enersource Hydro Mississauga Inc., referred herein as either Enersource or the Distributor, is a Corporation incorporated under the laws of the Province of Ontario to distribute electricity.

Enersource is licensed by the Ontario Energy Board (OEB or the Board) and supplies electricity to its Customers as described under the Distribution License issued by the OEB. In addition, there are requirements imposed on Enersource by the various codes referred to in the License as well as the *Electricity Act* and the *Ontario Energy Board Act*.

Enersource operates distribution facilities within its licensed territory as defined in the Distribution License, generally within the boundaries of the Municipality of the City of Mississauga. The service area is subject to change with OEB approval.

1.2 RELATED CODES AND GOVERNING LAWS

This section should reference any legislation that is applicable to the distributor-Customer relationship.

The following defines Enersource's scope of operation:

Electricity Act, 1998 and associated regulations Ontario Energy Board Act, 1998 Distribution License Affiliate Relationships Code Distribution System Code Retail Settlement Code Standard Supply Service Code Ontario Electrical Safety Code Public Service Works on Highways Act Personal Information Protection and Electronic Documentation Act (PIPEDA) These Conditions of Service

In the event of a conflict between this document and the Distribution License or regulatory Codes issued by the OEB, or the *Electricity Act* and *the OEB Act*, the provisions of the *Electricity Act*, the *OEB Act*, the Distribution License and associated regulatory Codes shall prevail.

In the event of a conflict between the Conditions of Service and a Connection Agreement executed by the Customer and Enersource, the Connection Agreement shall govern.

Customers and their agents must plan and design the required electricity service with adherence to all applicable provincial and Canadian Electrical Codes, and all other applicable Federal, Provincial and Municipal laws, regulations, codes and by-laws.

1.3 INTERPRETATIONS

This section should describe the rules for interpretation of the Conditions of Service document.

Enersource shall have the sole right to interpret questions directed to Enersource with respect to the intent of any part of this document.

Headings, paragraph numbers and underlining are for convenience only and do not affect the interpretation of these Conditions of Service. Words referring to the singular include the plural and vice versa and words referring to a gender include any gender.

1.4 AMENDMENTS AND CHANGES

This section should outline the process for making changes to this document. Include any public notice provisions.

Enersource reserves the right to make changes to the Conditions of Service at any time. In the event of changes, Enersource shall notify its Customers through Customer newsletters, website (www.enersource.com), and include a notice of changes with Customer bills.

The Customer is responsible for contacting Enersource to ensure that they have the latest version of these conditions of service.

1.5 CONTACT INFORMATION

This section should provide information on how a Customer can contact the distributor. Include such items as: address of the distributor, telephone numbers, normal business hours, and emergency contact numbers.

OFFICE:

Enersource Hydro Mississauga Inc. 2185 Derry Road West Mississauga, Ontario L5N 7A6

E-MAIL INQUIRIES:

General Inquiries: info@enersource.com Note: To direct e-mail inquiries to an appropriate business representative, the sample below identifies information that is more specific.

DIRECT E-MAIL INQUIRIES:



If you know the name of the person who you wish to reach, that person's E-mail address will be comprised of the first initial and surname followed by @enersource.com (e.g. Mary Smith would be e-mail: msmith@enersource.com).

TELEPHONE INQUIRIES:

Direct Auto-Attendant Inquiries: (905) 566-2727 plus extension plus the pound sign.

If you know the extension of the person you are calling, and you are calling from a touch-tone phone, dial Auto-Attendant at (905) 566-2727 followed by the extension number, then the pound sign. If the extension number is not known, you will be provided with a search option based on last and first name.

Operator Assisted Inquiries: (905) 273-9050

The Enersource main switchboard phone number is (905) 273-9050 if you need to reach us during regular business hours (8:30 AM to 4:30 PM, Monday through Friday).

Emergency 24-Hour Service: (Enersource Control Centre) 905-273-9050

Our main switchboard is constantly updated in the case of a significant outage, and our afterhours procedures provide for recorded updates at this number describing the nature and anticipated duration of a problem. Any after-hour callers who remain holding on this line are redirected through our Control Centre and will receive a response if the team is not preoccupied with business at hand.

Media Contact: (905) 283-4275 or publicaffairs@enersource.com

Urgent after-hour media calls may be directed to our main (905) 273-9050 line. Depending on severity of the matter, return contact will be made either immediately or the next following business day.

CUSTOMER CONTACTS (phone; email):

- General Billing Inquiries: (905) 273-7425; account-info@enersource.com
- Moving In/Out: (905) 273-7425; moving@enersource.com
- Pre-Authorized Payment Plans: (905) 273-7425; paymentplans@enersource.com
- Credit and Collections: (905) 273-7425; credit-collections@enersource.com
- Time of Use: (905) 273-7425; tou@enersource.com
- E-Billing: (905) 273-7425; ebilling@enersource.com
- Customer Account Status only: (905) 566-2711
- Street lighting: (905) 566-2718 or lighting repair request on-line form
- Underground locates: 1-800-400-2255 or Ontario One Call (www.on1call.com)
- Tree-Trimming: (905) 283-4120; forestry@enersource.com
- Energy Management and Conservation: (905) 283-3999

OTHER CORPORATE CONTACTS:

• Human Resources Inquiries: careers@enersource.com



1.6 CUSTOMER RIGHTS

This section should outline the rights and obligations a Customer or embedded generator has with respect to the distributor that are not covered elsewhere in this document.

All Customers shall have non-discriminatory access to Enersource's distribution system and services in accordance with the terms of these Conditions of Service and the applicable Acts, Regulations and Codes, except where trespassing conflicts occur, as outlined further in section 1.7.5.

A Customer shall only be liable to Enersource and Enersource shall only be liable to a Customer for any damages that arise directly out of the willful misconduct or negligence of Enersource in providing distribution services to the Customer, of the Customer in being connected to Enersource's distribution system, or of Enersource or the Customer in meeting the respective obligations under these Conditions of Service, their Licenses, and any other applicable law.

Notwithstanding the above, neither Enersource nor the Customer shall be liable under any circumstances for any loss of profits or revenue, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort, or otherwise.

A Customer or Embedded Generator shall indemnify and hold harmless Enersource, its Directors, Officers, Employees and Agents from any claims made by any third parties in connection with the construction and installation of a generator by or on behalf of the Customer or Embedded Generator.

The provisions of these Conditions of Service and any amendments made from time to time form part of any Contract made between a connected Customer, Retailer, or Generator, and Enersource.

1.6.1 Privacy of Information

Enersource is committed to protecting the privacy of individuals through the safeguarding of personal information. Enersource gathers information about its Customers in order to provide electricity and related services. The information is protected by administrative, technical, contractual and physical practices designed to ensure that personal information is protected at all times.

Our general policy is not to provide personal information to any party outside of Enersource. There are certain limited circumstances under which it is necessary to do so. In these circumstances, Enersource will provide only the information that is necessary under the particular circumstances to third parties. The information is only used for the purpose stipulated and is subject to strict terms of confidentiality.



Enersource's Privacy Officer is responsible for monitoring for the compliance with this policy and all employees are required to adhere to the provisions of the *Personal Information Protection and Electronic Documentation Act* (PIPEDA).

The Enersource Privacy Policy is available on the Company website at <u>www.enersource.com</u>. Further information can be obtained via email by contacting <u>privacy@enersource.com</u>; via mail: Privacy Office, Enersource Corporation, 2185 Derry Road West, Mississauga, ON L5N 7A6; or via our customer service department at 905-273-9050.

1.6.2 Accessibility

The Accessibility for Ontarians with Disabilities Act (AODA) was established in 2005. All organizations must comply with the Accessibility Standards for Customer Service (Ontario Regulation 429/07) by January 1, 2012. These Standards are intended to provide accessible customer service to people with various kinds of disabilities. Enersource has established policies, practices and procedures that will comply with these Standards. Enersource will continue to treat all customers with dignity and respect and ensure it provides service to people with disabilities.

Should you have any questions on Enersource's policies, practices or procedures related to these Standards, please contact our customer service department at 905-273-9050.

1.6.3 Ontario Clean Energy Benefit (OCEB)

The Ontario Clean Energy Benefit (OECB) is a ten percent (10%) rebate to the electricity bill provided by the Ontario government for eligible customers for a five-year period commencing January 1, 2011. Eligible customers include residential customers and small business consumers (general service energy-billed with less than 50 kW demand consuming less than 250,000 kWh annually).

Customers eligible for the Regulated Price Plan (RPP) two-tiered prices and Time-of-Use (TOU) prices are eligible for this rebate. In addition, retailer enrolled customers are eligible as long as they would otherwise be RPP eligible.

Certain customers, such as Bulk-Metered Multi-Unit premises, must complete a Declaration Form, attached as Appendix P, in order to qualify for the Ontario Clean Energy Benefit.

1.7 DISTRIBUTOR'S RIGHTS AND RESPONSIBILITIES

This section should outline the rights a distributor has with respect to a Customer or embedded generator that are not covered elsewhere in this document.

1.7.1 Access to Customer Property

Enersource shall have access to Customer property in accordance with Section 40 of the *Electricity Act, 1998*.



The Customer and the property owner must provide unimpeded, safe, secure access to Enersource employees, or its contractors at all times for the purpose of installing, inspecting, testing, reading, operating, replacing, removing, or maintaining any Enersource equipment within the private property (i.e., pad-mounted transformers, vaults, switches, metering equipment, and other distribution equipment). Minimum clearances are as per latest version of Enersource Standards.

1.7.2 Safety of Equipment

The Customer will comply with all aspects of the Ontario Electrical Safety Code with respect to insuring that the equipment is properly identified, connected for metering and operation purposes and will take whatever steps necessary to correct any deficiencies, in particular cross wiring situations, in a timely fashion. If the Customer does not take such action within a reasonable time, Enersource may disconnect the supply of power to the Customer.

The Customer shall not build, plant or maintain or cause to be built, planted or maintained any structure, tree, shrub or landscaping that would or could obstruct the running of distribution lines, endanger the equipment of Enersource, interfere with the proper and safe operation of Enersource's facilities or adversely affect compliance with any applicable legislation in the sole opinion of Enersource. Where an obstruction is discovered, Enersource will notify the Customer and provide a reasonable time for the Customer to correct any obstructions. If the Customer does not remove such obstruction within the reasonable time designated by Enersource, Enersource may disconnect the supply of electricity to the Customer and/or remove, relocate or, in the case of shrubs or other vegetation, trim such obstructions at the Customer's expense, and Enersource shall not be liable to the Customer for any damages arising as a result thereof, other than physical damage to facilities arising directly from entry on the Customer's property. Enersource's policies and procedures with respect to the disconnection process are further described in these Conditions. Where trespassing conflicts occur, please refer to section 1.7.5.

The Customer shall not use or interfere with the facilities of Enersource except in accordance with a written agreement with Enersource. Where a connection on the line side of the metering equipment is possible, the Customer must grant Enersource the right to make a seal at that point.

1.7.3 Operating Control

The Customer will provide a convenient and safe place, satisfactory to Enersource, for installing, maintaining and operating its equipment in, on, or about the Customer's premises. Enersource will assume no risk and will not be liable for damages resulting from the presence of its equipment on the Customer's premises, or approaches thereto, or action, omission or occurrence beyond its control, and with negligence of any person over whom Enersource has no control.

No person shall remove, replace, alter, repair, inspect, or tamper with Enersource's equipment, unless that person is an employee or an agent of Enersource, or another person lawfully entitled to do so.



1.7.4 Repairs of Defective Electrical Equipment

The Customer will be required to repair or replace any equipment owned by the Customer that may affect the integrity or reliability of Enersource's distribution system. If the Customer does not take such action within a reasonable time, Enersource may disconnect the supply of power to the Customer. Described further in these Conditions are Enersource's policies and procedures with respect to the disconnection process.

1.7.5 Customer's Civil and Physical Structures

Depending on the ownership and demarcation point, construction and maintenance of all civil works on private property owned by the Customer, including such items as transformer vaults, transformer rooms, doors, transformer pads, manholes, cable pull rooms and underground conduit, will be the responsibility of the Customer. Enersource and the Electrical Safety Authority must inspect all civil work on private property. If Customer does not perform repairs requested within 90 days, Enersource reserves the right to perform repairs at the Customer's expense.

The Customer is responsible for the maintenance and safe keeping conditions satisfactory to Enersource of its structural and mechanical facilities located on private property.

Where conflicting and trespassing of service cables (either overhead or underground) onto adjacent properties has occurred, in all cases it is the responsibility of the trespassing property owner to resolve and remove the conflict. The owner must make all the necessary arrangements to re-direct and re-install their service entirely within their own lands at their own expense. Enersource shall not be deemed liable in any way whatsoever and shall not be financially responsible to pay for and/or reimburse such trespassing property owners.

1.7.6 Tree and Vegetation Management

To ensure public safety and the continued reliable operation of its distribution system Enersource will maintain clearance around its distribution lines on a cyclical or as-needed basis. The tree trimming cycle may vary depending on extent of storm damage, health of trees, and vegetation type.

Enersource will coordinate and maintain tree clearance around all its distribution lines that are located on public allowance (including boulevards and easements). Enersource will also maintain tree clearance around its overhead lines over 750 Volts that may be located on private property at no cost to the Customer. Enersource will endeavor to discuss planned clearing with property owners prior to work being performed in order to mitigate the impacts to the environment and the property owner prior to performing the work.

Customers are responsible for all initial tree trimming for all new overhead lines that will be located on private property. Customers are also responsible for continuing tree trimming, tree and brush removal around service lines that are less than 750 Volts and are located on private property. Customers are also responsible for continuing tree trimming, tree and brush removal around service lines that are less than 750 Volts when these lines are owned by the Customer. Clearances must conform to the Electrical Safety Code.



To permit the safe clearance of trees and vegetation from overhead lines over 750 Volts located on private property Enersource will, upon at least ten days prior notice from the Customer, once each year during normal business hours, disconnect and reconnect the Customer's supply without charge.

1.7.7 System Inspection Requirements and Maintenance

Section 4.4 of the Distribution System Code identifies the Distributor's responsibility to maintain its distribution system in accordance with good utility practice and performance standards to ensure reliability and quality of electricity service. To support this responsibility, Enersource will perform inspection activities of its distribution system in accordance with the requirements in Appendix C of the DSC, including ensuring that key equipment, such as transformers, poles, switches, conductors and cables, are inspected at least every three years.

1.8 **DISPUTES**

Any dispute between Customers or retailers and the distributor shall be settled according to the dispute resolution process specified in the Distributor License. In this section, the Distributor should outline the Customer Complaint and Dispute Resolution processes that have been established as a condition of License.

The purpose of this process is to resolve and track disputes between Enersource and market participants (retailers, meter data management agents, consumers, etc.). Disputes concerning the settlement of the amount billed or owed by a distributor to a retailer do not relieve either party from their obligations to make payment in full at the time payment is due. Any deviations between the amount paid at the time due and the amount determined through the dispute resolution process shall be subject to payment of interest. The interest rate shall equal the prime rate charged by the distributor's bank.

1.8.1 Internal Dispute Resolution Process

- Enersource receives an inquiry or complaint from a market participant;
- Investigate complaint within 24 hours;
- If inquiry can be resolved within ten days, determine corrective action, notify market participant of that action, seek/reach agreement, take corrective action, receive confirmation, and log data;
- If inquiry cannot be resolved within ten days, forward issue to Director, Revenue. Senior Management to determine if an agreement can be reached in ten days, if yes log data and proceed to previous sequence (bullet #3 above); and
- If agreement cannot be reached in ten days, forward issue to Legal and OEB and log data.

1.8.2 External Resolution Process

The Ontario Energy Board (OEB or the Board) has automated its consumer complaint handling process and the mechanisms used to exchange data between the Board and regulated companies.



Distributors will be advised of all details of the consumer's complaint through the Board's e-Service portal. Distributors will receive a Consumer Complaint Response (CCR) form. Once the complaint has been received, the distributor is expected to provide a thorough response on the CCR, attach copies of all supporting documentation if applicable, and return the CCR to the Board through the e-Service portal.

The automated process allows 21 days for the exchange of data through the e-Service portal. In other words, the distributor will have 21 days to contact the consumer, resolve the complaint, and complete and return the CCR to the Board. If the process is not completed within 21 days, the complaint is escalated within the Board.

Note: In the Distribution License it states:

The Licensee shall:

- a) Establish proper administrative procedures for resolving complaints by consumers and other market participants' complaints regarding services provided under the terms of this license;
- b) Publish information which will facilitate its Customers accessing its complaint resolution process;
- c) Refer unresolved complaints and subscribe to an independent third party complaints resolution agency which has been approved by the Board;
- d) Make a copy of the complaints procedure available for inspection by members of the public at each of the Licensee's premises during normal business hours;
- e) Give or send free of charge a copy of the procedure to any person who reasonably requests it; and
- f) Keep a record of all complaints whether resolved or not including the name of the complainant, the nature of the complaint, the date resolved or referred and the result of the dispute resolution.

2 DISTRIBUTION ACTIVITIES (GENERAL)

This section should include information that is applicable to all Customer classes of the distributor. Items that are applicable to only a specific Customer class are covered in Section 3.

2.1 CONNECTIONS

Under the terms of the Distribution System Code, Enersource has an obligation either to connect or to make an "Offer to Connect" to any Customer that is within its service area.

Early consultation with Enersource is essential. The Customer or its authorized representative shall consult with Enersource concerning the availability and timing of supply, supply voltage, service location, metering and any other details. These requirements are in addition to those of the Electrical Safety Authority. Enersource will confirm in writing the characteristics of the electricity supply.



The Customer or its authorized representative shall apply for new, upgraded or temporary power service in writing. The Customer is required to provide Enersource with adequate lead-time to ensure the timely provisions of supply to a new or upgraded premise or the availability of adequate capacity for additional loads at existing premises.

Enersource shall make every reasonable effort to respond promptly to a Customer's request for connection. Enersource shall respond to a Customer's written request for connection within ten (10) business days. Enersource will make an offer to connect within sixty (60) calendar days, unless additional information is specifically required from the Customer. Once all service conditions are satisfied, the connection will typically occur within five (5) business days for a low voltage (<750 Volts) service and within ten (10) business days for a high voltage (>750 Volts) service.

Enersource shall make every reasonable effort to respond promptly to requests for connection from a Generator or another Distributor. The processes and timelines for these connection requests are described in sections 3.5.3 and 3.5.4 of these Conditions of Service, respectively.

Enersource, in its discretion, will require a Customer, Generator or Distributor to enter into a Connection Agreement with Enersource and the terms and conditions as shown in Appendices D, E, F, G and H of these Conditions of Service.

If special equipment is required or equipment delivery problems occur then longer lead times may be necessary. Enersource will notify the Customer of any extended lead times.

In addition to any other requirements in these Conditions of Service, the supply of electricity is conditional upon being permitted and Enersource able to provide such a supply, obtaining the necessary apparatus and material, and constructing works to provide the service. Should Enersource not be permitted or able to do so, it is under no responsibility to the Customer whatsoever and the Customer releases Enersource from any liability in respect thereto.

2.1.1 Building that Lies Along

In this section, the distributor should describe the standard connection allowance or charge used by the distributor in its service territory and describe any variable connection fees that would be charged beyond the standard allowance. The distributor also may stipulate in this section other terms and conditions by which a Customer requesting a connection must abide, as long as it is within the terms of this code.

For the purpose of these Conditions of Service, "lies along" means a property or parcel of land that is directly adjacent to or abuts onto the public road allowance where Enersource has distribution facility with appropriate voltage and adequate capacity.

Under the terms of the Distribution System Code and Section 28 of the *Electricity Act, 1998*, Enersource has an obligation to connect a building or a facility that "lies along" its distribution line, provided:



- a) The building can be connected to Enersource's distribution system without an Expansion or Enhancement;
- b) The service installation meets the conditions listed in the Conditions of Service of Enersource (i.e., the Distributor that owns and operates the distribution lines).

The location and service entrance equipment will be subject to the approval of Enersource and the Electrical Safety Authority.

Sections 2.3 and 3 outline the conditions under which Enersource will provide service to Customers that "lie along" an existing distribution line. Enersource provides service to Customers' meeting these conditions. Section 2.1.3 outlines conditions for connection refusal.

2.1.1.1 Connection Charges

Enersource will recover costs associated with the installation of "Connection Assets" by Customer Class, (except for residential Customers) via variable connection charge as applicable.

2.1.2 Expansions

Under the terms of the DSC, a distributor has the Obligation to make an offer to connect any building that is in the distributor's service territory that cannot be connected without an expansion or enhancement, or "lies along" its distribution system, but may be denied connection for the reasons described in subsection 2.1.3 of the distributor's Conditions of Service.

The offer to connect must be fair and reasonable and be based on the distributor's design standard. The offer to connect also must be made within a reasonable time from the request for connection.

In this section, the Distributor should outline, in detail, the process followed to determine any required capital contributions. This section also should describe any fixed connection fees as well as variable connection fees, by Customer class.

Under the terms and conditions of the Distribution System Code, Enersource is required to make an offer to connect.

Upon receiving detailed plans and specifications from the Customer, Enersource will perform system planning studies to determine whether an expansion of the distribution system is required. If system expansion is not required, Enersource will recover costs associated with the installation of "Connection Assets" by Customer class, via variable connection charges as applicable.

The detailed plans must show property lines, roadways, curbs, sidewalks, deep services, preferred locations of transformations and/or service entrances. The specifications must provide the estimated peak load (in kW) by year for five years, project start date and desired in-service date.



If system expansion is required, Enersource will undertake preliminary planning and design, engineering specification and an economic evaluation (Net Present Value, or NPV).

Enersource's methodology and assumptions for economic evaluation are outlined in Appendix C. Expansion of the distribution system to connect new Customers requires a capital investment. The revenue generated by new loads may or may not off-set the capital investment and on-going expenses of the expansion.

If the NPV of the economic evaluation is positive, a Customer will not be required to make a "capital contribution". However, connection charges will apply by Customer class.

If the NPV of the economic evaluation is negative, Enersource will make an "offer to connect" to the Customer. Further detail on Enersource's "Connections and Expansion Process" is outlined in Appendix A.

2.1.2.1 Offer to Connect

If an expansion is needed in order for Enersource to connect the Customer the initial offer to connect shall include:

- (a) a statement as to whether the offer is a firm offer or is an estimate of the costs that would be revised in the future to reflect actual costs incurred;
- (b) a reference to Enersource's Conditions of Service and information on how the Customer requesting the connection may obtain a copy of them;
- (c) a statement as to whether a capital contribution will be required from the Customer;
- (d) a statement as to whether an expansion deposit will be required from the Customer. If one is required, the amount the Customer will have to provide will be specified; and
- (e) a statement as to whether the connection charges, referred to in sections 3.1.5 and 3.1.6 of the Distribution System Code, will be charged separately from the capital contribution referred to in 2.1.2.1(c) above, and a description of, and if known, the amount for those connection charges.

2.1.2.2 Enersource's Obligations Under "Offer To Connect"

All of the above will be provided to the Customer without charge. If the NPV of the economic evaluation is negative, Enersource will include in the Offer to Connect:

- (a) The amount of the capital contribution that the Customer will have to pay for the expansion;
- (b) The calculation used to determine the amount of the capital contribution to be paid by the Customer including all of the assumptions and inputs used to produce the economic evaluation as described in Appendix B;
- (c) Notice that the Customer has a choice to obtain alternate bids from pre-qualified contractors;


- (d) A statement as to whether the offer includes work for which the Customer may obtain an alternative bid and, if so, the process by which the Customer may obtain the alternative bid;
- (e) A description of, and costs for, the contestable work and the uncontestable work associated with the expansion broken down into the following categories:
 - (i) labour (including design, engineering and construction);
 - (ii) materials;
 - (iii) equipment; and
 - (iv) overhead (including administration);
- (e) An amount for any additional costs that will be incurred as a result of the alternative bid option being chosen (including, but not limited to, inspection costs);
- (f) If the offer is for a residential Customer, a description of, and the amount for, the cost of the basic connection referred to in Section 3.1.4 of the Distribution System Code that has been factored into the economic evaluation;
- (g) If the offer is to a non-residential Customer, a description of, and the amount for, the connection charges referred to in section 3.1.5 of the Distribution System Code that have been factored into the economic evaluation;
- (h) The amount Enersource may offer to charge a Customer other than a generator or distributor to construct the expansion to Enersource's distribution system shall not exceed the Customer's share of the difference between the present value of the project capital costs and ongoing maintenance costs for the equipment and the present value of the projected revenue;
- (i) Enersource's offer to connect is an estimate of the costs to construct the expansion and is not a firm offer. The final amount charged to the Customer will be the actual costs incurred. Enersource will calculate the first estimate and the final payment at no extra expense to the Customer; and
- (j) Whether the offer is firm or is an estimate, the NPV revisions in the final payment will reflect the actual costs incurred.

All of the above will be provided to the Customer.

2.1.2.3 Settlement of "Capital Contribution" for "Offer To Connect"

The Customer must supply a certified cheque, a minimum 30 days prior to construction to cover the cost of engineering design, materials, labour, equipment and administrative activities per phase of the development. This cost is equal to the shortfall identified between the present value of the projected costs and revenues.

2.1.2.4 Alternate Bids

As mentioned earlier in the "Offer to Connect" Section 2.1.2.2, Enersource shall inform the Customer that they have the option to obtain alternate bids for expansion work, if the NPV of the economic evaluation is negative. "Alternate Bids" may be obtained if:



- Project requires "Capital Contribution" from the Customer; and
- Construction work does not involve work with existing circuits.

If this option is pursued, Enersource shall require the Customer to:

- complete all the contestable work, select and hire the contractor, pay the contractor's costs for the contestable work, and assume full responsibility for the construction of that aspect of the expansion;
- be responsible for administering the contract (including the acquisition of all required permissions, permits and easements) or have the Customer pay Enersource to do this activity;
- ensure that the contestable work is done in accordance with Enersource's design and technical standards and specifications; and
- inspect and approve, at cost, all aspects of the constructed facilities as part of a system commissioning activity, prior to connecting the constructed facilities to the existing distribution system.

Enersource reserves the right to inspect and approve all aspects of the constructed facilities as a part of a system commissioning, prior to connecting the constructed facilities to the existing distribution system.

Please note that "Uncontestable Work" means the preliminary planning, design and engineering specifications of the work required for the distribution system expansion and connection and also work involving existing distribution assets. The specifications of all work under an alternative bid shall be made in accordance with design and technical standards and specifications outlined in the "Uncontestable Work".

- 2.1.2.5 Settlement of Rebates for Connection of Un-forecasted Customers During Connection Horizon Un-forecasted Customers that connect to the distribution system during the Customer connection horizon will benefit from the earlier expansion and should contribute their share. In such an event, the initial contributors shall be entitled to a rebate from Enersource. Enersource shall collect from the un-forecasted Customers an amount equal to the rebate the distributor shall pay to the initial contributors. The amount of the rebate shall be determined as follows:
 - (a) For a period of up to the Customer connection horizon, the initial contributor shall be entitled to a rebate without interest, based on apportioned benefit for the remaining period; and
 - (b) The apportioned benefit shall be determined by considering such factors as the relative load level and the relative line length (in proportion to the line length being shared by both parties).

2.1.2.6 Phase Developments

For a development constructed in phases over several years, the estimated cost of servicing the first phase may reflect costs associated with the installation of equipment to accommodate the future phases. These costs may be excluded from the servicing costs of the first phase and be proportioned to future phases. Customers must clearly identify the timing and scope of future phases with their original submittal. In the "Offer to Connect", Enersource will identify any costs associated with accommodating future phases and specify if these costs are included in the servicing cost estimate, or if they are excluded but will be charged when the next phase proceeds.

2.1.2.7 Expansion Deposit

For expansions that require a capital contribution, Enersource will require the Customer to provide an expansion deposit. The amount shall be the lesser of 100% of the present value of the forecasted revenue and 100% of NPV of capital contribution required from the Customer. Both amounts are determined by the economic evaluation.

For expansions that do not require a capital contribution, the Customer will provide an expansion deposit for up to 25% of the present value of the projected revenue.

- The expansion deposit collected shall cover both forecast and asset risk.
- The expansion deposit shall be in the form of cash, letter of credit from a bank as defined in the *Bank Act*, or Surety Bond. The Customer may choose the form of the expansion deposit.
- If the expansion deposit is in the form of cash, Enersource will return the expansion deposit as per Section 3.2.2.6 of the Distribution System Code.
- Once the facilities are energized, Enersource shall annually return the percentage of the expansion deposit in proportion to the actual connections (for residential developments) or actual demand (for commercial and industrial developments) that materialized in that year. This annual calculation shall only be done for the duration of the Customer connection horizon of five years. If at the end of the Customer connection horizon the forecasted connections (for residential developments) or forecasted demand (for commercial and industrial developments) have not materialized, Enersource shall retain the remaining portion of the expansion deposit.
- If the Customer chooses an alternate bid, Enersource will collect an expansion deposit in the amount of ten percent (10%) of present value of the projected revenue, and:
 - (a) retain and use the expansion deposit to cover its costs if it must complete, repair, or bring up to standard the facilities. Complete, repair, or bring up to standard includes Enersource's costs to ensure that the expansion is completed to the proper design and technical standards and specifications, and that the facilities operate properly when energized; and



- (b) retain up to ten percent (10%) of the expansion deposit for a warranty period of up to two years. This portion of the expansion deposit may be applied to any work required to repair the expansion facilities within the two year period. The two year period begins:
 - (i) when the last forecasted connection in the expansion project materializes (for residential developments) or the last forecasted demand materializes (for commercial and industrial developments); or
 - (ii) at the end of the Customer connection horizon of five years;

whichever occurs first. Enersource shall return any remaining portion of this part of the expansion deposit at the end of the two year warranty period.

2.1.2.8 Securities Against Forecasted Revenues

The Customer, in close consultation with Enersource, shall develop an estimated load connection forecast, which will outline the energization timing and energy consumption for all lots/blocks within the proposed development. This forecast forms an integral part of the Distribution System Code's economic evaluation model and associated capital contribution calculations and must be reviewed annually. In the event agreement cannot be reached on the load forecast provided by the Customer, Enersource may require that securities be posted until such time that energy consumption estimated by the Customer becomes firm.

2.1.2.9 Customer Classes

The capital contribution collected from the Customer is to be consistent with the respective Customer class as outlined below:

1. Residential

- a) Single Service (Overhead or Underground): Capital contribution not collected from Customers;
- b) New residential subdivisions (2 or more single services): Capital contribution process will apply.
- 2. General Service
 - a) Capital contribution process will be applied to all general service Customers;
 - b) Industrial/commercial subdivisions: Capital contribution process will be applied.

2.1.3 Connection Denial

The DSC sets out the conditions for a Distributor to deny connections. The DSC lists reasons for which a Building that "lies along" a distribution line may be refused connection to that line. This section should describe reasons why a distributor may not be obligated to connect the Customer and provide additional details, where relevant, about specific conditions that may result in a refused connection in accordance with this Code. For example, the criteria for establishing an unsafe connection or a connection, which adversely affects the system, should be further documented within the Conditions of Service.



Enersource has the right to refuse to connect, or continue to connect, a Customer for any of the following reasons:

- 1. Contravention of the laws of Canada or the Province of Ontario;
- 2. Violation of conditions in Enersource's Distributors License;
- 3. Use of a distribution system line for a purpose that it does not serve and that Enersource does not intend it to serve;
- 4. Adverse effect on the reliability or safety of the distribution system;
- 5. Imposition of an unsafe work situation beyond normal risks inherent in the operation of the distribution system;
- 6. A material decrease in the efficiency of Enersource's distribution system;
- 7. A materially adverse effect on the quality of distribution services received by an existing connection;
- 8. Discriminatory access to distribution services;
- 9. If the person or business requesting the connection, or an associated business, owes Enersource money for distribution services, or potential increases in monetary amounts that already are in arrears with Enersource;
- 10. If an electrical connection to Enersource's distribution system does not meet Enersource's requirements and these Conditions of Service; or
- 11. If Enersource refuses to connect a building or facility that lies along one of its distribution lines, Enersource will inform the Customer requesting the connection of the reasons for not connecting, and where Enersource is able to provide a remedy, it will make an offer to connect. If Enersource is unable to provide a remedy to resolve the issue, it is the responsibility of the Customer to do so before connection can be made.

2.1.4 Inspection Before Connection

In this section, the distributor should state the requirement for inspection prior to the commencement of electricity supply by the Electrical Safety Authority.

All Customers' electrical installations shall be inspected and approved by the Electrical Safety Authority and must meet Enersource's requirements. Enersource requires notification from the Electrical Safety Authority of this approval prior to the energization of a Customer's supply of electricity. The Electrical Safety Authority re-inspection and approval for services that have been disconnected for a period of six months or longer must also be available prior to reconnection.

In the event that the Customer's existing service mast is damaged, the Customer is responsible for re-installing and re-anchoring the service mast and the installation must be inspected and approved by the Electrical Safety Authority before Enersource can re-install the service conductors.

The Electrical Safety Authority must approve all temporary services typically used for construction purposes for a period of twelve months and must re-inspect after twelve months.

Enersource reserves the right to inspect and witness the construction of any equipment or facilities that is or will be connected to Enersource's distribution system. Enersource will



notify the Customer in advance of any witness testing or inspections that will be required during construction.

2.1.5 Relocation of Plant

This section should specify the distributor's policy with respect to requests for relocation of plant and the conditions under which the requestor is or may be required to pay for the relocation of plant should be specified. Sharing arrangements also should be noted.

When requested to relocate distribution plant, Enersource shall exercise its rights and discharge its obligations in accordance with existing legislation such as the *Public Service Works on Highways Act*, regulations, formal agreements, easements and common law. In the absence of existing arrangements, Enersource is not obligated to relocate the plant. However, Enersource shall resolve the issue in a fair and reasonable manner. This will include a response to the requesting party to explain the feasibility, or infeasibility, of the relocation and to provide a fair and reasonable charge for relocation based on cost recovery principles.

2.1.6 Easements and Access to Equipment

In this section, any requirements for easements should be described.

To maintain the reliability, integrity and efficiency of the distribution system, Enersource has the right to have supply facilities on private property and to have easements registered against title to the property. Easements are required where facilities serve a property or properties other than the property where the facilities are located and/or where Enersource deems it necessary.

The Customer will prepare, at its own cost, any required reference plan to the satisfaction of Enersource. The Customer's solicitor will prepare and submit an electronic copy of easement documents to Enersource along with three copies of a deposited reference plan. Enersource will review and approve the documents and forward them to the City Solicitor's Office for registration, in turn, Enersource receives copies for their records.

2.1.7 Contracts

This section should outline the types of contracts that are available for each type of Customer, including standard, implied and special contracts. Connection agreements and operating agreements should be listed and referenced as appendices to the Conditions of Services, if applicable.

Generators and Customers with Customer-owned substations will be required to sign a Connection Agreement prior to commencement of service. Enersource may require, at its discretion, other Customers with unusual conditions to sign a Connection Agreement. In addition to contracting for the conveyance of electricity and the use of Enersource's distribution system, Connection Agreements will typically define boundaries and responsibilities for the ownership, operation and maintenance of equipment at the Customer's location.

In all cases, notwithstanding the absence of a formal contract, or Connection Agreement, the consumption of electrical energy from Enersource by any Person or Persons implies and constitutes the acceptance of the terms and conditions of all regulations and rates as established by Enersource. Such acceptance and use of energy shall be deemed the acceptance of a binding contract with Enersource and the person so accepting shall be liable for payment for all services and energy received and the contract shall be binding upon the Person's heirs, administrators, executors, successors or assigns.

2.1.7.1 Contract for New or Modified Service

Enersource shall only connect a Building for a new or modified supply of electricity upon receipt of a completed and signed contract for service in a form acceptable to Enersource. There will also be the requirement of payment to Enersource of any applicable connection charge, and the inspection and approval by the Electrical Safety Authority of the electrical equipment for the new service.

2.1.7.2 Implied Contracts

In all cases, notwithstanding the absence of a written contract, Enersource has an implied contract with any Customer that is connected to Enersource's distribution system and receives distribution services from Enersource. The terms of the implied contract are embedded in Enersource's Conditions of Service, the Rate Handbook, Enersource's rate schedules, Enersource's License and the Distribution System Code, as amended from time to time.

Any person or persons who consume electricity from Enersource shall be liable for payment for such electricity and all distribution charges and other associated charges for the delivery of the electricity. Any implied contract for the supply of electricity by Enersource shall be binding upon the heirs, administrators, executors, successors or assignees of the Person or Persons who consumed electricity supplied by Enersource.

2.1.7.3 Special Contracts

Special contracts that are customized in accordance with the service requested by the Customer normally include, but are not necessarily limited to, the following examples:

- 1. Construction sites;
- 2. Mobile facilities;
- 3. Non-permanent structures;
- 4. Special occasions, etc.; and
- 5. Generation.

2.1.7.4 Payment by Building Owner

The Owner of a Building is responsible for paying for the supply of electricity by Enersource. However, if the occupant is responsible for the payment of the supply of the electricity, the occupant must notify Enersource in writing, or by contacting Enersource's Call Centre by phone, to set up an account.



A Building owner wishing to terminate the supply of electricity to its Building must notify Enersource. Until Enersource receives such notice from the Building owner, the Building owner or the occupant(s), as applicable, shall be responsible for payment to Enersource for the supply of electricity to such Building. Enersource may refuse to terminate the supply of electricity to an owner's Building when there are occupant(s) in the Building (i.e. during certain periods of the winter).

2.1.7.5 Opening and Closing of Accounts

A Customer who wishes to open or close an account for the supply of electricity by Enersource shall contact Enersource's Call Centre by phone, by written request (including requests submitted by facsimile or email), through Enersource's web site, or other means acceptable to Enersource.

Until Enersource receives such written notice from the Customer or its authorized retailer, the Customer shall be responsible for payment to Enersource for the supply of electricity to the Customer.

A request to transfer a Customer from Standard Supply Service (SSS) to a competitive retailer or from one retailer to another must be submitted by the retailer who will serve the Customer, with the appropriate supporting documentation.

2.1.8 Pole Attachments

Enersource will cooperate with community groups to allow the use of poles for community purposes. In all cases, the design of the attachment must meet strict requirements to minimize wind loading and damage to the pole and all such installations must have full approval by the City of Mississauga who controls the use of the right of way. All costs and liability for the attachments are the responsibility of the community group.

For all other pole attachments, Enersource's written consent is required. Each pole attachment is subject to a yearly joint use charge. Enersource, under special circumstances, will grant permission for installation of Customer-owned service cables or equipment on hydro poles. All pole attachments are subject to "Agreement for Licensed Occupancy of Enersource Utility Distribution Poles" and per CSA Standard C22.3 governing joint use attachment on utility poles.

Unauthorized attachments include privately owned electrical service equipment and lighting, private signs, banners and notices, and privately owned brackets and planters. Enersource will remove, at the Customer's expense, any such attachments not approved.

2.1.9 Enhancements

Enersource shall continue to plan and build the distribution system for reasonable load growth, and may perform enhancements to its distribution system for purposes of improving system operating characteristics or for relieving system capacity constraints. In determining system enhancements to be performed on its distribution system, Enersource shall consider the following:

(a) good utility practices;



- (b) improvement of the system to meet the required performance-based indices;
- (c) current levels of Customer service and reliability and potential improvement from the enhancement; and
- (d) costs to Customers associated with distribution reliability and potential improvement from the enhancement.

2.2 DISCONNECTION

In this section, the distributor should specify under what circumstances it has the right or obligation to disconnect a Customer. This section also should outline the business processes used by the distributor, including notification and timing provisions.

Enersource reserves the right to disconnect the supply of electrical energy for causes not limited to:

- 1. Contravention of the laws of Canada or the Province of Ontario;
- 2. Adverse effect on the reliability and safety of the distribution system;
- 3. Imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system;
- 4. A material decrease in the efficiency of the Distributor's distribution system;
- 5. A materially adverse effect on the quality of distribution services received by an existing connection;
- 6. Discriminatory access to distribution services;
- 7. Inability of Enersource to perform planned inspections and maintenance;
- 8. Failure of the Customer to comply with a directive of Enersource that Enersource makes for purposes of meeting its License obligations;
- 9. Overdue amounts payable to Enersource for the distribution or retail of electricity and/or security deposits;
- 10. Electrical disturbance propagation caused by Customer equipment that is not corrected in a timely fashion;
- 11. Any other conditions identified in these Conditions of Service; or
- 12. Enersource may disconnect the supply of electricity to a Customer without notice in accordance with a court order, or for emergency, safety, or system reliability reasons.

The remainder of this section describes in more detail various disconnection circumstances.

2.2.1 Collection of Arrears

2.2.1.1 Disconnection for Non-Payment

Customer allowance is a minimum of seventeen days from the billing date to the Due Date. When the bill remains unpaid on the Due Date, collection procedures follow until the "Cut-off Date", which is seventeen days after the Due Date.

The following procedure will be adhered to when a Customer has reached the Cut-off Date:



- 1. Enersource will mail a Disconnect Notice to the Customer's premises or mailing address as shown on the account, if different from premises.
- 2. The Manager, Accounts Receivable will determine the granting of any consideration to a Customer expressing extenuating circumstances, subject to a commitment for future payment prior to disconnection. If non-payment after seven (7) calendar days of the Disconnect Notice mailing, Enersource will return to disconnect the service as follows;
 - a) Disconnection for non-payment of a meter that cannot be remotely disconnected (non-remote meter) will be carried out within eleven calendar days at the premise whether the Customer is home or not. Reconnection post-payment is within two business days per OEB regulation and the Customer must be home at the time of reconnection.
 - b) Disconnection for non-payment of a non-remote meter with a limiter will be carried out within eleven business days at the premise whether the Customer is home or not. Reconnection post-payment is within two business days per OEB regulation and the Customer does not need to be at home at the time of reconnection.
 - c) Disconnection for non-payment of a meter that can be disconnected remotely will be carried out within eleven calendar days whether the Customer is home or not. Reconnection post-payment is within two business days per OEB regulation and the Customer must be at home at the time of reconnection.
- 3. During the Winter Season, November 1 to April 30, all disconnected residential dwellings must be reconnected prior to the end of the Serviceperson's shift when the temperature forecast is to be at or below freezing. The Manager, Accounts Receivable is responsible and must ensure that in such cases, reconnections have been made;
- 4. In lieu of total disconnection during the Winter Season, a partial temporary disconnection may be applied for unlimited periods on residential dwellings;
- 5. At the discretion of the Collection Supervisor, minimum dollar limits may be set on very small Customer accounts, below which no issuance of Reminder Notices and Disconnect Notices is necessary;
- 6. For bulk-metered General Service Accounts in which there are any residential premises, the disconnection procedure is to be the same as that for Residential Accounts, and each separately occupied dwelling unit's occupant shall receive a Disconnect Notice. Prior to the delivery of the Disconnect Notices, the Vice-President, Finance, and the gas, water and telecommunication utilities are advised;
- 7. For very large General Service Accounts scheduled for disconnection, there will be close liaison with the gas and water utilities for a coordinated collection effort; and
- 8. If applicable, Enersource will adhere to the Distribution System Code regarding arrears management programs and other related customer service provisions, specifically for eligible low-income customers.

2.2.1.2 Late Payment Charge

A late payment charge will be applied to the balance outstanding on the due date. The due date is sixteen (16) calendar days from the date of billing. Late payment charges are at 1.5% per month or 0.0493% per day on all overdue balances.



Where payment is by mail, the postmark date will be deemed the payment date. Where payment is at an authorized branch of a chartered bank, the date received by the bank will be deemed the payment date.

There are six (6) days allowed for residential and four (4) days allowed for general service customers before late payment charges are applicable. If payment is received after the applicable grace period of six (6) or four (4) days, interest will be calculated from the day after the due date. Additional connection and reconnection charges as authorized by the OEB will apply for each visit to the Customer's premises associated with continued non-payment of the amounts due.

Late payment charges will not apply where:

- 1. For one billing per year a Customer makes the request, indicating a good reason for late payment and the Customer has paid all other billings within the last year by the Due Date;
- 2. For large late payment charges a written request may be required, at the discretion of the Manager, Accounts Receivable and/or the Manager, Customer Service; or
- 3. Bills not received by the Customer due to a postal strike.

2.2.2 Disconnection on Order of Inspection Department

The Electrical Safety Authority has the power under the *Electricity Act, 1998* to order any utility to disconnect a service. The regulations pertaining to service discontinuance are contained in the Ontario Electrical Safety Code, 25th Edition, Bulletin 2-16-2, Rule 2-018.

2.2.3 Disconnection and Reconnection of Customer-Owned Substations for Maintenance

Customers normally perform substation maintenance annually on the transformers and switchgear contained within the confines of their private substation. When this occurs, there are a number of procedures to follow before this maintenance can be completed.

2.2.3.1 Procedure

The steps to be followed by Customers or electrical contractors are outlined below.

The Customer or electrical contractor will contact an Enersource representative at (905) 566-2710 to arrange a date and time for the disconnection and reconnection of the high voltage connections for the substation. Enersource normally requires at least five (5) working days advance notice to schedule the disconnection and reconnection of the substation.

The Customer or electrical contractor will arrange payment to Enersource prior to disconnection. Accepted methods of payment include money order, certified cheque, Mastercard, money transfer, or business cheque.

Enersource will not reconnect the power supply until connection authorization has been received from the Electrical Safety Authority. It is the responsibility of the Customer or electrical contractor to contact the Electrical Safety Authority and complete an "Application for Inspection". The Electrical Safety Authority establishes the fee schedule for Electrical Inspections. Note that revisions to the fee schedule occur annually.



In the event that Enersource is unable to perform scheduled work due to inclement weather, distribution system emergencies or similar, Enersource's Control Room Operator will contact the Customer or electrical contractor to reschedule the work.

Enersource performs all substation disconnections and reconnections for maintenance under a time and material basis. Any work carried out during normal working hours (7:30 am to 3:30pm) Monday to Friday except holidays, regular time will apply. Premium time applies for any hours worked outside the normal working hours stated.

The Customer or electrical contractor will be billed applicable premium rate of two (2) hours for a premium maintenance job cancelled within 24 hours of the start time.

2.2.4 Disconnection Notice

Prior to disconnecting a property for non-payment, Enersource shall provide to any person that receives notice of the disconnection the following:

- a) The Fire Safety Notice of the Office of the Fire Marshall; and
- b) Any other public safety notices or information bulletins issued by public safety authorities and provided to Enersource, which provide information to consumers respecting dangers associated with the disconnection of electricity service.

Enersource shall include a copy of the notices or bulletins referred to above along with any notice of disconnection that is left at the property at the time of actual disconnection for non-payment.

2.2.5 Disconnection and Reconnection of Residential Meters and General Service Customer

The minimum time intervals required for Enersource to connect new or upgraded services where a suitable supply circuit exists are as follows:

Residential	:	three (3) working days
General Service	:	five (5) working days

The measured time intervals are from the latest receipt of:

- Written approval by the Electrical Safety Authority;
- A Contract signed by the Customer for monthly billed General Service Customers; and
- A Customer deposit, where required.

Prior to energization, a field verification inspection by Enersource may be necessary. If deficiencies are noted, Enersource will perform a second inspection at its expense to ensure all corrective measures are complete. All subsequent costs, incurred by Enersource due to continuing deficiencies, will be charged to the Customer.



2.2.6 Electrical Disturbances

Customers must ensure that their equipment does not cause any disturbances such as harmonics and spikes that may interfere with the operation of adjacent Customer Equipment. Examples of equipment that may cause disturbances include large motors, welders and variable speed drives.

Enersource also reserves the right and has an obligation to disconnect a Customer's private line or equipment if it has caused or is likely to cause a disturbance or outage on Enersource's system. It is the Customer's responsibility to maintain their privately owned equipment to industry-accepted standards to ensure that outages affecting other Enersource Customers do not occur.

If an undesirable system disturbance is being caused by the Customer's equipment, the Customer will be required to cease operation of the equipment until satisfactory remedial action has been taken. If the Customer does not take such action within a reasonable time, then Enersource may disconnect the supply of power to the Customer.

When the supply of power is disconnected because of electrical disturbances, satisfactory inspection by the Electrical Safety Authority is required before reconnection. It shall be the responsibility of the Customer requiring the reconnection to arrange for all inspections.

2.2.7 Unauthorized Energy Use

If Enersource should find that unauthorized energy use is taking place at a Customer's location, then Enersource will disconnect the supply of power to the Customer.

Enersource takes action to mitigate unauthorized energy use upon identification of possible unauthorized energy use. Enersource may notify Measurement Canada, Electrical Safety Authority, police officials, retailers that service Customers affected by the unauthorized energy use, or other entities.

Enersource will monitor losses and un-accounted energy use on an annual basis.

When the supply of power is disconnected because of unauthorized energy use, satisfactory inspection from the Electrical Safety Authority is required before reconnection. It shall be the responsibility of the Customer requiring the reconnection to arrange for the inspection. Owner of the property at which the unauthorized energy occurred shall pay all costs incurred by Enersource arising from unauthorized energy use, including inspection, repairs and unmetered billing charges.

2.2.8 Hazardous Conditions

If Enersource discovers hazardous wiring, or conditions that would put the life of the general public or Enersource employees in jeopardy, the Customer will be notified of the condition and will be required to remedy the hazard. If the Customer does not take such action as soon as possible, but no later than thirty days, then Enersource may disconnect the supply of power to the Customer.

When the supply of power is disconnected because of an electrical hazard, Electrical Safety Authority inspection is required before reconnection. The Customer requiring the reconnection shall arrange for the inspection and is responsible for all inspection fees.

2.2.9 Reconnection After Six Months

Where Enersource has disconnected a service for non-payment for a period of six (6) months or longer the Electrical Safety Authority shall re-inspect the premises. The party requiring the reconnection is responsible for the inspection and all associated fees.

2.2.10 Disconnection of Overlapped Services

Enersource reserves the right to disconnect a service in situations where two services have been permitted to be overlapped, and the overlap period exceeds fifteen (15) days.

2.2.11 Demolition Requirements

Anyone requesting a building demolition must first obtain a City of Mississauga Demolition Permit Application. The City of Mississauga will request Enersource to confirm the disconnection and removal of all hydro services and equipment. To avoid delays, the applicant must provide Enersource well in advance the exact date of demolition.

2.2.12 House Moving

In the event that the height of a loaded house or building is over 4.42 metres (14.5 feet), an application to Enersource is required before the building travels onto City streets.

The mover is required to complete an application at the City Clerk's Office, and provide this application to Enersource. Enersource will review the application and provide the mover with an estimated cost based on the loaded height of the building, the distance and the route taken. The mover must guarantee the height of the building at the time of making the deposit.

Enersource will disconnect or raise overhead wires during the move and the mover will be required to pay the actual costs incurred.

2.3 CONVEYANCE OF ELECTRICITY

2.3.1 Limitations on the Guarantee of Supply

In this section, the distributor should specify its limitations on the guaranty of supply. The distributor also should reference the provisions for "Powers of Entry" described in section 40 of the <u>Electricity Act, 1998.</u>

Enersource will endeavor to use reasonable diligence in providing a regular and uninterrupted supply but does not guarantee a constant supply or the maintenance of unvaried frequency or voltage and will not be liable for damages to the Customer by reason of any failure in respect thereof.

Customers requiring a higher degree of security than that of normal supply are responsible to provide their own back-up or standby facilities. Customers may require special protective equipment at their premises to minimize the effect of momentary power interruptions or voltage sags.



Enersource will endeavour to maintain voltage variation limits under normal operating conditions at the Customers' delivery points as specified by the latest edition of the Canadian Standards Association, C235.

Customers requiring a three-phase supply should install protective apparatus to avoid damage to their equipment, which may be caused by the interruption of one phase, or non-simultaneous switching of phases of the power supply by Enersource.

Although it is Enersource's policy to minimize inconvenience to Customers, it is necessary occasionally to interrupt a Customer's supply to maintain or improve Enersource's system or to provide new or upgraded services to other Customers.

When practical, Enersource will endeavour to notify Customers prior to interrupting the supply of power to any individual service. However, if an unsafe or hazardous condition is found to exist or if the use of electricity by a Customer's apparatus, appliances or other equipment is found to be unsafe or damaging to Enersource or the public, or if service must be disconnected to assist in the safe or efficient restoration of power, or maintenance of Enersource's system, or in response to a shortage in supply, service may be disconnected without notice.

Enersource shall have access rights to a property in accordance with Section 40 of the *Electricity Act, 1998* and any successor Acts thereto.

2.3.2 Power Quality

This section should outline the guidelines and policies to which the distributor will endeavor to adhere to in conveying electricity supply, such as service voltage guidelines and outage notification processes. This section should also indicate the processes the distributor uses for handling voltage disturbances and power quality testing and remedial action.

This section should also include conditions under which supply of electricity to Customers may be interrupted. Additionally, conditions under which the supply may become unreliable or intermittent should be described.

2.3.2.1 Power Quality Testing

In response to a Customer's power quality concern, where the utilization of electric power adversely affects the performance of electrical equipment, Enersource will perform investigative analysis to attempt to identify the underlying cause. Depending on the circumstances, this may include review of relevant power interruption data, trend analysis, and/or use of diagnostic measurement tools.

Upon determination of the cause resulting in the power quality concern, where it is deemed a system delivery issue and where industry standards are not met, Enersource will recommend and/or take appropriate mitigation measures. Enersource will take appropriate actions to control power disturbances found to be detrimental to the Customer. If Enersource is unable to correct the problem without adversely affecting other Customers, Enersource will use appropriate industry standards, such as IEC (International Electrotechnical Commission) or IEEE (Institute of Electrical and Electronics Engineers) standards, and good utility practice as



a guideline. If the problem lies on the Customer's side of the system, Enersource may seek reimbursement from the Customer for the costs incurred in its investigation.

2.3.2.2 Obligation to Help in the Investigation

If Enersource determines the Customer's equipment may be the source causing unacceptable harmonics, voltage flicker or voltage level on the Enersource distribution system, the Customer is obligated to help Enersource by providing required equipment information, relevant data and necessary access for monitoring the equipment.

2.3.2.3 Timely Correction of Deficiencies

If an undesirable system disturbance is being caused by Customer's equipment, the Customer will be required to cease operation of the equipment until the Customer, at the Customer's cost, has taken satisfactory remedial action. If the Customer does not take such action within a reasonable time, Enersource may disconnect the supply of power to the Customer.

2.3.2.4 Notification for Interruptions

Although it is Enersource's policy to minimize inconvenience to Customers, it is necessary to occasionally interrupt a Customer's supply to allow work on the electrical system. Enersource will endeavour to provide the Customers with reasonable notice of planned power interruptions. Notice may not be given where work is of an emergency nature involving the possibility of injury to persons or damage to property or equipment.

However, during an emergency, Enersource may interrupt supply to a Customer in response to a shortage of supply or to effect repairs on Enersource's distribution system or while repairs are being made to Customer-owned equipment. (See Appendix M for "Enersource's Policies on Planned Outages").

2.3.2.5 Notification to Customers on Life Support

Customers who require an uninterrupted source of power for life support equipment must provide their own equipment for these purposes. Customers with life support equipment are encouraged to inform Enersource of their medical needs and their available backup power. These Customers are responsible for ensuring that the information they provide Enersource is accurate and up-to-date.

Planned interruptions observe the same procedure as prescribed in section 2.3.2.4. For those unplanned power interruptions that extend beyond two hours and the time expected to restore power is longer than what was indicated by Customers (registered on life support) as their available backup power, Enersource will endeavour to contact these Customers but will not be liable in any manner to the Customers for failure to do so.

2.3.2.6 Emergency Interruptions for Safety

Enersource will endeavour to notify Customers prior to interrupting the supply to any service. However, if an unsafe or hazardous condition is found to exist, or if the use of electricity by apparatus, appliances, or other equipment is found to be unsafe or damaging to Enersource or the public, service may be interrupted without notice.



2.3.2.7 Emergency Service (Trouble Calls)

When power is interrupted, the Customer should first ensure that failure is not due to blowing of fuses within the installation. If there is a partial power failure, the Customer should obtain the services of an electrical contractor to carry out necessary repairs. If, on examination, it appears that Enersource's main source of supply has failed, the Customer should report this condition at once to the Enersource Call Centre by calling (905) 273-9050.

Enersource operates a Call Centre 24 hours a day to provide emergency service to Customers. Enersource will initiate restoration efforts as rapidly as practicable.

2.3.2.8 Outage Reporting

Depending on the outage, duration and the number of Customers affected, Corporate Communications of Enersource may issue a news release to advise the general public of the outage. In turn, news radio stations may call for information on a 24-hour basis when they hear of an outage.

2.3.3 Electrical Disturbances

This section should outline the guidelines to which the Distributor and the Customer will be expected to adhere regarding electrical disturbances.

Enersource shall not be held liable for the failure to maintain supply voltages within standard levels.

Voltage fluctuations and other disturbances can cause flickering of lights and other serious difficulties for Customers connected to Enersource's distribution system. Customers must ensure that their equipment does not cause disturbances such as harmonics and spikes that might interfere with the operation of adjacent Customer equipment. Equipment that may cause disturbances includes large motors, welders and variable speed drives, etc. In planning the installation of such equipment, the Customer must consult with Enersource.

The proximity of high electrical currents that may be present in rooms with electrical equipment or primary and secondary cables can affect some types of electronic equipment, such as video display terminals. Enersource will assist in attempting to resolve any such difficulties at the Customer's expense with electrical equipment or in proximity of primary and secondary cables.

Customers who may require an uninterrupted source of power supply or a supply completely free from fluctuation and disturbance must provide their own power conditioning equipment for these purposes.

2.3.4 Standard Voltage Offerings

This section should specify the voltages that the distributor may provide to each type of Customer, based on their supply requirements. This section should include both the primary and secondary voltages that are available. Additionally, any physical or geographic constraints on a particular voltage, or conditions under which voltages may not be provided should be detailed in this section.



Enersource distributes electrical power through 44 kV, 27.6 kV, 13.8 kV and 4.16 kV primary distribution systems. All supply feeder arrangements are of a looped configuration, with open points between interconnections where practical.

Enersource's standard secondary supply voltages are as follows:

120/240 Volt, single phase, 3 wire 120/208 Volt, three phase, 4 wire 347/600 Volt, three phase, 4 wire

Not all secondary voltages are available at all locations. For example, some areas only have single-phase power available and other areas such as industrial subdivisions may have a standardized 347/600 Volt secondary bus. In all cases, Customers are required to consult with Enersource to determine what secondary voltages are available.

Enersource also has the following primary voltages in some but not all parts of its service territory:

2.4/4.16 kV, three phase, 4 wire 8.0/13.8 kV, three phase, 4 wire 16.0/27.6 kV, three phase, 4 wire 44 kV, three phase, 3 wire

Customers are required to consult with Enersource to determine what voltages are available and to discuss their service requirements.

Customers requiring different voltages than those available in their area will be required to provide their own step down or step up transformation equipment.

In general, the Customer will have one service at one voltage. Under normal circumstances, there is only a single service through a single point of entry for each land parcel. If a Customer has more than one building on a single land parcel, it will be the Customer's responsibility to sub-feed the additional building(s) from the single point of supply. Exceptions may be made for commercial and industrial properties with multiple units. This is providing that the building requesting multiple services has proper firewall isolation(s) between units, per Civil Building Code Standard. Customers must apply to Enersource to determine if more than one service to a property is possible.

2.3.5 Voltage Guidelines

This section should specify what voltages the distributor's Customers can reasonably expect, with reference to CSA Standard CAN3-235 current edition.

Enersource maintains service voltage at the Customer's service entrance within the guidelines of CSA Standard CAN3-C235-87 (or latest edition).

Improvements or corrective action will be on a planned and programmed basis where voltages lie outside the indicated limits for Normal Operating Conditions but within the indicated limits for Extreme Operating Conditions. Where voltages lie outside indicated limits



for Extreme Operating Conditions, improvements or corrective action will be on an emergency basis. The urgency of such actions will depend on many factors, including the location and nature of load, circuit(s) affected, extent to which limits exceed the respective voltage levels, the expected duration of the emergency, etc.

Enersource will practice reasonable diligence in maintaining voltage levels, but is not responsible for variations in voltage from external forces such as operating contingencies, exceptionally high loads or low voltage supply from Enersource's Transmitter or Host Distributor. Enersource shall not be liable for any delay or failure in the performance of any of its obligations under these Conditions of Service due to any events or causes beyond the reasonable control of Enersource.

Some events or causes may include without limitation, severe weather, flood, fire, lightning, other forces of nature, acts of animals, epidemic, quarantine restriction, war, sabotage, act of a public enemy, earthquake, insurrection, riot, civil disturbance, strikes, restraint by court order or public authority, or action or non-action by or inability to obtain authorization or approval from any governmental authority or any combination of these causes ("Force Majeure").

2.3.6 Backup Generators

Distributors should include the following statements in this section:

- Customers with portable or permanently connected emergency generation capability shall comply with all applicable criteria of the Ontario Electrical Safety Code and in particular, shall ensure that Customer emergency generation does not back feed on the Distributor's system.
- Customers with permanently connected emergency generation equipment shall notify their Distributor regarding the presence of such equipment.

Any other requirements the Distributor imposes on Customers with backup generation equipment should be described in this section.

Customers with a portable or permanently connected back up generation facility (including an embedded generation facility that is used exclusively for load displacement purposes) shall comply with all applicable criteria of the Ontario Electrical Safety Code. In particular, the Customer shall ensure that their emergency generation does not operate in parallel with Enersource's system without a proper interface protection and an appropriate Connection Agreement, and does not adversely affect Enersource's distribution system.

Customers with permanently connected emergency generation equipment shall notify Enersource regarding the presence of such equipment and shall enter into such agreements as may be requested or required, under these conditions.



2.3.7 Metering

This section should specify the options available to a Customer for metering equipment. The Distributor also should outline the technical requirements for meter installations including location and associated main switch.

Enersource will supply, install, own, and maintain all meters, instrument transformers, ancillary devices, and secondary wiring required for revenue metering as per our standard requirements.

An OEB licensed Generator connected to the Enersource distribution system that sells energy and settles through the Enersource retail settlement process, shall install a four-quadrant interval meter, at the Generator's expense.

The metering for an embedded generation shall be installed at the high voltage point of supply.

Metered Market participants in the Independent Electricity System Operator (IESO) administered wholesale market, must meet or exceed all IESO metering requirements. All Embedded Generating Facilities of 10 MW or larger, must meet or exceed all IESO metering requirements.

A Customer must ensure all metering installations meet and remain compliant with Enersource, Electrical Safety Authority and Measurement Canada standards, and the Ontario Electrical Safety Code. Should a non-compliant installation be identified by Enersource, the non-compliant installation must be remedied by the Customer within thirty (30) days of notification or disconnection may result.

2.3.7.1 General

Describe the Distributor's access to meter installation requirements here.

Enersource installs metering equipment at Customer's supply voltage. The Customer must provide a convenient and safe location satisfactory to Enersource for the installation of meters, wires and ancillary equipment.

No person, except those authorized by Enersource, may remove, connect, or otherwise interfere with meters, wires or auxiliary equipment.

The Customer will be responsible for the care, safekeeping and labeling of Enersource meters, wires and auxiliary equipment on Customer's premises. Lamacoid labels are required on all meter bases and switches. If any Enersource equipment installed on Customer premises is damaged, tampered, destroyed or lost other than by ordinary wear and tear, the Customer will be liable to pay to Enersource the value of such equipment or, at the option of Enersource, the cost of repairing the same plus estimated energy not metered.

The location allocated by the Customer for Enersource metering shall provide direct access for Enersource staff and shall be subject to satisfactory environmental conditions. All metering and/or electrical equipment must have a minimum of one meter of clearance in all



directions and metering and/or electrical rooms must be kept clear of debris, standing water and other water hazards, obstacles and other foreign objects and must not be used for storage of these items.

When building additions or extensions to buildings, houses, or other are planned by a Customer, the Customer is responsible to ensure the addition or extension does not enclose the meter base and meter inside the building. If a situation arises that would cause the meter base to become enclosed due to an addition or extension of the building, the metering equipment must be moved outside of the structure. An ESA inspection is required prior to power being reconnected.

2.3.7.2 Residential

- 1. The Customer supplies and installs an outdoor meter socket, for both new and enlarged services, in accordance with Enersource specifications, with its center located between 160 and 180 centimetres above finished grade.
- 2. There shall be a clear working space of not less than 100 centimetres in front of the socket, from grade level to 200 centimetres above grade. The meter socket shall be complete with a security collar and disc as specified by Enersource.
- 3. Enersource shall approve the method used for screening, concealing or fencing in vicinity of meters before construction. In all cases, a clear working space as per item 2 is still required.
- 4. The Customer shall mark, clearly and permanently with a Brady labeller with cloth labels, dwelling unit numbers inside the meter base prior to energization. Customer must provide a document confirming the services have been commissioned and verified as labeled. The document should contain an overview block diagram of the physical layout of wiring with a table listing all units and date of confirmation with signature or initials of the confirming agent.
- 5. All overhead and underground services having a service entrance capacity of 200 Amperes and less shall have a meter socket rated 200 Amperes. Acceptable meter sockets are to be as per the latest list approved by Enersource.
- 6. Service entrance capacity of 400 Amperes is to be underground complete with CT's and PT's mounted outside in an Enersource approved meter base.
- 7. In addition, for service entrance capacity 600 Amperes and above, the meter socket shall have provision for automatic short-circuiting of current transformers with the meter removed. The Customer also supplies an indoor metering cabinet, 900 mm x 900 mm x 300 mm, (36" x 36" x 12") connected to the meter socket by a minimum of 32 mm (1 ¼ inches), I.P.S. rigid conduit as specified in the Ontario Electrical Safety Code (latest edition), complete with pulling wire.
- 2.3.7.3 All General Service Customers
 - 1. Clear working space shall not be less than 1 metre in front of the installation from floor to ceiling with a minimum 2 metres ceiling height for the full width of the installation.
 - 2. Where a metering cabinet is used, the bottom of the cabinet shall be a minimum of 60 centimetres (24") from the floor, the top a maximum of 200 centimetres (80") from the floor.
 - 3. Where there is a possibility of danger to workmen or damage to equipment from moving machinery, dust, fumes, gas, heat, cold or moisture, protective arrangements satisfactory to Enersource shall be provided by the Customer.



- 4. Where excessive vibration may affect metering equipment, the Customer shall install Enersource approved shock-absorbing devices. The Customer shall contact Enersource where such conditions may occur.
- 5. Customers shall not be permitted to electrically monitor Enersource metering circuits except under the following conditions:
 - a. Enersource shall have installed interval metering with a dedicated phone line (or ethernet service) and meter in an indoor location on the Customer's premises, within an adequately-sized meter cabinet;
 - b. Enersource will approve that the location and environmental conditions are suitable for such monitoring;
 - c. All wiring modifications in and around the metering cabinet and metering circuits shall be performed by Enersource, including devices installed to protect Enersource circuits;
 - d. The Customer shall not be permitted access to the meter cabinet or the cabinet which contains Enersource metering transformers;
 - e. The Customer shall enter into an agreement with Enersource which shall, among other things, save Enersource harmless from any damages with respect to equipment failure or incorrect data;
 - f. The metering circuit modifications shall receive the prior approval of Measurement Canada; and
 - g. All capital, operation and maintenance costs shall be paid by the Customer.
- 6. Customers shall not be permitted to install Customer-owned monitoring, switching or splitter equipment between the main disconnect switch and Enersource meter equipment.
- 7. Where Enersource requires the installation of remotely interrogated time-of-use metering, Customers shall supply, install and maintain a dedicated Bell telephone line to the meter cabinet. Enersource will then make final connection to the meter.
- 8. Meter mounting equipment in a meter room must have the following characteristics:
 - a) Above grade level;
 - b) Direct outside access for Enersource during normal business hours;
 - c) Adequate electrical illumination at the working level;
 - d) If not located at grade level, then accessibility must be by a standard stairway with handrail; vertical ladders are not permitted;
 - e) 120 Volt convenience outlet;
 - f) Lockable with a standard Enersource supplied and installed Abloy door lock. Any subsequent replacements of the Abloy lock required by the Customer shall be at the Customer's expense. Abloy locks are required to allow Enersource with access to equipment;
 - g) Complete with a permanent interior sign indicating how Enersource may contact the Customer during an emergency;
 - h) If an outdoor meter is required and the service entrance is rated over 200 Ampere and above 200 Volts, then the main disconnect and all metering equipment shall be enclosed in a lockable weatherproof cabinet. All such services are pending until approved by Enersource; and
 - i) Customers shall not request a revenue-approved meter, for billing purposes, installed that is not on Enersource's approved meter list, or meets Enersource's specifications.
- 9. Each metered point will have its own account for billing.



2.3.7.4 Main Switch With Respect to Meter Mounting Devices

The Customer's main switch immediately preceding the meter shall be installed so that the top of the switch is as per the Electrical Safety Code (latest addition) from the finished floor and shall permit the sealing and padlocking of:

- 1. The handle in the "open" position; and
- 2. The cover or door in the closed position.

All Enersource metering must have a main switch in the same room and in plain view at all times.

- 2.3.7.5 Meter Sockets
 - 1. The Customer shall supply and install meter sockets in accordance with Enersource specifications for the following services, up to and including the maximum Ampere values shown below:

<u>Voltage</u>	<u>Phases</u>	<u>Wires</u>	<u>Maximum</u> Amperes	Location
120/240	1	3	200	Outdoors
120/208	3	4	200	Outdoors
347/600	3	4	200	Indoors

- 2. Where the supply voltage is 120/208 Volts, 3-phase, 4-wire, and where the Customer desires a certain number of single phase 3-wire supplies, the meter sockets shall contain five prongs to accommodate Enersource's network type meters.
- 3. Where meter sockets are used, sufficient wall space shall be allocated for the future installation of meter cabinets, should up to one third of the units require enlarged service entrances in the future.
- 4. Not permitted are automatic by-pass meter sockets. For 120/208 Volts and larger, a fused main disconnect device must be installed, immediately adjacent to or integral with the meter socket on the line side.
- 5. Centers of meters shall be located at a height between 160 and 180 centimetres above finished floor.
- 6. Meter base types for Residential and Industrial/Commercial Customers are as per Enersource Standard 10-16 (latest revision).

2.3.7.6 Meter Cabinets

Meter cabinets shall be supplied, installed and maintained by the Customer on the load side and immediately adjacent to the fused main disconnect switch, located in the same room. The meter cabinet must be in clear view of the main disconnect switch.

Where the conductors within meter cabinets are the Customer's responsibility, they shall be installed and maintained by the Customer, according to Enersource specifications, as well as the Ontario Electrical Safety Code (latest edition), and shall have the following characteristics:

- 1. Entry and exit points to the meter cabinet must have prior Enersource approval;
- 2. A minimum conductor loop size of 900 mm (36") per phase must be allowed within the cabinet between entry and exit points;



- 3. Mineral insulated, metallic sheath, solid or hard drawn wire conductors are not permitted; and
- 4. Enersource provides and installs connectors for conductors in the meter cabinet. A single conductor per phase is preferred, however, if more than two conductors per phase are used, the Customer shall supply and install the non-standard Enersource connectors.
- 2.3.7.7 Meter Cabinet Specifications
 - 1. Meter cabinets shall be 14 gauge steel minimum, CSA approved, and in accordance with the following:
 - a) Hasp and clasp to accommodate Enersource standard padlock; no other locking provision will be permitted;
 - b) Equipped with a removable steel back plate; and
 - c) Nominal dimensions as shown in the table below:

SWITCH SIZE	CONDUCTOR SIZE	CABINET SIZE		
		<u>Width</u>	Height	<u>Depth</u>
Up to 100 A	Up to 1/0	0.50 m (20 in)	0.75 m (30 in)	0.25 m (10 in)
Up to 200 A	2/0 to 250 MCM	0.90 m (36 in)	0.90 m (36 in)	0.30 m (12 in)
Over 200 A	Over 250 MCM	1.20 m (48 in)	1.20m (48 in)	0.30 m (12 in)

 Cabinets 0.9 m (36 in.) x 0.9 m (36 in.) and larger shall have two side-hinged doors opening at the centre, with three point latching. The meter cabinet should be equipped with pad-lockable doors. The centre of the cabinet doors should be 135 cm in height (as measured from the ground).

2.3.7.8 Multi Metering

- All new condominium apartments and offices, and rental apartments and offices, may be individually metered. Enersource will make an "Offer to Connect" the individual meters. If such offer is accepted, Enersource will supply, install and maintain the smart meters per Ontario Regulation 442/07 Section 4(1). Bulk meter installations will be limited to one meter per building.
- 2. For existing bulk metered buildings (condominium apartments and offices, and rental apartments and offices), Enersource shall, upon request from such buildings and subject to contract, supply, install and maintain individual meters at such buildings.
- 3. Individual metering for commercial establishments within these buildings are subject to metering requirements in accordance with section 2.3.7.5, 2.3.7.6, and 2.3.7.7.
- 4. The Customer must provide a 1.3cm (½") conduit from their telephone room to the meter cabinet. The Customer will arrange for the installation of a telephone line, terminated in the meter cabinet for the exclusive use of Enersource to retrieve interval meter data. The Customer will be responsible for the installation and ongoing monthly costs of operating the phone line. The phone line will be direct dialing voice quality, active 24 hours per day, and energized prior to meter installation. Alternatively, a wireless TCP/IP communication method could be utilized to collect necessary meter data. This option requires the installation of additional equipment as well as a dedicated 120 V receptacle located inside the metering cabinet. The Customer will be responsible for installation of the 120 V power supply source, associated costs related



to additional equipment which includes an ethernet unit as well as monthly operating data download costs. This option may also require installation of external antenna, for which Enersource may need to drill holes in the building/structure. Use of external antenna is needed in order to ensure sufficient wireless coverage. Wireless TCP/IP option is arranged in consultation with Enersource staff.

2.3.7.9 Metering at Customer-Owned Substation

The Customer shall make provision to meter the service at one point and shall be at the point of supply. If there is more than one high voltage point of supply then each shall be metered and totalized.

The layout and arrangement of components must be approved by Enersource well in advance of fabrication of equipment and preparation of tendering documents.

The Customer shall be required to pay Enersource the cost of the Primary Metering Unit.

If the Customer installs an additional substation, provisions must be made to meter at the high voltage point of supply.

2.3.7.10 Auxiliary Connections

Connections to circuits for fire pumps are on to the line side (before main disconnect) of Enersource metering, complete with its own disconnect switch. A load letter indicating the size of motor and its running load is required to determine monthly flat fee charges.

No Customer equipment shall be connected to any part of the Enersource metering circuit.

2.3.7.11 Current Transformer Boxes

Where current transformers are required, the Distributor should outline the technical requirements to be followed for such installations.

Where instrument transformers are incorporated in low voltage switchgear, the size of the chamber and number of instrument transformers shall be per Enersource requirements. A separate meter cabinet must be supplied and installed by the Customer, located as close as possible to the instrument transformer compartment, and meet Enersource requirements.

For Enersource metering transformers installed remotely from the meter cabinet, the Customer shall supply, install and maintain a 32 mm (1 1/4") minimum I.P.S. rigid galvanized conduit, complete with pulling wire, between the metering transformers and the meter cabinet continuous with no more than four 90 degree bends.

Enersource supplies, installs and maintains the metering conductors, for a conduit length of up to ten metres beyond which the conductors are the responsibility of the Customer. Enersource delivers, at its expense, 600 Volt metering transformers to the Customer's service location within the City of Mississauga.



A minimum of #6 copper grounding conductor, not installed in the above conduit, shall ground the meter cabinet. The Customer shall install a strong nylon or poly-rope pull line in the conduit, with an excess of 1.5 m loop left at each end.

Enersource must approve the final layout and arrangements of components before fabrication of equipment.

2.3.7.12 MIST Meter

A MIST meter installation is required for any existing Customer that has an average monthly peak demand during a calendar year over 1 MW and for any new Customer that will have a monthly average peak demand during a calendar year of over 500 kW, as forecasted by Enersource. A MIST meter installation consists of an Enersource-approved interval meter and dedicated communication link to the meter.

The Customer shall supply the dedicated communication link to the meter and pay for all capital costs, installation, maintenance and on-going service costs for the dedicated communication link directly to the communication service provider. See section 2.3.7.13 for further detail.

A deposit in the amount of \$10,000 will be required as security. This deposit will be refunded once Enersource is satisfied that a dedicated communication link to the meter has been established.

Customers, or their agents, requesting a reclassification from non-MIST to MIST will be required to cover the labour and material costs for any metering and related equipment required to complete the request.

2.3.7.13 Interval Metering

Where interval metering is required or requested, the Distributor should outline the technical requirements to be followed for such installations. Included with the technical specifications should be the conditions under which interval metering will be supplied.

Interval meters will be installed for all new or upgraded services where the peak demand is estimated to be 500 kW or greater, or for any Customer wishing to participate in the spot market pass-through pricing.

Prior to the installation of an interval meter, the Customer must provide a ½ inch conduit from their telephone room to the meter cabinet. The Customer will arrange for the installation of a telephone line, terminated in the meter cabinet for the exclusive use of Enersource to retrieve interval meter data. The Customer will be responsible for the installation and ongoing monthly costs of operating the phone line. The phone line will be direct dialing voice quality, active 24 hours per day, and energized prior to meter installation. Alternatively, a wireless TCP/IP communication method could be utilized to collect necessary meter data. This option requires the installation of additional equipment as well as a dedicated 120 V receptacle located inside the metering cabinet. Customer will be responsible for installation of the 120 V power supply source, associated costs related to additional equipment which includes an ethernet unit as well as monthly operating data download costs. This option may also require



installation of external antenna, for which Enersource may need to drill holes in the building/structure. Use of external antenna is needed in order to ensure sufficient wireless coverage. A wireless TCP/IP option is arranged in consultation with Enersource staff. Manual charges will be applied to multi metering if the communication method(s) are not operational. It is the Customer's responsibility to maintain dedicated communication phone lines to metering equipment.

Other Customers that request interval metering shall compensate Enersource for all incremental costs associated with that meter, including the capital cost of the interval meter, installation costs associated with the interval meter, ongoing maintenance (including allowance for meter failure), verification and re-verification of the meter, installation and ongoing provision of communication line or communication link with the Customer's meter, and cost of metering made redundant by the Customer requesting interval metering. The capital cost of the interval meter varies depending on the metering requirements specific to each Customer. The monthly variable costs, such as settlement, software and other processing costs amount to \$26.00. This cost (\$26.00 per month) will be recovered from Customers that request interval metering, and is subject to change.

2.3.7.14 Meter Reading

This section should outline the requirements for access to meters for the purposes of obtaining readings and the process to be used if a reading is not obtained.

The Customer must provide or arrange free, safe and unobstructed access during regular business hours to any authorized representative of Enersource for the purpose of meter reading, meter changing, or meter inspection. Where premises are closed during Enersource normal business hours, the Customer must, on reasonable notice, arrange such access at a mutually convenient time.

2.3.7.15 Final Meter Reading

This section should outline any requirements associated with obtaining a final meter reading on termination of a contract for service.

When a service is no longer required, the Customer shall provide sufficient notice of the date the service is to be discontinued so that Enersource can obtain a final meter reading as close as possible to the final reading date. The Customer shall provide access to Enersource or its agents for this purpose. If a final meter reading is not obtained, the Customer shall pay a sum on an estimated demand and/or energy for electricity used since the last meter reading.

2.3.7.16 Faulty Registration of Meters

In this section, the Distributor should outline the process for dealing with metering errors.

Metering electricity usage for the purpose of billing is governed by the federal *Electricity and Gas Inspection Act* and associated regulations, under the jurisdiction of Measurement Canada, Industry Canada. Enersource's revenue meters are required to comply with the accuracy specifications established by the regulations under the above Act.

In the event of incorrect electricity usage registration, Enersource will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage history. The Customer shall pay a reasonable sum for all the energy supplied based on the reading of any meter formerly or subsequently installed on the premises by Enersource, with due regard being given to any change in the characteristics of the installation and/or the demand. If Measurement Canada, Industry Canada determines that the Customer was overcharged, Enersource will reimburse the Customer for the amount incorrectly billed.

If the incorrect measurement is due to reasons other than the accuracy of the meter, such as incorrect meter connection, incorrect connection of auxiliary metering equipment, or incorrect meter multiplier used in the bill calculation, the billing correction will apply for the duration of the error. Enersource will correct the bills for that period in accordance with the regulations under the *Electricity and Gas Inspection Act*.

2.3.7.17 Meter Dispute Testing

This section should outline the process by which a Customer can dispute a meter measurement or read and seek redress.

Most billing inquiries can be resolved between the Customer and Enersource.

Either Enersource or the Customer may request the service of Measurement Canada to resolve a dispute. If the Customer initiates the dispute, Enersource will charge the Customer a meter dispute fee if the meter is accurate and Measurement Canada rules in favour of the utility.

2.4 TARIFFS AND CHARGES

Charges for distribution services are approved by the Ontario Energy Board. The approved schedule of rates is available on Enersource's website (www.enersource.com). Information about changes will be provided to all Customers with the first billing issued at revised rates.

2.4.1 Service Connections and Miscellaneous Charges

The Distributor should outline the rates that have been established for providing the Customer with a connection to the electrical distribution system and all services provided by the Distributor as per the rules and regulations laid out by all applicable codes.

Enersource's policy is to develop and set average Customer charges at a level to permit full recovery of the allowable connection charges described in the OEB's Distribution System Code.

Where fixed rate average connection charges do not apply, Customer charges will be applied on a time and material basis to recover fully the allowable cost.

Appendices J and K provide further information on Enersource's current rates and service charges.



2.4.1.1 Customers Switching to a Retailer

There are no physical service connection differences between Customers on Standard Supply Service (SSS) or those with a third party retailer. In each situation, delivery of a Customer's energy supply is through the local Distributor with the same distribution requirements. Therefore, all service connection requirements applicable to the SSS Customers are applicable to third party retailer Customers.

2.4.2 Energy Supply

This section should outline the process the Distributor has established for the following:

- Provision of Standard Supply Service to the Customer, per the rules and regulations laid out in the Retail Settlement Code and the Standard Supply Service Code.
- Provision of Supply to the Customer through a Retailer, per the rules and regulations laid out in the Retail Settlement Code.
- Wheeling of energy and all associated rates.

2.4.2.1 Standard Supply Service (SSS)

Unless informed of their switch to a Retail Electricity Supplier, all existing Enersource Customers are Standard Supply Service (SSS) Customers. The Customer's authorized retailer must make the Service Transfer Request (STR).

2.4.2.2 Retailer Supply

Customers transferring from Standard Supply Service (SSS) to a retailer must comply with the Service Transfer Request (STR) requirements outlined in Sections 10.5 through 10.5.6 of the Retail Settlement Code. Requests submitted will be electronic files and transmitted through Enersource's EBT system. Service Transfer Requests (STR's) must contain information as set out in Section 10.3 of the Retail Settlement Code and the EBT standards.

If the information is incomplete, Enersource will notify the retailer or Customer about the specific deficiencies and await a reply before proceeding to process the transfer.

2.4.2.3 Wheeling of Energy

All Customers considering delivery of electricity through Enersource's distribution system are required to contact Enersource for technical requirements and applicable tariffs.

2.4.3 Deposits

This section should outline any deposit and prudential requirements the distributor has established for providing a Customer with distribution services, supply through standard supply service or through a retailer, per the rules and regulations laid out in the Retail Settlement Code.

Enersource's Security or Prudential Deposit Policy is described below. This Policy is required to ensure that Enersource's recoverables are secured and protected against the payment default.



2.4.3.1 Procedure

• Introduction

This credit policy/procedure has been issued by Enersource in compliance with the most recent versions of the OEB's Retail Settlement and Distribution System Codes.

• Overview

The extent of this policy includes all Customers and retailers (except those billed by a competitive retailer under Retailer-Consolidated Billing) including Standard Supply Service Customers and Distributor Consolidated Billing Customers.

• Scope

This policy applies to all Customers/retailers either opening a new account or those whose payment and/or collection activities become delinquent.

Retailer Prudential requirements will be covered within this policy and included in Enersource's Retailer Service Agreement.

• Definitions

Disconnection or Collection Field Trip

A Disconnection or Collection Field Trip is a visit to a Customer's premises by an employee or agent of Enersource to demand payment of an outstanding amount or to shut off or limit service to the Customer failing payment. This is also known as a Disconnect Service Order.

Good Payment History

A Good Payment History for a Customer in each Customer class is defined in section 2.4.3.7.1 of the General Rules.

Interruption of Service Notice

An Interruption of Service Notice is a formal notice delivered to the Customer by an employee or agent of Enersource advising the Customer that service may be shut off or limited failing payment and that service beyond a specified date cannot be guaranteed. This is also known as a Final Notice.

Residential Customer

A residential Customer is a person or corporation who holds either a Distributor Consolidated Retail Account or a Standard Supply Service (SSS) Residential Account. Residential Customers typically live in houses or apartments and live in the premises as an owner or tenant, as defined in Enersource's Conditions of Service Single Dwelling.

A Customer that is a corporation within the meaning of the *Condominium Act, 1998* who has an account with Enersource that:

- Relates to a property defined in the *Condominium Act, 1998* and comprised predominantly of units that are used for residential purposes; and
- Relates to more than one unit in the property; and
- Has filed a Bulk Metered Residential Condominium Corporation Self-Declaration Form, will be assessed as a Residential Customer.



Commercial Customer (General Service <50 kW Demand)

A commercial Customer is defined by the OEB as a non-residential Customer in a <50 kW demand rate class. These Customers are similar to the residential Customer in that their bill does not have a demand component to it and their charges are based upon kWh of consumption. Most of these Customers would occupy small storefront locations or offices.

Demand Customer (General Service >50 kW Demand)

A demand commercial Customer is defined by the OEB as a non-residential Customer in a >50 kW demand rate class who is not a Large User Customer. These Customers have meters capable of measuring and recording peak demand and a Customer in this rate class will have a demand component on their bill.

Eligible Low-Income Customer

(a) a residential electricity customer who has a pre-tax household income at or below the pretax Low Income Cut-Off, according to Statistics Canada, plus 15%, taking into account family size and community size, as qualified by a Social Service Agency or Government Agency; or (b) a residential electricity customer who has been qualified for Emergency Financial Assistance.

Emergency Financial Assistance

Any Ontario Energy Board-approved emergency financial assistance program made available by a distributor to eligible low-income residential customers.

Large User Customer (General Service >5000 kW Demand and Large Users)

A large commercial Customer is defined by the OEB as a non-residential Customer in a >5000 kW demand rate class. These Customers are some of the largest users of electricity in the Enersource service area. Some of these Customers may be direct market participants and contract for their electricity directly with the IESO.

LDC

A Local Distribution Company (LDC) is the regulated entity responsible for the distribution of electricity for a defined service area. Enersource is the LDC for almost all of the City of Mississauga area.

OEB

The Ontario Energy Board (OEB) is the provincial government entity responsible for LDC regulation.

Returned Item

A Returned Item is defined as any method of payment offered by a bank and it will include any cheque or preauthorized payment that has been returned to Enersource by the bank for any of the following reasons: a Stop Payment has been issued, Non-Sufficient Funds or the bank indicates that the funds have not been cleared. In summary, a Returned Item will be any item not honoured by the bank, including all forms of paper or electronic items.

Social Service Agency or Government Agency

(a) a social service agency or government agency that partners with a given distributor to assess eligibility for Emergency Financial Assistance; or



(b) a social service agency or government agency that assesses eligibility for other energy financial assistance or low-income financial assistance programs, and partners with a given distributor to qualify customers for eligibility under the Distribution System Code.

2.4.3.2 Residential Customer – Credit Procedure

2.4.3.2.1 Security Deposit

- a) A security deposit must be provided to Enersource by each Residential Customer that is billed by Enersource and that does not qualify for an exemption under section b), c), d), e) or f). The form of payment of the security deposit shall be cash or cheque, as the Customer chooses, or such other form as Enersource may accept.
- b) A Customer is exempt if the Customer has a Good Payment History with Enersource for a period of at least one year (twelve months).
- c) A Customer that is not eligible for an exemption under section b) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a letter from another electricity or gas distributor in Canada confirming a Good Payment History with that distributor for a period of at least one year (12 months). The time period that makes up the good payment history must be the most recent period of time and some of the time period must have occurred in the previous 24 months.
- d) A Customer that is not eligible for an exemption under section b) or c) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a credit check made at the Customer's expense. The credit check must indicate a satisfactory credit rating for a period of at least one year (twelve months) and some of the time period must have occurred within the past six months.
- e) A Customer that is not eligible for an exemption under section b), c) or d) is nevertheless exempt if the Customer is qualified as an eligible low-income customer and requests a waiver under section 2.4.11.1 of the Distribution System Code.
- f) A Customer that is not eligible for an exemption under b), c), d) or e) is nevertheless exempt if the Customer signs up for an Enersource Pre-Authorized Payment Plan provided that, if the Customer subsequently withdraws from the plan, the Customer must provide the full amount of the security deposit unless, at the time, the Customer qualifies for an exemption under section b), c), d) or e) of section 2.4.3.2.1.
- 2.4.3.2.2 Amount of Security Deposit
 - a) The amount of a Customer's security deposit will be based on the Customer's load profile:
 - For a monthly-billed Customer the Customer's average monthly load over the most recent twelve consecutive month period prorated for 75 days (2.5 times the average monthly bill). Where the average monthly load for the Customer is not



available, Enersource will calculate the consumption based upon its best estimate.

- 2. For a bi-monthly billed Customer the Customer's average monthly load over the most recent twelve consecutive month period prorated for 3.5 months (1.75 times the average bill). Where the average monthly load for the Customer is not available, Enersource will calculate the consumption based on its best estimate.
- b) Despite section a), where a Customer has a payment history that discloses more than one Interruption of Service Notice in the immediately preceding 12 months, the amount of the security deposit will be calculated on the highest monthly load occurring in the most recent twelve consecutive months.
- c) Enersource may waive the amount of a Customer's security deposit when the Customer signs up for a pre-authorized payment plan; provided that, if the Customer subsequently withdraws from the plan, the Customer must provide the full amount of the security deposit unless, at the time, the Customer qualifies for an exemption under section b), c) or d) of section 2.4.3.2.1.

2.4.3.2.3 Review of Security Deposit

- a) Enersource will review a Customer's security deposit at least once in a calendar year for the following purposes:
 - to determine whether the entire amount of the security deposit is to be returned to the Customer because the Customer then qualifies for an exemption under sections b) through f) of 2.4.3.2.1; and/or
 - 2. to determine whether the amount of the security deposit is to be adjusted based on a recalculation of the maximum security deposit under section a) or b) of 2.4.3.2.2.
- b) Enersource will also review a Customer's security deposit for the same purposes whenever the Customer demands in writing that Enersource do so; provided that a Customer shall not be entitled to make such a demand any earlier than twelve months after making the security deposit, in the case of the initial demand, or after making a prior demand for a review.
- c) If Enersource determines, after conducting any such review, that some or all of the security deposit should be returned to the Customer, Enersource shall do so promptly by crediting the Customer's account or otherwise.
- d) If Enersource determines, after conducting any such review, that the maximum amount of the security deposit should be increased, Enersource may require the Customer to pay the amount of the increase at the same time as the Customer's next regular bill comes due.
- 2.4.3.3 Commercial Customer Credit Procedure
- 2.4.3.3.1 Security Deposit
 - a) A security deposit must be provided to Enersource by each Commercial Customer that is billed by Enersource and that does not qualify for an exemption under section b), c), d), e) or f). The form of payment of the security deposit



shall be cash, cheque or an automatically renewing, irrevocable letter of credit from one of the Domestic or Foreign Federally Regulated Financial Institutions Banks, listed on the Office of the Superintendent of Financial Institutions Canada website.

- b) A Customer is exempt if the Customer is a Federal, Provincial and Municipal government, a governmental agency or agent, or a governmental guarantee.
- c) A Customer is exempt if the Customer is a School Board or a Schedule I or II Bank listed on the Office of the Superintendent of the Financial Institutes of Canada website.
- d) A Customer is exempt if the Customer has a Good Payment History with Enersource for a period of at least five years (60 months).
- e) A Customer that is not eligible for an exemption under section d) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a letter from another electricity or gas distributor in Canada confirming a Good Payment History with that distributor for a period of at least five years (60 months). This time period that makes up the good payment history must be the most recent period of time and some must have occurred in the previous 24 months.
- f) A Customer that is not eligible for an exemption under section d) or e) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a credit check made at the Customer's expense. The credit check must indicate a satisfactory credit rating for a period of at least five years (60 months) and some of the time period must have occurred within the past six months.

2.4.3.3.2 Amount of Security Deposit

- a) The amount of a Customer's security deposit will be based on the Customer's load profile:
 - For a monthly-billed Customer the Customer's average monthly load over the most recent twelve consecutive month period prorated for 75 days (2.5 times the average monthly bill). Where the average monthly load for the Customer is not available, Enersource will calculate the consumption based upon its best estimate.
 - 2. For a bi-monthly billed Customer the Customer's average monthly load over the most recent twelve consecutive month period prorated for 3.5 months (1.75 times the average bill). Where the average monthly load for the Customer is not available, Enersource will calculate the consumption based on its best estimate.
- b) Despite section a), where a Customer has a payment history that discloses more than one Interruption of Service Notice in the immediately preceding 12 months, the amount of the security deposit will be calculated on the highest monthly load occurring in the most recent twelve consecutive months.
- c) Enersource may reduce the amount of a Customer's security deposit by one-third when the Customer signs up for a pre-authorized payment plan; provided that, if the Customer subsequently withdraws from the plan, the Customer must provide the full amount of the security deposit unless, at the time, the Customer qualifies for an exemption under section d), e) or f) of 2.4.3.3.1.

2.4.3.3.3 Review of Security Deposit



- a) Enersource will review a Customer's security deposit at least once in a calendar year for the following purposes:
 - 1. to determine whether the entire amount of the security deposit is to be returned to the Customer because the Customer then qualifies for an exemption under section d), e) or f) of 2.4.3.3.1; and/or
 - to determine whether the amount of the security deposit is to be adjusted based on a recalculation of the maximum security deposit under section a) or b) of 2.4.3.3.2.
- b) Enersource will also review a Customer's security deposit for the same purposes whenever the Customer demands in writing that Enersource do so; provided that a Customer shall not be entitled to make such a demand any earlier than five years (60 months) of Good Payment History after making the security deposit, in the case of the initial demand, or after making a prior demand for a review.
- c) If Enersource determines, after conducting any such review, that some or all of the security deposit should be returned to the Customer, Enersource shall do so promptly by crediting the Customer's account or otherwise.
- d) If Enersource determines, after conducting any such review, that the maximum amount of the security deposit should be increased, Enersource may require the Customer to pay the amount of the increase at the same time as the Customer's next regular bill comes due.
- 2.4.3.4 Demand Customer Credit Policy
- 2.4.3.4.1 Security Deposit
 - a) A security deposit must be provided to Enersource by each Demand Customer that is billed by Enersource and that does not qualify for an exemption under section b), c), d), e) or f). The form of payment of the security deposit shall be cash, cheque or an automatically renewing, irrevocable letter of credit from one of the Domestic or Foreign Federally Regulated Financial Institutions Banks, listed on the Office of the Superintendent of Financial Institutions Canada website, as the Customer chooses.
 - b) A Customer is exempt if the Customer is a Federal, Provincial and Municipal government, a governmental agency or agent, or a governmental guarantee.
 - c) A Customer is exempt if the Customer is a School Board or a Schedule I or II Bank listed on the Office of the Superintendent of Financial Institutions Canada website.
 - d) A Customer is exempt if the Customer has a Good Payment History with Enersource for a period of at least seven years (84 months).
 - e) A Customer that is not eligible for an exemption under section d) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a letter from another electricity or gas distributor in Canada confirming a Good Payment History with that distributor for a period of at least seven years (84 months). The time period that makes up the good payment history must be the most recent period of time and some of the time period must have occurred in the previous 24 months.



- f) A Customer that is not eligible for an exemption under section d) or e) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a credit check made at the Customer's expense that indicates a satisfactory credit rating and, thereafter, maintains a satisfactory credit rating.
- g) Despite sections d) and e), where a Customer has a credit rating from a recognized credit rating agency, Enersource may require the Customer to provide a security deposit whenever the Customer's credit rating is downgraded to the extent that Enersource, acting reasonably, has good cause for concern about the Customer's on-going creditworthiness and, in particular, the ability to pay Enersource's bills in full when they are due and payable.

2.4.3.4.2 Amount of Security Deposit

- a) The amount of a Customer's security deposit will be based on the Customer's load profile: the average monthly load over the most recent 12-month period prorated over 75 days. Where an average monthly load for the Customer is not available, Enersource will calculate the load based upon its best estimate.
- b) Despite section a), where a Customer has a Good Payment History that discloses more than one Interruption of Service Notice in the immediately preceding twelve months, the amount of the security deposit will be calculated on the highest monthly load occurring in the most recent twelve consecutive months.
- c) Despite sections a) and b), where a Customer has a credit rating from a recognized credit rating agency, the maximum amount of a security deposit that the Customer is required to pay shall be reduced in accordance with the following table:

Credit Rating	Allowable Reduction of
(Using Standard & Poor s Rating Terminology)	Security Deposit
AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%
A-, from A, A+ to below AA or equivalent	85%
BBB-, From BBB, BBB+ to below A or equivalent	nt 75%
Below BBB- or equivalent	0%

d) Enersource may reduce the amount of a Customer's security deposit by onethird when the Customer signs up for a pre-authorized payment plan; provided that, if the Customer subsequently withdraws from the plan, the Customer must provide the full amount of the security deposit unless, at the time, the Customer qualifies for an exemption under section d), e) or f) of 2.4.3.4.1.

2.4.3.4.3 Review of Security Deposit

- a) Enersource will review a Customer's security deposit at least once in a calendar year for the following purposes:
 - to determine whether the entire amount of the security deposit is to be returned to the Customer because the Customer then qualifies for an exemption under section d) or e) of 2.4.3.4.1; and/or


- 2. to determine whether the amount of the security deposit is to be adjusted based on a recalculation of the maximum security deposit under section a), b) or c) of 2.4.3.4.2.
- b) Enersource will also review a Customer's security deposit for the same purposes whenever the Customer demands in writing that Enersource do so; provided that a Customer shall not be entitled to make such a demand any earlier than seven years (84 months) of good payment history after making the security deposit, in the case of the initial demand, or after making a prior demand for a review.
- c) If Enersource determines, after conducting any such review, that some or all of the security deposit should be returned to the Customer, Enersource shall do so promptly by crediting the Customer's account or otherwise.
- d) If Enersource determines, after conducting any such review, that the maximum amount of the security deposit should be increased, Enersource may require the Customer to pay the amount of the increase at the same time as the Customer's next regular bill comes due.
- 2.4.3.5 Large User Customer Credit Policy
- 2.4.3.5.1 Security Deposit
 - a) A security deposit must be provided to Enersource by each Large User Customer that is billed by Enersource and that does not qualify for an exemption under section b), c), d) or e). The form of payment of the security deposit shall be cash, cheque or an automatically renewing, irrevocable letter of credit from one of the Domestic or Foreign Federally Regulated Institutions Banks, listed on the Office of the Superintendent of Financial Institutions Canada website, as the Customer chooses.
 - b) A Customer is exempt if the Customer is a Federal, Provincial and Municipal government, a governmental agency or agent, or a governmental guarantee.
 - c) A Customer is exempt if the Customer is a School Board or a Schedule I or II Bank listed on the Office of the Superintendent of Financial Institutions Canada website.
 - d) A Customer is exempt if the Customer has a Good Payment History with Enersource for a period of at least seven years (84 months).
 - e) A Customer that is not eligible for an exemption under section d) is nevertheless exempt if the Customer, as an alternative, provides Enersource with a letter from another electricity or gas distributor in Canada confirming a Good Payment History with that distributor for a period of at least seven years (84 months).
 - f) Despite sections d) and e), where a Customer has a credit rating from a recognized credit rating agency, Enersource may require the Customer to provide a security deposit whenever the Customer's credit rating is downgraded to the extent that Enersource, acting reasonably, has good cause for concern about the Customer's on-going creditworthiness and, in particular, the ability to pay Enersource's bills in full when they are due and payable.
- 2.4.3.5.2 Amount of Security Deposit



- a) The amount of a Customer's security deposit will be based on the Customer's load profile: the average monthly load over the most recent 12-month period prorated over 75 days. Where an average monthly load for the Customer is not available, Enersource will calculate the load based upon its best estimate.
- b) Despite section a), where a Customer has a payment history that discloses more than one Interruption of Service Notice in the immediately preceding twelve months, the amount of the security deposit will be calculated on the highest monthly load occurring in the most recent twelve consecutive months.
- c) Despite sections a) and b), where a Customer has a credit rating from a recognized credit rating agency, the maximum amount of a security deposit that the Customer is required to pay shall be reduced in accordance with the following table:

Credit Rating (Using Standard & Poor s Rating Terminology)	Allowable Reduction of Security Deposit
AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%
A-, from A, A+ to below AA or equivalent	85%
BBB-, From BBB, BBB+ to below A or equivaler	nt 75%
Below BBB- or equivalent	0%

2.4.3.5.3 Review of Security Deposit

- a) Enersource will review a Customer's security deposit at least once in a calendar year for the following purposes:
 - to determine whether 50% of the amount of the security deposit is to be returned to the Customer because the Customer then qualifies for an exemption under section a) or b) of 2.4.3.5.1; and/or
 - 2. to determine whether the amount of the security deposit is to be adjusted based on a recalculation of the maximum security deposit under section a), b) or c) of 2.4.3.5.2.
- b) Enersource will also review a Customer's security deposit for the same purposes whenever the Customer demands in writing that Enersource do so; provided that a Customer shall not be entitled to make such a demand any earlier than 12 months after making the security deposit, in the case of the initial demand, or after making a prior demand for a review.
- c) If Enersource determines, after conducting any such review, that some or all of the security deposit should be returned to the Customer, Enersource shall do so promptly by crediting the Customer's account or otherwise.
- d) If Enersource determines, after conducting any such review, that the maximum amount of the security deposit should be increased, Enersource may require the Customer to pay the amount of the increase at the same time as the Customer's next regular bill comes due.
- 2.4.3.6 Retailer Prudential Requirements

The OEB's Retail Settlement Code dictates a Distributor shall enter into security arrangements with each Retailer.



All Retailers will provide a prudential security deposit with Enersource regardless of their credit rating.

The security deposit requirement, the type of security deposit, and the planned frequency for prudential review for timing and updating will be set out in the Retailer Service Agreement.

This prudential calculation will be reviewed every three months. Variances (positive or negative) are anticipated in each quarter.

2.4.3.7 General Rules

- 2.4.3.7.1 Good Payment History
 - A Customer is deemed to have a "Good Payment History" unless, during the relevant time period set out in the following table, one or more of the events set out in section b) occurs:

Customer Class	Time Period
Residential	one year
Commercial	five years
Demand	seven years
Large User	seven years

Each time period in the foregoing table must be the most recent period of time and some of the time period must have occurred in the previous 24 months.

- b) A Customer's Good Payment History is deemed to be terminated if, during the relevant time period set out in section a), one of the following events occurs unless the event occurs due to an error by Enersource:
 - 1. the Customer receives a second Interruption of Service Notice (also known as a Final Notice);
 - 2. Enersource receives a second Returned Item;
 - 3. Enersource makes a Disconnection or Collection Field Trip to the Customer's premises to demand payment of an outstanding amount and, at the time, there is one Returned Item; or,
 - 4. Enersource makes a Disconnection or Collection Field Trip (also known as a Disconnect Service Order) to shut off or limit service to the Customer failing payment.
- 2.4.3.7.2 Payment of Security Deposit
 - a) A Customer may provide a security deposit in equal installments paid over four months or, if the Customer so chooses, over a shorter period. This provision does not apply, however, when Enersource determines to increase the maximum amount of a security deposit after reviewing it.
 - b) Despite section a), a Customer whose service was previously disconnected by Enersource for failing to pay amounts owing to Enersource must pay the entire amount of the security deposit. The Customer must also pay any amount still owing to Enersource before Enersource will restore service to the Customer.

2.4.3.7.3 Return of Security Deposit

- a) Enersource will return a Customer's security deposit within six weeks after the closure of the Customer's account; that is, when Enersource's final bill has been rendered and paid. Enersource will render a final bill promptly after receiving notice to close the account, with a forwarding address, and after making a final meter reading at the service location. Notwithstanding payment of the final bill, Enersource may apply the security deposit as a set-off against any amount then owing to Enersource by the Customer. Enersource will return, in this event, only the balance (if any) of the Customer's security deposit.
- b) Enersource will apply a Customer's security deposit to the final bill prior to the change in service where:
 - 1. the Customer changes from Standard Supply Service to a competitive retailer that uses retailer-consolidated billing; or
 - 2. the Customer changes billing options from distributorconsolidated billing to split billing or retailer-consolidated billing.
- c) Enersource will promptly return, after any such change in service, any remaining amount of the security deposit to the Customer. Enersource will not, in any event, pay any portion of a Customer's security deposit to a competitive retailer.

2.4.3.7.4 Interest on Security Deposit

Interest shall accrue monthly on security deposits made by way of cash or cheque. The interest rate shall be at the Prime Business Rate as published on the Bank of Canada website less 2 percent, updated quarterly. The interest accrued shall be paid out every twelve months or on return or application of the security deposit or closure of the account, whichever comes first, and shall be paid by crediting the account of the Customer. A cheque will be issued only to those Customers no longer in the Enersource service area and whose final bill has been rendered and paid.

2.4.3.7.5 Other Charges

As well as asking for additional money to be added to the security deposit on hand, Enersource will also ask the Customer to pay other charges, including: late payment interest charges, returned item charges, disconnect and reconnection charges and other charges.

2.4.3.7.6 Collection Procedures

Customers with overdue accounts, in addition to having to pay a security deposit, will be subject to the standard collection procedures of Enersource, including: notices of late payment, late payment penalties including interest charges on overdue payments, collection agency activity, notification of credit bureaus and termination of service as appropriate. Service may be terminated for non-payment of any balance (including the requested security deposit) after proper notice has been given. Any payments made at the door of a Customer must be made with certified cheque or money order. Credit card payment can also be made at that time, via the internet. In addition, Enersource reserves the right to accelerate the billing frequency up to and including daily billing.

THIS CREDIT POLICY MAY BE CHANGED BY ENERSOURCE IN ITS DISCRETION FROM TIME TO TIME.



OTHER TERMS AND CONDITIONS MAY APPLY. In particular, certain eligible low-income customers may be subject to other collection provisions as directed by the OEB and various Codes. Please consult an Enersource Customer Service Representative for further details.

2.4.4 Billing

This section should outline the billing methods and billing cycles the distributor has established to provide a Customer with distribution services, supply through standard supply service or through a retailer, per the rules and regulations laid out in the Retail Settlement Code.

Enersource purchases electricity on behalf of all of its Customers and then recovers the cost, along with the cost of distribution, through Customer billings.

As Customers switch to competitive retailers and depending on the billing options, the amount of exposure for Enersource will vary, therefore, adjustments on security deposits to reflect new levels of exposure is required. Enersource's billing practices will comply with all requirements identified in rules, regulations and Codes.

The following policy shall apply for each billing option:

2.4.4.1 Retailer-Consolidated Billing

Under this option, Enersource will not issue a bill to a Customer. The retailer is responsible for issuing the bill to the Customer and for Customer non-payment risk. Enersource would not require a security deposit plus the interest from the Customer.

If Enersource is in possession of a Customer's deposit at the time of a switch to retailerconsolidated billing, Enersource will apply the deposit towards the final bill and any excess deposit returned to the Customer.

2.4.4.2 Distributor-Consolidated Billing

Under this option, Enersource will issue a bill to the Customer. Enersource is responsible for Customer non-payment risk. Enersource may impose an amount of security deposit depending upon its assessment of the Customer's likely risk of non-payment as per the policies outlined earlier in these Conditions of Service.

2.4.4.3 Standard Supply Service

Enersource bills the Customer.

2.4.4.4 Billing Errors

a) As per the Retail Settlement Code, where billing errors have resulted in overbilling and Measurement Canada has not become involved in the dispute, the maximum period of over-billing for which the customer or retailer is entitled to be repaid is two years. If the amount is equal to or exceeds the Customer's or retailer's average monthly billing amount, the Customer or retailer will be notified within ten days of determination of the error and be advised that they may elect to have the full amount credited to their account or repaid in full by cheque, within eleven days of requesting payment by cheque. Where the Customer or



retailer has not requested payment by cheque within ten days of notification, Enersource will credit the full amount to the account. If there are outstanding arrears on the account, Enersource will apply the over-billed amount to the arrears and credit or repay to the Customer or retailer the remaining balance. If the amount over-billed is less than the Customer's or retailer's average monthly billing amount, Enersource will credit the account in the next regularly scheduled bill. Interest will be paid at a rate equal to the prime rate charged by the Company's bank.

- b) Where billing errors have resulted in under-billing and Measurement Canada has not become involved in the dispute, and all relevant data is available, the Customer or retailer will be charged for a period not exceeding two years. Enersource will allow the Customer to pay the under-billed amount in equal installments over a period at least equal to the duration of the billing error, up to a maximum of two years. For instances where the Customer or retailer was responsible for the error, whether by willful damage or unauthorized energy use, Enersource will require full payment of the under-billed amount on the next regularly scheduled bill.
- c) In the event that the data to calculate the actual under-billed amount is not available, the Customer will be charged with an estimated amount, normally not exceeding six months. The estimate will be based on pricing schedules for the most recent six month period. Where billing data is not available the errors will be reviewed on a case-by-case basis and evaluated on the following criteria: ability to recover from the Customer, cost of recovery, materiality, reliability of the data and adverse effects on the reputation of Enersource.
- d) Where billing errors have resulted in under-billing and the Customer is not willing to pay the amount owing, the matter may be turned over to the Company's legal counsel to initiate court action to enforce payment, subject to approval by the Vice President, Finance. The Vice President, Finance may recommend a reduced settlement amount to mitigate legal costs, including court costs, for the Company where the Customer has shown mitigating circumstances that might prevail in law.
- e) Where billing errors have resulted in an under-payment for an eligible lowincome customer, the Customer will be charged the amount not billed in accordance with b) and c) above, or, alternatively, may be granted extended payment options as per Section 7.7.4.1 of the Retail Settlement Code.

2.4.5 Payments and Late Payment Charges

This section should outline payment methods that the distributor has established to provide the Customer with distribution services, supply through standard supply service or through a retailer as per the rules and regulations laid out in the Retail Settlement Code.

Bills are payable in full by the due date; otherwise late payment charges will apply. Where a Customer makes a partial payment on or before the due date: a) late payment charge will apply to the amount of the bill outstanding as of the due date, b) funds will be to the LDC's charges and remaining funds shall be applied or allocated to competitive and non-competitive electricity costs based on the ratios of the amount billed.



The Customer will be required to pay additional charges for the processing of non-sufficient fund (N.S.F.) cheques.

2.5 CUSTOMER INFORMATION

The Conditions of Service shall describe the provision of information with respect to chapter 11 of the Retail Settlement Code. This specifies the rights of consumers and retailers to access current and historical usage information and related data and the obligations of distributors in providing access to such information. The Conditions of Service should include reference to include information subject to privacy regulations and load profile information.

Any processes for handling requests for information outside of the requirements of the Retail Settlement Code should be described in this section.

Enersource will provide information for operational purposes and that has been sufficiently aggregated, such that an individual Customer's information cannot reasonably be identified, and at no charge to (a) another Distributor, (b) the transmitter, (c) the IESO, or (d) the OEB. Enersource will charge a fee approved by the OEB for all other requests for aggregated data.

The Customer has the right to request historical usage information or about its meter configuration be sent to its service address or to a retailer or third party designated by the Customer.

At the request of a Customer, Enersource will provide a list of retailers who have entered into Service Agreements with Enersource. Enersource will inform the Customer that an alternative retailer does not have to be chosen in order to ensure that the Customer receives electricity and of the terms of service available under Standard Supply Service.

Upon receiving an inquiry from a Customer connected to its distribution system, Enersource will either respond to the inquiry, if it pertains to local distribution services or provide the Customer with contact information for the entity responsible for the item of inquiry.

An embedded Distributor that receives electricity from Enersource shall provide load forecasts or any other information related to an embedded Distributor's system load to Enersource, as determined and required by Enersource.

3 CUSTOMER CLASS SPECIFIC

The Customer Class Specific section shall contain references to services and requirements, which are specific to individual Customer classes. This section should cover such items as:

- Demarcation point
- Metering
- Service Entrance Requirements
- Delineation of ownership and operation points of demarcation
- Special contracts



• Other conditions specific to Customer class

The following are examples of Customer specific subsections. It is recognized that Customer classifications are unique to each distributor. The distributor is not limited by these examples to the range and scope of their Customer classifications. Each distributor therefore should review their current classifications and ensure that all of their existing Customer classifications are adequately covered by the distributor's Conditions of Service document.

This section contains references to services and requirements that are specific to individual Customer Classes. It covers items such as Line of Demarcation, Conditions Specific to a Customer Class, Service Entrance Requirements, Delineation of Ownership and Operational Jurisdiction, Metering, and Special Conditions.

Construction of all electrical secondary services is to Enersource Standards and in compliance with Ontario Electrical Safety Code as well as applicable laws, regulations and codes.

Basic connection to residential and General Service Customers, from Enersource's electrical distribution system, will be as per Appendix I, Table 1.

3.1 **RESIDENTIAL CUSTOMERS**

Include all items that apply specifically to residential Customers not covered under the General section.

This section refers to all residential services including, without limitation, single family or single unit dwellings, multi-family dwellings, row-type dwellings and subdivision developments.

Energy is supplied single phase, 3 wire, having a nominal voltage of 120/240 Volts, up to a maximum demand of 100 kVA per dwelling unit. There shall be only one delivery point to a dwelling.

For developments, where the developer's requirement is other than single phase, 3 wire, 120/240 Volts, the supply from Enersource will be either 347/600 Volts or 120/208 Volts three phase, 4 wire. It will be the responsibility of the developer to ensure that appropriate disclosure is made to all potential owners/tenants of such development with respect to the voltage supply to each dwelling.

3.1.1 Single Detached Dwellings

3.1.1.1 Early Consultation

The Customer shall submit and or obtain from Enersource well in advance of installation commencement, the following:

1. Required in-service date;



- 2. Obtain Delivery Point location from Enersource before proceeding with the installation of any service. Failure to do so may result in the Delivery Point having to be relocated at the Customer's expense;
- 3. Capacity of the service entrance equipment as specified by the Ontario Electrical Safety Code (latest edition);
- 4. Details respecting heating equipment, air conditioners and any appliances which demand a high consumption of electrical energy; and
- 5. Site plan, floor plans and elevation drawings to allow Enersource to provide a meter location.

3.1.1.2 Overhead Services (Maintenance Only)

The point of demarcation for residential overhead services, no longer than 30 metres, is at the connection point where Enersource's service drop connects to the Customer's anchor point and service mast (weather head).

Enersource recovers basic connection fees through its rates.

Enersource charges the Customer actual costs for connection assets beyond standard allowance of 30 metres.

Enersource is responsible for the maintenance and repair of the transformer, transformer hardware, the first 30 metres of the overhead service wire and electric meter.

The Customer is responsible for the maintenance and repair of the anchor point; weather head and all points downstream of the connection splice including the meter socket base and the jaw and connection block assemblies.

3.1.1.3 Overhead Servicing Details (Maintenance Only)

In overhead supplied areas, Enersource will install overhead service wires from its aerial circuits on the public right of way at no charge to the Customer if the distance between Enersource's supply point and the Customer's service entrance is not more than 30 metres.

If the distance is greater than 30 metres, the Customer will incur a charge for additional material and labour. The Customer shall supply, own and maintain a Customer-Owned pole line or any other attachment required on their property to support, anchor or terminate service conductors. Enersource will make the connection to Enersource circuits on the public right-of-way.

If transformation is required on the Customer-Owned pole line, Enersource will supply the transformer at no cost to the Customer. The Customer will also be required to sign a Connection Agreement with Enersource and pay connection charges.

The point of demarcation for a primary or secondary voltage pole line is at the first pole on the Customer's property.

The maximum Service Entrance Capacity connected overhead is 200 Amperes. Service Entrance Capacities in excess of 200 Amperes will require an underground service as outlined in 3.1.2.3.



3.1.1.4 Services Over/Under Swimming Pools

Enersource will not allow electrical services over/under swimming pools.

Where a new swimming pool is to be installed it will be necessary to relocate, at the Customer's expense, any electrical service that is located directly over/underground the proposed pool.

3.1.1.5 Underground Services (Required For All New Services)

The point of demarcation for residential underground service is at the line side of Customer's meter base. The customer is not permitted to install and maintain its own secondary cable.

Enersource is responsible for the maintenance and repair of the transformer, transformer hardware, the underground secondary cable, (unless, in the rare case and only per Enersource approval, the Customer owns the existing cables) and the electric meter.

The Customer is responsible for the maintenance and repair of the meter socket base, the meter jaw and connection block assemblies and all equipment downstream. The Customer is also responsible for the conduit that guides the service cable from underground to the meter base.

For Customers whose service entrance is located more than 100 metres from the point of supply, a high voltage primary line (underground) will be required. Enersource will install, own and maintain the line with the initial cost at the Customer's expense. If the Customer is responsible to maintain the primary line, the point of demarcation for overhead is at the first pole and the point of demarcation for underground is at the primary cable riser connection.

The Customer is responsible for the maintenance and repair of all Customer-Owned poles and any poles on Customer's property, primary overhead wires and hardware (including regular tree trimming as outlined in section 1.7.6), primary underground cable terminators, cable hangers, and primary cables. Enersource is responsible for the transformer, transformer hardware and the first 30 metres of overhead secondary wire. For underground secondary cables, Enersource will be responsible for maintaining up to 100 metres in length.

In all cases, if a Customer requires a primary line on their property, the Customer must sign a Connection Agreement that will describe in detail which party is responsible for the maintenance of various components of the line.

Customers requesting an underground service will be subject to conditions as outlined in Appendix I, Table 1.

3.1.1.6 Underground Servicing Details

An approved Enersource Contractor must install underground service wires at the Customer's expense.

For secondary services up to 100 metres in length, Enersource will own, operate and maintain the underground secondary cable provided there is reasonable access to the underground plant. The Customer will be responsible to remove and reinstate any privately owned obstructions (landscaping, sprinklers and sprinkler piping, sheds, buildings, etc.) if



required for access. Enersource requires an appropriate electrical conduit driveway crossing installed to avoid future open cut cable repairs. Enersource will not allow drainage pipe under any circumstances.

The Customer shall pay for any necessary road crossings. Enersource approved contractors will conduct all civil work. Enersource must approve trench routing, service entrance and meter location. The Customer will be responsible for Enersource's costs associated with redesign and inspection services due to changes or deviations initiated by either the Customer or its agent.

Enersource reserves the right to install temporary jumper cables from either a Customer's or a neighboring Customer's service in the event of a fault on a Customer's underground electricity service. Enersource will make connections on the line side of the meter not affecting consumption charges; however, maintain power to the affected Customer until repaired.

For services larger than 200 A, single phase, installation of parallel secondary cables will be allowed. Installation and number of ducts will be as per latest Enersource standards.

3.1.1.7 Conversion from Overhead to Underground Services (to be assessed for all Major Renovations/Infills)

In the event that an overhead service is disconnected to a property due to demolition, infill or a major renovation, defined as a change in footprint or addition of a level, Enersource will require conversion from overhead to underground service. Underground service may also be required in order to correct unsafe conditions, servicing limitations, or contraventions of the OEB Distribution System Code (DSC), including but not limited to, trespassing, sag, vicinity to other objects, and access challenges.

Enersource will deem the change in service to be a new residential connection as per Section 3.1 of the DSC. The customer will be responsible for costs of the underground service and ensuring the work is performed by an Enersource-approved contractor. Once the underground service has been completed, the Customer must submit the Contractor invoice to Enersource in order to be eligible to receive a credit equivalent to up to 30 meters of overhead conductor. Prior to any work associated with the above-mentioned construction, the Customer must contact Enersource to discuss the requirements. The appropriate Enersource design technician may be reached via the design department at 905-273-9050.

3.1.2 Semi-Detached, Duplex or Triplex Dwellings

This section refers to the supply of electrical energy to Customers residing in semi-detached, duplex or triplex dwelling units as defined in the City of Mississauga zoning by-law where a small business establishment exists, in addition to a dwelling, within one of the aforementioned dwelling units.

The point of demarcation is as outlined in 3.1.1.2 and 3.1.1.4 for overhead and underground services respectively.



3.1.2.1 Underground Servicing Details

The Customer shall submit and or obtain from Enersource well in advance of installation commencement the following:

- 1. Required in-service date;
- 2. Obtain a delivery point location from Enersource before proceeding with the installation of any service. Failure to do so may result in the Delivery Point having to be relocated at the Customer's expense;
- 3. Capacity of the service entrance equipment as specified by the Ontario Electrical Safety Code (latest edition);
- 4. Details respecting heating equipment, air conditioners and any appliances which demand a high consumption of electrical energy;
- 5. Survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way, lot lines, easements and other services such as gas, telephone, water, cable TV, etc.;
- 6. Number and size of individual services proposed for duplex or triplex dwelling units;
- 7. Plan to scale showing the electrical room and provision for metering equipment for duplex or triplex dwelling units;
- 8. All new units shall have an underground supply through a single Point of Entry for each land parcel at a location specified by Enersource;
- 9. The Customer shall arrange the electrical wiring to provide for individual metering of each dwelling or small business unit, as well as a separate meter for a common house service; and
- 10. The Customer's Delivery Point shall be an electrical room with direct outside access for Enersource during regular business hours. The room details shall be as per the Ontario Electrical Safety Code (latest edition) and as per Enersource's applicable conditions in section 2.3.7.1.
- 3.1.2.2 Overhead Distribution Area (Maintenance Only)

Where Enersource specifies that the dwelling is located in an overhead distribution area, the following shall apply:

- 1. The maximum Service Entrance Capacity connected overhead is 200 Amperes per service. Service Entrance Capacities in excess of 200 Amperes will require an underground service as outlined in 3.1.2.3;
- 2. The Customer erects and maintains a pole(s) or other attachments required on the Customer's property to support service wires at their expense. This pole line shall be in accordance with section 3.4 of these Conditions of Service and as per the Ontario Electrical Safety Code (latest edition);
- 3. For overhead services, the Customer shall supply, install and maintain a rigidly mounted service mast, and a single point clevis and insulator to which Enersource will attach its multiplex service cable. The mast must be of sufficient height to allow Enersource to attach its service cable not less than 4.5 metres or greater than 5.5 metres above finished grade. There must be no aerial trespass unless Enersource specifically attains a registered easement. The service mast shall be located as specified by Enersource and must be in accordance with the Electrical Safety Authority; and



4. Secondary services installed underground to Enersource's overhead distribution systems are required for all new services as outlined in 3.1.2.3. Enersource will terminate the secondary cable at the overhead circuit and on the line side of the Customer's meter base.

3.1.2.3 Underground Distribution Area

Where Enersource specifies that the dwelling is located in an underground distribution area, the following shall apply:

- Enersource's approved Contractor shall supply, install and maintain a rigidly mounted, I.P.S., CSA approved service entrance conduit (per Enersource's standards), terminated 90 centimetres below grade, complete with conduit bushing. The service entrance conduit shall be located as specified by Enersource;
- Enersource or an Enersource approved Contractor must install the underground secondary services. The Customer may contract for trenching and ducting only, at the Customer's option if performed by an Enersource-approved contractor and shall be subject to inspection and approval by Enersource
- 3. Enersource will be responsible for terminating the secondary cable at the pad-mounted transformer and on the line side of the Customer's meter base; and
- 4. In the event of a fault on a Customer's underground supply, Enersource reserves the right to install temporary jumper cables from a Customer's neighbouring service to maintain power to the affected Customer until the fault is rectified. The connection made is on the line side of the meter and does not affect consumption charges.

3.1.2.4 Point of Demarcation

The ownership demarcation point for residential service is as follows:

- for existing overhead services, it is the first point of attachment on private property. Normally this is service mast at the house. However it may be another structure such as a pole;
- for underground service, it is the line side of the meter base, unless, in rare cases and only per Enersource approval, the Customer owns the existing cables; and
- Enersource also owns the electric meter.

The operational demarcation point for a residential service is at the meter base. The Customer owns the meter base and is responsible for its maintenance.

3.1.3 Residential Subdivisions or Multi-unit Developments (Row-type Multiple Dwellings)

New Residential subdivisions or Row-type Multiple Dwellings involving the construction of new city streets and roadways will involve capital contribution for "Expansion" work. Enersource will perform an economic evaluation to determine whether the future revenue will pay for the capital investment and on-going maintenance. Should the Economic Evaluation identify a shortfall for the expansion, the Customer will be required to provide a capital contribution. The developer has a choice of either having Enersource do the work or request for "Alternate Bids" in accordance with Section 3.3 of the Distribution System Code.

Construction of all electrical services is to Enersource standards and in compliance with the Ontario Electrical Safety Code as well as applicable laws, regulations and codes.



3.2 GENERAL SERVICE

Include all items that apply specifically to general service Customers not covered under the other sections, and broken down into:

- General Service Type A Customers
- General Service Type B Customers
- Embedded Generation
- Embedded Market Participant
- Embedded Distributor
- Un-metered Connections

This section refers to the supply of electrical energy and related requirements to all Industrial and Commercial buildings including plazas, office and apartment buildings. For the purpose of these Conditions of Service, General Service Customers relate to Industrial/Commercial Subdivisions, General Service (Type A and B Customers), Metering, Temporary Services, Private Pole Lines and Motors.

3.2.1 General Requirements (Type A Customers)

Enersource may require the Customer to pay all or part of costs of installing distribution equipment, including circuits and transformation, which are necessary to supply only the Customer due to the following:

- As a guarantee against the Customer's account or;
- Where, in the sole opinion of Enersource, the carrying charges on the equipment will exceed the revenue or;
- Where Enersource has reason to believe that its transformers may have to be removed in less than five years from the date of installation.

Enersource will refund payment when satisfied that the above conditions no longer apply.

3.2.1.1 Type of Service

The type of servicing arrangement (either overhead or underground) to a Customer is determined as follows:

Underground services are required in locations where any of the following occur:

- 1. City of Mississauga site development plan approval is required;
- 2. Enersource technical requirements call for underground services; or
- 3. Areas are designated as underground by Enersource.

Overhead servicing is available where both:

- 1. Enersource circuits are overhead; and
- 2. City of Mississauga site development plan approval is not required.

In overhead servicing areas, the Customer may elect to install an underground service at the Customer's expense.



3.2.1.2 Delivery Point and Point of Entry

The Customer must obtain from Enersource a location for both the Delivery Point and Point of Entry to land parcel before proceeding with the installation of any service.

Failure to do so may require that the Delivery Point and Point of Entry be relocated, resulting in a time delay and additional expense to the Customer.

3.2.1.3 Overhead Services

The point of demarcation for overhead services is at the connection point where Enersource's service drop connects to the Customer's anchor point and service mast (weather head). The maximum distance is 30 metres.

Enersource collects basic connection fees through distribution rates. Enersource charges the Customer actual costs for connection assets beyond standard allowance of 30 metres. Customers will be charged 100% of actual costs for connection assets and redesign due to changes in the Customer's initial proposal.

In overhead supplied areas, Enersource will install, connect and maintain overhead service wires from its aerial circuits on the public right of way to Customer's service mast.

Customers with delta configured secondary services applying for upgrade of overhead services shall be converted to WYE configured services at time of upgrade. Requirements are identified in Appendix R.

3.2.1.4 Overhead Servicing Requirements

The maximum Service Entrance Capacity for which Enersource will install overhead secondary service wires is normally 400 Amperes.

The Customer shall supply and maintain the service mast, including the number of clevises and insulators as required by Enersource for service cable attachments. The mast must be of sufficient height to allow Enersource to attach its service cable not less than 4.5 metres or greater than 5 metres above finished grade. There must be no aerial trespass unless Customer specifically attains a registered easement.

The service mast shall be located as specified by Enersource and must be in accordance with the Electrical Safety Code.

The Customer erects and maintains a pole(s) or other attachments required on the Customer's property to support service wires at their expense. This pole line shall be in accordance with section 3.4 of these Conditions of Services and as per the Ontario Electrical Safety Code (latest edition).

3.2.1.5 Underground Services

The point of demarcation for underground services is where Enersource's wires connect to the Customer's "Termination Compartment" inside the Customer's (grade level) electrical room.



Enersource is responsible for the maintenance and repair of the transformer, transformer hardware, the underground secondary cable (installed by Enersource) and the electric meter.

Enersource collects basic connection fees through distribution rates. Customers will be charged 100% of actual costs for connection assets and redesign due to changes in the Customer's initial proposal.

The Customer is responsible for the maintenance and repair of the meter socket base, the meter jaw and connection block assemblies and all equipment downstream. The Customer is also responsible for the conduit that guides the service cable from underground to the meter base.

Customers with delta configured secondary services applying for upgrade of underground services shall be converted to WYE configured services at time of upgrade. Requirements are identified in Appendix R.

3.2.1.6 Underground Servicing Requirements

Installation of a new or upgraded underground primary service to the Delivery Point, including splicing, is at the Customer's expense. Enersource pays for system operating and protective devices, if any.

The Customer shall supply, install and maintain a concrete encased duct bank in accordance with Enersource specifications from the Point of Entry to the Delivery Point. Prior to installation, Enersource is to approve the duct bank.

If Enersource determines that a duct bank will have a difficult cable pull, the Customer shall design, supply, install and maintain a pulling manhole or pit on the property.

The Customer will supply, install and maintain the transformer foundations and switchgear foundations and grounding in accordance with Enersource's specifications. This includes protective vehicular barriers if required.

The Customer will provide access for Enersource vehicles to the transformers and switchgears without causing property damage. The Customer shall provide an unobstructed paved or graveled surface for this purpose of sufficient strength, as specified by Enersource.

The Customer will pay Enersource the additional cost of transformers of kVA rating in excess of the need estimated by Enersource. Enersource refunds payment when, in the sole opinion of Enersource, the actual kVA load justifies the installation of the transformer. Enersource will consider such refund only when requested.

Underground primary or secondary service is not allowed to be routed under living space or permanent structures.

3.2.1.7 Maintenance of Supply

- 1. Overhead Primary / Secondary Lateral Supply
 - a) Where no poles exist on the Customer's property Enersource will maintain the service wires from its circuits to the Customer's service mast or Delivery Point;



- b) Where a pole line exists on the Customer's property, Enersource maintains the service wires from its circuits to the first pole on the Customer's property;
- c) Private lines shall be maintained at the Customer's expense; and
- d) Pole lines installed by Enersource, for the Customer, shall be maintained at the Customer's expense.
- 2. Underground Primary / Secondary Lateral Supply
 - a) Services installed by Enersource, or its agents, are maintained by Enersource, unless specifically documented otherwise to the Customer by Enersource;
 - b) Following maintenance, surface restoration by Enersource will include only soil, sod, gravel or asphalt. All other damage, maintenance and repair are at the Customer's expense; and
 - c) Ownership and maintenance of privately owned existing service cables is the responsibility of the Customer. If Enersource replaces the existing cable for the Customer, such work shall be at the Customer's expense.
- 3. Underground Primary Looped Supply
 - a) Enersource shall perform maintenance or replacement of all underground looped cables, which form part of Enersource circuits, at Enersource's expense, unless specifically documented otherwise to the Customer by Enersource; and
 - b) Following maintenance, surface restoration by Enersource will include only soil, sod, gravel or asphalt. All other damage, maintenance and repair are at the Customer's expense.

3.2.1.8 Transformation and Voltage Availability (Type A Customer)

Enersource supplies, installs and maintains transformers and associated facilities for the Type A Customer whose ultimate demand will not exceed the values as shown in Appendix L, Table A.

3.2.1.9 Early Consultation

The Customer shall consult with Enersource in the early planning stages to ascertain what facilities and voltages are available at specific locations. Detailed servicing conditions are sometimes difficult to apprehend without specific information, therefore, the Customer shall submit the following:

- 1. Required in-service date;
- 2. Obtain Delivery Point location from Enersource before proceeding with the installation of any service. Failure to do so may result in the Delivery Point having to be relocated at the Customer's expense;
- 3. Voltage requirements;
- 4. Overall single line diagram showing proposed arrangement of the Customer's main primary and secondary distribution system, including the metering facilities and requirements;
- 5. Estimated initial and future Maximum Demand;
- 6. Specific listing of the types of loads for lighting, motor, welding, heating, air conditioning or other;
- 7. Electrical site plan, to scale, showing the preferred location of the service entrance equipment from the Point of Entry to the Delivery Point;
- 8. Electrical room and vault room shall be located above grade;



- 9. Architectural site plan to scale, showing grading and building(s) in relation to existing or proposed property lines;
- 10. Service Entrance Capacity, voltage rating and the interruption capacity of the main secondary service switch;
- 11. Complete set of engineering drawings, including sewer and water servicing and grading, as approved by the City and the Region. Digital drawings are preferred as Micro station files (dgn. format), however, AutoCAD files (dwg. format) are acceptable. Supply of the files can be e-mail or on CD or DVD, compressed if necessary. AutoCAD files should have all the reference files bound to the main drawing file; and
- 12. The Customer shall ensure that the service entrance equipment has an adequate short-circuit interrupting capability. Enersource will advise, on request, the maximum available short-circuit symmetrical in-rush Amperes at any specific location.
- 3.2.1.10 Electrical Service Characteristics
 - 1. Electricity supply to the Customer is at one service voltage and at one Delivery Point to any building. Primary feeder circuits may enter or exit via a different route on the land parcel.
 - 2. The Customer shall supply, install and maintain internal transformers where a voltage other than the supply voltage is required.
 - 3. The Customer shall maintain a balanced 3-phase load.
 - 4. The Customer shall obtain prior approval from Enersource for the use of any specific voltage at any specific location.
 - 5. The electric servicing of most Industrial / Commercial and Institutional buildings is via transformation supplied, owned, operated, and maintained by Enersource.
 - 6. It is Enersource's practice to provide transformation to supply the Customer's actual demand. As such, the main switch and/or breaker setting may need to be set at a lower fuse level to provide coordination with Enersource's primary transformer fuse. Enersource will provide the time-current characteristic curve of the upstream protection to the Customer's Consultant. The onus is on the Customer to confirm suitable coordination.
 - 7. Where the voltage requested is not available from Enersource, the Customer shall supply, install and maintain the transformers.
 - 8. The Customer shall ensure that the service entrance equipment has an adequate short-circuit interruption capability. Enersource will advise, on request, the maximum available short-circuit symmetrical in-rush Amperes at any specific location.
- 3.2.1.11 Overhead Secondary Services (max 400 Amp)
 - 1. Enersource will be responsible for the installation and maintenance of the transformer and hardware.
 - 2. Enersource will be responsible for the installation and maintenance of the first 30 metres of overhead service wire for new or enlarged services.
 - 3. The Customer is responsible for the installation and maintenance of the clevises and insulators including weather heads and all points downstream of the delivery point including the meter socket base.
 - 4. Enersource is responsible for the installation and maintenance of the electric meter.



- 3.2.1.12 Underground Secondary Services Via Overhead Circuits (max 600 Amp)
 - 1. Enersource will be responsible for the installation and maintenance of the transformer and hardware.
 - 2. The Customer's Service Entrance Capacity must not exceed 600 Amperes (80% rating).
 - 3. Enersource will be responsible for the installation and maintenance of the underground service wire for new or enlarged services. The initial installation costs will be at the Customer's expense.
 - 4. The Customer's electrical room and vault room shall be located above grade. Enersource will be responsible for supply and installation of secondary cables mounting and terminations on hydro pole at the Customer's expense.
 - 5. Enersource is responsible for the installation and maintenance of the electric meter above grade level including requirements for CT's and PT's.

3.2.1.13 Underground Secondary Services - Via Pad-mounted Transformer (max 3000 Amp)

- 1. Enersource will be responsible for the installation, ownership and maintenance of the transformer and hardware.
- 2. Enersource will be responsible for the installation, ownership and maintenance for the life of the underground service wire for new or enlarged services. The initial installation costs will be at the Customer's expense.
- 3. The Customer's electrical room and vault room shall be located above grade level, Enersource will install, own and maintain secondary cables downstream of the padmounted transformer secondary bushings.
- 4. Enersource will be responsible for the transformer secondary cable terminations at the Customer's expense.
- 5. Enersource is responsible for the installation and maintenance of the electric meter including requirements for CT's and PT's.

3.2.1.14 Transformer Vaults

This section refers to the requirements of Customer-Owned Transformer Vaults in which Enersource installs and maintains its electrical equipment to a maximum of 3000 Amps.

Note: The practice of vault installation is no longer encouraged by Enersource. If Customers request a vault, then the following will apply.

3.2.1.14.1 General Requirements

For transformer vault services, the point of demarcation is downstream of the secondary transition unit's penetration into the vault.

The Customer is responsible for a safe environment and maintaining a structural integrity of the Customer-Owned vault as per Enersource standards.

Enersource is responsible for the installation and maintenance of the electric meter including requirements for CT's and PT's inside the electrical room.

Construction of vaults must be in accordance with applicable Federal, Provincial and Municipal codes as well as Enersource requirements. Vaults shall be located at grade level,



preferably in a corner of the building, with two outside walls with no occupied living or office space adjacent to the vault.

The grade level requirement shall be with respect to the location of the doors. Continual natural drainage away from both the interior and immediate exterior of the vault is also required. Prior to the commencement of construction, Enersource must approve vault location and all vault dimensions and clearances.

3.2.1.14.2 Vault Requirements

The Customer shall submit details of all vault requirements listed below to Enersource for approval well in advance of installation commencement.

The Customer shall supply, install and maintain the following in accordance with applicable Federal, Provincial and Municipal Codes as well as Enersource specifications:

- 1. Incoming primary concrete-encased ducts, complete with reinforcing and fish wire;
- 2. Grounding system in accordance with the Ontario Electrical Safety Code;
- 3. A transition unit through the vault wall by which the secondary conductors connect to the Customer's main service entrance. Phase rotation is to be according to Enersource's standards;
- 4. Ventilation inlet and outlet openings sized according to the Customer's service entrance capacity complete with high security steel bars, screens, louvers and grills. Mechanical ventilation is not acceptable;
- 5. Non-flammable insulation, where required to prevent heat or sound transfer;
- 6. Cable trench at the primary entrance to the vault, complete with drain and cover;
- 7. Cable pulling eyes;
- 8. Drain, with screen, trap and reverse check valve, including adequate floor slope towards drain;
- 9. Two coats of light-colored waterproof paint on all interior walls and ceiling of the vault;
- 10. Metal clad vault door(s):
 - a) Located in an outside wall with direct access from grade level;
 - b) Locking provisions with an Abloy lock, or another lock acceptable to Enersource. No other means of locking shall be permitted;
 - c) With hardware not removable from the outside;
 - d) With permanent legible signs stating, "Danger High Voltage" and "Minimum Clearances" (which consist of 6 metres from front and 3 metres from each side) on the outside;
 - e) Without ventilation openings; and
 - f) With an elevated concrete sill;
- 11. Smoke detector, location approved by Enersource, with annunciation external to the vault. Sprinklers and other fire extinguishing systems are not permitted; and
- 12. Lighting and convenience outlet.

3.2.1.14.3 Access to Vaults

The Customer shall allow authorized personnel of Enersource access to the transformer vault at all times, and shall prevent unauthorized persons from entering.



It is necessary that Enersource vehicles have access to the door(s) of the vault at all times, without causing property damage. The Customer shall provide an unobstructed paved or graveled surface for this purpose, of sufficient size and strength as specified by Enersource. The Customer must arrange with Enersource, at Customer's expense, to install an Abloy lock, or another lock acceptable to Enersource, for this purpose.

3.2.1.14.4 Maintenance and Costs

Enersource will carry out or co-ordinate maintenance inside the vault. Routine maintenance could include cleaning, painting, tightening connections, and other normal functions. Enersource will pay for the costs for such routine maintenance done during normal working hours. The Customer shall pay Enersource's premium overtime costs when the Customer requests work done outside normal working hours.

Specific repairs to the Customer's equipment will be at the Customer's expense. Specific repairs to Enersource's equipment will be at Enersource's expense.

Enersource will not allow the Customer or its agents to perform maintenance inside an energized vault.

3.2.1.14.5 Secondary Conductors in a Vault

Where Enersource supplies, installs and maintains transformers in the Customer's vault, the Customer shall:

- 1. Supply, install and maintain the vault and grounding in accordance with Enersource specifications;
- 2. Supply, install and maintain a cable tray for secondary cables within transformer vaults with service entrance capacities up to and including 800 Amperes. For these vaults, Enersource will supply and install secondary cables and connectors at the Customer's expense. Where the service entrance capacity exceeds 800 Amperes, Enersource will install secondary bus bars, cables and connectors at the Customer's expense. Maintenance of cables and connectors will be at Enersource's expense;
- 3. Provide access for Enersource vehicles to the vault without causing property damage. The Customer shall provide an unobstructed paved or graveled surface for this purpose of sufficient strength, as specified by Enersource.

3.2.1.15 Point of Demarcation

The ownership demarcation point is as follows:

- For existing overhead services, it is the first point of attachment on the private property.
- For existing Customer-installed underground service, it is the transformer secondary bushing.
- For Enersource underground services supplied by pad-mounted transformer, it is the junction box or switchboard. For services supplied by vault transformer, it is the transition unit.

The operational demarcation point is as follows:



- For existing overhead services, it is the first point of attachment on private property.
- For underground service, it is the meter base or the disconnect switch. Residential Customers and multi-use Residential/Commercial establishments with single phase service up to 400 A that are fed with underground cables will have the operational demarcation point at the line side connection of the meter base. The disconnect switch in these cases is located inside the house or establishment after the meter. Industrial/Commercial Customers that are fed with underground cables will have the operational demarcation point at the disconnect switch. The meter in these cases is located after the disconnect switch.

3.2.2 Transformation and Voltage Availability (Type B Customer)

For Type B Customers, the Customer will be responsible to supply, install and maintain transformers and associated facilities as shown in Appendix L, Table B.

3.2.2.1 Early Consultation

The Customer shall consult with Enersource in the early planning stages to ascertain what facilities and voltages are available at specific locations. Detailed servicing conditions are sometimes difficult to apprehend without specific information, therefore, the Customer shall submit the following:

- 1. Required in-service date;
- 2. Voltage requirements;
- 3. Overall single line diagram showing proposed arrangement of the Customer's main primary and secondary distribution system, including the metering facilities and requirements;
- 4. Estimated initial and future Maximum Demand;
- 5. Specific listing of the types of loads for lighting, motor, welding, heating, air conditioning or other;
- 6. Electrical site plan, to scale, showing the preferred location of the service entrance equipment from the Point of Entry to the Delivery Point;
- 7. Architectural site plan to scale, showing grading and building(s) in relation to existing or proposed property lines;
- 8. Service Entrance Capacity, voltage rating and the interruption capacity of the main secondary service switch;
- 9. Complete set of engineering drawings, including sewer and water servicing and grading, as approved by the City and the Region. Digital drawings are preferred as Micro station files (dgn. format), however, AutoCAD files (dwg. format) are acceptable. Supply of the files can be e-mail or on CD or DVD, compressed if necessary. AutoCAD files should have all the reference files bound to the main drawing file;
- 10. The Customer shall ensure that the service entrance equipment has an adequate short-circuit interrupting capability. Enersource will advise, on request, the maximum available short-circuit symmetrical in-rush Amperes at any specific location;
- 11.kVA capacity of the substation transformers;
- 12. Primary and secondary voltage of the substation transformers; and
- 13. Site plan showing the proposed location for the substation and the transmission line on the Customer's property.



3.2.2.2 Electrical Service Characteristics

- 1. Electricity supply to the Customer is at one service voltage and at one Delivery Point to any building. Primary feeder circuits may enter or exit via a different route on the land parcel.
- 2. The Customer shall supply, install and maintain internal transformers where a voltage other than the supply voltage is required.
- 3. The Customer shall maintain a balanced 3-phase load.
- 4. The Customer shall obtain prior approval from Enersource for the use of any specific voltage at any specific location.
- 5. The Customer shall ensure that the service entrance equipment has an adequate short-circuit interruption capability. Enersource will advise, on request, the maximum available short-circuit symmetrical in-rush Amperes at any specific location.

3.2.2.3 Type of Service

The City of Mississauga's "Official Plan Strategy Policy" states that all service power lines must be located underground, where feasible.

The type of servicing arrangement (either overhead or underground) to a Customer is determined as follows:

Underground services are required in locations where any of the following occur:

- 1. City of Mississauga site development plan approval is required;
- 2. Enersource technical requirements call for underground services; or
- 3. Areas are designated as underground by Enersource.

Overhead servicing is available where both:

- 1. Enersource circuits are overhead; and
- 2. City of Mississauga site development plan approval is not required.

In overhead servicing areas, the Customer may elect to install an underground service at the Customer's expense.

3.2.2.4 Delivery Point and Point Of Entry

The Customer must obtain from Enersource a location for both the Delivery Point and Point of Entry to land parcel before proceeding with the installation of any service.

Failure to do so may require that the Delivery Point and Point of Entry be relocated, resulting in a time delay and additional expense to the Customer.

3.2.2.5 Overhead Lateral Services

Where the supply is to be overhead on the Customer's property:

- 1. The Customer may install, own and maintain a private pole line. Pole lines constructed by the Customer shall be in accordance with these Conditions of Service and with the Ontario Electrical Safety Code (latest edition);
- 2. Enersource shall make the necessary connections from its circuits to the first pole on the Customer's property. The Customer will provide sufficient circuit wire to make this connection;

- 3. Where requested, Enersource will install the overhead line from the Point of Entry to the Delivery Point. Such installation shall be at the Customer's expense; and
- 4. The Customer shall provide the U-bolts and tower eyes for attaching the strain insulator assembly.
- 3.2.2.6 Underground Service Requirements
 - 1. Installation of a new or upgraded underground primary service to the Delivery Point, including splicing, is at the Customer's expense. Enersource pays for system operating and protective devices, if any.
 - 2. The Customer shall supply, install and maintain a concrete encased duct bank in accordance with Enersource specifications from the Point of Entry to the Delivery Point. Before installation, Enersource is to approve the duct bank.
 - 3. In accordance with Enersource requirements, if it is determined that cables cannot be readily pulled through a duct bank, the Customer shall design, supply, install and maintain a pulling manhole or pit on the property.
- 3.2.2.7 Equipment Rating in Customer-Owned Substations
 - 1. The Customer shall provide high voltage fuses or breakers having symmetrical shortcircuit interrupting capacities as follows:

Supply Voltage	<u>Wires</u>	MVA
44,000	3	1,500
27,600	3	835
16,000/27,600	4	800
8,000/13,800	4	500
2,400/4,160	4	250

- 2. Ultimate supply voltage, fuse characteristics, relay settings and lightning arrestor application shall be as specified by Enersource;
- 3. The Customer shall install intermediate class, or better, lightning arrestors; and
- 4. The Basic Impulse Levels (BIL) of Customer's equipment shall be as follows, or as otherwise specified by Enersource:

Supply Voltage	<u>Wires</u>	BIL
44,000	3	250 kV
27,600	3	200 kV
16,000/27,600	4	150 kV
16,000/27,600	4	125 kV'
8,000/13,800 (Dry Type/Oil Filled)	4	95 kV
2,400/4,160	4	60 kV

* Per the Electrical Safety Authority using appropriate 21 kV Interrupting Class arrestors.

- 3.2.2.8 Transformer Specifications when Supplied by Customer
 - Customers shall install Power Transformers in accordance with CSA specification C2 or C88 (latest edition) and applicable pad-mounted transformer specifications C227.2 and C227.4 (latest edition). If indoors, Customers shall install a dry type transformer in accordance with CSA specification C9 (latest edition).
 - 2. In order to facilitate voltage conversions, Enersource may specify that a Customer's transformer be equipped with multiple high voltage windings, suitable for connection to



two system voltages. Enersource may also specify special tap settings to accommodate system voltage variations.

- 3.2.2.9 Plans and Specifications for Customer-Owned Substations
 - In addition to obtaining the approval of the Electrical Safety Authority Inspection Department for the Customer's substation equipment the Customer shall also obtain Enersource approval of any components, which may affect its system, e.g. cables, lightning arrestors, terminators, protective and switching devices, etc. This approval should be obtained well in advance of tender documents being issued.
 - 2. To obtain approval the Customer shall submit to Enersource two copies of detailed plans and specifications, certified by a registered Professional Engineer, showing the following:
 - a) Single line schematic diagram indicating:
 - i) All voltages of the proposed installation;
 - ii) Transformer bank capacity, rating, reactance, air, oil and other cooling;
 - iii) Protective and switching devices with short-circuit rating;
 - b) Working drawings and specifications for the substation installation, including:
 - i) Detailed dimensions, in plan and elevation;
 - ii) Working and live parts clearances;
 - iii) Structures and guying for dead-ending incoming lines;
 - iv) Material list;
 - v) Interlocking schemes;
 - c) Survey plan and site plan indicating the location of the substation with respect to the public right-of-way;
 - d) List of the lighting, motor, welding, heating and other loads;
 - e) Ampere and voltage rating of the main secondary service switch; and
 - f) Location and details of the metering equipment.
 - 3. Enersource will review and approve an original and one corrected proposal for each new substation free of charge. Any subsequent reviews will incur Enersource charges. When modifications are being made to an existing substation without a substantial load increase, all costs of Enersource review and approval will be charged to the Customer.
- 3.2.2.10 Pre-Service Inspection and Energization
 - 1. The Customer, at its expense, before energization, shall submit a certified pre-service inspection report. The inspection shall be completed as specified by Enersource. All inspection reports must bear the stamp of a registered Professional Engineer.
 - 2. The report shall include the results of tests and checks as follows:
 - a) Transformer oil sample test;
 - b) Field observed lightning arrestor data;
 - c) Primary disconnect operation check;
 - d) Transformer ratio test;
 - e) High potential test of primary cables; and
 - f) Field observed high voltage fuse test.
 - 3. Following receipt of the pre-service inspection report, Enersource will perform an onsite inspection and, if satisfactory, energize the substation. There will be no charge for these services if scheduled in advance, during Enersource normal working hours, and providing it is the first inspection and energization of a new or enlarged substation.



- 3.2.2.11 Operation of Primary Disconnect Devices
 - 1. Customers shall permit access by Enersource at all times in order to operate primary disconnect devices on Customer-Owned Substations.
 - 2. Customers may require the operation of primary disconnect devices for purposes of routine maintenance or other reasons. Enersource will do so upon receipt of a written commitment to pay its costs. A minimum notice of one week is required for planned operation of such devices.
 - 3. Under no other circumstances are Customers permitted to operate these devices. Enersource may require Customers to enter into a written agreement pertaining to operation of primary disconnect devices. Under this agreement, Customers may operate certain devices.
- 3.2.2.12 Maintenance of Supply to Customer-Owned Substation
- 3.2.2.12.1 Overhead Lateral Supply
 - 1. Where no poles exist on the Customer's property, Enersource will maintain the service wires from its circuits to the Customer's Delivery Point.
 - 2. Where a pole line exists on the Customer's property, Enersource maintains the service wires from its circuits to the first pole on the Customer's property. The Customer shall maintain private pole lines at their expense.
- 3.2.2.12.2 Underground Supply
 - 1. Services installed by Enersource, or its agents, are maintained by Enersource, unless specifically documented otherwise to the Customer by Enersource.
 - 2. Following maintenance, surface restoration by Enersource will include only soil, sod, gravel or asphalt. All other damage, maintenance and repair are at the Customer's expense.
 - 3. Ownership and maintenance of privately owned service cables is the responsibility of the Customer. If Enersource replaces the cable for the Customer, such work shall be at the Customer's expense.

3.2.2.12.3 Service Removal

The Customer shall incur the cost to have Enersource remove any service lines on the Customer's property.

3.2.2.12.4 Maintenance of Customer-Owned Substations

Customers are responsible for performing both regular and emergency maintenance on their substations. Customers should be prepared to ensure the availability of materials and labour to perform emergency repairs in the event of a sudden substation failure.

Enersource will disconnect the supply accordingly and will provide advice regarding cause of failure. The Customer is responsible for substation repairs.

3.2.2.12.5 Point of Demarcation

The ownership demarcation point, in this section, is as follows:

• The first point of attachment to Enersource's distribution system for both overhead and underground up to and including the high voltage clamp.



• The operational point for a Customer-owned substation, in this section, may be at the live loop or switch as applicable.

Note: High voltage disconnect switches downstream of Enersource operational demarcation point must be operated only with proper authorization from Enersource.

3.2.3 Industrial / Commercial Subdivisions

Industrial/Commercial subdivisions involving the construction of new city streets and roadways will involve capital contribution for "Expansion" work (see section 2.1.2 Expansions for details). Enersource will perform an economic evaluation to determine whether the future revenue will pay for the capital investment and on-going maintenance. Should the Economic Evaluation identify a shortfall for the expansion, the Customer will be required to provide a capital contribution. The Developer has a choice of having Enersource complete the work or asking for "Alternate Bids", in accordance with section 3.3 of the Distribution System Code.

Industrial/Commercial subdivisions not involving new streets and roadways, but only private property, will follow the general terms and conditions for connection charges and capital contribution applicable to General Service Customers.

In all cases, all of the electrical service must be constructed to Enersource standards and in compliance with Ontario Electrical Safety Codes, applicable laws, regulations and codes.

3.2.3.1 Early Consultation

Developer shall consult with Enersource in the early planning stages to ascertain the Enersource requirements.

The Developer shall submit the following information:

- 1. Plan of subdivision;
- 2. Schedule of power requirements at defined stages of development;
- 3. Survey plan of the lands, showing public rights-of-way and all easements required by the City and the Region;
- 4. Complete set of engineering drawings, including sewer and water servicing and grading, as approved by the City and the Region. Digital drawings are preferred as Micro station files (dgn format), however, AutoCAD files (dwg format) are acceptable. Supply of the files to be e-mailed or on CD or DVD, compressed if necessary. AutoCAD files should have all the reference files bound to the main drawing file;
- 5. General type of buildings to be constructed and electrical loads anticipated;
- 6. A statement from the Municipality as to whether the lands will require Site Development Plan Approval;
- 7. Type of heating and air conditioning for each building unit; and
- 8. One set of detailed engineering plans, approved by the Municipality.

3.3 TEMPORARY SERVICES

This section refers to the supply of electrical energy on a temporary basis for construction, short term processing, or pending permanent installations.

Conditions of Service



3.3.1 Early Consultation

The Customer shall consult with Enersource in the early planning stages to ascertain what facilities and voltages are available at specific locations.

The Customer shall submit to Enersource the following information:

- 1. Required in-service date;
- 2. Voltage requirements;
- 3. Estimated Maximum Demand;
- 4. Specific listing of types of loads for lighting, motor, heating, air conditioning or other;
- 5. Plot plan, to scale, showing the proposed Delivery Point location related to the public right-of-way and lot lines.

3.3.2 Delivery Point Location

The Customer must obtain approval of the proposed Delivery Point location from Enersource before proceeding with the installation of any service. Failure to do so may require that the Delivery Point be relocated, resulting in a time delay and additional expense to the Customer.

3.3.3 Installation and Removal

Enersource will:

- 1. Install and remove all temporary services, except a Private Pole line if required by Section 3.3.5, all at the Customer's expense;
- 2. Render a standard charge to the Customer when a temporary service is supplied overhead from an existing Commission circuit of adequate capacity;
- 3. Provide for the Customer upon request, estimates for installation and removal charge for all temporary services not covered in item 2 above. The Customer shall pay 100% of the installation and removal costs.
- 4. The Customer shall pay, in advance, 110% of the estimated installation cost. Following completion of the installation, if the actual costs exceed the advance payment, Enersource will disconnect the temporary service if the Customer does not pay the additional amount. Total actual costs are payable or refunded upon removal of the service.

3.3.4 Supply of Transformation

- 1. Enersource supplies, installs and maintains transformers up to 167 kVA single-phase and 500 kVA three-phase, at the Customer's expense;
- 2. The transformer size actually supplied will be dependent upon demand requirements and size availability from Enersource's normal inventory;
- 3. The Customer shall supply, install and maintain transformers larger than 167 kVA single-phase or 500 kVA three-phase, or any transformers required which are not available from Enersource's normal inventory.

3.3.5 **Temporary Pole Requirements**

If a temporary secondary service pole is required on the Customer's property, it shall be:

1. Minimum 10.7 metres (35') wood pole, and 1.8 metres (6') in earth;



- 2. Minimum 150 mm (6") top diameter;
- 3. Guyed against strain in one or more directions using 8 mm (3/8") medium-hard galvanized steel wire, and anchored a minimum of 3.0 metres from the pole;
- 4. Provided with a single point clevis and insulator not less than 7.5 metres above grade; and
- 5. Inspected and approved by the Electrical Safety Authority.

3.4 PRIVATE POLE LINES

This section refers to the design and construction of privately owned poles, lines and attachments on private property. The intent of the pole line is to supply electrical energy, which may accommodate Enersource-owned transformers, metering units or protective devices. Where trespassing conflicts occur, please refer to section 1.7.5.

3.4.1 Owner Responsibilities

Where a Private Pole Line is required, the Customer shall supply, install and maintain the line at the Customer's expense per the Ontario Electrical Safety Code (latest edition).

3.4.2 Location Approval

The Customer shall contact Enersource prior to commencement of the work to obtain approval for the location of the line. Failure to do so may require that the pole line be relocated resulting in a time delay and additional expense to the Customer.

3.4.3 Submission of Drawings

Enersource shall receive two (2) copies of drawings, certified by a Registered Professional Engineer, of the proposed installation during the early planning stages of the project for approval before commencement of the work.

These drawings shall indicate the following:

- 1. Location of the line on a scale plot plan, including public rights-of-way, utilities, easements, lot lines and adjacent obstructions such as fences, buildings, trees or other equipment;
- 2. Voltage rating of the proposed line;
- 3. Pole heights and specifications;
- 4. Guying arrangements;
- 5. Clearances between conductors;
- 6. Conductor sizes and material;
- 7. Location of transformers; and
- 8. Means of isolation, along with fusing.

3.4.4 Pole Line Specifications

The Customer shall obtain specifications from Enersource for each project before submitting drawings for approval.

The following general requirements apply:



- 1. Pole lines shall be constructed and guyed at each end independently from Enersource's lines;
- 2. An additional guy wire may be required on the first pole to resist the angular tension from Enersource's nearest pole;
- 3. The first pole on the line shall be of a height and class as specified by Enersource;
- 4. The first pole shall be within 20 metres of the Point of Entry and shall not exceed 50 metres from the nearest existing or proposed Enersource pole. The first pole shall be located such that conductors from the Enersource pole shall not trespass aerially over adjacent lands;
- 5. Maximum span length between poles shall not exceed 50 metres;
- 6. All clearances and insulation levels must be designed for Enersource's line-to-line voltage;
- 7. Minimum horizontal clearance of 5 metres shall be required between any lot lines and center line of poles. Clearances between phase conductors and adjacent buildings and structures shall be in accordance with the Ontario Electrical Safety Code (latest edition).

Minimum pole dimensions:

- 1. For secondary lines up to and including 600 Volts, provide Class 4, 9.5 metre (30') poles, 8 metres (25') above grade;
- 2. For primary lines up to and including 27,600 Volts, provide Class 3, 14 metre (45') poles, 11 metres (35') above grade;
- 3. Transformer poles shall be 14 metres (45') Class 3, 12 metres (38') above grade up to 50 kVA. For 100 and 167 kVA, provide Class 2, 17 metres (55') with top portion to be cut-off.

3.5 EMBEDDED GENERATION FACILITIES

This section should include all terms and conditions applicable to the connection of embedded generation facility to the distributor (e.g., application process, engineering standards and operating agreements).

The Generator Classifications set forth in the Distribution System Code are outlined in the table below:

Generator Classification	Rating
Micro	≤ 10 kW, for Customer's own use
Small	 (a) ≤ 500 kW connected on distribution system voltage; < 15 kV (b) ≤ 1 MW connected on distribution system voltage; ≥ 15 kV
Mid-Sized(a) < 10 MW but > 500 kW connected on distribution system voltage; < 15 kV (b) > 1 MW but < 10 MW connected on distribution system voltage; ≥ 15 kV	





Large	≥ 10 MW
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3.5.1 Connection Agreement

Section 3.5 does not apply to the connection or operation of an emergency backup generation facility or an embedded generation facility that is used exclusively for load displacement purposes. Refer to section 2.3.6 for applicable requirements.

All existing Customers shall enter into a Connection Agreement with Enersource who have an embedded generation facility connected to the Enersource distribution system. Where Enersource does not have a Connection Agreement with an existing Customer that has a generation facility connected to the Enersource distribution system, Enersource shall be deemed to have an implied contract with the generator. The terms of the implied contract are embedded in these Conditions, the rate schedules, Enersource's distribution license, the Distribution System Code and the Rate Handbook.

3.5.2 Connection Process

Enersource will promptly make available a generation connection information package (the "package") to any person who requests this package. The package shall contain the following information:

- a) the process for having a generation facility connected to the Enersource distribution system, including any form necessary for the application;
- b) information regarding any approvals from the ESA, the IESO, OEB, or a transmitter that are required before Enersource will connect a generation facility to its distribution system;
- c) the technical requirements for being connected to Enersource's distribution system including the metering requirements; and
- d) the standard contractual terms and conditions for being connected to the Enersource distribution system.

Subject to all applicable laws, Enersource will make all reasonable efforts in accordance with the provisions of section 3.5 to promptly connect a generation facility to its distribution system, which is the subject of an application for connection.

3.5.3 Connection of Micro-Generation Facilities

A person who wishes to connect a micro-embedded load displacement generation facility to the Enersource distribution system shall submit an application to Enersource providing the following information:

- a) the name-plate rated capacity of each unit of the proposed generation facility and the total name-plate rated capacity of the proposed generation facility at the connection point;
- b) the fuel type of the proposed generation facility;
- c) the type of technology to be used; and
- d) the location of the proposed generation facility including address and account number where available.



Where the proposed micro-embedded load displacement generation facility is located at an existing Customer connection, Enersource shall, within fifteen days of receiving the application, make an offer to connect or provide reasons for refusing to connect the proposed generation facility. Enersource shall give the applicant at least 30 days to accept the offer to connect and shall not revoke the offer to connect until this time period has expired. Enersource will not charge the Customer for the preparation of the Offer to Connect.

Enersource shall make any necessary metering changes and connect the applicant's microembedded load displacement generation facility to its distribution system within five days of the applicant completing the following:

- a) provide Enersource with a copy of the authorization from the Electrical Safety Authority to connect;
- b) enter into a Connection Agreement with Enersource; and
- c) pay Enersource for the costs of any necessary metering changes.

3.5.4 Connection of Other Generation Facilities

Subsection 3.5.4 applies to the connection to the Enersource distribution system of an embedded generation facility, which is not a micro-embedded load displacement generation facility.

After a person who is considering applying for the connection of a generation facility to the Enersource distribution system has requested a preliminary meeting with Enersource and has provided the required initial set of information, Enersource shall provide a time when its relevant employees are available to meet with the person within fifteen days of the person requesting the meeting. For the purposes of this section, the following is the required "initial set of information":

- a) the name-plate rated capacity of each unit of the proposed generation facility and the total name-plate rated capacity of the generation facility at the connection point;
- b) the fuel type of the proposed generation facility;
- c) the type of technology to be used; and
- d) the location of the proposed generation facility including address and account number with the distributor where available.

At the preliminary meeting, Enersource shall discuss the basic feasibility of the proposed connection including discussing the location of its existing distribution facilities in relation to the proposed generation facility and providing an estimate of the time and costs necessary to complete the connection. Enersource will not charge for its preparation for, and attendance at, the preliminary meeting.

A person who wishes to apply for the connection of a generation facility to the Enersource distribution system shall submit an application, pay the impact assessment costs and provide the following information:

a) any of the "initial set of information" which has not yet been provided to Enersource;



- b) a single line diagram of the proposed connection; and
- c) a preliminary design of the proposed interface protection.

For a small embedded generation facility, Enersource will determine if its distribution system may be impacted by the proposed small embedded generation facility. If so, Enersource will advise the Customer of the costs to conduct any required impact assessment, with its assessment of the impact of the proposed generation facility, a detailed cost estimate of the proposed connection and an Offer to Connect within:

- a) 60 days of the receipt of the application where no distribution system reinforcement or expansion is required; and
- b) 90 days of the receipt of the application where a distribution system reinforcement or expansion is required.

For a mid-sized embedded generation facility, Enersource shall provide the Customer with its impact assessment of the proposed generation facility within 60 days of the receipt of the application.

<u>For a large embedded generation facility</u>, Enersource shall provide the Customer with its impact assessment of the proposed generation facility within 90 days of the receipt of the application.

The impact assessment shall identify the impact of the proposed generation facility on the Enersource distribution system and any of its Customers, and include:

- any voltage impacts, impacts on current loading settings and impacts on fault currents;
- b) the connection feasibility;
- c) the need for any line or equipment upgrades;
- d) the need for transmission system protection modifications; and
- e) any metering requirements.

The Customer shall submit any material revisions to the design, planned equipment or plans for the proposed generation facility and connection with Enersource. Enersource shall then prepare a new impact assessment within the relevant time period as set out above.

In the case of an application for the connection of a mid-sized or large embedded generation facility, after receiving from Enersource the impact assessment, the applicant shall pay to Enersource for the cost of preparing a detailed cost estimate of the proposed connection and enter into an Agreement with Enersource on the scope of the project. Enersource shall then provide the applicant with a detailed cost estimate and an Offer to Connect by the later of 90 days after the receipt of payment from the applicant and 30 days after the receipt of comments from a transmitter or other distributor that may have been advised under the following clause.

Within ten days of receiving payment from the applicant for preparing a detailed cost estimate, Enersource shall advise any transmitter or distributor whose transmission or distribution system is directly connected to the Enersource distribution system that it is



preparing a detailed cost estimate for a proposed large or mid-sized embedded generation facility. Enersource will use its discretion in advising impacted transmitter or distributor when the detailed cost estimate involves a proposed small embedded generation facility.

After the applicant has entered into a connection cost agreement with Enersource and has provided the detailed engineering drawings with respect to the proposal, Enersource shall conduct a design review to determine if the detailed engineering plans are acceptable.

Enersource has the right to witness the commissioning and testing of the connection of the generation facility to its distribution system. After the applicant has

- a) informed Enersource that it has received all necessary approvals;
- b) provided Enersource with a copy of the authorization from the Electrical Safety Authority to connect; and
- c) entered into a Connection Agreement,

Enersource shall act promptly to connect the generation facility to its distribution system.

Subject to any delays in commissioning and testing of the generation facility, which may be beyond the control of Enersource, Enersource shall connect a proposed small embedded generation facility within:

- a) 60 days of the applicant taking the steps set out above, where no distribution system reinforcement or expansion is required; and
- b) 180 days of the applicant taking the steps set out above, where a distribution system reinforcement or expansion is required.

The Connection Agreement to connect a small, or mid-sized generation facility is shown in Appendix F.

Information on the process for connecting a generation facility to a distribution system is also found at Appendix F of the Distribution System Code.

3.5.5 Technical Requirements

The Customer shall ensure that the connection of its generation facility to the distribution system does not materially adversely affect the safety, reliability and efficiency of the Enersource distribution system. New or significantly modified generation facilities shall meet the technical requirements specified in section F.2 of Appendix F of the Distribution System Code. In addition, the Customer shall also comply with the detailed requirements outlined in Appendix G of these Conditions of Service.

The Customer with an embedded generation facility connected to the Enersource distribution system (other than a micro-embedded load displacement generation facility) shall reimburse Enersource for any damage to the distribution system or increased operating costs that may result from the connection of a generation facility.

A Customer with a generation facility connected to the Enersource distribution system shall include in the connection agreement and, upon request by Enersource, provide satisfactory evidence of a regular, scheduled maintenance plan that ensures that the generator's

connection devices, protection systems and control systems are maintained in good working order.

All equipment that is connected, operated, procured or ordered before May 1, 2002 is deemed to be in compliance with the technical requirements of the Distribution System Code.

Enersource may determine that equipment that was deemed to be in compliance with the technical requirements of the Distribution System Code as noted in the immediately preceding paragraph is not in actual compliance with the technical requirements due to any of the following conditions:

- a) a material deterioration of the reliability of the distribution system resulting from the performance of the generator's equipment; or
- b) a material negative impact on the quality of power of an existing or a new Customer resulting from the performance of the generator's equipment; or
- c) a material increase in generator capacity at the site where the equipment deemed compliant is located.

In such a case, Enersource will provide the Customer with rules and procedures for requiring such equipment to be brought into actual compliance. The Customer shall then bring its equipment into actual compliance with the technical requirements and within a reasonable time period specified by Enersource.

When a Customer with an embedded generation facility is connected to Enersource's distribution system, the Customer shall provide an interface protection that is capable of automatically isolating the generation facility from Enersource's distribution system under the following situations:

- a) internal faults within the generator;
- b) external faults in Enersource's distribution system; or
- c) certain abnormal system conditions, such as over/under voltage, over/under frequency.

The Customer shall disconnect the embedded generation facility from Enersource's distribution system when:

- a) a remote trip or transfer trip is included in the interface protection, and
- b) the Customer affects changes in the normal feeder arrangements other than those agreed upon in the operating agreement between Enersource and the Customer.

3.5.6 Net Metering for an Embedded Generation Facility

Enersource will encourage eligible Customers wishing to participate in the net metering program.

Participation in the net metering program is available to all Enersource Customers with a generator that meets all of the following conditions:

• The electricity is generated primarily for Customer's own use;


- The electricity generated is conveyed to the Customer's own consumption point without reliance on the Enersource distribution system;
- The maximum cumulative output capacity of the generator does not exceed 500 kW;
- The electricity is solely generated from a renewable energy source (such as wind, drop in water elevation, solar radiation, agricultural bio-mass, or any combination thereof).

In order to participate in the Net Metering program, the Customer must contact Enersource well in advance and meet all the parallel generation requirements for Connecting Micro-Generation Facilities (10 kW or less) or Other Generation Facilities (greater than 10 kW and less than 500 kW), as applicable to the generator size, as found in Section 3.5 – Embedded Generation Facilities.

The Customer must have a bi-directional revenue meter that records energy flow in both directions.

Enersource also provides Net Metering for Residential Customers. Please see Appendix N for further details on the net metering process for Residential Customers.

3.5.7 Ontario Power Authority's (OPA) Feed-In Tariff (FIT) Program for an Embedded Generation Facility

In conjunction with the OPA's FIT Program, Enersource has established its policy to encourage and promote greater use of renewable energy sources such as wind, solar, photovoltaic (PV), renewable biomass, bio-gas, bio-fuel, landfill gas, or drop in water elevation for generating electricity. Renewable energy electricity generation may be connected to Enersource's distribution system in order to export electricity.

In most circumstances, generating facilities participating in the FIT Program will connect to its internal system, prior to connecting to Enersource's distribution system at a voltage up to 44 kV or less. Output from the generating facility shall be metered as per Enersource's requirements. For further information on the FIT Program, please contact fit@enersource.com.

The Generator may be solely responsible for any costs associated with the connection to the Enersource distribution system and any required metering installation. Detailed FIT Program processes are outlined in Appendices O and P.

3.6 EMBEDDED MARKET PARTICIPANT

Criteria for a Customer that is classified as being a Market Participant needs to be established. This section should describe any specific requirements for Customers that also are Market Participants.

Under the "Market Rules for the Ontario Electricity Market", Chapter 2, Section 1.2.1, "No persons shall participate in the IESO-administered Markets or cause or permit electricity to be conveyed into, through or out of the IESO-controlled grid unless that person has been authorized by the IESO to do so".



All Embedded Market Participants within the service jurisdiction of Enersource, once approved by the IESO, are required to inform Enersource of their approved status in writing, 30 days before their participation in the Ontario Electricity Market.

A Wholesale Market Participant shall enter into a Connection Agreement in a form acceptable to Enersource. Until such time as the Wholesale Market Participant executes such a Connection Agreement with Enersource the Wholesale Market Participant shall be deemed to have accepted and agreed to be bound by all the Connection Agreement Terms and Conditions attached to these Conditions of Service.

3.7 EMBEDDED DISTRIBUTORS

This section should include all terms and conditions applicable to the connections of an embedded distributor.

All Embedded Distributors within the service jurisdiction of Enersource are required to inform Enersource of their status in writing 30 days before the supply of energy from Enersource. The terms and conditions applicable to the connection of an Embedded Distributor shall be included in a Connection Agreement with Enersource.

3.8 UN-METERED CONNECTIONS

This section should include all terms and conditions applicable to un-metered connections such as but not limited to the following:

- Street lighting
- Traffic signals, Park lights, Bell and Other Telephone and Cable Pedestals, Pay Phone Booths and Bill Board Signs
- Bus shelters

This section pertains to the conditions of service and supply of electrical energy for unmetered connections. Point of demarcation and ownership for un-metered connections are shown in Table 2 of Appendix I.

3.8.1 Introduction

Un-metered Customer loads are mostly intended for use within the road right-of-way and are permitted at the discretion of Enersource. This type of service offering is specifically made available to companies that are in good standing with Enersource and licensed for equipment access with the road authority, such as government agencies, community associations, and temporary event organizations. Fire pumps shall also be un-metered to conform to Ontario Electrical Safety Authority Code requirement under section 32-206 (1).

Enersource has the fiduciary responsibility to all customers to ensure that good processes are established and followed. Subsequently, for a customer to take advantage of

consolidated billing, and less complex supply point equipment associated with an unmetered service, there are reciprocal obligations and responsibilities that must be met by both Enersource and the un-metered service Customer.

This document, as part of Enersource's Conditions of Service, describes the practices to be followed by Enersource and all un-metered single phase secondary service customers within Enersource's service territory.

3.8.2 References

Military Standard - 105E - ANSI/ASQC Z1.4, ISO 2859 Sampling Tables Ontario Energy Board - Distribution Rate Handbook Ontario Energy Board - Distribution System Code

3.8.3 General Conditions for Un-metered Loads

Acceptance of an un-metered load by Enersource, subjects Enersource and the unmetered service Customer to uphold the conditions and respective responsibilities here.

Where a Customer is affixing its attachments to an Enersource asset, an additional Customer specific pole attachment agreement may be necessary. This agreement may include requests for additional data and/or may be subject to specific conditions.

- 3.8.3.1 General Responsibilities
- 3.8.3.1.1 Un-metered Customer Responsibilities
 - Comply with the requirements of Enersource standards and the Ontario Electrical Safety Code to ensure public safety.
 - Provide a load letter on a company's letter head, duly signed and stamped by a registered professional engineer with Professional Engineers of Ontario (PEO), indicating the estimated load of the un-metered service.
 - Retain all information provided to and by Enersource per the terms in Section 3.8.5 Data Quality & Auditing Requirements, and Records Retention. Enersource may choose not to retain record details with each un-metered service and thus will not be held responsible for any incomplete records.
 - Install, operate, and maintain its secondary conductor from the Enersource designated Supply Point to the intended load.
 - Provide timely and accurate data (refer to Section 3.8.5 and Appendix Q, Schedule A). Accept energy consumption based on either:
 - The maximum continuous calculated load, or
 - The results of an Enersource accepted audit (refer to Section 3.8.5).
 - Allow no external party to connect to its un-metered service and its un-metered secondary bus. For different internal corporate groups sharing the same un-metered bus, a tri-party agreement (see Appendix Q, Schedule C) shall be executed with Enersource to define operating, maintenance, and cost responsibilities with those groups.
 - Relocate, at the Customer's cost, the secondary conductors of an un-metered service to another designated Supply Point at Enersource's request.
 - Complete and sign the declaration in Appendix Q, Schedule B and submit to Enersource in a timely manner by January 31 of each year. Un-metered connection facility is not



intended for customers to generate back into Enersource's distribution system. If an unmetered customer has generation facilities, the connection shall meet Enersource's technical specification for standby generation.

3.8.3.1.2 Enersource Responsibilities:

- Provide a service layout for each un-metered service location that identifies the Supply Point and prescribes any applicable Enersource standards and conditions.
- Strive to make new un-metered service connections within ten working days of having all Enersource connection conditions met. (Note: OEB Service Quality Indicators only apply to metered services but have been extended to un-metered services by Enersource).
- Provide reasonable notice to the un-metered service Customer should the Supply Point require relocation:
 - Planned Supply Point relocations 90 day written notice.
 - Emergency Supply Point relocations when possible.
- Assign the USL energy account for New Connection load. There should be only one USL energy account per energy jurisdiction.
- Ensure that un-metered service billing information accurately reflects calculated electrical consumption by unit, quantity, load profile and demand. Devices of the same class by type or load will be grouped together where possible and assigned the same billing determinants.
- Consult with un-metered load customers prior to implementation of material un-metered load rate increases.

3.8.4 Data Requirements

- 3.8.4.1 New Un-metered Services
 - New un-metered services shall meet with the data quality requirements described in Section 3.8.5 of this document.
 - Un-metered service Customers shall provide Enersource with the necessary information to complete each un-metered service layout per Appendix Q, Schedule A.
- 3.8.4.2 Existing Un-metered Services
 - Throughout the lifecycle of the un-metered service, un-metered service Customers are required to submit updated and accurate data to Enersource when it becomes known by the customer or requested by Enersource.
 - The data, the timing, and method of submission are outlined in Appendix Q, Schedule A. Also, an annual declaration by the customer as per Appendix Q, Schedule B confirming data accuracy shall be made.

3.8.5 Data Quality & Auditing Requirements, and Records Retention

In the event that Enersource or the un-metered Customer identify or cause a billing error, Enersource will rectify the matter consistent with this section and Section 3.8.11.6. The customer shall meet the following data requirements:

- 3.8.5.1 Data Quality Requirements
 - GPS coordinates shall be provided in degrees:minutes:seconds (i.e., 45:26:45.25, -75:20:88.1) or decimal format (45.354153,-75.9845542).

However, the measurement shall comply with NAD83, Modified Transverse Mercator, Zone 9, three-degrees and have an accuracy within +/- 2.0m radius of the actual un-metered device location.

- Electrical profile, power quality, and usage accuracy studies are required when new unmetered equipment is introduced or when requested by Enersource. The un-metered Customer, at its cost, has the following two options available to develop and prove this information to Enersource:
 - (1) An in-house test plan (covering: scope, applicability, conditions, quality control, measurement devices, timing, staff competencies, control documents, error resolution process, and external references) for Enersource approval. Final results and report shall be signed and sealed by a Professional Engineer of Ontario; or
 - (2) A signed and sealed certified test report from a Standards Council of Canada or ANSI compliant laboratory having competencies in electrical equipment testing.
 - (3) In either case, the test plan or report shall outline how the probability sampling ensures a 3.4% confidence interval with a 95% confidence level for each load type by similar energy usage profile for the proposed installation. Generally, stratified sampling may be needed to ensure conformance. To ensure adequate sampling requirements are met, ANSI/ASQC Z1.4 sampling tables may be referenced.
- The un-metered electrical equipment shall meet or exceed Enersource's Distribution System Voltage and Power Quality requirements; specifically the Weighted Averages for:
 - electrical harmonic generation; and
 - electrical load power factor.
- The un-metered electrical equipment energy usage shall be provided; specifically the Weighted Averages for:
 - electrical load demand over its expected Operating Life; and
 - control characteristics affecting electrical load demand (eg. photo- controller, thermostat, timers, etc.).
- Where data errors are identified, the applicable costs described in Section 3.8.11.6 shall apply.
- 3.8.5.2 Data Auditing Requirements
 - The un-metered service Customer or Enersource may initiate an audit on regular intervals or on notice.



3.8.5.3 Records Retention

The Customer shall retain information provided to and by Enersource for a minimum period of seven years while the service is in a state other than "permanently removed" (see 3.8.11.1.3). Once the service has been permanently removed, the retention period shall be a minimum of two years.

- The retained information shall include yet, not be limited to, the detail in Appendix Q, Schedule A (column Information Source, Customer), Appendix Q, Schedule B, and any other relevant correspondence or agreements regarding the un- metered account including the associated service connections and load.
- The Customer not retaining such records would result in costs for Enersource to research and reconstruct missing information plus the costs described in Section 3.8.11.5 Audit Costs, and 3.8.11.6 Error Costs, all of which such costs may be recoverable from the Customer.

3.8.6 Un-metered Load Types Defined

There are eight load types described below, of which, six may qualify for un-metered single phase secondary servicing. The method and location of Supply Point may vary for each application and shall be established through consultation with Enersource.

3.8.6.1 Street Lighting

Street lighting on public roads may qualify for un-metered servicing.

3.8.6.1.1 Service Information

- Single-phase, three wire, 120/240 volts.
- Street lighting loads less than or equal to 100 Amps may be un-metered.
- 3.8.6.2 Traffic Signals
 - Traffic lights and crosswalks on public roads may qualify for un-metered servicing.

3.8.6.2.1 Service Information

- Single-phase, three wire 120/240 volts.
- Traffic lights and/or crosswalks loads less than or equal to 100 Amps may be unmetered; loads greater than 100 Amps shall be metered.

3.8.6.3 Bus Shelters

Bus shelters on public roads may qualify for un-metered servicing.

3.8.6.3.1 Service Information

- Single-phase, two wire, 120 volts
- Bus shelter loads less than or equal to 15 Amps may be un-metered; loads greater than 15 Amps shall be metered.

3.8.6.4 Parks & Pathway Lighting

Publicly owned park and/or pathway lighting may qualify for un-metered servicing.



3.8.6.4.1 Service Information

- Single-phase, two wire, 120 volts
- Three wire, 120/240 volts
- Publicly owned park and/or pathway lighting loads less than or equal to 15 Amps may be un-metered; loads greater than 15 Amps shall be metered

3.8.7 Decorative Lighting

Privately owned occasional festive or decorative streetscape lighting on public roads may qualify for un-metered servicing.

3.8.7.1 Service Information

- Single-phase, two wire, 120 volts.
- Privately owned occasional festive or decorative streetscape lighting loads less than or equal to 15 Amps may be un-metered; loads greater than 15 Amps shall be metered.
- Pole attachment agreement if the decorative lighting is to be mounted on Enersource owned poles.
- A temporary municipal encroachment permit for road access and assigned responsibilities.

3.8.8 Fire Pump Services

All new fire pump loads shall be located in front of the service entrance main breaker and shall be un-metered. Existing fire pump loads located after the service entrance main breaker shall be upgraded to an un-metered load with any major service entrance upgrade. (Ref. OESC 32-206(1))

3.8.9 Billboards

All billboards in Mississauga are to be un-metered.

3.8.10 Other Small Services

Telephone booths, small power supplies and communication amplifiers and antennas, road and utility cathodic protection, railway signals, flasher beacons, and similar small Customer loads may within the public road right-of-way qualify for un-metered servicing.

3.8.10.1 Service Information

- Single-phase, two wire, 120 volts
- Three wire, 120/240 volts
- Small service loads less than or equal to 15 Amps may be un-metered; loads greater than 15 Amps shall be metered.

3.8.11 Service Costs

3.8.11.1 General Billing Conditions

There are three life-cycle states of an un-metered service. They are: "proposed," "inservice," or "permanently removed." In each case, the minimum billing period remains one



month regardless of when the un-metered service lifecycle state changes. Also, billing of the energy and fixed charges continues monthly in all states until the service has been permanently removed.

3.8.11.1.1 Proposed

On request of a new connection, the Customer's proposal will initiate the service point as "Proposed" for a period of up to 90 days.

3.8.11.1.2 In-Service

An un-metered service is deemed to be "in-service" when it has been energized or it has been electrically isolated (removed from any electrical energy source) at any time between being energized or permanently removed. The two in-service states are described as follows:

a) Energized

An existing un-metered service that has been physically connected to the Enersource distribution network is deemed to be "Energized".

b) Electrically Isolated

An existing un-metered service that has been physically detached from the Enersource distribution network energy source is deemed to be "electrically isolated." Isolation of the un-metered service may be initiated by Enersource for power quality, outage problems, or data issues (see Section 3.8.11.6), or by the Customer through written request.

In this state, Enersource continues to calculate the bill (energy and fixed charges) on a per month basis for not more than six consecutive months. Following the sixth month of being "electrically isolated," the un-metered service must either be put back "inservice" or be "permanently removed" from service. Enersource retains the right to disconnect the service per terms defined in section 2.2.

3.8.11.1.3 Permanently Removed

An un-metered service is deemed "permanently removed" following the sixth consecutive month in the "electrically isolated" state, or where the Customer requests that the unmetered service be permanently cancelled and physically detached from the Enersource distribution network energy source.

Where an un-metered load has been deemed "permanently removed," billing charges (energy and fixed charges) cease to accrue in the following month to the consolidated unmetered service bill.

Re-energization of an un-metered service in this state shall be treated as a new un-metered service and be subject to the requirements contained within this document.

3.8.11.2 Ongoing Account Tariffs and Charges

The Customer shall work with Enersource to classify like energy devices such that similar devices can be consolidated to similar energy usage profiles for energy billing purposes. When requested by Enersource, the Customer shall consolidate their separate



un-metered billing accounts down to at least the number of similar energy profile classifications or less.

3.8.11.3 Work by Enersource

Enersource connection, isolation and re-energization fees will apply. Note that extra work by Enersource beyond a simple connection onto the overhead or underground system is at the Customer's expense.

3.8.11.4 Disruptive Loads

Disruptive loads are resolved as specified in Section 2.3. Where disruptive customer loads persist, the un-metered Customer may be billed for subsequent Enersource restoration costs, or may be "electrically isolated" or "permanently removed" from the Enersource distribution network.

For planned and unplanned outages, see Appendix M.

3.8.11.4 Audit Costs

Un-metered service Customers are responsible for their costs associated with any audit.

3.8.11.5 Error Costs

Enersource encourages voluntary data error disclosure and data quality improvement.

Recurring data errors or data quality problems may result in an un-metered load being "electrically isolated" or "permanently removed" from the Enersource distribution network, with the option for the Customer to upgrade to a metered service from an Enersource designated Supply Point.

Where an un-metered service Customer volunteers corrected or improved data before commencement of a joint audit, the Customer will be responsible for their corrected consumption usage going forward.

To improve the quality of the un-metered data, Enersource encourages the un-metered Customer to cooperate in a joint audit as described in Section 3.8.5. In this case, the Customer will be responsible for their associated audit costs and their corrected consumption usage going forward.

If the un-metered Customer provides Enersource poor un-metered data (i.e., not meeting audit standards), no data, or late data, the un-metered Customer shall pay Enersource's field verification and data correction costs, equivalent costs per each un-metered load, and the corrected consumption usage going forward.





4 GLOSSARY OF TERMS

The Conditions of Service document may contain a variety of terms that should be defined in the context of this document. Where possible, glossary terms should reflect definitions in existing documents that apply to the distributor, such as this Code, the distributor's License and Standard Supply Service Code. The text of Conditions of Service document should be used to expand on these definitions as applicable to the distributor.

"Acceptable Variance" refers to the tolerable difference between the billed USL unadjusted consumption to the actual unadjusted consumption. This is based on two references – the "Loss Factor," and Measurement Canada's permitted tolerance for electricity revenue meters (+/- 1%) - the acceptable variance for USL only shall be the higher of the two references, however, shall never be more than 3.44 times (the present System Loss Factor) the Measurement Canada limits. Enersource calibrates its meters to 0.2% tolerance.

"Affiliate Relationships Code" means the Code, approved by the Ontario Energy Board. "Billing Demand" means the metered demand or connected load after necessary adjustments made on power factor, intermittent rating, transformer losses and minimum billing. A kilowatt (kW) measurement of the maximum rate of electricity consumption during a billing period

"Building" means a building, portion of a building, structure, or facility.

"CIS" is an abbreviation for Enersource's Customer Information System used for billing energy account

"**Conditions of Service**" means a document developed by a Distributor in accordance with subsection 2.4 of the Distribution System Code that includes the operating practices and connection rules for Distributors.

"Connection" means the process of installing and activating connection assets in order to distribute electricity to a Customer.

"Connection Agreement" means an agreement entered into between the Distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to that connection.

"Connection Assets" means that portion of the distribution system used to connect the Customer to the existing main distribution system, and consists of the assets between the point of connection on a Distributor's main distribution system and the ownership demarcation point with that Customer.

"Connection Authorization" when concerning supply of electrical energy to an electrical installation from a supply authority, shall mean written permission by the Electrical Safety Authority to Enersource or any other person or corporation, to supply electric energy to a particular electrical installation; or

When concerning supply of electric energy from one part of an electrical installation to another, or from a source of electric energy other than that of Enersource, shall mean permission from the inspection department to a contractor to connect a particular electrical installation or part thereof to a source of electric energy.

"Contract" shall mean a contract for the supply of electrical service or energy.

"Contractor" shall mean any person who as principal, servant, or agent, by himself or herself or by associates, employees, servants or agents performs or engages to perform either for his



or her own use and benefit or for that of another and for or without remuneration or gain any work with respect to any electrical installation or any other work to which the Ontario Electrical Code applies.

"CT" means current transformer.

"Customer" or "Customers" shall mean the person or persons contracting for the supply of electric service or energy from Enersource. This includes developers of residential or commercial subdivisions. Alternatively, means a person(s) who uses electricity that the person(s) did not generate.

"Customer's Service" shall mean all that portion of the Customer's installation from the service box or its equivalent up to and including the point at which Enersource makes connection.

"Customer in Arrears" shall mean a Customer who owes to Enersource charges or accounts for power after the due date.

"Demand" means the average value of power measured over a specified interval of time, usually expressed in kilowatts (kW).

"Demand Meter" means a meter that measures a Customer's peak usage during a specified period of time.

"Demarcation Point or Point of Demarcation" means the physical location at which a Distributor's responsibility for operational control or ownership and maintenance of distribution equipment including connection assets ends at the Customer. The demarcation point for operational control may be different then the demarcation point for the ownership and maintenance of equipment.

"**Developer**" means an individual, an association, a partnership, a corporation or combination thereof; and further refers to employees, agents, contractors and other persons engaged by the developer on its behalf.

"**Development Agreement**" means a legal agreement between a developer, any Mortgagees and the Commission, in a form suitable for registration at the offices of Registry Division of Peel 43; or Land Titles Division of Peel 43 and which details the engineering and financial responsibilities of all parties to the agreement.

"**Disconnection**" means deactivation of connection assets that result in cessation of distribution services to a Customer.

"Distribution Loss Factor" means a factor or factors by which metered loads must be multiplied such that when summed equal the total measured load at the supply point(s) to the distribution system.

"**Distribution Losses**" means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows.

"**Distribution Services**" means services related to the distribution of electricity and the services the Board has required Distributors to carry out, for which a charge or rate has been approved by the OEB under Section 78 of the *Ontario Energy Board Act*.

"Distribution System Code" means the Code approved by the Ontario Energy Board. "Distributor" means a Person who owns or operates a Distribution System.

"Easement" means a legal document signed by the Owner of the lands, any mortgagees and the Commission and registered against the lands. Rights and responsibilities of all parties are detailed.

"Electrical Load Power Factor" is the Weighted Average power factor of lab tested sampled device over the device expected operating life. The testing shall have considered average device loading (i.e., service factor or use) over the operating life of the device.



"Electrical Safety Authority", or "ESA", means the Person or body designated under the *Electricity Act* Regulations as the Electrical Safety Authority.

"Electricity Act" means the Electricity Act 1998, S.O. 1998.

"Eligible Low-Income Customer" means (a) a residential electricity customer who has a pre-tax household income at or below the pre-tax Low Income Cut-Off, according to Statistics Canada, plus 15%, taking into account family size and community size, as qualified by a Social Service Agency or Government Agency; or (b) a residential electricity customer who has been qualified for Emergency Financial Assistance.

"Embedded Distributor" means a Distributor who is not a Wholesale Market Participant and that is provided electricity by a Host Distributor.

"Embedded Generator or Embedded Generation Facility" means a Generator whose generation facility is not directly connected to the IESO-controlled Grid but instead is connected to a Distribution System.

"Embedded Retail Generator" means an Embedded Generator that settles through a Distributor's Retail Settlement System and is not a wholesale market participant.

"Embedded Wholesale Customers" means a Customer who is a Wholesale Market Participant whose facility is not directly connected to the IESO-controlled Grid but is connected to a Distribution System.

"Embedded Wholesale Generator" means an Embedded Generator that is a Wholesale Market Participant.

"**Emergency Financial Assistance**" means any Ontario Energy Board-approved emergency financial assistance program made available by a distributor to eligible low-income residential customers.

"Energy Competition Act" means the Energy Competition Act, 1998, S.O.1998.

"Energy Diversion" means the electricity consumption unaccounted for but that can be quantified through various measures upon review of the meter mechanism, such as unbilled meter readings, tap off load(s) before revenue meter or meter tampering.

"Enhancement" means a modification to an existing distribution system that is made for purposes of improving system operating characteristics such as reliability or power quality or for relieving system capacity constraints resulting, for example, from general load growth. "ESA" is an abbreviation for Electrical Safety Authority.

"Expansion" means a modification or addition to a main distribution system in response to a request for additional Customer connections that otherwise could not be made. An example is increasing the length of the distribution system to connect a Customer, or a limited number of Customers and includes the modifications or additions to the main distribution system identified in Section 3.2.30 of the Distribution System Code, but, in respect of a renewable energy generation facility, excludes a renewable enabling improvement.

"**E&USA**" is the Electrical and Utility Safety Authority.

"GPS" is an abbreviation for Global Positioning System

"IESO" means the Independent Electricity System Operator established under the *Electricity Act.*

"Inspector" shall mean any person duly appointed by the Electrical Safety Authority for the purpose of enforcing the Ontario Electrical Code.

"Load Factor" means the ratio of average demand for a designated time period (usually one month) to the maximum demand occurring in that period.

"Load Transfer" means a network supply point of one Distributor that is supplied through the distribution network of another Distributor and where this supply point is not considered a wholesale supply or bulk sale point.



"Load Transfer Customer" means a Customer that is provided distribution services through a load transfer.

"Market Rules" means the rules made under the *Electricity Act.*

"Maximum Continuous Calculate Load" refers to the calculated consumption of a device based on that device operating without interruption at any time. Thus, the calculation is based on the billable load multiplied by 24 hours-per-day multiplied by 365 days in a typical year. The device Electrical Load Power Factor and the service entrance disconnect switch rating are both considered in determining the billable load.Determination of the billable load is based on the largest demand from the following three separate calculations:

- b) 100% of the device nameplace wattage (W),
- c) 90% of the device volt-ampere (VA) rating per the Electrical Load Power Factor (Note: this is not simply the multiplication of the nameplate voltage and ampere rating), or
- d) 80% of the service entrance disconnect switch rating ampere (A) rating multiplied by the nominal supply point voltage (V). Use of a reduced rated fuse or breaker is not considered.

Load or consumption offset by generation is not considered.

"Measurement Canada" means the Special Operating Agency established by the *Electricity And Gas Inspection Act, 1980-81-82-83, C.87.*

"Meter Service Provider" means any entity that performs metering services on behalf of a Distributor.

"Meter Socket" means a mounting device for accommodating a socket type revenue meter. "Month" refers to the average 30.4 days per twelve even periods that would total to a calendar year.

"Multi-Family Residential Dwelling" means a dwelling zoned residential by the City of Mississauga, used for dwelling purposes, containing more than one single family dwelling unit that are either individually metered or are metered with a bulk-meter having a service entrance capacity greater than 200 Amps.

"Ontario Clean Energy Benefit" or **"OCEB"** is a ten percent (10%) rebate to the electricity bill provided by the Ontario government for eligible customers for a five-year period commencing January 1, 2011. Eligible customers include residential customers and small business consumers (general service energy-billed with less than 50 kW demand consuming less than 250,000 kWh annually).

"Ontario Energy Board" or "OEB" or "Board" is the regulatory authority in Ontario responsible for electricity and gas.

"Ontario Energy Board Act" means the *Ontario Energy Board Act, 1988*, S.O. 1998, C.15. "OPA" means Ontario Power Authority.

"Operating Life" is the expected device population average survival in-service period before end-of-life. The survival may be longer than the mean time before failure (MTBF), and it can be longer than the economic end-of-life or obsolescence date.

"**Permit**" shall mean the official written permission of the Electrical Safety Authority, on a form provided for the purpose, authorizing work to be commenced on any electrical installation.

"Person" includes an individual, corporation, a sole proprietorship, partnership, unincorporated organization, unincorporated association, body corporate, and any other legal entity.

"**Physical Distributor**" with respect to a load transfer, means the Distributor that provides physical delivery of electricity to a load transfer Customer, but is not responsible for connecting and billing the load transfer Customer directly.



"Point of Demarcation" see Demarcation Point.

"PT" means potential transformer.

"Registered Plan" means a plan of development of surveyed lands, prepared by a Developer, approved by the City of Mississauga, the Regional Municipality of Peel and the Ontario Ministry of Housing, and registered at the offices of Registry Division of Peel 43 or Land Titles Division of Peel 43.

"**Responsible Party**" the owner of the property shall be considered as the responsible party. "**Retail**" with respect to electricity means to sell or offer to sell electricity to a Customers, to act as agent or broker for a retailer with respect to the sale or offer for sale of electricity, or to act or offer to act as an agent or broker for a Customer with respect to the sale or offering for sale of electricity.

"Retail Settlement Code" means the Code approved by the Ontario Energy Board. "Retailer" means a person who retails electricity.

"Secondary Service" means any service, which is supplied with nominal voltage less than 750 Volts.

"Service Agreement" means the agreement that sets out the relationship between a licensed retailer and a Distributor in accordance with the provisions of Chapter 12 of the Retail Settlement Code.

"Service Area" with respect to a Distributor, means the area in which the Distributor is authorized by its License to distribute electricity.

"Single Family Residential Dwelling" shall be a dwelling zoned residential by the City of Mississauga, used for dwelling purposes, and having only one electric meter with a service entrance capacity of 200 Amps or less.

"Site Development Plan Approval" means a process of the City of Mississauga under which Commercial and Industrial Subdivisions are required, inter alia, to have an Underground Distribution System and Underground Street Lighting System.

"Social Service Agency or Government Agency" means (a) a social service agency or government agency that partners with a given distributor to assess eligibility for Emergency Financial Assistance; or (b) a social service agency or government agency that assesses eligibility for other energy financial assistance or low-income financial assistance programs, and partners with a given distributor to qualify customers for eligibility under the Distribution System Code.

"Standard Distribution System" means an overhead-improved pole line on public rights-ofway, plus underground road crossing ducts, as specified by Enersource.

"Standard Street Lighting System" means a system of streetlights, as determined by the Municipality, utilizing the pole line of the standard Distribution System.

"Standard Supply Service Code" means the code approved by the Ontario Energy Board. "Street Lighting System" means all facilities required for illuminating all public rights-of-way as determined by the Municipality.

"Supply Point" or "Point of Supply" means the Customer connection point, for both primary and secondary services, to the Enersource distribution system. This might be located at an underground cable chamber, vault, pole, or pad-mounted device. This electrical supply point might be located on the public road allowance, or, an adjacent property from which Enersource has land access rights. With respect to an Embedded Generator, "Supply Point" means the connection point where electricity produced by the generator is injected into a distribution system. In all cases, Enersource will designate the final supply point.

"Supply Service" shall mean any one set of conductors run by Enersource from its electrical system to a Customer's service.



"Transformer room" means an isolated enclosure built to applicable codes to house transformers and associated electrical equipment.

"**Temporary service**" means an electrical service granted temporarily for such purposes as construction, real estate sales, trailers, et cetera.

"Type A Customer" the installation designed, constructed, and maintained by Enersource, up to 3000 A services.

"Type B Customer" means the installation is designed, constructed,

and maintained by the Developer.

"USL" is an abbreviation for un-metered scattered loads.

"Underground Street Lighting System" means all facilities including transformation, required for illuminating all public rights-of-way, as determined by the Municipality, utilizing underground wiring.

"Underground Distribution System" means all primary facilities required for supplying electrical energy from an existing Commission circuit to the subdivision, up to Point of Entry to each lot, block or parcel.

"**Unaccounted for energy**" means all energy losses that cannot be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and unmetered loads, energy theft and non-attributable billing errors.

"**Un-metered loads**" means electricity consumption that is not metered and is billed based on estimated usage.

"VAR" is an electrical measure meaning, Volt, Ampere, Reactance

"Weighted Average" refers to the mean of results from a sampling of items whereby extra consideration is given to one or more measured parameters of the sample results.

"Wholesale Buyer" means a person that purchases electricity or ancillary services in the IESO-administered markets or directly from a generator.

"Wholesale Market Participant" means a person that sells or purchases electricity or ancillary services through the IESO-administered markets.

"Wholesale Settlement Cost" means costs for both competitive and non-competitive electricity services billed to a Distributor by the IESO or a Host Distributor or provided by an Embedded Retail Generator or by a neighboring Distributor.

"Wholesale Supplier" means a person who sells electricity or ancillary services through the IESO-administered markets or directly to another person other than a Customer.



APPENDIX A ENERSOURCE HYDRO MISSISSAUGA INC. CONNECTION AND EXPANSION PROCESS

(SECTION 3 OF THE DISTRIBUTION SYSTEM CODE)

Step 1

Customer to make a written application for connections to Enersource with the following information:

- Detailed plans. Plans to show: property lines, roadways, curbs, sidewalks and deep services, supply voltage, location, estimated kW peak.
- Desired in-service date.

Step 2

Enersource upon receiving the written application from the Customer will perform the detail system planning studies to see, if "System Expansion" required.

Step 3

No "System Expansion" of the distribution system is required.

Step 3A

Settlement of Connection Charges: Connection charges will apply by Customer Class and the connections will be according to section 3.1 of the Distribution System Code.

Step 4

"System Expansion" of the distribution system is required then Enersource will undertake preliminary planning, design and engineering specifications and economics evaluation.

Step 5

The economic evaluation (NPV) is performed to determine, whether the future revenue will pay for the capital investment and on-going OM&A costs. The economic evaluation will indicate whether the NPV is positive or negative.

(Section 3.2.1 of the Distribution System Code)

Step 6

If NPV is positive, then connection charges will apply by Customer Class.

Step 6A

Settlement of Connection Charges: Connection charges will apply by Customer Class and the connections will be according to section 3.1 of the Distribution System Code.



Step 7

If NPV is negative, then Enersource will make an "Offer to Connect" to the Customer. The "Offer to Connect" will include the following:

- A description of the material and labour required by Enersource to build the expansion required to connect the Customer.
- An estimate of the amount that will be charged to the Customer in order to construct the distribution system expansion necessary to make the connection.
- A description and estimate of the connection charges by Customer class.
- A statement as to whether a capital contribution will be required from the Customer.
- Whether the offer is firm or is an estimate of the costs that would be revised in the final payment to reflect actual costs incurred.
- Includes the work, for which the Customer may obtain an "Alternate Bid".
- Enersource's "Conditions of Service" indicates the procedures for "Offer to Connect". These "Conditions of Service" are posted on Enersource's website at (www.enersource.com).

Enersource's Obligations under "Offer to Connect":

- Enersource shall be responsible for the preliminary planning design and engineering specifications of the work required for the distribution system expansion and connection.
- In providing the estimates of the amount to be charged to the Customer in order to construct the distribution system expansion, Enersource shall delineate estimated costs specifying those costs attributed to engineering design, materials, labour, equipment and administrative activities.
- In the "Offer to Connect", Enersource will inform that the Customer has a choice to obtain "Alternate Bids" from pre-qualified contractors.

Step 8

Is the Customer interested in "Alternate Bids"? If No, go to Step 9. If yes, go to Step 10.

Step 9

Settlement of "Capital Contribution": The Customer must supply a certified cheque a minimum 30 days prior to construction to cover the cost of engineering design, materials, labour, equipment and administrative activities per phase of the development. This cost is equal to the shortfall identified between the present value of the projected costs and revenues.

Step 10

The conditions for "Alternate Bids" that the Customer must adhere to are:

- Project requires "Capital Contribution" from the Customer,
- Construction work does not involve work with existing circuits.

Enersource shall inform the Customer:





- Of the work that the Customer may obtain through "Alternate Bid".
- List of pre-qualified contractors eligible to work for an "Alternate Bid".
- To hire and pay the contractor's costs for the eligible "Alternate Bid" and to assume full responsibility for the construction of that aspect of the project.
- Submit detailed construction drawings for approval to ensure work meets Enersource's standards.
- Be responsible for administering the contract or pay Enersource to do this activity on a fee basis. Administering the contract includes acquisitions of all required permissions, permits and easements.
- Enersource reserves the right to inspect and approve all aspects of the constructed facilities as a part of a system commissioning, prior to connecting the constructed facilities to the existing distribution system.
- To supply a certified cheque a minimum of 30 days prior to construction to cover the cost of inspection/energization.

Enersource may charge the Customer that chooses to pursue "Alternate Bid" any costs incurred by Enersource associated with the expansion, including but not limited to the following:

- Costs for additional design, engineering, or installation of facilities required to complete the project that was not identified in the original offer to connect.
- Costs for inspection or approval of the work performed by the contractor hired by the Customer.

Step 11

Settlement of Refunds: The capital contribution refunds for all subdivision (per phase of the development) signed on after November 1, 2000 must be returned year after inservice date.

Step 12

Settlement of Rebates for non-forecasted Customers during connection horizon: In situations where Enersource is required to install new plant solely for the connection of a Customer, the Customer will be required to pay 100% of the calculated shortfall. If within five years from the connection date, there are non-forecasted Customers connected to this new plant without any further capital costs, the non-forecasted Customers shall contribute their share and first Customer will be entitled to a rebate. The appropriate rebate shall be determined by considering such factors as relative load level and relative line length (in proportion to the line length being shared by all parties).

Step 13

The Customer, in close consultation with Enersource, shall develop an estimated load forecast, which will outline the energization timing and energy consumption for all lots/blocks within the proposed development. This forecast forms an integral part of the Distribution System Code's economic evaluation model and associated capital contribution calculations and must be reviewed annually. In the event agreement cannot



be reached on the load forecast provided by the Customer, Enersource may require that securities be posted until such time that energy consumption estimated by the Customer becomes firm.



CONNECTION AND EXPANSION PROCESS FLOW CHART





APPENDIX B METHODOLOGY AND ASSUMPTIONS FOR AN ECONOMIC EVALUATION

C.1 COMMON ELEMENTS OF THE DISCOUNTED CASH FLOW MODEL

To achieve consistent business principles for the development of the elements of an economic evaluation model, the following parameters for the approach are to be followed by all distributors.

The discounted cash flow (DCF) calculation for individual projects will be based on a set of common elements and related assumptions listed below.

Revenue Forecasting

The common elements for any project will be as follows:

- a) Total forecasted Customer additions over the Customer Connection Horizon, by class as specified below;
- b) Customer Revenue Horizon as specified below;
- c) Estimate of average energy and demand per added Customer (by project) which reflects the mix of Customers to be added – for various classes of Customers, this should be carried out by class;
- d) Customer additions, as reflected in the model for each year of the Customer Connection Horizon; and
- e) Rates form the approved rate schedules for the particular distributor reflecting the distribution (wires only) rates.

Capital Costs

Common elements will be as follows:

- a) An estimate of all capital costs directly associated with the expansion to allow forecast Customer additions.
- b) For expansions to the distribution system, costs of the following elements, where applicable, should be included:
 - Distribution stations;
 - Distribution lines;
 - Distribution transformers;
 - Secondary busses;
 - Services; and
 - Land and land rights
- c) Estimate of incremental overheads applicable to distribution system expansion.

Note that the "Ownership Demarcation Point" as specified in the distributor's Condition of Service would define the point of separation between a Customers' facilities and distributor's facilities.



Expense Forecasting

Common elements will be as follows:

- Attributable incremental operating and maintenance expenditures any incremental attributable costs directly associated with the addition of new Customers to the system would be included in the operating and maintenance expenditures.
- b) Income and capital taxes based on tax rates underpinning the existing rate schedules.
- c) Municipal property taxes based on projected levels.

Specific Parameters/Assumptions

Specific parameters of the common elements include the following:

- a) A maximum Customer connection horizon of five (5) years.¹
- b) A maximum Customer revenue horizon of twenty five (25) years, calculated from the in service date of the new Customers.¹
- c) A discount rate equal to the incremental after-tax cost of capital, based on the prospective capital mix, debt and preference share cost rates, and the latest approved rate of return on common equity.
- d) Discounting to reflect the true timing of expenditures. Up-front capital expenditures will be discounted at the beginning of the project year and capital expended throughout the year will be mid-year discounted. The same approach to discounting will be used for revenues and operating and maintenance expenditures.²

C.2 DISCOUNTED CASH FLOW (DCF) METHODOLOGY

Net Present Value ("NPV")	=	Present Value ("PV) of Operating Cash Flow + PV of CCA Tax Shield – PV of Capital
1. PV of Operating Cash Flow	=	PV of Net Operating Cash (before taxes) – PV of Taxes
a) PV of Net Operating Cash	=	PV of Net Operating Cash Discounted at the Company's discount rate for the Customer revenue horizon. Mid-year discounting is applied. Incremental after tax weighted average cost of capital will be used in discounting
Net (Wires) Operating Cash	=	(Annual (Wires) Revenues – Annual (Wires) O&M)
Annual (Wires) Revenue	=	Customer Additions * (Appropriate (Wires) Rates * Rate Determinant)
Annual (Wires) O&M	=	Customer Additions * Annual Marginal (Wires) O&M Cost/Customer
b) PV of Taxes	=	PV of Municipal Taxes + PV of Capital Taxes + PV of Income Taxes (before Interest tax shield)
Annual Municipal Tax	=	Municipal Tax Rate * (Total Capital Cost)

¹ For example, that the revenue horizon for customers connected in year 1 is 25 years while for those connected in year 3, the revenue horizon is 22 years.

² For certain projects Capital Expenditures may be staged and can occur in any year of the five years Connection Horizon.

Total Capital Cost	=	Distribution Capital Investment + Customer Related Investment + Overhead at the project level
Annual Capital Taxes	=	(Capital Tax Rate) * (Closing Undepreciated Capital Cost Balance)
Annual Capital Tax	=	(Capital Tax Rate)* (Net Operating Cash – Annual Municipal Tax – Annual Capital Tax)

The Capital Tax Rate is a combination of the Provincial Capital Tax Rate and the Large Corporation Tax (Grossed up for income tax effect where appropriate).

Note: Above is discounted, using mid-year discounting, over the Customer revenue horizon.

2. <u>PV of Capital</u> = PV of Total Annual Capital Expenditures a) PV of Total annual Capital Expenditures

Total Annual Capital Expenditures over the Customer's revenue horizon discounted to time zero

Total Annual Capital Expenditure	=	(for New Facilities and/or reinforcement Investments + Customer Specific Capital + Overheads at the project level). This applies for
		implicated system elements at the utility side of the "Ownership Demarcation Line"
		Ownership Demarcation Line .

Note: Above is discounted to the beginning of year one over the Customer addition horizon.

3. PV of CCA Tax Shield

PV of the CCA Tax Shield on [Total Annual Capital].

The PV of the perpetual Tax shield may be calculated as:

PV at time zero of: [(Income tax Rate) * (CCA Rate) * Annual Total Capital]

(CCA Rate + Discount Rate)

or,

Calculated annually and present valued in the PV of Taxes calculation.

Note: An adjustment is added to account for the 1/2 year CCA rule.

4. Discount Rate

PV is calculated with an incremental, after-tax discount rate.



APPENDIX C ENERSOURCE HYDRO MISSISSAUGA INC. OFFER TO CONNECT AGREEMENT

SO#_____

OFFER TO CONNECT AGREEMENT

THIS AGREEMENT made this _____ day of ______, 20____ (the "Effective Date").

BETWEEN:

ENERSOURCE HYDRO MISSISSAUGA INC. hereinafter called the "Corporation"

OF THE FIRST PART

- and -

hereinafter called the "Developer"

OF THE SECOND PART

- and -

hereinafter called the "Mortgagee(s)"

OF THE THIRD PART

(the Corporation, Developer and Mortgagee are hereinafter collectively referred to as "Parties" or individually as a "Party")

WHEREAS the Corporation is a corporation, duly licensed for the distribution of electrical power in the City of Mississauga;

AND WHEREAS the Developer is the registered owner of the lands described in Schedule "A" attached hereto;

AND WHEREAS the Developer intends to develop the lands described in Schedule "A" by way of an existing or proposed plan of subdivision, a rezoning, or a land division;

AND WHEREAS certain of the works hereinafter referred to are to be constructed on the lands described in Schedule "B" attached hereto which lands are external to the lands described in Schedule "A";

AND WHEREAS the lands described in Schedules "A" and "B" are hereinafter collectively referred to as the "Lands";

AND WHEREAS the Corporation will perform Connection Work, including, but not limited to, designing the Electrical Plant and the Expansion;



AND WHEREAS the material and labor for the complete installation of the Electrical Plant and Expansion are to be supplied and constructed by the Developer or the Corporation as more particularly described herein, for purposes of providing electrical power to the Development; **AND WHEREAS** the Corporation has agreed to design the Electrical Plant and the Expansion in

accordance with the Corporation's Specifications and the terms and conditions herein; **AND WHEREAS** the Developer has agreed to pay the Corporation's costs under this Agreement associated with the Connection Work in accordance with the terms and conditions herein;

AND WHEREAS the Developer and the Mortgagees represent and warrant that the Mortgagees are the only Mortgagees of the Lands;

NOW THEREFORE, in consideration of the mutual covenants, conditions and agreements herein contained, other good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, the Parties hereto covenant, promise and agree as follows:

1. Definitions

1.1 For the purposes of this Agreement defined terms used herein shall have the meanings given hereunder:

"Agreement" means this agreement as it may be amended, supplemented or restated from time to time and includes any Schedules or Exhibits hereto;

"**Capital Contribution**" means the amount, if any, payable to the Corporation by the Developer as calculated in accordance with the Economic Evaluation;

"Civil Works" means the excavation of trenches, sand padding with masonry sand and backfill, the concrete foundations, grounding and crushed stone base for transformers and kiosks, and road crossing ducts complete with pull rope and caps for spares;

"**Code**" or "**Distribution System Code**" means the Distribution System Code originally published by the Ontario Energy Board on July 14, 2000 under file no. RP-1999-0033, as amended from time to time;

"**Connection Work**" means regulated (non-contestable) work the Corporation must perform in order to connect a Consumer to the existing Distribution System;

"**Consumer**" means a person or other body to whom the Corporation has agreed to supply power;

"**Contractor**" means the firm of contractors, the company or the individual acting as contractor and commissioned by the Developer to install the Electrical Plant and Expansion;

"**Corporation**" means Enersource Hydro Mississauga Inc., or other persons engaged by the Corporation on its behalf;

"**Deposit**" means a payment by the Developer to the Corporation for the review of the plans and preparation of this Agreement;

"**Detailed Design Engineering**" means the work involved for system planning and to design the Electrical Plant and Expansion including sizing and specification of all materials and layout of same;

"**Developer**" includes an individual, corporation, partnership, association, or other persons engaged by the Developer on its behalf;

"Development" means the lands described in Schedule A that the Developer intends to



e

develop;

"**Distribution System**" means the Corporation's distribution lines, underground cables, transformers, associated equipment or other items used to distribute electricity but for the purposes of this Agreement does not include the Electrical Plant or Expansion;

"Economic Evaluation" means the analytical tool designed to determine the Developer's capital contribution based on fixed costs and estimated revenue, as required pursuant to Section 3.2.1 of the Distribution System Code and as further described in Appendix B to the Distribution System Code;

"**Electrical Plant**" means electric services including overhead conductors or underground distribution cables, transformers, secondary cables to the lot line, and street lighting that will be constructed for the Development;

"**Electricity Act**" means the Electricity Act, 1998, S.O. 1998, C. 15, Schedule A, as amended from time to time;

"**Expansion**" means an addition to a Distribution System in response to a request for additional Customer connections that otherwise could not be made, e.g., increasing the length of the Distribution System;

"Force Majeure Event" shall be deemed to be a cause reasonably beyond the control of the Party whose inability as aforesaid is involved such as, but without limitation to, strike of that Party's employees, damage or destruction by the elements, accident to the works of that Party, fire and explosion (except where caused by the Party's act or negligence), war with the Queen's enemies, legal act of the public authorities, insurrection, act of God or inability to obtain essential services or transport materials, product or equipment because of the effect of similar causes on the Party's suppliers or carriers;

"**Inspector**" means a person assigned by the Corporation to inspect the Contractor's work and method of installation of the Electrical Plant and Expansion in accordance with the Specifications;

"Lands" means the lands described in Schedule A and Schedule B;

"**Maintenance Period**" means a minimum one year time period beginning and ending with written notification by the Corporation, during which the Developer is responsible to guarantee the quality and performance of the installation in connection with the Electric Plant;

"**Ontario Energy Board Act**" means the Ontario Energy Board Act, 1998, S.O. 1998, C.15, Schedule B, as amended from time to time;

"Party" means a party to this Agreement;

"**Residential Service**(s)" means the overhead or underground electrical system located from the lot line to the dwelling;

"**Specifications**" means the Standards Construction Practice Drawings Manual as specified by the Corporation and as may be amended from time to time;

"Work" means any work to be performed by the Corporation pursuant to this Agreement related to the design, supply, installation or connection of the Distribution System and the Expansion.

2. Distribution System Code Requirements

2.1 The Corporation, the Developer and the Mortgagee acknowledge that the financial requirements set forth in this Agreement are governed by and subject to the provisions of the Distribution System Code. The Parties acknowledge and confirm that the Corporation



has performed standard Economic Evaluation to determine to what extent the present value of the future revenue from Consumers within the Development will pay for the capital cost and ongoing maintenance costs of the Electrical Plant and the Expansion thereto. The Parties also acknowledge and confirm that they comply with all connection requirements identified in Section 3.1.1 of the Code.

3. Financial Obligations

- 3.1 The Developer elects the:
 - "Offer to Connect" whereby the Corporation shall design, supply and install and energize the Electrical Plant and Expansion;
 - or
 - "Alternate Bid" whereby the Corporation shall design, inspect and energize the Electrical Plant and Expansion and complete the Connection Work and the Developer shall supply the material and labor necessary to install the Electrical Plant and the Expansion.
- 3.2 The Developer acknowledges that the costs set out in Schedule "C", Table A and Table B are estimates only and are subject to change. The Corporation shall notify the Developer in writing as soon as practicable of any revision to such estimates, and the amount of any increase or decrease to such estimates shall be due and payable immediately by the Developer to the Corporation or by the Corporation to the Developer, as the case may be, upon receipt by the Developer of such notification.
- 3.3 The Corporation will not order any material required specifically for this project if the amounts set out in Schedule "D" have not been paid. The Corporation will not be liable in any way to the Developer or any other person for any delay in the delivery of such components.
- 3.4 If, within five years (1826 days) from the effective date of this Agreement, an unforecasted consumer is connected to the Expansion or the Electrical Plant and the Developer has made a capital contribution towards the Expansion or the Electrical Plant, the Corporation will collect a capital contribution (calculated using the Economic Evaluation) from the un-forecasted consumer and this amount will be rebated to the Developer, in accordance with the Code. The amount rebated is to be paid by the Corporation to the Developer within 60 days of receipt of the capital contribution from the un-forecasted consumer by the Corporation.
- 3.5 Once the design has been returned to the Developer or its consultant, future changes in the design will only be made at the expense of the Developer.
- 3.6 If any relocation of services after the six (6) week notice period as provided in 5.1(g) results in additional costs, such additional costs, shall be the sole responsibility of the Developer.



- 3.7 Any changes to the design of the Electrical Plant or Expansion will be at the expense of the Developer as determined by the Corporation.
- 3.8 Except as otherwise expressly provided, all amounts in this Agreement shall be exclusive of any applicable taxes.

Offer to Connect

- 3.9 Where the Developer chooses the Option "Offer to Connect", the Developer shall pay to the Corporation the Capital Contribution as provided in Table A of Schedule "C". Such payments will be in addition to any Deposit paid by the Developer. The Developer shall make all payments as provided in Table A of Schedule "D".
- 3.10 Any Deposit paid by the Developer shall be returned to the Developer, 30 days after the Developer has fulfilled all the financial obligations.

Alternate Bid

- 3.11 Where the Developer chooses the Option "Alternate Bid", the Developer shall pay to the Corporation:
 - a) the cost of the Detailed Design Engineering, as provided in Table B of Schedule "C", upon execution of this Agreement;
 - b) the cost of the Corporation for the labor and materials to complete the Connection Work as provided in Table B of Schedule "C"; and,
 - c) the cost of the Inspection and Energization, as provided in Table B of Schedule "C".
- 3.12 The payments required by the above shall be due and payable as provided in Table "B" of Schedule "D" to this Agreement. The Corporation shall have the right to stop all work, if any payments are overdue for any reason.
- 3.13 Any Deposit paid by the Developer shall be refunded to the Developer, 30 days after the Developer has fulfilled all the financial obligations.
- 3.14 Where the Developer chooses the Option "Alternate Bid" the Developer shall provide the Corporation with notarized evidence through statutory declaration of the actual costs of the material and labor for the Electrical Plant and the Expansion. The Corporation shall, within 60 days of receipt of the actual costs from the Developer, complete the Economic Evaluation pursuant to the Code and shall notify the Developer of any refund owed to the Developer or any additional payment owed to the Corporation as a Capital Contribution. The Party responsible for such payment shall make the payment within 60 days from the date of such notice.

4. The Corporation Covenants

4.1 With respect to the Development the Corporation covenants to:





- a) design the Electrical Plant for the Development in accordance with the Specifications, all applicable codes and good engineering judgment;
- b) provide temporary electrical plant construction services to the Developer subject to the execution of a separate agreement concerning payment of the Actual Cost thereof;
- c) provide, at the Developer's expense, the design for the Electrical Plant of the Developer showing the location of primary cables, secondary cables, service cables, transformer(s), switch-gear(s), foundations, road crossings and connection point(s) with the Distribution System;
- d) provide an Inspector to inspect the work of the Contractor and the Developer for work on the Electrical Plant or the Expansion upon reasonable advance notice by the Developer not less than (5) five working days;
- e) advise the Developer of service locations within (5) five working days of the written request;
- f) ensure all plant provided by the Developer shall be of sufficient size and capacity, as solely determined by the Corporation, to service the Development as well as any adjacent lands which the Corporation determines may require the use of the Electrical Plant or Expansion, in whole or in part, as feeders;
- g) provide service connections promptly upon the receipt of notice that the dwellings within the Development have passed inspection by the Electrical Safety Authority or within such other time period as may be practicable; and
- h) prepare design and specifications for any Expansion where the Corporation indicates, in writing, that one is required.
- 4.2 Notwithstanding Section 4.1 above, the Corporation will not perform construction after the ground freezes, unless requested to do so by the Developer. The Developer shall be additionally responsible for all incremental costs, incurred by the Corporation as a result of construction being performed during such period.

5. Developer Covenants

- 5.1 With respect to the Development, the Developer covenants to:
 - a) provide, prior to the design of the Electrical Plant or Expansion, an engineering site plan in AutoCAD V.13 (latest version) or Micro Station referencing either:
 - Universal Transverse Mercator Projection (UTMP), NAD 83 co-ordinates; or
 - Local co-ordinates with control points using UTMP, NAD 83 co-ordinates;
 - 3. and showing the location and specifications of:
 - i. water, sewers, hydrants and other facilities;
 - ii. driveways and sidewalks;
 - iii. road profiles and cross sections; and
 - iv. ultimate landscape on public road allowance.





- b) notify the Corporation, Bell Canada, any telecommunications company or companies and any other interested third party of any revisions to the engineering design prior to commencing any construction;
- c) prior to construction of the Electrical Plant or Expansion, provide clearance and grading of the Electrical Plant routes within 15 centimetres of final grades and installed curbs;
- d) incorporate the Corporation's design into the engineering drawings for the Development;
- e) prior to commencement of work, submit proposed layout plans, in both electronic and hard copy form that conform to local municipal requirements and that indicate all road profile/cross-section drawings;
- f) submit all plans of adequate scale to allow the design of the Electrical Plant and Expansion to be incorporated onto the plan;
- g) provide location of curb cuts and walkways at least six (6) weeks in advance of installation of the Electrical Plant;
- h) provide location stake out of any other service(s) that might conflict with all or a portion of the Electrical Plant or Expansion;
- i) identify lot lines and other reference points immediately prior to the staking of any or all of the Electrical Plant or Expansion or a joint use trench;
- j) provide unobstructed access to the Corporation personnel to and along the route of the Electrical Plant and the Expansion;
- k) provide Civil Works as required and specified in the Specifications;
- co-ordinate the installation of the Civil Works with the Corporation in regard to when the trenches will be opened and the cables installed;
- m) co-ordinate the installation of the Electrical Plant and Expansion with Bell Canada, Cable TV, Gas and any other party who may be sharing the joint trench;
- n) comply with all obligations under the applicable attached schedules; and
- o) where any part of the Electrical Plant or Expansion is located on private property, the Developer shall obtain, at its expense, easements and/or shall enter into a license agreement free of encumbrances, as may be required by the Corporation to maintain and operate electrical equipment, and shall prepare all necessary documents and survey plans for registration.
- 5.2 Where the Developer has chosen "Alternate Bid" in Section 3.1, the Developer covenants to:
 - a) provide and install the Electrical Plant and Expansion in accordance with the Corporation's design and the Specifications. Any exceptions to the use of specified materials must be reviewed and approved by the Corporation prior to any construction;
 - b) request an inspection by the Corporation and obtain the Corporation's approval before backfilling or covering up any portion of the Electrical Plant or Expansion;
 - c) in the event that the Developer or its agent damages the Distribution System, Electrical Plant or other equipment in any manner whatsoever, pay an amount, which represents the cost of any repair to such system or equipment, together with the value of any loss of cable or equipment life;



- d) provide proof of "Labor and Material Payment Bond" from a Canadian Company totaling one hundred and ten percent (110%) of the Developer's contract amount, including all labor and material; and
- e) provide an automatically irrevocable letter of credit from a recognized financial institution with a Dominion Bond Rating Service R-1 middle (lower rated institutions are not acceptable and shall be returned) in the amount of 10% of the contract amount, including labor and material. The letter of credit must be kept in force during and (60) sixty days after the expiry of Maintenance Period and or (60) sixty days after the final assumption/billing of the project is completed whichever occurs later.

6. **Representations and Warranties**

- 6.1 The Developer represents and warrants to the Corporation as follows:
 - a) the Developer owns all rights, title and interest in and to the Lands;
 - b) the Developer has the power to enter into and to exercise its rights and perform its obligations under this Agreement;
 - c) the Developer has taken all necessary action to authorize the execution and performance of its obligations under this Agreement;
 - d) except as otherwise expressly identified herein, no approvals from the Developer or any third parties are required to give effect to this Agreement;
 - e) the obligations expressed to be assumed by the Developer hereunder are legal, valid, binding and enforceable;
 - f) the execution, delivery and performance by the Developer of this Agreement does not contravene any provision of:
 - 1. any existing legislation or regulation binding the Developer;
 - 2. any order or decree of any court or arbitrator binding on the Developer; or
 - **3**. any obligation, which is binding upon the Developer or upon any of its assets or revenues;
 - g) to the best of the Developer's information, knowledge and belief, all information representations and other matters of fact committed in writing to the Corporation by the Developer in connection with the Electrical Plant are true and complete in all material respects;
 - h) no claim is presently being assessed and no litigation, arbitration or other proceedings are presently in progress or, to the best of the knowledge of the Developer, pending or threatened against it or any of its assets or employees in connection with the construction maintenance or operation of the Electrical Plant or Expansion;
 - i) the Developer is not subject to any other obligation or compliance which will or is likely to have a material adverse effect on the ability of the Developer to perform its obligations under this Agreement; and
 - j) if the Developer has selected "Alternate Bid" in Section 3.1, the Developer shall warrant the Electrical Plant and Expansion to be free from defects for the duration of the Maintenance Period. The Corporation at the sole expense of the Developer



shall complete any repairs or replacement of the Electrical Plant or the Expansion required during the Maintenance Period.

- 6.2 The Parties comprising the Mortgagee each represent and warrant to the Corporation as follows:
 - a) to the best of the their knowledge, the Parties comprising the Mortgagee are the only mortgagees of the Lands and no person who is not a Party to this Agreement has any interest in the Lands; and
 - b) to the extent required (if applicable), the consent of the Mortgagee to the terms and provisions of this Agreement has been granted.
- 6.3 The Corporation represents and warrants to the Developer as follows:
 - c) the Corporation has the power to enter into and to exercise its rights and perform its obligations under this Agreement;
 - d) the Corporation has taken all necessary action to authorize the execution and the performance of its obligations under this Agreement;
 - e) the obligations expressed to be assumed by the Corporation hereunder are legal, valid, binding and enforceable;
 - f) the execution, delivery and performance by the Corporation of this Agreement does not contravene any provision of:
 - 1. any order or decree of any court or arbitrator binding on the Corporation;
 - or
- 2. any obligation which is binding upon the Corporation or upon any of its assets or revenues;
- g) no claim is presently being assessed and no litigation, arbitration or other proceedings are presently in progress or, to the best of the knowledge of the Corporation, pending or threatened against it or any of its assets or employees in connection with the construction maintenance or operation of the Electrical Plant;
- h) the Corporation is not subject to any other obligation or compliance, which, will or is likely to have a material adverse effect on the ability of the Corporation to perform its obligations under this Agreement.

7. Contractor Approval and Inspection Prior to Commencement of Installation

- 7.1 Prior to entering into any contract with a Contractor for the installation of the Electrical Plant or Expansion, in part or in whole, the Developer shall employ a contractor, approved by the Corporation, who has the responsibility for others employed to install the Electrical Plant.
- 7.2 The Corporation will not commence or continue the Corporation's connection work unless:
 - a) the Developer has made arrangements for an inspection;
 - b) contractor approval has been obtained in accordance with the provisions of Section 0.1 above;



- c) the design of the Electrical Plant and Expansion has been completed in accordance with Section 4 above; and
- d) the Developer has paid the amounts specified in Section 3 as payable to the Corporation in accordance with this Agreement.

8. Liabilities and Indemnification

- 8.1 The Developer does hereby assume all risk of damage, loss or injury to persons or property howsoever caused, and does for itself and its successors and assigns hereby release and forever discharge the Corporation, its successors and assigns, its employees, agents and representatives from all claims, actions, applications, or demands with respect thereto, except for any damages that arise directly out of the willful misconduct or gross negligence of the Corporation. The Developer does hereby fully indemnify and save harmless the Corporation, its successors and assigns, its employees, agents and representatives of, from and against all damage, loss or injury to persons or property which may be suffered or which may hereafter be sustained or incurred by reason of, or in any way relating to, arising from, or based upon the performance of, or purported performance of, or non-performance of the Developer of any of its obligations or covenants in this Agreement or arising from the design, construction, installation, operation, maintenance, repair and removal of the Electrical Plant or Expansion, and all manner of actions, suits, causes of action, proceedings, charges, expenses, risks, liabilities, debts, obligations, duties, claims, demands and costs (including legal fees and court costs) in connection therewith, except where the foregoing is caused by the willful misconduct or gross negligence of the Corporation.
- 8.2 Neither the Corporation nor the Developer shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.
- 8.3 The Parties acknowledge and agree that Sections 8.1 and 8.2 above shall survive the termination and expiry of this Agreement.

9. Term

9.1 Unless otherwise terminated in accordance with this Agreement, this Agreement, when executed, shall remain in effect until the expiry of the final Maintenance Period, but in any event for a period of not less than two (2) years from the date of this Agreement, or until such time as the responsibility for the distribution of power in the area where the Development is located is transferred to an authority other than the Corporation, whichever occurs first.

10. Termination



- 10.1 In the event of a breach of any provision of this Agreement by the Developer, the Corporation may take such action as may be appropriate to correct the breach and recover the cost thereof from the Developer. Such costs are due immediately on demand.
- 10.2 In the event that installation of the Electrical Plant or Expansion has not commenced within six (6) months from the date of this Agreement. The Corporation may, at its option, on one month's written notice to the Developer, terminate this Agreement.
- 10.3 The Corporation shall be entitled, at its option, to immediately terminate this Agreement upon written notice to the Developer in the event that the Developer or the Mortgagee files a petition or a petition is filed by a third party against the Developer or the Mortgagee for the voluntary or involuntary bankruptcy, insolvency under the Bankruptcy and Insolvency Act (Canada), the Companies' Creditors Arrangement Act or any other similar legislation in any jurisdiction and the same is not dismissed within ten days.
- 10.4 The Corporation shall be entitled to terminate this Agreement upon written notice to the Developer and the Mortgagee in the event there shall be entered an order, judgment or decree by a court of competent jurisdiction, upon the application of a creditor, approving a petition seeking re-organization or appointing a receiver, trustee or liquidator of all or a substantial part of the assets of either the Mortgagee or the Developer and such order, judgment or decree continues in effect for a period of thirty (30) consecutive days; provided, however, that such order, judgment or decree may remain in effect for longer than such thirty (30) days, if either the Developer or Mortgagee, as the case may be, is diligently appealing such order, judgment or decree.
- 10.5 Assuming the Corporation does not exercise its remedy under 10.1 the Corporation shall be entitled to terminate this Agreement if the Developer or the Mortgagee has committed any material breach of this Agreement and within 30 days of having received written notice of such breach failed to take steps satisfactory to the Corporation to remedy such breach.

11. Force Majeure

- 11.1 Other than for any amounts due and payable by the Developer to the Corporation or by the Corporation to the Developer, neither the Corporation nor the Developer shall be held to have committed an event of default in respect of any obligation under the Corporation's Conditions of Service (as such term is defined in the Distribution System Code) or under this Agreement if prevented from performing that obligation, in whole or in part, because of a Force Majeure Event.
- 11.2 If a Force Majeure Event prevents either party from performing any of its obligations under this Agreement, that party shall:
 - a) other than for Force Majeure Events related to acts of God, promptly notify all other parties of the Force Majeure Event and its assessment in good faith of the effect that the event will have on its ability to perform any of its obligations. Other than for Force Majeure Events related to acts of God, if the immediate





notice is not in writing, it shall be confirmed in writing as soon as reasonably practical;

- b) not be entitled to suspend performance of any of its obligations under this Agreement to any greater extent or for any longer time than the Force Majeure Event requires it to do;
- c) use its best efforts to mitigate the effects of the Force Majeure Event, remedy its inability to perform, and resume full performance of its obligations;
- d) keep the other party informed of its efforts;
- e) other than for Force Majeure Events related to acts of God, provide written notice to the other party when it resumes performance of any obligations affected by the Force Majeure Event; and
- f) if the Force Majeure Event is a strike or a lock out of the Corporation's employees, the Corporation shall be entitled to discharge its obligations to notify the Developer in writing by means of placing an advertisement in a local newspaper.

12. Notices

12.1 Any notice or other writing required or permitted to be given under this Agreement or for the purposes of it, to any Party, shall be valid only if delivered in writing in accordance with this section.

Notices shall be provided to the Developer as follows:

Address:

Fax No:

Notices shall be provided to the Corporation as follows:

Enersource Hydro Mississauga Inc. 3240 Mavis Road Mississauga, Ontario L5C 3K1

Attention:	Customer Engineering Department
Fax:	(905) 566-2737

Notices shall be provided to the Mortgagee(s) as follows:

Address:

Fax No:

12.2 Any party may change its respective address for delivery by delivering notices of such changes as provided herein.



- 12.3 Notice shall be deemed to have been delivered and received:
 - a) if delivered by hand or by courier, upon delivery if delivered before 4:00 pm on a business day, or otherwise on the next business day;
 - b) if delivered by fax, on the first business day following the date of receipt of the transmission;
 - c) if delivered by registered mail, four (4) business days after the mailing thereof, provided that if there is a labor dispute or threatened labor dispute affecting postal service, such notice shall be delivered by hand, courier or fax.

13. Insurance

- 13.1 The Developer shall, during the term of this Agreement, maintain:
 - a) a policy or policies of insurance in which the Corporation, and any additional parties that the Corporation may reasonably designate are named as additional insured and which policy or policies shall contain a co-insurance clause in the amount of Two Million Dollars (\$2,000,000) or as otherwise may be agreed in writing between the Developer and the Corporation, against liability due to damage to the property of the Corporation or any other person or persons including a third party, and against liability due to injury to or death of any person or persons including a third party; and
 - b) automobile liability insurance, covering all licensed motor vehicles owned, nonowned, hired, rented or leased and used in connection with the Developer's work under this Agreement covering bodily injury, including death, personal injury and property damage liability to a combined inclusive minimum limit of Two Million Dollars (\$2,000,000) and mandatory accident benefits.
- 13.2 The Developer shall provide the Corporation with a certificate of insurance confirming that the minimum coverage required hereunder is in effect and that the coverage will not be cancelled, non-renewed, or materially changed by endorsement or through issuance of other policy or policies of insurance which restricts or reduces coverage, without thirty (30) days advance written notice by registered mail, or courier, with a receipt required, to:

Customer Engineering Department Enersource Hydro Mississauga 3240 Mavis Road, Mississauga, Ontario L5C 3K1

- 13.3 Failure of the Corporation to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the Corporation to identify a deficiency from evidence provided will not be construed as a waiver of Developer's obligation to maintain such insurance.
- 13.4 Failure of the Corporation to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the Corporation to identify a
deficiency from evidence provided will not be construed as a waiver of Developer's obligation to maintain such insurance. The acceptance of delivery by the Corporation of any certificate of insurance evidencing the required coverage and limits does not constitute approval or agreement by the Corporation that the insurance requirements have been met or that the insurance policies shown in the certificates of insurance are in compliance with the requirements.

- 13.5 In the event that the Developer fails to arrange and /or maintain the agreed insurance coverage the Corporation may arrange such insurance and pay the premiums and shall be entitled to deduct such amounts from any monies due to the Developer and/or pursue an action for recovery of the debt. Alternatively, the Developer's failure to maintain the required insurance may result in termination of this Agreement at the Corporation's option.
- 13.6 All deductibles shall be to the account of the Developer.
- 13.7 With the exception of Section 13.1(0 (automobile liability), all insurance noted above shall specify that it is primary coverage and not contributory with or in excess of any other insurance that may be maintained by the Corporation.
- 13.8 Coverage provided for the Corporation shall not be invalidated or vitiated by actions or inactions of others.
- 13.9 Upon request by the Corporation, the Developer shall provide the Corporation with evidence, satisfactory to the Corporation, of the Developer's compliance and continued compliance with Section 13.1 in the form of a completed "Insurance Information" form attached hereto as Schedule "E".
- 13.10 The Developer agrees that the insurance described in Section 13.1 does not in any way limit the Developer's liability pursuant to the indemnity provisions of this Agreement.

14. Non-Assignment by Developer

14.1 Neither this Agreement, nor any rights, remedies, liabilities or obligations arising under it, shall be assignable by the Developer without the prior written consent of the Corporation, whose consent shall not be unreasonably withheld. The Corporation has the right to conduct due diligence to ensure that new assignee is capable of fulfilling all the obligations under this Agreement. The Developer further covenants and agrees to cause the assignee to execute a novation agreement thereby agreeing to be bound by the terms and conditions of this Agreement. Subject to all of the foregoing, this Agreement shall extend to, be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.

15. Amendments



15.1 Parties hereto may mutually, unless otherwise provided for in this Agreement, alter, amend, modify or vary the provisions of this Agreement or the schedules or substitute entirely new schedules therefore and such alteration, amendment, modification, variation or substitution shall be effected by an exchange of letters between the Corporation, the Developer and the Mortgagee, which letters shall be attached hereto and shall be deemed to form part hereof and shall, from the date agreed upon in the said letters, alter, amend, modify, vary or substitute the said Schedules in the manner and to the extent set forth in the said letters. Subject to the foregoing, no amendment, modification or supplement to this Agreement shall be valid or binding unless set out in writing and executed by the parties with the same degree of formality as the execution of this Agreement.

16. Mortgagee

- 16.1 The Mortgagee agrees that if the equity of redemption in the Lands is transferred to it or to any Party comprising the Mortgagee, in whole or in part, the title to the Lands shall be subject to the terms of this Agreement in the same manner as if the Mortgagee had executed this Agreement in the capacity of the Developer.
- 16.2 The Developer shall not mortgage, encumber, or convey any interest in the Lands to any party other than the Mortgagee or a Party comprising the Mortgagee unless:
 - a) such party has executed, as Mortgagee, an agreement identical in content to this Agreement (which agreement shall also be executed by the Developer and the Corporation), and an originally-executed copy of such agreement has been delivered to the Corporation; or
 - b) The Corporation has consented to such mortgage, encumbrance or interest in writing.

17. General

- 17.1 Entire Agreement. This Agreement, including the Schedules and Exhibits hereto, constitutes the entire agreement of the parties and supersedes and replaces all previous and contemporaneous communications, representations, understandings and agreements, both written and oral, express and implied, related to the subject matter hereof.
- 17.2 Waiver. No failure or delay on the part of a Party in exercising any right, power or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy. No waiver by a Party of a default hereunder shall operate against such Party as a waiver of such default unless made in writing and signed by the authorized representative of such Party.
- 17.3 Severability. Should any provision of this Agreement be found to be illegal, invalid or unenforceable, that provision shall be considered separate and severable from the remaining provisions of this Agreement, which shall remain in force and be binding upon the Parties.



- 17.4 Governing Law. This Agreement shall be governed by, construed and enforced in accordance with, the laws of the Province of Ontario and the Federal laws of Canada applicable therein. Each party hereby irrevocably and unconditionally submits to the exclusive jurisdiction of the courts of the Province of Ontario and all courts competent to hear appeals there from.
- 17.5 Further Assurances. Each of the Parties agrees from time to time hereafter and upon any reasonable request of any other Party, to make or cause to be made all such further acts, deeds, assurances and things as may be required to more effectually implement the true intent of this Agreement.
- 17.6 Time. Time shall be of the essence in this Agreement and no extension of time or amendment of this Agreement shall operate as a waiver of this provision.
- 17.7 Survival. Except where terminated expressly or by implication, the rights, obligations and remedies of the Parties contained herein shall survive the expiration or termination of this Agreement.
- 17.8 Enurement. This Agreement shall enure to the benefit of, and be binding upon, the Parties and their personal representatives, successors and permitted assigns.
- 17.9 Currency. All dollars expressed herein shall be payable in Canadian currency.
- 17.10 Counterparts. This Agreement may be executed in any number of counterparts with the same effect as if all parties hereto had signed the same document. All counterparts shall be construed together and shall constitute one and the same original agreement
- 17.11 Registrable Form of Documents. The Parties shall each execute and deliver all conveyances, deeds and other documents to be registered, in registrable form, so that the full intent of this Agreement may be fulfilled. It is understood by the parties hereto that this Agreement may be registered against the Lands, and that Enersource will provide release upon the expiry of the final Warranty Period.
- 17.12 The Corporation's Decision Binding. Should there be any dispute between the Parties as to the meaning of any Specifications or design, or as to the quality or performance of the work, the Corporation's decision shall be final and binding upon all of the Parties.
- 17.13 IN WITNESS WHEREOF the Parties hereto have caused to be affixed their corporate seals duly attested by the hands of their respective proper signing officers authorized in that behalf.



ENERSOURCE HYDRO MISSISSAUGA INC. "Corporation"

By:

I have the authority to Bind the Corporation.

Name: _____ Title:

"Developer"

"Mortgagee"

By: I have the authority to bind the Developer.

By:

I have the authority to bind the Mortgagee

Name:	 	
Title:		

Name:	
Title:	



Conditions of Service

SCHEDULE "A" Referred to in the annexed indenture made the

day of, 20

BETWEEN:

ENERSOURCE HYDRO MISSISSAUGA INC.

hereinafter called the "Corporation"

OF THE FIRST PART

hereinafter called the "Developer"

OF THE SECOND PART

ALL and SINGULAR that certain parcel or tract of land and premises situate, lying and being in the City of Mississauga, in the Regional Municipality of Peel in the Province of Ontario, and being composed of ______ on Registered Plan

______, being more particularly described as _______ on Plan 43R-______ on Plan 43R-______ registered in the Land Titles Office for Land Titles Division of Peel (No. 43).



SCHEDULE "B"

Part of Lot(s)________, W.H.S. / E.H.S. / S.D.S. / N.D.S., in the City of Mississauga, (Circle appropriate designations)

in the Regional Municipality of Peel, designated as Part(s)______ on a Reference Plan deposited in the Land Registry Office for the Land Titles Division of Peel (No.43) as No. 43R-_____.



SCHEDULE "C"

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Table A

Offer to Connect – Enersource Hydro Mississauga Installs New Subdivision Electrical Plant and Expansion (GST excluded)		
Estimated Cost of the Detailed Engineering	\$	
Estimated cost to the Corporation for Labor and Equipment to connect and install the Electrical Plant and Expansion	\$	
Estimated cost to the Corporation for Material required for the Electrical Plant and Expansion	\$	
Total Estimated Cost of Installation	\$	
Total Estimated Capital Contribution	\$	
Deposit	\$	

<u>Table B</u>

Alternate Bid for Installation – Developer is responsible for supply of labor and material for the installation of the Electrical Plant and Expansion (GST excluded)			
Estimated Cost of the Detailed Design	\$		
Engineering			
Estimated Cost to the Corporation for Labor &	\$		
Materials Required to Connect to Existing			
Circuits			
Cost to the Corporation for Inspection &	\$		
Energization Charges			
Total of Estimated Corporation Costs	\$		
Deposit	\$		



SCHEDULE "D"

PAYMENT SCHEDULE

TABLE A – OFFER TO CONNECT

Payment	Amount Due Date	
Deposit	\$10,000.00	Prior to Review of Plans
Detailed Design Engineering		Acceptance of Offer to Connect
Materials		30 days prior to Construction
Labor and Equipment		30 days prior to Construction
Balance of Capital Contribution (if any)		30 days after Energization
Refund of Deposit to Developer	\$10,000.00	30 days after all the financial obligations are fulfilled.

SCHEDULE "D"

PAYMENT SCHEDULE

TABLE B - ALTERNATE BID

Payment	Amount Due Date	
Deposit	\$10,000.00	Prior to Review of Plans
Detailed Design Engineering		Acceptance of Alternate Bid
Materials		30 days prior to commencing
		construction
Corporation Labor		30 days prior to commencing
Corporation Labor		construction
Inspection & Energization		30 days prior to commencing
Charges		construction
		60 days after the developer
Capital Contribution Refunds		has submitted statuary
		deceleration
Refund of Deposit	\$10,000,00	30 days after all the financial
Refutic of Deposit	\$10,000.00	obligations are fulfilled.



SCHEDULE "E"

INSURANCE INFORMATION (To be completed by Developer's insurer)

Insurance Company:	
Policy Number:	
Expiry Date:	
Certificate of Insurance delivered to	
Enersource Hydro Mississauga Inc. on :	, 20
J	

The insurance policy described above is still in effect and has not been amended since the Certificate of Insurance was delivered to Enersource Hydro Mississauga Inc.

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(INSURANCE CERTIFICATE MUST BE ATTACHED)

APPENDIX D CONNECTION AGREEMENT TO CONNECT A LOAD CUSTOMER

[insert Customer name]

[insert Customer address]

CONNECTION AGREEMENT

Between

[INSERT CUSTOMER NAME]

- and -

ENERSOURCE HYDRO MISSISSAUGA INC.

Effective As Of

the _____, 20____,



THIS CONNECTION AGREEMENT (this "Agreement") is made this _____ day of _____,

BETWEEN

[insert CUSTOMER NAME] ("Customer")

- and -

ENERSOURCE HYDRO MISSISSAUGA INC. ("Enersource")

WHEREAS:

- A. Enersource is engaged in the business of distributing electricity in the City of Mississauga;
- **B.** Customer owns or leases, as the case may be, the facilities ("**Customer Facility**") located at ("**Site**") and more particularly identified and described in Schedules A and B;
- **C.** Customer wishes to have the Customer Facility connected to the Enersource distribution system ("**Distribution System**");
- **D.** Under the provisions of the Distribution System Code, Enersource must require a Customer to enter into a connection agreement with Enersource in respect of connection and access to the Distribution System;
- **E.** In order to promote public safety, to protect the employees and assets of the Parties, to maintain quality of electrical distribution services to Enersource customers and to comply with the Distribution System Code, the Parties wish to enter into a connection agreement.

FOR GOOD AND VALUABLE CONSIDERATION, the Parties agree as follows:

Article One Definitions and Interpretation

1.1 Definitions

Whenever used in this Agreement, the following words and terms shall have the meanings set out below.



"Agreement" means this connection agreement, including the Schedules thereto, as it or they may be amended or supplemented from time to time, and the expressions "hereof", "herein", "hereto", "hereunder", "hereby" and similar expressions refer to this Agreement and not to any particular section or other portion of this Agreement.

"**Applicable Law**" means with respect to any person, property, transaction, event or other matter, any law, rule, statute, regulation, order, judgment, decree, treaty, guideline or other requirement having the force of law relating or applicable to a person, property, transaction, event or other matter.

"**Business Day**" means any day except Saturday, Sunday or any day on which banks are generally not open for business in the City of Mississauga.

"**Competent Worker**" means a worker who, in relation to specific work, (a) is qualified because of knowledge, training and experience to perform the work; (b) is familiar with Applicable Law that applies to the work; and (c) has knowledge of all potential or actual danger to health or safety in the workplace.

"**Controlling Authority**" in respect of a Party means the person appointed by that Party as responsible for performing, directing or authorizing changes in the condition or physical position of electrical apparatus or devices, such person being named in Schedule C;

"**Customer Condition Guarantee**" means a guarantee issued in support of a work permit. It certifies that an isolated and de-energized condition exists at points under the control of the issuer of the Customer Condition Guarantee.

"**Customer Equipment**" means all facilities, apparatus and equipment of any kind located at the Customer Facility and Site including all equipment identified in the single line diagram set out in Schedule A, except for the Enersource Equipment, whether or not affixed to land or buildings, that are owned or leased by Customer and used for or otherwise pertaining to the distribution, generation, transmission, or use of electricity or telecommunications or any purpose ancillary thereto;

"Customer Facility" has the meaning ascribed to it in the Recitals.

"**Demarcation Point**" means an Operational Demarcation Point or Ownership Demarcation Point as such may be identified in the single line diagram set out in Schedule A;

"Distribution System" has the meaning ascribed to it in the Recitals.

"Distribution System Code" means the code, issued by the Ontario Energy Board and in effect at the relevant time;

"**Enersource's Conditions of Service**" means the document developed by Enersource in accordance with Section 2.4 of the Distribution System Code that describe the operating



practices and connection rules of Enersource and is filed with the Ontario Energy Board as amended from time to time;

"Enersource Controlled Equipment," in relation to any Equipment, means that Equipment over which Enersource shall have Operating Control, which, for clarity, includes all the Equipment identified as such in the single line diagram set out in Schedule A;

"**Enersource WP Code**" means, at any time, the Work Protection Code developed by Enersource and in force at such time;

"**Enersource Equipment**" means all facilities, apparatus and equipment of any kind including equipment identified as such in the single line diagram set out in Schedule A, whether or not affixed to land or buildings that are owned or leased by Enersource, used for or otherwise pertaining to the distribution, generation, transmission, or use of electricity or telecommunications or any purpose ancillary thereto, including all metering and SCADA equipment;

"**Emergency**" means any abnormal condition that requires automatic or immediate manual action to prevent or limit loss of all or a substantial portion of the distribution System or loss of the supply of electricity or energy that could materially and adversely affect: (a) the reliability of the distribution system, (b) the integrity of Enersource's customer's facilities or Enersource's distribution facilities, (c) public safety or the environment;

"**Equipment**" means all facilities, apparatus and equipment located at the Customer Facility and Site, including control, protection, monitoring, metering and recording devices or structures, used for or otherwise pertaining to the distribution, generation, transmission, or use of electricity or telecommunications or any purpose ancillary thereto, including Enersource Equipment and Customer Equipment;

"Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America.

"IESO" means the Independent Electricity System Operator or its successor;

"**Isolated**" means a condition in which electrical equipment is disconnected or separated from sources of energy by industry accepted devices and procedures;



"Off Potential" means no known voltage source applied, but an induced voltage may be present.

"**Operating Control**" means having the exclusive authority to direct or authorize the operation of devices in a definitely specified manner. For clarity, "Operating Control" is not synonymous with ownership, nor does it necessarily convey total autonomy. The party having "Operating Control" over a device has the sole authority to: (i) direct others in the operation of that device, or (ii) authorize others to operate that device;

"Operational Demarcation Point" has the meaning ascribed to it in the Distribution System Code;

"Ownership Demarcation Point" has the meaning ascribed to it in the Distribution System Code;

"Site" has the meaning ascribed to it in the Recitals;

"Term" has the meaning ascribed to it in subsection 14.1.1;

"Work Protection" is a state or condition whereby an Isolated state or condition has been established for work to be performed on specific equipment.

1.2 Interpretation

- 1.2.1 The division of this Agreement into Articles and Sections and the headings of the various sections of this Agreement are for convenience or reference only and shall not modify, define or limit any of the terms or provisions of the Agreement. Any ambiguities or uncertainties in the wording of this Agreement shall not be construed in favour of or against any party, but shall be construed in a manner that most accurately reflects the purpose of this Agreement.
- 1.2.2 The use of words in the singular or plural or with a particular gender, shall not limit the scope or exclude the application of any provision of the Agreement to such person or persons or circumstances as the context otherwise permits.
- 1.2.3 Subject to any provision contained herein which requires immediate action, if any payment is required or other action required to be taken pursuant to this Agreement on a day that is not a Business Day, such payment or action shall be made or taken on the next Business Day.
- 1.2.4 Any reference in this Agreement to any Applicable Law or any section thereof shall, unless otherwise expressly stated, be deemed to be a reference to such statute or section as amended, restated or re-enacted from time to time.
- 1.2.5 (a) The following Schedules are attached to, form part of and are hereby incorporated by reference into this Agreement:

Schedule A - Single Line Diagram; Schedule B - Description of Facilities, Ownership and Operating Control; Schedule C - Contacts; Schedule D - Technical and Normal Operating Procedures; Schedule E - Emergency Operating Procedures; Schedule F - Metering and Protection & Control Facilities Diagram; and Schedule G - Verification of Protection & Control.

- 1.2.6 Wherever the words "include", "includes" or "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation" and the words following "include", "includes" or "including" shall not be considered to set forth an exhaustive list.
- 1.2.7 The applicable provisions of this Agreement shall continue in effect after termination hereof to the extent necessary to provide for final billings, billing adjustments, the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect and for the enforcement of obligations that continue beyond the term of this Agreement as specifically provided herein.

Article Two Representations and Warranties

2.1 Representations and Warranties of Enersource

Enersource represents and warrants to Customer as follows and acknowledges that, except as otherwise expressly provided herein, Customer is relying on such representations and warranties in connection with this Agreement and the connection and operation of the Customer Facility to the Distribution System:

- (a) Enersource is a corporation duly incorporated and validly subsisting under the laws of Ontario and has the corporate power, capacity and authority to enter into this Agreement and perform its commitments and obligations under this Agreement and any other agreement or document to be delivered pursuant hereto. Enersource has taken, or has caused to be taken, all action required to be taken by Enersource to authorize the execution and delivery of this Agreement;
- (b) This Agreement has been duly executed by Enersource and will, upon delivery, constitute a valid and binding obligation of Enersource, enforceable against it in accordance with its terms; and
- (c) All of the foregoing representations and warranties of Enersource will continue to be true and correct during the Term.

2.2 Representations and Warranties of Customer

Customer represents and warrants to Enersource as follows and acknowledges that, except as otherwise expressly provided herein, Enersource is relying on such representations and warranties in connection with this Agreement and the connection and operation of the Customer Facility:



- (a) Customer is a corporation duly incorporated and validly subsisting under the laws of Ontario and has the corporate power, capacity and authority to enter into this Agreement and perform its commitments and obligations under this Agreement and any other agreement or document to be delivered pursuant hereto. Customer has taken, or has caused to be taken all, action required to be taken by Customer to authorize the execution and delivery of this Agreement;
- (b) This Agreement has been duly executed by Customer and will, upon delivery, constitute a valid and binding obligation of Customer, enforceable against it in accordance with its terms;
- (c) Customer is the Owner or Tenant of the Customer Facility and Site with full power and authority to perform all of the obligations to be performed by the Customer pursuant to the terms of this Agreement and to grant all of the access and other rights to be granted by the Customer pursuant to the terms of this Agreement;
- (d) Customer is in compliance with all Applicable Law relating to the Customer Facility and Site; and
- (e) All of the foregoing representations and warranties of Customer will continue to be true and correct during the Term.

Article Three Interconnection

3.1 Interconnection

Subject to the terms and conditions set out in this Agreement, Customer is hereby granted the right to connect the Customer Facility to the Distribution System during the Term.

Article Four Conditions of Service

4.1 Conditions of Service

In addition to the obligations set forth in this Agreement, each Party shall be governed by and comply with Enersource's Conditions of Service, as posted on the Enersource website (http://www.enersource.com) and may change from time to time, which are hereby incorporated in their entirety by reference into, and which hereby form part of, this Agreement. For greater certainty, in the event of changes to the Enersource's Conditions of Service, Customer will only be responsible for complying with any new or amended requirements from that point forward.

Article Five Communication and Notices



5.1 Communication and Notices

5.1.1 Any notice, certificate, consent, determination, or other communication required or permitted to be given or made in writing under this Agreement shall be in writing and shall be effectively given and made if (i) delivered personally, (ii) sent by prepaid courier service or mail, or (iii) sent prepaid by fax or other similar means of electronic communication, in each case to the applicable contact and address set out in Schedule C.

Any such communication so given or made shall be deemed to have been given or made and to have been received on the day of delivery if delivered, or on the day of faxing or sending by other means of recorded electronic communication, provided that such day in either event is a Business Day and the communication is so delivered, faxed or sent prior to 4:30 p.m. on such day. Otherwise, such communication shall be deemed to have been given and made and to have been received on the next following Business Day. Any such communication sent by mail shall be deemed to have been given and made and to have been received on the fifth Business Day following the mailing thereof, except where such communication has been mailed during any actual or apprehended disruption of postal services. Any such communication given or made in any other manner shall be deemed to have been given or made and to have been received only upon actual receipt.

- 5.1.2 All other notices or communication required or permitted under this Agreement shall be made by facsimile, telephone call or other simultaneous voice communication at the number(s) and to the persons and/or departments set out in Schedule C. The deposit of a voice message shall not be considered prior notice under this Agreement where such notice is required.
- 5.1.3 Each Party shall be able to contact the other Party by telephone or other simultaneous voice communication at the number(s) set out in subsection 1.1 of Schedule C on a 24-hour basis at all times.
- 5.1.4 If a Party wishes to amend any of its contact information set out in Schedule C, it must deliver prior written notice to the other Party with attention to each contact listed in subsection 1.2 (Contract Administration for Operating Service) of Schedule C. Such notice must be delivered by a contact of the amending Party listed in subsection 1.2 (Contract Administration for Operating Service) in Schedule C. Enersource will maintain and keep current Schedule C, ensuring that Customer has a current Schedule C at all times. The Parties hereby acknowledge that instantaneous and/or Emergency communication may be required from time to time and therefore, the contact information contained in Schedule C must be correct at all times and within the actual knowledge of each Party in order to safeguard life and property.

Article Six Information Requirements and Exchange

6.1 General



6.1.1 Each Party shall use reasonable efforts to keep the other informed of conditions and events within their respective jurisdictions that may affect the Equipment and the operation of this Agreement.

Article Seven Work Protection Practices

7.1 Work Protection Practices

- 7.1.1 All work on the Customer's Equipment shall be carried out by the Customer in accordance with the Customer's practices and procedures, which practices and procedures shall be consistent with the practices and procedures of a prudent operator in similar circumstances. At a minimum, the Customer shall meet the standards set forth in the Occupational Health and Safety Act, the Electrical Safety Code and with the EUSA (Electrical Utility Safety Association) Rule Book.
- 7.1.2 In the event the Customer Equipment needs or wishes to be Isolated from the Distribution System, the Customer shall request Enersource to provide a Customer Condition Guarantee on the terms requested by the Customer, acting reasonably. The Customer shall then establish its own Work Protection in accordance with the Customer's Work Protection practices. A request for a Customer Condition Guarantee shall be delivered in writing upon at least four (4) Business Days' prior notice.
- 7.1.3 Any isolation of a Customer's facilities shall be conducted in accordance with Schedule D.

Article Eight Facility Standards, Operating and Protection Procedures

8.1 Facility Standards

- 8.1.1 Customer shall ensure that the Customer Facility and Customer Equipment:
 - (a) Meet all applicable requirements of the Ontario Electrical Safety Authority, subject to any exemption that may have been granted to or that may apply to Customer;
 - (b) Conform to all applicable industry standards, including those of the Canadian Standards Association, the Institute of Electrical and Electronic Engineers, the American National Standards Institute, and the International Electro-Technical Commission;
 - (c) Are constructed, operated and maintained in accordance with the terms and conditions of this Agreement, all Applicable Law, all applicable reliability standards and Good Utility Practice;



- 8.1.2 Customer shall ensure that those of its facilities that are connected to the Distribution System, in addition to the facilities identified in Schedule B, comply with the performance standards and requirements set out in the Distribution System Code.
- 8.1.3 Enersource and Customer shall fully cooperate to ensure that modeling data required by this Agreement for the planning, design and operation of connections are complete and accurate.
- 8.1.4 Customer shall, at Enersource's request, permit Enersource to participate in the commissioning, inspection, and testing of the Customer's facilities so as to enable Enersource to ensure that the Customer's facilities will not adversely affect the reliability of the Distribution System.
- 8.1.5 At all times, Customer shall maintain Competent Workers at the Customer Facility, or shall ensure that Competent Workers are available to attend at the Customer Facility for the purpose of operating the Customer Facility or Equipment, as applicable, in accordance with the terms and conditions set out in this Agreement. Competent Workers shall be identified in Section 2 of Schedule C. Any proposed amendment to Section 2 of Schedule C shall be submitted by Customer in writing to Enersource, all in accordance with subsection 5.1.4 of the Agreement.

8.2 **Operational Procedures**

- 8.2.1 Customer shall comply at all times during the Term with all Applicable Law relating to the Customer Facility, Site and Equipment. Customer shall operate or cause to be operated at all times the Customer Facility and the Equipment in accordance with Good Utility Practice, the terms and conditions of Schedule D, always with a view to safeguarding and protecting life and property, including the Distribution System and the Parties' employees.
- 8.2.2 Customer acknowledges that the fault levels at connection points applicable to Customer Facility will change from time to time. If Customer requests from Enersource confirmation of current fault levels at a connection point applicable to Customer Facility, Enersource shall provide such current fault levels as soon as is reasonably practicable.
- 8.2.3 Subject to Section 8.3.1(d), Customer shall promptly report to Enersource any changes in its facilities that could cause any modification to the single line diagram in Schedule A.

8.3 **Protection Procedures**

- 8.3.1 Customer shall provide prior written notice to Enersource of any changes to the Customer Facility which may affect the Distribution System, including but not limited to changes to the following:
 - (a) Interface protection relaying;
 - (b) Control facilities and settings, and



(c) Addition of any equipment that will cause any modification to the single line diagram in Schedule A.

Such notice shall be delivered as early as practicable and shall provide a detailed description of the proposed changes and the steps being taken by Customer to prevent any damage or injury to the Distribution System, life and other property. Enersource must approve proposed changes prior to any new facility connection to the Distribution System.

- 8.3.2 Upon request by Enersource from time to time, acting reasonably, Customer shall demonstrate to Enersource the integrity of the protection and control system(s) relating to the Customer Equipment.
- 8.3.3 Operating orders and messages will refer to nomenclature as identified in the single line diagram set out in Schedule A.

Article Nine Emergency Operating Procedures

9.1 Emergency Operating Procedures

9.1.1 Emergency operating procedures shall be followed in accordance with the terms and conditions set out in Schedule E of this Agreement.

Article Ten Maintenance

10.1 Maintenance

- 10.1.1 Customer shall conduct routine and emergency maintenance on Customer Equipment in accordance with Good Utility Practice. The maintenance shall include the inspection and testing of equipment and the replacement of old or damaged equipment.
- 10.1.2 Customer shall upgrade and rehabilitate Customer Equipment at the Customer Facility, the Site and any other facilities and equipment as necessary to prevent degradation in performance that would lead to increased equipment failure rates that negatively affect the Equipment, the Customer Facility or the Distribution System.
- 10.1.3 Enersource and Customer may elect to conduct maintenance on their respective equipment during normal working hours. Enersource in its sole and reasonable discretion may conduct the required maintenance outside normal working hours if so requested by Customer. Customer shall be responsible for any associated incremental and reasonable costs caused by the requirement to perform maintenance outside normal working hours.

Article Eleven Access and Security

11.1 Access and Security



- 11.1.1 Customer shall provide Enersource with immediate access to all Enersource Equipment and Customer high-voltage equipment located within the Customer Facility, including all metering, monitoring and telemetry equipment on a 24-hour basis at all times. If required, the Customer will immediately provide any access privileges required by Enersource to access the Enersource Equipment and Customer high-voltage equipment.
- 11.1.2 Customer shall provide Enersource with reasonable access to the Customer Facility for Enersource's purposes (in addition to the purposes set out in subsections 11.1.1) including the inspection of the Customer Facility by Enersource and the safe and efficient operation of the Distribution System.
- 11.1.3 Customer shall provide written notice to Enersource prior to any modification to the electrical room, entrance or security of the Customer Facility which may adversely affect the ability of Enersource to gain access to the Customer Facility in accordance with this Article 11.
- 11.1.4 Subject to Articles Eight and Nine, Enersource personnel shall contact Customer prior to accessing the Customer Facility.
- 11.1.5 In the event that Enersource accesses the Customer Facility pursuant to this Article 11, Enersource agrees that it and all of its employees, representatives and agents shall:
 - (a) Comply with all reasonable security, safety and administrative procedures applicable to the Customer Facility in the event that Enersource is adequately notified of such procedures before accessing the Customer Facility and
 - (b) Comply with all Applicable Laws and Good Utility Practices in all inspections of, monitoring of, or work on Customer Equipment.

Article Twelve Insurance and Indemnification

12.1 Insurance and Indemnification

- 12.1.1 Each Party shall be liable to and shall indemnify the other Party to the extent provided for in the Distribution System Code. For greater certainty, neither Party shall be liable pursuant to this provision under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.
- 12.1.2 Unless otherwise agreed to in writing by Enersource, Customer shall insure the Customer Facility with a reputable insurer against accidents as a prudent operator of the Customer Facility would insure. Enersource may require minimum levels of insurance coverage.
- 12.1.3 In the event that the Customer is self-insured, and if agreed to in writing by Enersource, the Customer does not need to insure the Customer Facility with a reputable insurer as



described in section 12.1.2 above with the understanding that the Customer shall remain liable pursuant to the terms of this Agreement including, without limitation, section 12.1.1.

Article Thirteen Payments and Charges

13.1 Payments and Charges

- 13.1.1 Enersource shall charge Customer and Customer shall pay Enersource for services performed relating to the Customer Facility including the following:
 - (a) All reasonable costs incurred in reviewing and approving proposed changes to the Customer Facility; or
 - (b) All reasonable costs for connection, re-connection or disconnection of the Customer Facility to the Distribution System as a result of a Customer request or a Customer-caused situation.
- 13.1.2 Customer shall (i) pay Enersource for all electricity distribution services provided by Enersource to the Site during the Term in accordance with such rates as may be approved by the Ontario Energy board from time to time for the appropriate class rating to which the services apply; (ii) make such payments in accordance with Enersource's billing cycle as notified by invoice to Customer from time to time; and (iii) pay late payment and other reasonable charges and deposits, each as may be required by Enersource from time to time and in accordance with Ontario Energy Board approved rates. Customer shall also pay to Enersource such other charges as Enersource may be required by Applicable Law to bill or collect for third parties including electricity retailers and the Independent Electricity System Operator. For greater certainty, the Customer is not required to purchase its electricity commodity from Enersource and may enter into a contract with an electricity retailer or purchase via the wholesale spot market if so desired.
- 13.1.3 Any amount owing pursuant to section 13.1.1 above, unless otherwise specified or agreed, shall be paid by Customer to Enersource no later than thirty-five (35) days following receipt of the related invoice.

Article Fourteen Term and Termination

14.1 Term and Termination

- 14.1.1 The term of this Agreement ("Term") will begin on the date first written above and continue until terminated in accordance with this Article.
- 14.1.2 Customer may terminate this Agreement for any reason whatsoever upon at least ninety (90) days prior written notice to Enersource provided that any and all payments due to Enersource at the date of termination shall be made forthwith by Customer.
- 14.1.3 Customer may terminate this Agreement in accordance with subsection 17.1.1.



- 14.1.4 Enersource may, in its sole and reasonable discretion, terminate this Agreement upon the occurrence of one or more of the following, at which time any and all payments due to Enersource shall be made forthwith by Customer:
 - (a) Customer breaches the terms of this Agreement and fails to remedy the breach within thirty (30) Business Days following its receipt of written notice of the breach from Enersource; or
 - (b) A petition for relief under any bankruptcy legislation is filed by or against Customer, or Customer makes an assignment for the benefit of creditors, or a receiver is appointed, for all or a substantial part of the Customer Facility, and the petition, assignment or appointment is not dismissed or vacated within thirty (30) days.
- 14.1.5 For greater certainty, notwithstanding section 14.1.4(a), Enersource may, in its sole and reasonable discretion, disconnect the Customer Facility from the Distribution System if Enersource, in its sole and reasonable discretion, determines that the breach described in section 14.1.4(a) would adversely affect the Distribution System.

Article Fifteen Dispute Resolution

15.1 Dispute Resolution

15.1.1 The Parties shall use reasonable efforts to resolve any dispute arising in connection with this Agreement, failing which the Parties may exercise those remedies available under Applicable Law.

Article Sixteen Environmental Requirements and Indemnity

16.1 Environmental Requirements and Indemnity

- 16.1.1 In addition to the indemnification provided in Article Twelve, and except to the extent that any such loss or damage is caused by the negligence or intentional misconduct of the Indemnified Party, Customer covenants and agrees to indemnify, defend and hold harmless Enersource and Enersource's affiliates, and its and their directors, officers, employees, and agents (each an "Indemnified Party") from and against all claims, losses, damages, costs, liabilities, obligations, and expenses (including reasonable legal fees) which may be made, brought against or suffered by an Indemnified Party and all damages which they may suffer or incur, directly or indirectly, as a result of or in connection with:
 - (a) the presence of any hazardous substances on or within the Site (whether it is owned or leased) (including underlying soils and substrata, surface water, groundwater and vegetation) which are not in compliance with Applicable Law or which exceed the decommissioning or remediation standards under any



Applicable Law or standards published or administered by those governmental authorities responsible for establishing or applying such standards;

- (b) the presence of any hazardous substances on or within properties adjoining or proximate to the Site (including underlying soils and substrata, surface water, groundwater and vegetation) relating to any act or omission of Customer or in any way related to the carrying on of business at the Customer Facility or Site which is not in compliance with Applicable Law or which exceed the decommissioning or remediation standards under any Applicable Law or standards published or administered by those governmental authorities responsible for establishing or applying such standards;
- (c) any remedial order imposed in connection with the Customer Facility, the Site or any business carried on at the Customer Facility or Site (including underlying soils and substrata, surface water, groundwater and vegetation) relating to any condition, event or circumstances existing or occurring during the Term; and
- (d) any remedial order imposed in connection with properties adjoining or proximate to the Site (including underlying soils and substrata, surface water, groundwater and vegetation), in each case relating to any act or omission of Customer or in any way to the carrying on of business at the Customer Facility or Site.

Article Seventeen General

17.1 General

- 17.1.1 Customer agrees that Enersource shall have the right to revise any provision in this Agreement, that it determines, in its sole and reasonable discretion, is required for any reason, (a) to protect the security, efficiency, reliability and safety of the Distribution System or safety of Enersource personnel or any other property or persons; or (b) to make the provisions of this Agreement consistent with a change in Applicable Law or in the Enersource's Conditions of Service as long as Enersource shall provide at least thirty (30) days prior written notice of such change to Customer. Customer may terminate this Agreement upon prior written notice to Enersource no later than fifteen (15) days following receipt of such notice provided that any and all payments due to Enersource at the date of termination shall be made forthwith by Customer.
- 17.1.2 Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction will, as to that jurisdiction, be ineffective to the extent of such prohibition or unenforceability and will be severed from the balance of this Agreement, all without affecting the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.
- 17.1.3 This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable in that Province and shall be treated, in all respects, as an Ontario contract. The Parties hereby attorn to the exclusive jurisdiction of the courts of Ontario.



- 17.1.4 Time will be of the essence of this Agreement in all respects.
- 17.1.5 Subject to the following sentence, no amendment of this Agreement will be effective unless made in writing and signed by the Parties. Amendments to the schedules to this Agreement will be effective if the change is made by Enersource and mutually agreed to in writing by both Parties. For greater certainty, all amendments and changes to this Agreement, including the schedules, will be drafted and finalized by Enersource.
- 17.1.6 Nothing in this Agreement shall be deemed to constitute either Party hereto as partner, agent or representative of the other Party or to create any fiduciary relationship between the Parties.
- 17.1.7 A waiver of any default, breach or non-compliance under this Agreement is not effective unless in writing and signed by the Party to be bound by the waiver. No waiver shall be inferred from or implied by any failure to act or delay in acting by a Party in respect of any default, breach or non-observance or by anything done or omitted to be done by the other Party. The waiver by a Party of any default, breach or non-compliance under this Agreement will not operate as a waiver of that Party's rights under this Agreement in respect of any continuing or subsequent default, breach or non-observance (whether of the same or any other nature).
- 17.1.8 Neither Party may assign this Agreement without the prior written consent of the other Party, which shall not be unreasonably withheld or delayed, except that Enersource shall have the right when not in default hereunder to assign this Agreement to a purchaser of all or substantially all of the assets comprising the Distribution System upon notice in writing to Customer (notwithstanding section 17.1.5 above).
- 17.1.9 This Agreement will ensure to the benefit of, and be binding on, the Parties and their respective successors and permitted assigns.
- 17.1.10 This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together shall be deemed to constitute one and the same instrument. Counterparts may be executed either in original or faxed form or otherwise delivered by similar electronic means and the Parties adopt any signatures received by a receiving fax machine or other similar electronic means as original signatures of the Parties; provided, however, that any Party providing its signature in such manner shall promptly forward to the other Party an original of the signed copy of this Agreement which was so faxed.
- 17.1.11 Except to the extent otherwise required by law or with the prior written consent of the other Party, neither Party will make any public announcement regarding this Agreement or the transactions contemplated by this Agreement.

The remainder of this page is intentionally blank.

IN WITNESS WHEREOF the Parties hereto by their duly authorized representatives have executed this Agreement as of the date first written above.

	ENERSOURCE HYDRO MISSISSAUGA INC.
	By;
Customer Signature	Name:
C	Position:
	Date:
Name: (Print)	
	By:
	Name:
Date:	Position:
	Date:
	<i>I/We have authority to bind the Corporation</i>



SCHEDULE A

SINGLE LINE DIAGRAM

1. Single Line Diagram

See attached Enersource {D06-XX-XXX} single line diagram labeled [CUSTOMER NAME: CUSTOMER FACILITY NAME].



SCHEDULE B

DESCRIPTION OF FACILITIES, OWNERSHIP AND OPERATING CONTROL

1. Description of Facilities

The Customer Facility, which is owned or leased by Customer located at **[CustomerFacilityAddress]**, is supplied from Enersource xx kV overhead/underground circuits.

2. Ownership

Describe ownership here, including leasing arrangements. For example:

- 2.1. Enersource owns the pole line and accessories (including cables, potheads at either end, lightning arresters **[at _____]** and the metering-unit) beginning where such are located on **[streetname/location]** and continuing to Customer's switchgear. In addition, the single line diagram set out in Schedule A identifies sections of cables, potheads and lightning arresters which are owned by Enersource but for which Customer is responsible for associated maintenance costs.
- 2.2. Customer owns the [xx kV gear including the lightning arresters, power transformers and all downstream equipment starting at switch locations 10512LT and 10513LT.]

3. Operating Control

3.1. Enersource has Operating Control over the following, as shown by * on the single line diagram set out in Schedule A:

(example only)

- LC81017
- LC81016
- 10512LT
- 10513LT
- 10512CF
- 10513CF



3.2. Customer has Operating Control over the following:

(example only)

- 52M1
- 52M2
- 52T
- 52G1
- 52G2
- 3.3. Enersource has Operating Control of, and provides operating instructions to, the Customer regarding its connection or separation from the Distribution System.
- 3.4. Each Party shall have exclusive jurisdiction over the operation and control of its own assets except as otherwise set out in this Agreement.

Customer must notify Enersource prior to operating any of the above devices.



SCHEDULE C

CONTACTS

1. Contacts

1.1. Contacts for Day to Day Operations

Either Party may amend its contact information at any time by notice in writing delivered to the other Party by fax or other similar electronic means in accordance with the Communications and Notice provisions set out in Article Five of the Agreement, with particular reference to:

	Enersource	Customer
Onerating Contacts (Real Tip	ne and Emergency)	
(Controlling Authority)	ine unu Entergeney)	
Position:	System Control Operators	Title
Location:	3240 Mavis Rd.	•
	Mississauga, ON	•
Phone Number:	905-283-4300	•
Emergency Number:	•	•
(24 hours, seven days)		•
Fax Number:	905-566-5728	•
Outage Planning (Pre-Event)	
Position:	System Control Operators	•
Location:	3240 Mavis Rd.	•
	Mississauga, ON	•
Phone Number:	905-283-4300	•
Fax Number:	905-566-5728	•



Operating Support (Post Event) Customer Business Relations

Customer Dusiness Retations		
Position:	System Control Manager	•
Location:	3240 Mavis Rd.	•
	Mississauga, ON	•
Phone Number:	905-273-9050	•
Fax Number:	905-566-2737	•

Operations Manager (Real Time)

Position:	Senior Manager,	•
	System Operations	•
Location:	3240 Mavis Rd.	•
	Mississauga, ON	•
Phone Number:	905-273-9050	•
Fax Number:	905-566-2737	•

1.2. Contract Administration for Operating Service

Position:	VP Engineering & Operations	•
Location:	3240 Mavis Rd.	•
	Mississauga, ON	•
	L5C 3K1	
Phone Number:	905-273-9050	•
Fax Number:	905-566-2737	•

Senior Manager,	•
System Operations	•
3240 Mavis Rd.	•
Mississauga, ON	•
L5C 3K1	
905-273-9050	•
905-566-2737	•
	Senior Manager, System Operations 3240 Mavis Rd. Mississauga, ON L5C 3K1 905-273-9050 905-566-2737

2. List of Competent Workers

2.1. Each individual named below is an employee or agent of Customer that Customer has deemed a Competent Worker to perform work on the Customer Facility. In particular,



these individuals are authorized and competent to receive operating instructions from Enersource and perform operations on devices under Enersource's Operating Control.

Name

List of Competent Workers Position or Company

Phone #



SCHEDULE D TECHNICAL AND NORMAL OPERATING PROCEDURES

1. General

- 1.1 Customer shall promptly report to Enersource any and all incidents involving the automatic operation of Customer's facilities' protective devices that affect Enersource's distribution facilities. This will includes all primary fuses and any protective device marked with an "*" as shown on the Single Line Diagram in Schedule A.
- 1.2 Enersource shall promptly report to Customer any changes in its facilities that could materially affect any distribution services provided to Customer under this Agreement.

2. Isolation of Facilities at Customer's Request

- 2.1 The Customer shall not, other than in an emergency, operate an isolating disconnect switch except on prior notice to the Enersource.
- 2.2 If Customer requires isolation of its own facilities or of facilities under Enersource's control, Customer shall deliver, upon at least five (5) prior Business Days, a written notice to Enersource's Controlling Authority setting out the following:
- 2.2.1 A request that Enersource's Controlling Authority provide a Customer Supporting Guarantee;
- 2.2.2 Enersource's assigned equipment operating designations, if applicable; and
- 2.2.3 Information such as the time and date the Customer Supporting Guarantee is required with a description of the type of work being undertaken by the Customer.
- 2.3 Customer's Controlling Authority may request, and Enersource's Controlling Authority shall ensure, that the isolation and subsequent reconnection of Customer's relevant equipment is done on a timely basis. Customer shall bear the costs and expenses associated with such isolation and reconnection. It is the Customer's responsibility to obtain a connection authorization from the Electrical Safety Authority prior to re-connect.

3. Isolation of Facilities at Enersource's Request

- 3.1 If Enersource requires isolation of its own facilities from the Customer's facilities, Enersource's Controlling Authority shall deliver prior to five (5) Business Days prior written notice to the Customer.
- 3.1.1 Where necessary to protect Enersource's personnel or Enersource equipment; or
- 3.1.2 Where the operation of Enersource Equipment interferes with the operation of Customer Equipment; or
- 3.1.3 Where Customer Equipment interferes with the operation of the distribution system.



SCHEDULE E EMERGENCY OPERATING PROCEDURES

1. Emergency Operating Procedures

- 1.1. During an Emergency or in order to prevent or minimize the effects of an Emergency, a Party may without prior notice to the other Party take whatever immediate action it deems necessary to ensure public safety or to safeguard life, property or the environment.
- 1.2. Where a Party takes action under subsection 1.1, it shall promptly report the action taken and the reason for that action to the other Party's Controlling Authority.
- 1.3. During an Emergency or in order to prevent or minimize the effects of an Emergency, Enersource may interrupt supply to the Customer Facility, Customer Equipment and any other facilities and equipment of Customer in order to protect the stability, reliability or integrity of Enersource's distribution facilities or to maintain the availability of those facilities. In such a case, Enersource shall notify Customer as soon as possible of the Distribution System's emergency status. Enersource shall notify Customer once Enersource determines that the Customer Facility may be reconnected. Customer shall not reconnect its facilities until authorized to do so by Enersource.
- 1.4. For greater certainty, at the Customer Facility, Enersource may be required to open the Customer's load [interrupter switches # or main breaker] (connecting the Customer Facility to the Distribution System) to protect the stability of the Distribution System during an Emergency, and such action may be taken without prior notice to the Customer.



SCHEDULE F

METERING AND PROTECTION & CONTROL FACILITIES DIAGRAM

1 Metering Facilities Diagram

[Insert diagram.] [See Schedule A.]

2. Protection & Control Facilities Diagram

[Insert diagram.] [See Schedule A.]



SCHEDULE G

VERIFICATION OF PROTECTION & CONTROL SYSTEMS

This section applies to the Customer Owned Equipment identified in Schedule A

1. Verification and Maintenance Practices

- 1.1. Routine verification shall ensure with reasonable certainty that the protections respond correctly to fault conditions.
- 1.2. An electrically initiated simulated-fault clearing check is mandatory to verify new protections, after any wiring or component changes are made to a protection, and for routine verification of a protection.
- 1.3. Customer shall ensure that the functional testing of protection and control can be properly performed and that all verification readings are obtainable.
- 1.4. Enersource shall co-ordinate the initial verification upon receipt of the approved and final set of drawings. The initial verification shall be used during the final commissioning phase of the station and shall be used as a basis for future periodic verifications.
- 1.5. Enersource and Customer shall agree upon the final functional test procedures before the tests begin.
- 1.6. Before the initial functional tests are performed, Customer shall supply Enersource with written documentation that shall readily provide confirmation that appropriate verifications have been completed and that all calibrations, tests, etc., have been performed.
- 1.7. Customer shall make available to Enersource records of relay calibrations and protection verifications, so that records of the facility's performance can be maintained. The specific records required shall be identified in this Agreement.

2. Functional Tests and Periodic Verification

- 2.1. The Customer Equipment protection systems that may affect the Distribution System shall be re-verified every four (4) years by the Customer.
- 2.2. The Customer shall provide Enersource with at least seven (7) days' prior notice of the re-verification of the Customer Equipment protective relaying and shall provide to Enersource documentation confirming that the re-verification has been completed. Enersource, in its discretion, may elect to supervise the testing, and the Customer shall provide access for such supervision.


Re-verification of the Customer Equipment protective relaying shall include:

- 2.2.1 Relay Calibration;
- 2.2.2 Test tripping of Customer Equipment breakers; and
- 2.2.3 Measurement and analysis of secondary AC voltages and currents to confirm the integrity of the protection system.
- 2.3 Specific protections to be observed and/or confirmed:
 - 2.3.1 All line, bus and transformer protections which trip the circuit switcher.

2.3.2 Confirmation that Customer Equipment settings accepted and submitted by Enersource are applied to the following protections:

- Over/under voltage;
- Over/under frequency; and
- Line/feeder protection.

3. Instrument Transformers

- 3.1. Current transformer output shall remain within acceptable limits for all anticipated fault currents and for all anticipated burdens connected to the current transformer.
- 3.2. Current transformers shall be connected so that adjacent relay protection zones overlap.
- 3.3. Voltage transformers and potential devices shall have adequate volt-ampere capacity to supply the connected burden while maintaining their accuracy over the specified primary voltage range.
- 3.4. For each independent protection system, separate current and voltage transformer or potential device secondary windings shall be used, except on low-voltage devices.
- 3.5. Interconnected current transformer secondary wiring and voltage transformer secondary's shall each be grounded at only a single point.

4. Battery and Direct Current Supply

4.1. Customer shall ensure that if either the battery charger fails or the AC supply source fails, the station battery bank shall have enough capacity to allow the station to operate for at least eight (8) hours for a single battery system or at least six (6) hours for each of the batteries in a two (2) battery system.

APPENDIX E CONNECTION AGREEMENT TO CONNECT A MICRO GENERATOR

This Connection Agreement is made this _____day of _____, ____.

Between: Enersource Hydro Mississauga Inc. ("Enersource") and [insert CUSTOMER NAME] ("Customer") In consideration of Enersource Hydro Mississauga Inc. ("Enersource") agreeing to allow you to connect your 10 kW name-plate rated capacity or smaller generation facility to Enersource's distribution system, you hereby agree to the following terms and conditions.

1. Eligibility

1.1 You agree that your generation connection shall be subject to all applicable laws and bound by the terms and conditions of Enersource's Conditions of Service as amended from time-to-time, which have been filed with the OEB and are available on request.

2. Technical Requirements

- 2.1 You represent and warrant that you have installed or will install prior to the connection of your generation facility to Enersource's distribution system, an isolation device satisfying Section 84 of the Ontario Electrical Safety Code, located outside typically near the meter, and agree to allow Enersource's staff access to and operation of this as required for the maintenance and repair of the distribution system.
- 2.2 You agree to perform regular scheduled maintenance to your generation facility as outlined by the manufacturer in order to assure that connection devices, protection systems, and control systems are maintained in good working order and in compliance with all applicable laws.
- 2.3 You agree that during a power outage on the Enersource system your generation facility will shut down, unless you have installed special transfer and isolating capabilities on your generation facility. You agree to the automatic disconnection of your generation facility from Enersource's distribution system, as per the generator protective relay settings set out in this Agreement, in the event of a power outage on the Enersource distribution system.
- 2.4 You covenant and agree that the design, installation, maintenance, and operation of your generation facility are conducted in a manner that ensures the safety and security of both the generation facility and Enersource's distribution system.



2.5 Due to Enersource's obligation to maintain the safety and reliability of its distribution system, you acknowledge and agree that in the event Enersource determines that your generation facility (i) causes damage to; and/or (ii) is producing adverse effects affecting other distribution system customers or Enersource's assets, you will disconnect your generation facility immediately from the distribution system upon direction from Enersource and correct the problem at your own expense prior to reconnection.

3.0 Liabilities

- 3.1 You and Enersource will indemnify and save each other harmless for all damages and/or adverse effects resulting from either party's negligence or willful misconduct in the connection and operation of your generation facility or the Enersource distribution system.
- 3.2 Enersource and you shall not be liable to each other under any circumstances whatsoever for any loss of profits or revenues, business interruptions losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

4.0 Compensation and Billing

- 4.1 If you are not embedded retail generator, you agree that, subject to any applicable law:
 - a) Enersource will not pay you for any excess generation that results in a net delivery to Enersource between meter reads; and
 - b) There will be no carryover of excess generation from one billing period to the next unless you are, at the relevant time, a net metered generator (as defined in section 6.7.1 of the Distribution System Code).
- 4.2 If you are an embedded retail generator selling output from the embedded generation facility to the Ontario Power Authority under contract, you agree that Enersource will pay you for generation in accordance with the Retail Settlement Code.
- 4.3 If you are an embedded retail generator selling output to Enersource, you agree that Enersource will pay you for generation in accordance with the Retail Settlement Code.

5.0 Termination

5.1 You understand that you have the right to terminate this agreement at any time, and that by doing so you are required to disconnect your generation facility and notify Enersource of such action.



6.0 Assignment

6.1 You may assign your rights and obligations under this Agreement with the consent of Enersource, which shall not withhold its consent unreasonably. Enersource shall have the right to assign its rights and obligations under this Agreement without your consent.

I understand, accept and agree to comply with and be bound by the above terms and conditions governing the connection of my generation facility to Enersource distribution system. Customer Signature: _____ Date: _____ Date: _____ Print name: _____ Your Enersource Account Number:

·		
I confirm that the following information is the	rue and accurate:	
Nameplate rating of Generator:	_KW; Total installed generation	KW
Project Location:		

Type: Wind Turbine; Photovoltaic Other	(Solar); 🗌 H	ydraulic Turbine; 🗌 Fuel Cell;
Inverter Utilized: Yes Inverter Certification: C22.2 #107.1	No UL 1741	Site Certified by the ESA
For office use: Station	Feeder	Date Connected



Generator Protective Relay Settings

Table 1 - Inverter Based Generation

The following relay settings shall be used for inverters built to the CSA standard: Source: CSA C22.2 No. 107.1-01 Table 16

System Voltage Vn = V nominal V	Frequency F (Hertz)	Maximum r to disconne	number of cycles
(Volts)			
		Seconds	Cycle
V < 0.5 Vn	60	0.1	6
0.5 Vn < V < 0.88 Vn	60	2	120
1.10 Vn < V <1.37 Vn	60	2	120
V > 1.37 Vn	60	0.033	2
Vn	F < 59.5*	0.1	6
Vn	F > 60.5	0.1	6

* The UL1741 & IEEE P1547 Standards use F < rated-0.7 i.e. 59.3 Hz. To update if CSA C22.2 No. 107.1-01 is changed

Table 2 - Non - Inverter Generation

Requirements for Non-Inverter based generation are as follows:

System Voltage Vn =V nominal V (Volts)	Frequency F (Hertz)	Maximum cl	earing time*
		Seconds	Cycles
V < 0.5 Vn	60	0.16	9.6
0.5 Vn ≤ V < 0.88 Vn	60	2	120
1.10 Vn ≤ V <1.20 Vn	60	1	60
V ≥ 1.20 Vn	60	0.16	9.6
Vn	F < 59.3	0.16	9.6
Vn	F > 60.5	0.16	9.6

*Clearing time is the time between the start of the abnormal condition and the generation ceasing to energize Enersource's distribution system

If you are uncertain about your generation equipment's protective relay settings, please check with your generating equipment supplier.

Automatic reconnect setting time for your generator is after five minutes of normal voltage and frequency on Enersource's distribution system.



APPENDIX F CONNECTION AGREEMENT TO CONNECT A SMALL - MID-SIZE GENERATOR

This Connection Agreement is made this ____ day of _____, ____.

BETWEEN

ENERSOURCE HYDRO MISSISSAUGA INC., (the "Distributor")

AND

_____, (the "Customer")

(each a "Party" and collectively the "Parties")

RECITALS

WHEREAS the Distributor is the owner of the distribution system serving the service area described in electricity distribution licence number ED-2003-0017 (the "Licence") issued by the Ontario Energy Board (the "Board") (the "Distributor's distribution system").

AND WHEREAS the Customer owns or operates an embedded generation facility that is located in the Distributor's licensed service area (the "Facility").

AND WHEREAS the Customer has connected or wishes to connect its Facility to the Distributor's distribution system and the Distributor has connected or has agreed to connect the Facility to the Distributor's distribution system.

AND WHEREAS the Distributor has previously reviewed and accepted the Customer's application to connect and related materials that were submitted to the Distributor in accordance with the process set out in the Distribution System Code (the "Code") (altogether, the "Application") and the Distributor and the Customer have signed a connection cost agreement (both of which are attached to this Agreement as Schedule A).

AND WHEREAS in accordance with its Licence and the Code, the Distributor has agreed to offer, and the Customer has agreed to accept, distribution service in relation to the Facility.

NOW THEREFORE in consideration of the foregoing, and of the mutual covenants, agreements, terms and conditions herein contained, the Parties, intending to be legally bound, hereby agree as follows:



1. Definitions and Schedules

- 1.1 Words and phrases contained in this Agreement (whether capitalized or not) that are not defined in this Agreement have the meanings given to them in the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, any regulations made under either of those *Acts*, or the Code.
- 1.2 The following schedules form part of this Agreement:

Schedule A – Application and Connection Cost Agreement (recitals)

Schedule B – Single Line Diagram, Connection Point and Location of Facilities (section 2.3)

Schedule C – List of Other Contracts (section 3.4)

Schedule D – Technical and Operating Requirements (section 4.1(d))

Schedule E – Billing and Settlement Procedures (section 5.3)

Schedule F – Contacts for Notice (section 12.1)

Schedule G – Dispute Resolution (section 16.1)

Schedule H – Provisions Applicable if Facility Financed by a Lender (sections 19.3, 20.3 and 21.1)

Where a schedule is to be completed by the Parties, the Parties may not include in that schedule a provision that would be contrary to or inconsistent with the Code or the remainder of this Agreement.

2. Type of Facility and Customer

2.1 The Facility has a name-plate rated capacity of:

[Parties to check the applicable box below]

- more than 10 kW and:
 - (a) up to and including 500 kW, if the Facility is or will be connected to a less than 15 kV line; or
 - (b) up to and including 1 MW, if the Facility is or will be connected to a 15 kV or greater line

(in which case the Facility is a "Small Embedded Generation Facility")

10 MW or less and:

(a) more than 500 kW, if the Facility is or will be connected to a less than 15 kV line; or



(b) more than 1 MW, if the Facility is or will be connected to a 15 kV or greater line

(in which case the Facility is a "Mid-sized Embedded Generation Facility")

2.2 The Facility is or will be connected:

[Parties to check the applicable box(es) below]

- directly to the Distributor's distribution system
- on the load customer side of a connection point to the Distributor's distribution system
 - the load customer is the same as the Customer
 - the load customer is: _____
- 2.3 Schedule B sets out the following:
 - (a) a single line diagram of the Facility;
 - (b) a list of the facilities of one Party that are on the property of the other Party; and
 - (c) a diagram of the metering installations applicable to the Facility.
- 2.4 The Customer:

[Parties to check the applicable box(es) below]

- intends to:
 - sell output from the Facility to the Ontario Power Authority and has entered into an agreement with the Ontario Power Authority for that purpose
 - deliver and sell output from the Facility to the Distributor (in which case the Customer is an "Embedded Retail Generator")
- does not intend to sell any of the output of the Facility to the Ontario Power Authority or the Distributor

3. Incorporation of Code and Application of Conditions of Service and Other Contracts

- 3.1 The Code, as it may be amended from time to time, is hereby incorporated in its entirety by reference into, and forms part of, this Agreement. Unless the context otherwise requires, all references to "this Agreement" include a reference to the Code.
- 3.2 The Distributor hereby agrees to be bound by and at all times to comply with the Code, and the Customer acknowledges and agrees that the Distributor is bound at all times to comply with the Code in addition to complying with the provisions of this Agreement.



- 3.3 In addition to this Agreement, the relationship between the Distributor and the Customer will be governed by the Distributor's Conditions of Service that are in effect at the relevant time. In the event of a conflict or an inconsistency between a provision of this Agreement and a provision of the Distributor's Conditions of Service, the provision of this Agreement shall govern.
- 3.4 The Distributor may require or may have already required the Customer to enter into one or more of the other contracts listed in Schedule C. In the event of a conflict or an inconsistency between a provision of the Code or this Agreement and a provision of such other contract, the provision of the Code or this Agreement shall govern.

4. Facility Standards

- 4.1 The Customer shall ensure that the Facility:
- (a) meets all applicable requirements of the Electrical Safety Authority ("ESA");
- (b) conforms to all applicable industry standards including, but not limited to, those of the Canadian Standards Association ("CSA"), the Institute of Electrical and Electronic Engineers, the American National Standards Institute and the International Electrotechnical Commission;
- (c) is installed, constructed, operated and maintained in accordance with this Agreement, the Distributor's offer to connect, the requirements of the ESA, the connection cost agreement, all applicable reliability standards and good utility practice; and
- (d) meets the technical and operating requirements set out in Schedule D. These requirements shall not exceed any technical or operating requirements set out in the Code unless the Customer agrees.

5. Charges, Settlement and Billing

- 5.1 The Customer shall pay the Distributor such charges as may be approved by the Board in relation to the connection of, and the provision of distribution service to, the Facility.
- 5.2 The Customer agrees to the following in relation to settlement for the output of the Facility:

[Parties to check the applicable box below]

if the Customer is not an Embedded Retail Generator (see section 2.4)

the Distributor will not pay the Customer for any excess generation that results in a net delivery to the Distributor between meter reads and there will be no carryover of excess generation from one billing period to the next unless the Customer is at the relevant time a net metered generator



if the Customer is an Embedded Retail Generator (see section 2.4)

the Distributor will settle all applicable payments and charges in accordance with the Retail Settlement Code

5.3 Billing and settlement activities will be conducted in accordance with the procedures set out in Schedule E.

6. **Representations and Warranties**

- 6.1 The Customer represents and warrants to the Distributor as follows, and acknowledges that the Distributor is relying on such representations and warranties without independent inquiry in entering into this Agreement:
 - (a) the Facility is fully and accurately described in the Application;
 - (b) all information in the Application is true and correct;
 - (c) the Facility is in compliance with all applicable technical requirements and laws;
 - (d) the Customer has been given warranty information and operation manuals for the Facility;
 - (e) the Customer has been adequately instructed in the operation and maintenance of the Facility and the Customer has developed and implemented an operation and maintenance plan based on those instructions;
 - (f) if the Customer is a corporation or other form of business entity, the Customer is duly incorporated, formed or registered (as applicable) under the laws of its jurisdiction of incorporation, formation or registration (as applicable);
 - (g) the Customer has all necessary power, authority and capacity to enter into this Agreement and to perform its obligations under this Agreement;
 - (h) this Agreement constitutes a legal and binding obligation on the Customer, enforceable against the Customer in accordance with its terms;
 - (i) the Customer holds all permits, licences and other authorizations that may be necessary to enable it to own and operate the Facility; and
 - (j) any individual signing this Agreement on behalf of the Customer has been duly authorized by the Customer to sign this Agreement and has the full power and authority to bind the Customer.
- 6.2 The Distributor represents and warrants to the Customer as follows, and acknowledges that the Customer is relying on such representations and warranties without independent inquiry in entering into this Agreement:
 - (a) the Distributor is duly incorporated under the laws of Ontario;
 - (b) the Distributor has all necessary power, authority and capacity to enter into this Agreement and to perform its obligations under this Agreement;
 - (c) this Agreement constitutes a legal and binding obligation on the Distributor, enforceable against the Distributor in accordance with its terms; and
 - (d) any individual signing this Agreement on behalf of the Distributor has been duly authorized by the Distributor to sign this Agreement and has the full power and authority to bind the Distributor.



7. Disconnection Device at the Point of Connection

7.1 The Customer shall furnish and install a disconnection switch at the point of connection for the Facility that opens, with a visual break, all ungrounded poles of the connection circuit. The disconnection switch at the point of connection shall be rated for the voltage and fault current requirements of the Facility, and shall meet all applicable CSA standards, ESA requirements, and all other applicable laws. The switch enclosure, if applicable, shall be properly grounded. The disconnection switch at the point of connection shall be accessible at all times,

located for ease of access to the Distributor's personnel, and shall be capable of being locked in the open position. The Customer shall follow the Distributor's procedures for switching, clearance, tagging, and locking.

8. Modifications to the Facility

8.1 The Customer shall not modify its connection assets or the Facility except in accordance with this section. Where the modification will not increase the maximum electrical output of the Facility, the Customer shall give the Distributor no less than fifteen working days notice prior to the date on which the modification will be completed. Where the modification will increase the maximum electrical output of the Facility, the Customer shall submit a new application for connection to the Distributor. The Distributor shall process that application for connection in accordance with the Code. The Customer shall not commence such modification until that process has been completed.

9. Insurance

9.1 Throughout the term of this Agreement, the Customer shall carry commercial general liability insurance for third party bodily injury, personal injury, and property damage in an amount as follows:

[Parties to check the applicable box below]

- if the Facility is a Small Embedded Generation Facility (see section 2.1) not less than \$1,000,000 per occurrence and in the annual aggregate
- if the Facility is a Mid-sized Embedded Generation Facility (see section 2.1) not less than \$2,000,000 per occurrence and in the annual aggregate

Prior to execution of this Agreement, the Customer shall provide the Distributor with a valid certificate of insurance. The Customer shall provide the Distributor with prompt notice of any cancellation of the Customer's insurance by the insurer.

10. Liability and Force Majeure

10.1 The liability provisions of section 2.2 of the Code apply to this Agreement and are hereby incorporated by reference into, and form part of, this Agreement.



- 10.2 A Party shall have a duty to mitigate any losses relating to any claim for indemnification from the other Party that may be made in relation to that other Party. Nothing in this section shall require the mitigating Party to mitigate or alleviate the effects of any strike, lockout, restrictive work practice or other labour dispute.
- 10.3 A Party shall give prompt notice to the other Party of any claim with respect to which indemnification is being or may be sought under this Agreement.
- 10.4 The force majeure provisions of section 2.3 of the Code apply to this Agreement and are hereby incorporated by reference into, and form part of, this Agreement.

11. Facility Commissioning and Testing

- 11.1 The Customer shall give the Distributor at least fifteen days advance written notice of the date(s) and time(s) on which the Facility will be commissioned and tested prior to connection. The Customer shall give the Distributor the same notice in relation to the commissioning and testing of any material modification to the Customer's connection assets or Facility that occurs after connection.
- 11.2 The Distributor shall have the right to witness the commissioning and testing activities referred to in section 11.1.

12. Notice

- 12.1 Any notice, demand, consent, request or other communication required or permitted to be given or made under or in relation to this Agreement shall be given or made: by courier or other personal form of delivery; by registered mail; by facsimile; or by electronic mail. Notices shall be addressed to the applicable representative of the Party identified in Schedule F.
- 12.2 A notice, demand, consent, request or other communication referred to in section12.1 shall be deemed to have been made as follows:
 - (a) where given or made by courier or other form of personal delivery, on the date of receipt;
 - (b) where given or made by registered mail, on the sixth day following the date of mailing;
 - (c) where given or made by facsimile, on the day and at the time of transmission as indicated on the sender's facsimile transmission report; and
 - (d) where given or made by electronic mail, on the day and at the time when the notice, demand, consent, request or other communication is recorded by the sender's electronic communications system as having been received at the electronic mail destination.

13. Access to Facility

13.1 Each Party shall ensure that its facilities are secured at all times.



- 13.2 The Customer shall permit and, if the land on which the Facility is located is not owned by Customer, cause such landowner to permit, the Distributor's employees and agents to enter the property on which the Facility is located at any reasonable time. Such access shall be provided for the purposes of inspecting and/or testing the Facility as and when permitted by this Agreement, the Code or the Distributor's Conditions of Service or as required to ensure the continued safe and satisfactory operation of the Facility, to ensure the accuracy of the Distributor's meters, to establish work protection, or to perform work.
- 13.3 Any inspecting and/or testing referred to in section 13.2 shall not relieve the Customer from its obligation to operate and maintain the Facility and any related equipment owned by the Customer in a safe and satisfactory operating condition and in accordance with this Agreement.
- 13.4 The Distributor shall have the right to witness any testing done by the Customer of the Facility and, to that end, the Customer shall provide the Distributor with at least fifteen working days advance notice of the testing.
- 13.5 Notwithstanding section 10.1, where the Distributor causes damage to the Customer's property as part of this access, the Distributor shall pay to the Customer the Customer's reasonable costs of repairing such property or, if such property cannot be repaired, replacing such property.
- 13.6 Notwithstanding section 10.1, if the Customer has been given access to the Distributor's property, and if the Customer causes damage to the Distributor's property as part of that access, the Customer shall pay to the Distributor the Distributor's reasonable costs of repairing such property or, if such property cannot be repaired, replacing such property.

14. Disconnection of Facility to Permit Maintenance and Repairs

- 14.1 If the Customer requests it, the Distributor will provide the Customer with reasonable notice of any planned equipment outages in the Distributor's distribution system that occur on or after the date of the Customer's request which will impact the Facility or its connection.
- 14.2 The Distributor will make reasonable efforts to ensure that the outages referred to in section 14.1 will be of minimal duration and cause minimal inconvenience to the Customer.
- 14.3 In connection with any planned equipment outage, either Party may disconnect or isolate, or require the disconnection or isolation of, its Facility or system (as applicable) from the other Party's Facility or system (as applicable) so that the employees, contractors or agents of the Party may construct, maintain, repair, replace, remove, investigate or inspect its own Facility or system (as applicable) in accordance with the terms of this Agreement and good utility practice.



14.4 Where practical, the Customer shall notify the Distributor prior to temporarily isolating or disconnecting the Facility from the Distributor's distribution system.

15. Disconnection of Facility for Other Reasons

- 15.1 The Customer shall discontinue operation of the Facility and the Distributor may isolate or disconnect the Facility from the Distributor's distribution system, upon any of the following:
 - (a) termination of this Agreement in accordance with section 19;
 - (b) if the Customer's connection assets or the Facility are modified by the Customer in a manner contrary to section 8.1;
 - (c) during an emergency or where necessary to prevent or minimize the effects of an emergency;
 - (d) in accordance with section 31, 31.1 or 40(5) of the Electricity Act, 1998, other applicable law, the Code, the Distributor's Licence or the Distributor's Conditions of Service; or
 - (e) where required to comply with a decision or order of an arbitrator or court made or given under Schedule G.
- 15.2 In the event of disconnection under section 15.1(b), the Facility shall remain isolated or disconnected from the Distributor's distribution system until the connection process referred to in section 8.1 has been completed.
- 15.3 In the event of disconnection under section 15.1(c), the Distributor shall reconnect, or permit the reconnection of, the Facility to the Distributor's distribution system when it is reasonably satisfied that the emergency has ceased and that all other requirements of this Agreement are met.
- 15.4 In the event of disconnection under section 15.1(d) or 15.1(e), the Distributor shall reconnect, or permit the reconnection of, the Facility to the Distributor's distribution system when the Distributor is reasonably satisfied that the reason for the disconnection no longer exists, the Customer agrees to pay all Board-approved reconnection costs charged by the Distributor, and the Distributor is reasonably satisfied of the following, where applicable:
 - (a) the Customer has taken all necessary steps to prevent the circumstances that caused the disconnection from recurring and has delivered binding undertakings to the Distributor that such circumstances shall not recur; and
 - (b) any decision or order of a court or arbitrator made or given under Schedule G that requires a Party to take action to ensure that such circumstances shall not recur has been implemented and/or assurances have been given to the satisfaction of the affected Party that such decision or order will be implemented.
- 15.5 Where the Facility has been isolated or disconnected, each Party shall be entitled to decommission and remove its assets associated with the connection. Each Party shall,



for that purpose, ensure that the other Party has all necessary access to its site at all reasonable times.

- 15.6 The Customer shall continue to pay for distribution services provided up to the time of isolation or disconnection of its Facility.
- 15.7 The Customer shall pay all reasonable costs including, but not limited to, the costs of removing any of the Distributor's equipment from the Customer's site, that are directly attributable to the isolation or disconnection of the Facility and, where applicable, the subsequent decommissioning of the Facility. The Distributor shall not require the removal of the protection and control wiring on the Customer's site.
- 15.8 While the Facility is isolated or disconnected, the Distributor shall not be required to convey electricity to or from the Facility.

16. Dispute Resolution

16.1 Any dispute between the Customer and the Distributor arising under or in relation to this Agreement will be resolved in accordance with Schedule G. The Parties shall comply with the procedure set out in Schedule G before taking any civil or other proceeding in relation to the dispute, provided that nothing shall prevent a Party from seeking urgent or interlocutory relief from a court of competent jurisdiction in the Province of Ontario in relation to any dispute arising under or in relation to this Agreement.

17. Amendments

- 17.1. The Parties may not amend this Agreement without leave of the Board except where and to the extent permitted by this Agreement.
- 17.2. The Parties may by mutual agreement amend this Agreement to reflect changes that may from time to time be made to the Code during the term of this Agreement.
- 17.3. The Parties may by mutual agreement amend any portion of a schedule that was originally to be completed by the Parties.
- 17.4 No amendment made under section 17.2 or 17.3 shall be contrary to or inconsistent with the Code or the remainder of this Agreement.
- 17.5 The Parties shall amend this Agreement in such manner as may be required by the Board.
- 17.6 Any amendment to this Agreement shall be made in writing and duly executed by both Parties.



18. Waiver

18.1 A waiver of any default, breach or non-compliance under this Agreement is not effective unless in writing and signed by the Party to be bound by the waiver. The waiver by a Party of any default, breach or non-compliance under this Agreement shall not operate as a waiver of that Party's rights under this Agreement in respect of any continuing or subsequent default, breach or non-compliance, whether of the same or any other nature.

19. Term of Agreement and Termination

- 19.1 This Agreement shall become effective upon execution by the Parties, and shall continue in effect until terminated in accordance with section 19.2 or 19.3.
- 19.2 The Customer may, if it is not then in default under this Agreement, terminate this Agreement at any time by giving the Distributor thirty days prior written notice setting out the termination date.
- 19.3 Except as set out in Schedule H, the Distributor may terminate this Agreement upon any material breach of this Agreement by the Customer (a "Default"), if the Customer fails to remedy the Default within the applicable cure period referred to in section 19.4 after receipt of written notice of the Default from the Distributor.
- 19.4 The Customer shall cure a Default within the applicable cure period specified in the Code or the Distributor's Conditions of Service. If no such cure period is specified in relation to a given Default, the cure period shall be sixty working days.
- 19.5 Termination of this Agreement for any reason shall not affect:
 - (a) the liabilities of either Party that were incurred or arose under this Agreement prior to the time of termination; or
 - (b) the provisions that expressly apply in relation to disconnection of the Customer's facilities following termination of this Agreement.
- 19.6 Termination of this Agreement for any reason shall be without prejudice to the right of the terminating Party to pursue all legal and equitable remedies that may be available to it including, but not limited to, injunctive relief.
- 19.7 The rights and remedies set out in this Agreement are not intended to be exclusive but rather are cumulative and are in addition to any other right or remedy otherwise available to a Party at law or in equity. Nothing in this section 19.7 shall be interpreted as affecting the limitations of liability arising from section 10.1 or the obligation of a Party to comply with section 16 while this Agreement is in force.
- 19.8 Sections 19.5 to 19.7 inclusive shall survive termination of this Agreement.



20. Exchange and Confidentiality of Information

- 20.1 Confidential information in respect of a Party means (i) information disclosed by that Party to the other Party under this Agreement that is in its nature confidential, proprietary or commercially sensitive and (ii) information derived from the information referred to in (i), but excludes the following:
 - (a) information that is in the public domain; or
 - (b) information that is, at the time of the disclosure, in the possession of the receiving Party, provided that it was lawfully obtained from a person under no obligation of confidence in relation to the information.
- 20.2 Subject to section 20.3, each Party shall treat all confidential information disclosed to it by the other Party as confidential and shall not, without the written consent of that other Party:
 - (a) disclose that confidential information to any other person; or
 - (b) use that confidential information for any purpose other than the purpose for which it was disclosed or another applicable purpose contemplated in this Agreement.

Where a Party, with the written consent of the other Party, discloses confidential information of that other Party to another person, the Party shall take such steps as may be required to ensure that the other person complies with the confidentiality provisions of this Agreement.

- 20.3 Nothing in section 20.2 shall prevent the disclosure of confidential information:
 - (a) where required or permitted under this Agreement, the Code, the Market Rules or the Distributor's Licence;
 - (b) where required by law or regulatory requirements;
 - (c) where required by order of a government, government agency, regulatory body or regulatory agency having jurisdiction;
 - (d) if required in connection with legal proceedings, arbitration or any expert determination relating to the subject matter of this Agreement, or for the purpose of advising a Party in relation thereto;
 - (e) as may be required to enable the Distributor to fulfill its obligations to any reliability organization; or
 - (f) as may be required during an emergency or to prevent or minimize the effects of an emergency.
- 20.4 Notwithstanding section 10.1, a Party that breaches section 20.2 shall be liable to the other Party for any and all losses of the other Party arising out of such breach.
- 20.5 The Parties agree that the exchange of information, including, but not limited to, confidential information, under this Agreement is necessary for maintaining the reliable operation of the Distributor's distribution system. The Parties further agree that all information, including, but not limited to, confidential information, exchanged between



them shall be prepared, given and used in good faith and shall be provided in a timely and cooperative manner.

- 20.6 Each Party shall provide the other with such information as the other may reasonably require to enable it to perform its obligations under this Agreement.
- 20.7 Each Party shall, as soon as practicable, notify the other Party upon becoming aware of a material change or error in any information previously disclosed to the other Party under this Agreement and, in the case of the Customer, in any information contained in its Application. The Party shall provide updated or corrected information as required to ensure that information provided to the other Party is up to date and correct.

21. Assignment, Successors and Assigns

- 21.1 Except as set out in Schedule H, the Customer shall not assign its rights or obligations under this Agreement in whole or in part without the prior written consent of the Distributor, which consent shall not be unreasonably withheld or unduly delayed. The Distributor may withhold its consent to any proposed assignment until the proposed assignee assumes, in writing, all of the Customer's obligations contained in this Agreement.
- 21.2 The Distributor shall have the right to assign this Agreement in whole upon written notification to the Customer.
- 21.3 This Agreement shall be binding upon and enure to the benefit of the Parties and their respective successors and permitted assigns.

22. Governing Law

22.1 This Agreement shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein.

23. Entire Agreement

23.1 Except as expressly provided herein, this Agreement constitutes the entire agreement between the Parties with respect to the subject-matter hereof and supersedes all prior oral or written representations and agreements of any kind whatsoever with respect to the subject-matter hereof.



IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound, have caused this Agreement to be executed by their duly authorized representatives.

ENERSOURCE HYDRO MISSISSAUGA INC.

	By:
Customer Signature	Name:
	Position:
	Date:
Name: (Print)	
	By:
	Name:
Date:	Position:
	Date:
	<i>I/We have authority to bind the Corporation</i>



SCHEDULE A

Application and Connection Cost Agreement (recitals)

If applicable [To be attached by the Parties]



SCHEDULE B

Single Line Diagram, Connection Point and Location of Facilities (section 2.3)

B.1 Single Line Diagram and Connection Point

[To be inserted by Enersource, either D06 or D18]

B.2 List of Facilities on the Property of the Other Party

B.2.1 The following facilities of the Customer are located on the property of the Distributor:

[To be completed by the Parties]

B.2.2 The following facilities of the Distributor are located in the property of the Customer:

[To be completed by the Parties]

B.3 Metering Installation Diagram

[To be inserted by the Parties]



SCHEDULE C

List of Other Contracts (section 3.4)

The following other contracts have been or will be entered into by the Parties:

[To be completed by the Parties]



SCHEDULE D

Technical and Operating Requirements (section 4.1(d))

- Refer to Section 3.5.5 & Appendix G of this "Conditions of Service" for "Technical Requirements".
- 2. Specific "Operational Requirements" [To be inserted by Enersource, if required.]



SCHEDULE E

Billing and Settlement Procedures (section 5.3)

The following provisions apply in relation to billing and settlement in relation to the Facility:

[To be completed by the Parties]



SCHEDULE F

Contacts for Notice (section 12.1)

[To be completed by the Parties – different contacts may be listed for different purposes]



SCHEDULE G

Dispute Resolution (section 16.1)

- G.1 The Party claiming a dispute will provide written notice to the other Party. The Parties will make reasonable efforts through or by their respective senior executives to resolve any dispute within sixty days of receipt of such notice.
- G.2 If a dispute is settled by the senior executives of the Parties, the Parties shall prepare and execute minutes setting forth the terms of the settlement. Such terms shall bind the Parties. The subject-matter of the dispute shall not thereafter be the subject of any civil or other proceeding, other than in relation to the enforcement of the terms of the settlement. If a Party fails to comply with the terms of settlement, the other Party may submit the matter to arbitration under section G.3. A copy of the minutes referred to in this section from which all confidential information has been expunged shall be made available to the public by the Distributor upon request.
- G.3 If the senior executives of the Parties cannot resolve the dispute within the time period set out in section G.1 or such longer or shorter period as the Parties may agree, either Party may submit the dispute to binding arbitration under sections G.4 to G.8 by notice to the other Party.
- G.4 The Parties shall use good faith efforts to appoint a single arbitrator for purposes of the arbitration of the dispute. If the Parties fail to agree upon a single arbitrator within ten working days of the date of the notice referred to in section G.3, each Party shall within five working days thereafter choose one arbitrator. The two arbitrators so chosen shall within fifteen working days select a third arbitrator.
- G.5 Where a Party has failed to choose an arbitrator under section G.4 within the time allowed, the other Party may apply to a court to appoint a single arbitrator to resolve the dispute.
- G.6 A person may be appointed as an arbitrator if that person:
 - (a) is independent of the Parties;
 - (b) has no current or past substantial business or financial relationship with either Party, except for prior arbitration; and
 - (c) is qualified by education or experience to resolve the dispute.
- G.7 The arbitrator(s) shall provide each of the Parties with an opportunity to be heard orally and/or in writing, as may be appropriate to the nature of the dispute.
- G.8 *The Arbitration Act, 1991 (Ontario)* shall apply to an arbitration conducted under this Schedule G.

- G.9 The decision of the arbitrator(s) shall be final and binding on the Parties and may be enforced in accordance with the provisions of the Arbitration Act, 1991 (Ontario). The Party against which the decision is enforced shall bear all costs and expenses reasonably incurred by the other Party in enforcing the decision.
- G.10 A copy of the decision of the arbitrator(s) from which any confidential information has been expunged shall be made available to the public by the Distributor upon request.
- G.11 Subject to section G.12, each Party shall be responsible for its own costs and expenses incurred in the arbitration of a dispute and for the costs and expenses of the arbitrator(s) if appointed to resolve the dispute.
- G.12 The arbitrator(s) may, if the arbitrator(s) consider it just and reasonable to do so, make an award of costs against or in favour of a Party to the dispute. Such an award of costs may relate to either or both the costs and expenses of the arbitrator(s) and the costs and expenses of the Parties to the dispute.
- G.13 If a dispute is settled by the Parties during the course of an arbitration, the Parties shall prepare and execute minutes setting forth the terms of the settlement. Such terms shall bind the Parties, and either Party may request that the arbitrator(s) record the settlement in the form of an award under section 36 of the Arbitration Act, 1991 (Ontario). The subject-matter of the dispute shall not thereafter be the subject of any civil or other proceeding, other than in relation to the enforcement of the terms of the settlement.
- G.14 If a Party fails to comply with the terms of settlement referred to in section G.13, the other Party may submit the matter to arbitration under section G.3 if the settlement has not been recorded in the form of an award under section 36 of the Arbitration Act, 1991 (Ontario).
- G.15. A copy of the minutes referred to in section G.13 from which all confidential information has been expunged shall be made available to the public by the Distributor upon request.
- G.16 The Parties may not, by means of the settlement of a dispute under section G.2 or section G.13, agree to terms or conditions that are inconsistent with or contrary to the Code or this Agreement.



SCHEDULE H

Provisions Applicable if Facility Financed by a Lender (sections 19.3, 20.3 and 21.1)

- H.1 For the purposes of this Schedule, "lender" means a bank or other entity whose principal business in that of a financial institution and that is financing or refinancing the Facility.
- H.2 Where notice of a Default has been served on the Customer under section 19.3, an agent or trustee for and on behalf of a lender ("Security Trustee") or a receiver appointed by the Security Trustee ("Receiver") shall upon notice to the Distributor be entitled (but not obligated) to exercise all of the rights and obligations of the Customer under this Agreement and shall be entitled to remedy the Default specified in the notice within the applicable cure period referred to in section 19.4. The Distributor shall accept performance of the Customer's obligations under this Agreement by the Security Trustee or Receiver in lieu of the Customer's performance of such obligations, and will not exercise any right to terminate this Agreement under section 19.3 due to a Default if the Security Trustee, its nominee or transferee, or the Receiver acknowledges its intention to be bound by the terms of this Agreement and such acknowledgement is received within 30 days of the date of receipt by the Customer of the Notice of Default.
- H.3 The Customer may, without the prior written consent of the Distributor, assign by way of security only all or any part of its rights or obligations under this Agreement to a lender. The Customer shall promptly notify the Distributor upon making any such assignment.
- H.4 The Customer may disclose confidential information of the Distributor to a lender or a prospective lender.



APPENDIX G TECHNICAL REQUIREMENTS FOR INTERCONNECTION OF INDEPENDENT GENERATORS

1 Introduction

The intent of this document is to provide the technical requirements for those wishing to connect an independent generator to the Enersource Hydro Mississauga Inc. (Enersource) electrical distribution system.

This document supplements the requirements of:

- The "Distribution System Code" (DSC) published by the Ontario Energy Board, and
- Enersource Hydro Mississauga Inc.'s "Conditions of Service"

The following principles underlie these requirements:

- a) The interconnection process provides competitive, fair and equitable access for all independent generators;
- b) The interconnection must not create a safety hazard to other Customers, the public or operating personnel;
- c) The interconnection must not compromise the reliability or restrict the operation of the electric system; and
- d) The interconnection does not degrade power quality below acceptable levels.

The independent generator must meet these requirements before being permitted to interconnect and operate in parallel with Enersource grid.

Enersource does not take any responsibility for the design, installation, protection, operation or maintenance of the independent generator's generator or generators or of any portion of the independent generator's electric equipment.

The independent generator is responsible for obtaining all necessary permits and licenses as required by applicable statutes and regulations.

1.1 Standards

The power distribution system of the independent generator shall be designed and built in accordance with all the ANSI/IEEE standards, CSA standards, as well as OEB regulations that prevail at the date of the execution of the project.



2 Abbreviations

ANSI	American National Standard Institute
CSA	Canadian Standard Association
CEA	Canadian Electrical Association
ESA	Electrical Safety Authority
EUSA	Electrical Utilities Safety Association of Ontario
IEEE	The Institute of Electrical and Electronics Engineers, Inc
OEB	Ontario Energy Board
PCC	Point of Common Coupling

3 Safety

The independent generator must operate and maintain its facility (facilities) in a manner that does not endanger the general public, the Enersource system, or Enersource employees, agents or Customers.

The independent generator may use as references the following:

- a) Enersource Work Protection Code;
- b) Enersource Safe Work Procedures;
- c) EUSA Rule Book and Safe Work Practice Guides; and
- d) Occupational Health and Safety Act

Enersource may disconnect the Customer's generator(s) from Enersource power grid if in Enersource's opinion the generator is posing a safety hazard.

3.1 Electrical Safety Authority Plan Approval

The ESA shall inspect and approve all generator installations up to the ownership demarcation point. The ESA's involvement is limited to inspecting Customer-owned generating equipment and confirming the electrical safety of the physical installation, determining whether the installation meets current electrical code requirements, and approving the design and installation of an appropriate grounding system. The Customer shall contact the local ESA and submit the appropriate application and fee for electrical inspection. Enersource will not allow connection of any installation until ESA Plan Approval is granted and Enersource receives ESA's written approval.



4 Mode of Operation

Whenever an independent generator operates a parallel system, its generation can affect the overall electrical control and operation of Enersource electrical system. Also its generation will be exposed to electrical disturbances originating on Enersource electric system. These disturbances, including lightning or switching surges and grounded or broken conductors, result from the wide variety of natural and human hazards that Enersource power grid is subject to.

The independent generator system must have adequate protection and control of its generation. It must be able to de-energize faulty equipment quickly, to maintain safe operation of the electrical system.

4.1 Parallel Generation

An independent generator is operating a parallel system if its generation can be operated while connected to Enersource's power system, either directly or through an intermediate facility. While in parallel with Enersource power system, the generation will necessarily have the same frequency and the same voltage on Enersource side of interconnection.

When the Customer generator becomes isolated from the Enersource system, its voltage and frequency will vary from Enersource's voltage and frequency. If the generator continues to operate, it has become islanded.

Some independent generators only mean of controlling their frequency or voltage is to be connected in parallel with a larger electric system. Others may have only coarse control of frequency or voltage, or may rely on a larger power system to supply reactive power. Such generators have no stand-alone capability.

Other independent generators control their own generation frequency or voltage adequately for their own needs while islanded. Such independent generators have isolated-system capability.

An independent must automatically open its interconnection with Enersource system any time the power generation becomes isolated from the Enersource power grid. Its interconnection must open quickly, so that it is fully open before automatic-reclosing devices on Enersource power system can operate.

5 Independent Generator System Requirements

The independent generator shall meet the following operating and performance characteristics:

a) The independent generator facility shall not adversely affect the voltage and voltage regulation on any part of the Enersource power system;





- b) Compliance with voltage control shall be demonstrated by statistical metering;
- c) The independent generator shall not cause an unacceptable level of voltage fluctuation during starting, operation or shutdown of its generating facility;
- d) The Customer's generator(s) shall normally operate at a power factor of unity; Enersource will accept generating sources operating at other power factors, provided that they do not place an excessive burden on Enersource system capacity and Var availability in the region of interconnection. Power factor control will normally be demonstrated by statistical metering of power factor at the Point of interconnection; and
- e) The independent generators shall not cause an unacceptable level of harmonics during operation of its generating facility. The independent generator system design shall be in full compliance with IEEE Standard 519-1992.

5.1 **Power Quality Requirements**

In order to ensure the quality of power at the point of common coupling (PCC) the independent generator shall comply with IEEE Standard 519-1992.

The point of common coupling with the independent generator is the closest point on the Enersource side of the Customer's service where another Enersource Customer is or could be supplied.

6 Parallel Generation Approval Process

The independent generator shall follow the steps shown in Figure 6.1 in order to obtain Enersource approval for interconnection to the Enersource power systems.





Figure 6.1



6.1 **Project – Initial Stage**

It shall be the independent generator responsibility to obtain all necessary approvals and permits in order to start the design of the generating facility.

6.2 Design Development

6.2.1 General

Safety of personnel, the public and of equipment is of primary concern in the design of interconnection. The point of interconnection will be defined in the design. The independent generator is responsible for the design, construction, maintenance and operation of the facility on the generation side of the point of interconnection.

The design shall be in compliance with all CSA standards and ANSI/IEEE standards that prevail at the date of execution of the project.

6.2.2 Isolation Devices

A disconnecting device shall be installed to isolate the generator from the Enersource system.

The device is subject to the following requirements:

- a) The device is subject of approval by Enersource;
- b) The device shall be physically located for ease of access and visibility to Enersource personnel; and
- c) The disconnect device operating mechanism shall be lockable in the open position with Enersource padlock.

6.2.3 Circuit Breaker

The independent generators shall install a circuit breaker as a means of electrically isolating the generator from the Enersource system. The breaker shall have sufficient capability to interrupt maximum available fault current at its location.

6.2.4 Transformer Requirements

An interface transformer may be required to transform the generator's voltage to a higher voltage to connect to Enersource 13.8 kV, 27.6 kV or 44 kV circuits. It is recommended that the low voltage winding (generator side) of the step-up transformer to be delta connection and the high voltage winding (Enersource side) to be wye-grounded connection.

6.2.5 Protection Devices



The independent generator electrical system and Enersource electrical system shall be protected at all times from damages or hazardous conditions related to parallel operations of the two systems.

The independent generator shall be able to determine after an incident, which device(s) initiated a particular trip. The protective relays shall be connected to an annunciator or event recorder.

The protective devices shall include but shall not be limited to the following:

- Device #25 synchronizing or synchronism check relay;
- Device #27 undervoltage relay;
- Device #32 directional power relay;
- Device #47 phase-sequence or phase balance voltage relay;
- Device #50 instantaneous overcurrent relay;
- Device #51 ac time overcurrent relay;
- Device #59 overvoltage relay;
- Device #67 ac directional overcurrent relay;
- Device #81U/O under/over frequency relay;
- Device #87 differential protective relay;

6.2.6 Enersource Hydro Mississauga Reclosing Scheme

Enersource employs an automatic reclosing scheme to reclose the feeder breaker in approximately half a second (30 cycles) after they have been tripped by feeder protection.

The embedded generation facility shall provide reliable means of disconnecting from the distribution system prior to the feeder breaker reclosing. The Customer shall agree in advance that Enersource is not liable for damage to the Customer's generation facility due to any re-closures of a feeder breaker.

6.2.7 Transfer-Trip Protection Requirement

Transfer-Trip protection shall be provided if the generation system can successfully operate in an islanded mode (it can maintain normal voltage and frequency).

6.2.8 Grounding

The independent generator must install an appropriate ground grid. The grounding grid shall be in full compliance with the requirements stated in ANSI/IEEE Standard 142-and IEEE Standard 80-1986 and Enersource Standards.

6.3 Approval of Design Drawings and Documents – Initial Stage

The independent generator is required to submit for Enersource records and approval, at the beginning stage of the project, four copies of the site specific Single Line Diagram



which shall include Project Name and Location in the Title Box, date and revision number, approval signature and shall show the quantity of each item, where more than one item is supplied, and a brief description of the proposed mode of operations.

The Single Line Diagram shall include but shall not be limited to the following:

- a) Generator size connection and impedance;
- b) Power transformers (primary and secondary voltage, power rating, impedance and phasor diagram);
- c) Voltage and current transformers (connections and ratios);
- d) Circuit breakers and load break disconnect switches (continuous current and status, synchronizing capability where applicable);
- e) Fuses and their ratings;
- f) Revenue metering transformers and phasing receptacles;
- g) Surge arrester characteristics;
- h) Bus and cable ratings;
- i) Protective devices device No. and tripping direction; and
- j) Interlocking (mechanical and electrical).

6.4 Approval of Design Drawings and Documents – Final Stage

At the final stage of the design the independent generator shall submit for Enersource review the following:

- a) The revised single line diagram which shall include comments made on the initial submittal;
- b) The AC/DC schematic diagrams of the protection and control circuits;
- c) The Bill of Materials including all relays, voltage and current transformers, fuses, etc.
- d) A relay coordination study and proposed protective relay settings;
- e) Metering compartment equipment showing the physical layout and clearances;
- f) Bus, cables and terminations (manufacturer's specifications);
- g) Equipment room layout;
- h) DC system one line diagram detailing the battery and charger type, distribution panel, transfer switches, relaying and alarms; and
- i) Interlocking procedures.

6.4.1 Testing and Commissioning

It will be the responsibility of the independent generator to prepare the test procedures and to submit it to Enersource for review (only the procedures for the interface tests with the Enersource power grid, are required to be submitted).

The tests shall be conducted in accordance with the current versions of ANSI, IEEE and CSA standards.


As a minimum the test procedures shall include:

- a) The description of the tests;
- b) The required test equipment (model, calibration date);
- c) The detailed step by step procedure; and
- d) The pass/fail criteria.

6.5 Connection Agreement

The connection agreement will be issued by Enersource (with input from the independent generator, who shall provide the information specified in the paragraphs 6.5a and 6.5b) and shall detail all operations under normal and contingency modes of operation.

The agreement will include, but not necessarily be limited to the following:

- a) A high level technical description of the generating facility, equipment and protection;
- b) A high level technical description of the distribution system and protection;
- c) The independent generator intent in operating the facility (i.e. sales, demand reduction);
- d) The name, title and phone number of the key personnel for each party to the agreement;
- e) Provision for Enersource to disconnect the generating facility for failure to meet technical, power quality and/or safety requirements;
- f) Reference to safety procedures for joint work;
- g) Responsibility for maintaining current technical information (i.e. single line diagram); and
- h) Notification requirements (i.e. before synchronization).

6.6 Requirements prior Energization

Prior to energization the Customer shall resubmit all drawings corrected and marked Final. Also subject of Enersource approval are the following:

- a) Certified relay test data including the date of test and all voltage and current transformer ratios;
- b) Certified high potential proof test; and
- c) Equipment operation test result.

Enersource will require a utility representative to witness successful tests of the protection system as far as it affects the interconnection of the generator to the Enersource distribution System; all results shall be documented in the Witness of Verification Report (See Appendix A).

6.6.1 Generating Facility Inspection



Enersource personnel will inspect the project site, from time to time, to verify compliance with Enersource specifications.

Enersource will verify the following:

- a) Equipment nameplates and phase markings are as noted on the drawings;
- b) A laminated copy of the approved D06 or D18 single line diagram is posted in the appropriate location; and
- c) The revenue metering system is in place and ready for operation.

6.7 Interconnection

The interconnection will be permitted only after the successful completion of the requirements stated in this document.

Following the successfully completion of the testing and interconnection the independent generator shall submit all documents including as built drawings for Enersource review and record.

Witness of Verification Report

Witness of Verification Report						
Name of Customer						
Name of Facility						
Distribution Identifier						
Distribution System Connection						
SIGNATURES						
To be signed upon completion of all parts of this	report					
I/we have completed the witness of verification tests as noted	I/we acknowledge the completion of the witness of verification tests and will undertake to rectify the deficiencies identified in the "Notes" section					
Signature of Enersource Representative	Signature of Customer Representative					
Print Name:						
Date:	Date:					



Distribution List (When all parts are completed)				
†Substations				
System Operations				
Control Room				
Customer				
Hydro One				
Witness Verification Protection	and Contro	I		I
Legend: Y=Yes; N=No:				
N/A= Not applicable	Legend	Initial	Date	Noto#
	Leyenu	initial	(mm/dd/yyyy)	
1. Is commissioning in compliance with the submitted Commissioning Procedure?				
2. Are the approved relay settings applied?				
Witness the following Protection Tests:				
a) Interlocks to prevent out-of-sync closing				
b) Interlocks to prevent feeder parallel				
c) Overcurrent Protection that trips utility interface breakers (51, 51N, 67, 67N)				
d) Under and Over Voltage (27/59)				
e) Under and Over Frequency (81U/81O)				
f) Transfer Trip (85T)				
g) Remote Trip (85R)				
h) Directional Power (32)				
Witness the following SCADA tests				
a) MW – flows and direction				
b) Breakers Open / Close Status				
c) Switches Open / Close Status				
d) Breakers Open / Close Control				
e) Switches Open / Close Control				
f) Protection Trip Alarms				



Metering in Place

YES_____ NO_____



Notes:

Print Name:	Print Name:
Title:	Title:
Date:	Date:

1	
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APPENDIX H PROCESS FOR CONNECTING ANOTHER DISTRIBUTOR

EXAMPLE OF A PROCESS FOR CONNECTIONS BETWEEN DISTRIBUTORS

Step 1 – Connection Request

- An embedded distributor submits its request to the host distributor, summarizing in writing the required initial and ultimate load requirements, the required in-service date and any other specific requirements.
- The host distributor carries out a preliminary review and determines the scope and estimated cost of preparing a System Impact Study.
- The hot distributor responds in writing within 30 days of receiving the embedded distributor's request.

Step 2 – System Impact Study

- Upon receipt of a purchase order or equivalent from the embedded distributor, the host distributor, in cooperation with the applicant, will study in detail all options and recommends the preferred option. The results of the study are documented in a system impact study report. This report provides the embedded distributor with preliminary information regarding the work required to provide the requested supply, the required capital contribution and the expected lead-time.
- The host distributor completes the system impact study within 60 days of receiving the embedded distributor's purchase order to proceed. If, despite the host distributor's best efforts, the 60-day target cannot be met, the host distributor notifies the embedded distributor in writing and provides a new target completion date.

Step 3 – Connection Application

- The embedded distributor reviews the system impact study report and decides whether or not to proceed.
- To proceed, the embedded distributor submits a connection application, provides all necessary Registered Planning Information and issues a purchase order or equivalent for preparation of detailed engineering specifications.
- The embedded distributor submits a connection application to the host distributor within 30 days of receiving the system impact study report.

Step 4 – Engineering Specifications and Cost Sharing Arrangements

• Upon receipt of a purchase order or equivalent from the embedded distributor, the host distributor prepares detailed engineering specifications for required system enhancements, obtains cost estimates for the specified work and determines cost sharing arrangements.



- The host distributor provides, in writing, a project description and letter of intent that includes:
 - A description of the proposed project;
 - A summary of work to be performed by the host distributor;
 - A summary of work to be performed by the embedded distributor;
 - The host distributor's capital investment in the project; and
 - The embedded distributor's financial contribution to the project.
- The host distributor provides the required project description and letter of intent within 90 days of receiving the connection application from the embedded distributor.

Step 5 – Formal Approval and Agreement

- Upon receipt of a signed Letter of Intent from the embedded distributor, the host distributor seeks formal approval from its Executive and from the Ontario Energy Board (if necessary).
- The host distributor prepares a Connection Agreement that outlines the obligations of the host distributor and the embedded distributor. This Agreement will serve as a legally binding and enforceable agreement between the two parties.
- The host distributor obtains required approvals and drafts a Connection Agreement within 60 days (90 days if Regulatory approval is required) of receiving the signed Letter of Intent from the embedded distributor.

Step 6 – Construction

- Acquisition of any required property or property rights.
- Construction of the host distributor's new or modified system facilities.
- Modification of upstream transmission facilities (if necessary).
- Construction of embedded distributor's approved connection facilities.
- Typical construction lead times include:
 - New or upgraded distribution lines: six months
 - Upgraded distribution Substations: twelve months
 - New Distribution Stations: eighteen months for <50 kV; 24 months for >50kV.
 - New or upgraded transmission facilities: 24 months

If construction lead times differ from above, the host distributor will inform the embedded distributor, in writing, of the actual lead time requirements for the specified work.

Step 7 - Connection

- Commissioning and verification that all connection requirements have been met.
- Connection.



APPENDIX I DEMARCATION POINTS AND CHARGES FOR CONNECTION ASSETS

Table 1Charges for Connection Assets by Customer Class

Customer Class	Standard Allowance (Basic Connection)	Variable Connection Fees								
Residential	Residential									
Single Service										
Overhead	Up to 30m overhead service wires from Enersource pole lines. Include connections at pole or lines and Customer's service mast. Basic Connection fee recovered through rates.	Customer charged estimated fixed costs for connection assets beyond standard allowance.								
Underground	Equivalent O/H service cables from the closest connection point on Enersource service lines. Does not include U/G road crossing. Basic Connection fee recovered through rates.	Customer charged estimated fixed costs for connection assets beyond standard allowance.								
Townhouse Development	N/A	Customer charged actual costs for connection asset								
New Residential Subdi	visions (two or more lots)									
Development with two or more lots	N/A	N/A								
General Service										
Overhead	N/A	Customer charged estimated fixed costs for connection asset								
Underground	N/A	Customer charged estimated fixed costs for connection asset								
Industrial/Commercial Subdivision	N/A	Customer charged estimated fixed costs for connection asset								



Table 2	Un-metered Connections -	- Point of Demarcation	and Ownership

Types of Customers	Ownership / Demarcation Point	Connection Fee
Street Lighting	Underground: The demarcation point is at the breaker if it exists, otherwise at the bushing of the transformer. Overhead: Streetlights connected to electricity secondary bus, the demarcation point is at the line side of the in-line fuse.	Customer charged actual costs for connection of assets
Traffic Signal, Park Lights, Bell and Cable Pedestals, Pay Phone Booths and Bill Board Signs	Underground: The demarcation point is at the breaker if exists, otherwise at the bushing of the transformer. Overhead: The demarcation point is at the weather head.	Customer charged actual costs for connection of assets
Bus Shelters	Underground: The demarcation point is at the breaker if exists, otherwise at the bushing of the transformer. Overhead: The demarcation point is at the weather head.	Customer charged actual costs for connection of assets



APPENDIX J SCHEDULE OF RATES

Schedule of Monthly Rates and Charges

Please see Enersource's website for the current residential and business rates and charges. The residential and business links are:

http://www.enersource.com/my-home/Pages/electricity-rates.aspx

http://www.enersource.com/my-business/Pages/electricity-rates.aspx



APPENDIX K SPECIFIC SERVICE CHARGES

Customer Administration

Arrears certificate	\$	15.00
Request for other billing information	\$	15.00
Credit reference/credit check (plus credit agency costs)	\$	15.00
Credit reference/credit check (plus credit agency costs-General Service)	\$	25.00
Income tax letter	\$	15.00
Returned cheque charge (plus bank charges)	\$	12.50
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	\$	30.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable-Res'l)	\$	20.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	\$	10.00
Special meter reads	\$	30.00
Interval meter request change	\$	40.00
Non-Payment Of Account		
Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Collection of account charge - no disconnection	\$	9.00
Disconnect/Reconnect at meter - during regular hours	\$	20.00
Disconnect/Reconnect at meter – after regular hours	\$	32.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00
Temporary service install and remove - overhead - no transformer	\$	400.00
Specific Charge for Access to the Power Poles – per pole/year	\$	22.35
Allowances		_
Transformer Allowance for Ownership - per kW of Billing demand/month	\$	0.40
Primary Metering Allowance for Transformer Losses - applied to measured demand and energy	%	1.00

Connection Fee for Residential Customers:

There is no charge for a Basic Connection, as per Section 3.1.1.2 of these Conditions of Service. For other specific customer–requested services, such as converting overhead to underground service, and disconnecting/reconnecting for construction purposes, service charges are applied on a cost-recovery basis, plus applicable taxes. These costs are typically updated annually and are subject to change. Please contact Enersource for the most current charges.

Trouble Call Due to Customer's Owned Equipment:

The service charges for trouble calls due to customer-owned equipment are applied on a cost-recovery basis, plus applicable taxes. These costs are typically updated annually and are subject to change. Please contact Enersource for the most current charges.



Power Quality Investigation Due to Customer's Problem:

The service charges for power quality investigations, including repeat field locates, location drawings, and service guarantees, are applied on a cost-recovery basis, plus applicable taxes. These costs are typically updated annually and are subject to change. Please contact Enersource for the most current charges.



Appendix L TRANSFORMATION AND VOLTAGE AVAILABILITY TABLES

Table A

MAXIMUM TRANSFORMER SUPPLY CHART															
		Po Transf	ole ormers		Pa	dmount ⁻	Transfor	mer		Vault Transformer					
Primary Voltage (kV)	Secondary Utlilization Voltage			Fed radia Main	l from O/H feeder	Fed loop 1/0 Al	from U/G . feeder	Fed radial Unit from feede	from PMH U/G Main r loop	Fed radia Main	l from O/H feeder	Fed loop 1/0 Al	from U/G . feeder	Fed loop Main	from U/G feeder
		Maximum Service Size (A)	Maximum Tx. Size (kVA)	Maximum Service Size (A)	Maximum Tx. Size (kVA)	Maximum Service Size (A)	Maximum Tx. Size (kVA)	Maximum Service Size (A)	Maximum Tx. Size (kVA)	Maximum Service Size (A)	Maximum Tx. Size (kVA)	Maximum Service Size (A)	Maximum Tx. Size (kVA)	Maximum Service Size (A)	Maximum Tx. Size (kVA)
All	120/240V, 1ph, 3w	600	167	600	100	600	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4.16 / 2.4	120/208V, 3ph. 4w	600	300	800	300	800	300	800	300	800	300	800	300	800	300
13.8 / 8.0	120/208V, 3ph. 4w	600	300	2000	500	2000	500	2000	500	2000	500	2000	500	2000	500
27.6 / 16	120/208V, 3ph, 4w	600	300	2000	500	2000	500	2000	500	2000	500	2000	500	2000	500
4.16 / 2.4	347/600V, 3ph, 4w	600	500	400	300	400	300	400	300	400	300	400	300	400	300
13.8 / 8.0	347/600V, 3ph, 4w	600	500	2000	2000	2000	2000	2000	2000	3000	3000	3000	3000	3000	3000
27.6 / 16	347/600V, 3ph, 4w	600	500	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000

Table A Notes:

- 1. Values of Amperes based on Customer's main breaker at 100% rating factor.
- 2. All "Fed loop from U/G 1/0AI. Feeder" supply is subject to feeder loading analysis.
- 3. The above pad-mounted transformers are standard practice cable supplied transformers. All secondary supplies to Customer's premise are to be made only with (Maximum 750 MCM) cable.
- 4. Enersource installs secondary cables up to and including 1600 Amp services (subject to discrepancies).



Table B

MAXIMUM SUPPLY CHART for "CUSTOMER-OWNED" EQUIPMENT											
Primary	Radial Feed from O/H Main Feeder Primary Secondary				Loop Feed from U/G Main Feeder			Loop Feed from U/G 1/0 Al. Feeder			
Voltage Utilization (kV) Voltage		Maximum Service Size (A)	Metal- Enclosed Switchgear Configuration	Max. Transform- ation (kVA)	Maximum Service Size (A)	Metal- Enclosed Switchgear Configuration	Max. Individual Tx. Size (kVA)	Maximum Service Size (A)	Metal- Enclosed Switchgear Configuration	Max. Transform- ation (kVA)	
4.16/2.4	120/208V	800	Single Fused Interrupter Cell	300	800	Two Loop Feed Cells & Single Fused Interrupter Cell	300	800	Two Loop Feed Cells & Single Fused Interrupter Cell	300	
13.8/8.0	120/208V	1600	Single Fused Interrupter Cell	500	1600	Two Loop Feed Cells & Single Fused Interrupter Cell	500	1600	Two Loop Feed Cells & Single Fused Interrupter Cell	500	
27.6/16	120/208V	1600	Single Fused Interrupter Cell	500	1600	Two Loop Feed Cells & Single Fused Interrupter Cell	500	1600	Two Loop Feed Cells & Single Fused Interrupter Cell	500	
4.16/2.4	347/600∨. 600∨	400	Single Fused Interrupter Cell	300	400	Two Loop Feed Cells & Single Fused Interrupter Cell	300	400	Two Loop Feed Cells & Single Fused Interrupter Cell	300	
13.8/8.0	347/600∨. 600∨	4000	Single Fused Interrupter Cell	3000	4000	Two Loop Feed Cells & Single Fused Interrupter Cell	3000	1500	Two Loop Feed Cells & Single Fused Interrupter Cell	1000	
27.6/16	347/600∨. 600∨	8000	Single Fused Interrupter Cell	6000**	2 @ 4000 Amp	Two Loop Feed Cells & Single Fused Interrupter Cell	2 @ 3000 kVA*	3000	Two Loop Feed Cells & Single Fused Interrupter Cell	2000	

Table B Notes:

Maximum service sized based on Customer's main breaker at 100% rating factor.

Customer's service size takes into account transformer fan cool rating at 133%.

* Two 3000 kVA transformers should be applied rather than single 6000 kVA.

** Requires Enersource approval prior to proceeding with design.



APPENDIX M ENERSOURCE HYDRO MISSISSAUGA INC. POLICIES ON PLANNED OUTAGES

A. PLANNED INTERUPTIONS WITH NOTIFICATION TO CUSTOMERS

Planned power interruptions to Customers shall be arranged during Enersource's regular working hours under the following conditions:

1. Notice

Minimum advance notice to Customers:

- General Service : three calendar days
- Residential : one calendar day.
- 2. Duration

Maximum planning length:

- General Service : six hours
- Residential : six hours
- 3. Frequency

Maximum number of planned interruptions per Customer:

- three in one year
- one in one month
- 4. Number of Customers

Maximum number of General Service Customers in a single interruption:

• three

Where the above conditions apply and the Customer requests an interruption outside of Enersource's regular hours, the Customer shall pay extra costs involved.

Where any of the above conditions do not apply, and the Customer requests that an interruption take place outside of Enersource's regular hours, the Customer shall pay the extra costs involved.



B. PLANNED INTERRUPTIONS WITHOUT NOTIFICATION

Planned power interruptions to Customers may be carried out without notification under the following conditions:

- 1. Residential Customers up to 30 minutes duration
 - •
 - regular working days, Monday to Friday
 - 7:30 to 3:30 p.m.
 - not repeated more than two days per month
 - not affecting known sensitive situations, e.g. health care, traffic signals, computers
- 2. Residential Customers up to one hour duration
 - •
 - between midnight and 6:00 a.m. any day
 - not repeated more than two days per month
 - not affecting known sensitive situations, e.g. health care, traffic signals, computers
- 3. All Customers emergency conditions only:
 - where danger to life and limb is imminent
 - where major equipment failure is imminent
- 4. Residential Customers in New Subdivisions:
 - up to 30 minutes duration
 - anytime until all new Customers are initially connected to a pad-mounted transformer



APPENDIX N NET METERING FOR RESIDENTIAL CUSTOMERS

The following describes the simplified process that Enersource Hydro Mississauga Inc. (Enersource) has in place for eligible Customers wishing to participate in the Net Metering Program.

What is Residential Net Metering Program?

The Residential Net Metering Program encourages and promotes greater use of renewable energy sources such as wind, solar, photovoltaic (PV), renewable biomass, bio-gas, bio-fuel, landfill gas, or drop in water elevation for generating electricity.

Who is eligible to participate in the Net Metering Program?

Participation in the program is available to all Enersource Customers with a generator that meet all of the following conditions:

- 1. Generate electricity using renewable sources of energy (described above);
- 2. Have installed generating capacity of no more than 10 MW;
- 3. Generator is to be connected to the Customers own secondary panel; and
- 4. If your Retailer is not Enersource then you will need to ask your Retailer for permission to enter into this program. The Retailer will also need to advise Enersource that they will support the program.

Are there any programs available for new Net Metering Customers?

Enersource invites Customers to proceed to the Enersource web site at <u>www.enersource.com</u> and check to see if any programs are available. This will give additional information

What is the process for participating in Net Metering Program?

Customers interested in participating in the program will submit a single line diagram (SLD), fill out Appendix A and complete the Net Metering contract enclosed for review to the person named below.

- 1. The package will be reviewed by Enersource and approved.
- 2. The Customer will complete the installation and get ESA approval.
- 3. Enersource may install the metering as required at no cost.
- 4. Enersource Net Metering contract will be signed by the Customer.

Still have questions?

If you are interested in connecting a generation facility to Enersource's network, please contact: Senior Manager, Customer Engineering and Underground Construction; e-mail at <u>cos@enersource.com;</u> or Fax: 905-566-2737.



FORM A

INITIAL FEASIBILITY ASSESSMENT APPLICATION FORM DISTRIBUTION SYSTEM

This Application Form is for Generators applying for Initial Feasibility Assessment ("IFA"). It is important that the Generator provide all of the information requested below. Failure to do so could result in the non-acceptance of this application form by Enersource Hydro Mississauga.

Date: (dd / mm / yyyy)

1. Project Name: _____

2.	Project Size:	Number of Units		
		Nameplate Rating of Each Unit	kW	
		Generator connecting on	single phase	three phases
		Proposed Total Nameplate Capa	city kW	

3. Project Location: Address

Provide Site Plan with approximate line routings for connection to nearby Enersource Hydro Mississauga. The Site Plan should include roads and/or lot numbers.

4. Project Information:

Generator Single Point of Contact Person

	Generator	Owner
Company/Person		
Contact Person		
Mailing Address		
Telephone		
Fax		
Email		



5.	Project Type: Wind Turbine Hydraulic Turbine	e 🗌 Steam Turbine	Solar Solar
	Diesel Engine Gas Turbine	Fuel Cell	Biomass
	Co-generation/CHP (Combined Heat	at & Power)	
	Other (Please Specify)		
6.	Machine Characteristics:		
	Machine Starting Inrush Current		
	Rotating Machine Type (if known): Synchronou	s Induction C	Other (Please Specify)

7. A complete single line diagram



APPENDIX O FEED-IN TARIFF (FIT) PROGRAM FOR AN EMBEDDED GENERATION FACILITY

The following describes the simplified process that Enersource Hydro Mississauga Inc. (Enersource) has in place for eligible Customers wishing to participate in the Ontario Power Authority's (OPA) Feed-In Tariff (FIT) Program, which became effective on October 1, 2009.

What is Feed-In Tariff (FIT) Program?

The FIT program is intended to encourage and promote greater use of renewable energy sources such as wind, solar, photovoltaic (PV), renewable biomass, bio-gas, bio-fuel, landfill gas or drop in water elevation for generating electricity. The program is divided into two streams - FIT and MicroFIT. The FIT Program is for renewable energy projects that can generate more than 10 kilowatts (kW) of electricity. The MicroFIT Program is designed for homes or small businesses that can generate 10 kW or less.

Who is eligible to participate in the FIT and MicroFIT Program?

Participation in the FIT and MicroFIT is available to all Enersource Customers that plan on generating electricity using renewable sources of energy (described above).

What is the process for participating in the FIT and MicroFIT Program?

Customers interested in participating in the FIT and MicroFIT program will submit a single line diagram (SLD) and fill in an "Initial Feasibility Assessment Application Form "(Form A) and the process is as follows:

- 1. The SLD and Form A will be reviewed by Enersource's FIT team.
- 2. The Customer must submit a FIT or MicroFIT application to the OPA and get approval to proceed.
- 3. The Customer will complete the installation and apply for inspection with the Electrical Safety Authority (ESA).
- 4. Enersource must receive a copy of the 'Certificate of Inspection' from the Customer and 'Connection Authorization' from the ESA.
- 5. Enersource will proceed with installing the meters.
- The Customer will sign the Connection Agreement with Enersource as per Section 3.5 of the Conditions of Service and Appendices D, E, F and G.
- 7. The Customer will sign the FIT or MicroFIT contract with the OPA.

Consultation/Meeting

Enersource will meet with the prospective Generator to discuss their plans and provide preliminary information on the connection process. The purpose of this meeting is to discuss issues of mutual interest early in the Generator's review of the feasibility of the project.



FORM A

INITIAL FEASIBILITY ASSESSMENT APPLICATION FORM DISTRIBUTION SYSTEM

This Application Form is for Generators applying for Initial Feasibility Assessment ("IFA").

It is important that the Generator provide all of the information requested below. Failure to do so could result in the non-acceptance of this application form by Enersource Hydro Mississauga.

Date: (dd / mm / yyyy)

1. Project Name:

2.	Project Size:	Number of Units		
	Nameplate I	Rating of Each Unit	kW	
	Generator co	onnecting on	single phase	three phases
	Proposed To	otal Nameplate Capacity	kW	

3. Project Location:

Address	
Existing Enersource Hydro Mississauga Account	
Contract with Energy Retailer [Yes/No]	
OPA Reference # (if applicable)	

4. Project Information:

Generator Single Point of Contact Person	
Proposed Energization Date	

	Generator	Owner	Consultant
Company/Person			
Contact Person			
Mailing Address			
Telephone			





Email	Fax		
	Email		

5. Project Type:

	Wind Turbine	Hydraulic Turb	ine 🗌 Steam Turbine	Solar			
	Diesel Engine	Gas Turbine	Fuel Cell	Biomass			
	Co-generation/C	HP (Combined Heat & Power)					
	Other (Please Sp	Other (Please Specify)					
6.	Machine Characteristi	cs:					
	Machine Starting In	rush Current	-				
	Rotating Machine T	ype (if known):	Synchronous 🗌 Induct	tion			
			Other (Please Specify)				

7. A completed single line diagram



APPENDIX P SELF DECLARATION FORM BULK-METERED MULTI-RESIDENTIAL UNIT PREMISES

PLEASE RETURN THIS COMPLETED FORM TO:

Mail: Enersource Hydro Mississauga Inc. 2185 Derry Road West Mississauga, Ontario L5N 7A6 **Or Fax:** 905 566 2737

The Ontario Clean Energy Benefit (OCEB) provides eligible customers with a ten per cent (10%) rebate on the total cost of electricity charges related to electricity consumption on their bills, including HST, effective January 1, 2011. This rebate is subject to a cap of 3,000 kilowatt hours per month. For a multi-unit complex with an eligible account that relates to more than one unit, it is 3,000 kilowatt hours multiplied by the number of units included in the eligible account. This rebate is scheduled to be in effect until December 31, 2015.

Customers with bulk-metered multi-residential premises can self-declare their eligibility for the Ontario Clean Energy Benefit if they qualify. Please return this completed form as soon as possible to register your account so that your total electricity charges related to electricity consumption qualify for the rebate. If you qualify, Enersource will retroactively credit your account to January 1, 2011, or to the date you opened your account, whichever is more recent. By regulation, Enersource cannot credit accounts retroactively for any period of time greater than two years.

Step One – Does your account qualify?

You qualify for OCEB if your account falls into one of the following categories:

- a dwelling, a property within the meaning of the *Condominium Act, 1998*, a residential complex, as defined by the *Residential Tenancies Act, 2006*;
- a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

You can find these acts on the government's e-laws web site at www.e-laws.gov.on.ca.

Step Two – Fill in this form:

If your account qualifies, please fill in the information below. If you have more than one qualified account, list each one separately. Please attach a separate page if you run out of room. If there are units in your building or complex that are metered or billed separately from the account referenced, do not include them in the total number of units for this account.

Enersource	Account Name	Basis for Qualification	Number of Units
Account Number(s)			
Sample 000000000	Valley Apartment Complex	Residential Tenancies Act, 2006	50

Acknowledgement:

By self-declaring for OCEB eligibility you are acknowledging that, under the *OEB Act* (the Act), and O.Reg. 95/05, your account(s) automatically qualify for and will be switched to the prescribed Regulated Price Plan (RPP) (either two-tiered or time-of-use rates) consumer class, unless you meet the exemption criteria defined in the Act and/or regulations for the RPP, as described below.

Exemption Criteria:



- 1. Opt out of the RPP by signing a contract with a retailer of electricity for commodity supply. If you are currently under a retailer commodity price option, your rate plan will not change through the completion and submission of this self-declaration form.
- 2. Opt out of the RPP by electing to be placed on the Hourly Ontario Electricity spot Price (HOEP) through written request to Enersource, if an interval meter is already installed at your service address. If you wish to explore this option and do not know whether you have an interval meter installed at your service address or wish to have one installed, contact Enersource for interval type and/or local interval meter installation conditions.

Note: If applicable, self-declaring customers will be moved to their required rate option at the start of the next billing date, on a go forward basis. OCEB credits will be applied to your past billings as charged, retroactive to January 1, 2011 or two years, whichever is more recent.

The following individuals have authority to provide and certify the accuracy of the information on this form and any additional attachments. Please complete the applicable sections below.

Corporation's Name:	I certify the above information to be true, correct and complete. Signature of Authorized Officer	Date
Name & Office of Authorized Officer:		
Sole Proprietor:	I certify the above information to be true, correct and complete. Signature of Applicant (should be same as the Account Name)	Date
Name of Applicant:		
Partnership's Name:	I certify the above information to be true, correct and complete. Signature of Authorized Individual (should be same as the Account Name)	Date
Name of Authorized Individual to sign on behalf of Partnership:		

You must advise Enersource in writing if your account ceases to qualify for the Ontario Clean Energy Benefit or if there is a change in the number of units with the property or complex. Failure to do so will lead to the requirement to reimburse to Enersource any OCEB credit outside of the eligible time frame.

The account(s) will reflect the eligibility for RPP and/or OCEB until the earlier of such time as you advise us in writing that the account(s) no longer qualify for the RPP and/or OCEB, or if there are changes to the RPP and/or OCEB causing your account(s) to no longer qualify.

All information submitted in this process will be used by Enersource in support of its obligations under the *Electricity Act, 1998, The Ontario Clean Energy Benefit Act,* and the *Ontario Energy Board Act, 1998,* applicable Ontario Energy Board Codes and Rules, associated policies, standards and procedures and its license. Enersource will use the information collected on this form for the purposes of confirming your eligibility for the RPP and the Ontario Clean Energy Benefit, and for applying the Ontario Clean Energy Benefit to your bill and for auditing purposes.



APPENDIX Q UN-METERED CONNECTIONS

Schedule A: Audit and Billing Data

Field	Information	Billing (B) or	Informatior	N Source* Congoing Information Accuracy		sibility for nformation uracy
		OMS (O)	Enersource (Service Layout) or Audit	Customer	Enersource	Customer
System Voltage	Line Side voltage	0	Y-SL	-	Y	-
Source Circuit ID 1	Line Side circuit the un-metered service is connected to.	0	Y-SL	-	Y	-
Orientation	Overhead (OH) or Underground (UG) secondary feed.	0	Y-SL-accept customer/ consumer preference if feasible	Y-SL- indicate preference at time of service layout request	Y	-
Phase	Red, White or Blue Line Side phase the un-metered service is connected to.	Ο	Y-SL	-	Y	-
Owner Name	Registered Owner of connected Asset . Owner of the secondary bus downstream of the Supply Point.	В, О	Y-iSL,Move In/Out	Y-iSL, Move In/Out	Y	-
Energy Jurisdiction	Who is responsible for paying energy bill?	В	Y-iSL, Move In/Out	Y-iSL, Move In/Out	-	Y
CIS Account No.	New or existing Enersource CIS Account Number un-metered service is to be added to.	В	Y-based on Energy Jurisdiction information.	-	Y	-
Load Type	List per "Un-metered Services on the Service Layout form: AMP/SUPPLY BILLBOARD/SIGN BUILDING BUS SHELTER CABINET CATHODE DECORATIVE LIGHT FLASHING BEACON FLOW MONITOR GAS REC PARK PEDESTRIAN SIGNAL PHONE BOOTH RAIL STREETNAME TRAFFIC CAMERA TRAFFIC SIGNALS WIFI SUPPLY OTHER Included grandfathered fire pumps and billboards.	0	Y-iSL, A	Y-iSL	-	Y
Load Unique Identifier	Unique identifier the customer has for their device. Can relate to the equipment type, model number, and then load in the Audit repository.	0	Y-iSL, A	Y-iSL	-	Y
Service Point Street Number Service Point Street Name	 For small quantity of connections, Service Layouts get the information, not customer provided. For large quantity of connections, the Customer shall provide addressing. Auto list the permissible addresses per what is available for CIS/GIS lists. This is the address for the device, not the Owner or Billing address, which will reside in CIS. The device address is tied to the GPS 	В, О	Y-SL	Y-SL	Y	-





Field	Information	Billing (B) or OMS (O)	Informatior	Source*	Source* Respons Ongoing I Accu	
			Enersource (Service Layout) or Audit	Customer	Enersource	Customer
	coordinate provided by Customer.					
Total Connected Load (W)	Total load for connected devices. Same as Billable Load for most Un-metered loads accept electronically controlled loads such as traffic signals.	0	Y-SL	Y-SL		Y
Billable Connected Load (W)	Unit is Watt (W) based on 90% power factor. Load to be billed each month and predetermined by Enersource and Customer.	В	Y-iSL, A	Y-iSL	-	Y
Hours on per Day	Number of hours load will be on each day calculated as an average for the year. Predetermined by Enersource and Customer.	В	Y-iSL, A	Y-iSL	-	Y
Connection Status	Used to temporarily isolate service for repairs. Fixed charges continue; kWh charges suspended. Isolation must be preapproved and must be greater than two months (so energy charges do not apply) and less than six months. The states are "Energized" and "Isolated" (the State must be "In-Service").	В	Y	Y	Y	-

Where it appears there are two sources of information, the Customer is to provide the information for Enersource's records when requested by Enersource. Information obtained by Enersource will be used to populate the information database.

Where it appears there is responsibility for joint information accuracy, refer to Section 3.8.5 for detail.

*Legend: iSL – initially through Service Layout SL – from Service Layout

A – from audit



Schedule B USL Customer Annual Load Accuracy Declaration

I declare that Enersource's records below for the un-metered load connected to Enersource's distribution system are accurate as of the dates provided.

[List of equipment and details per Enersource's record]

I declare the following additions or deletions to the load at the Enersource supply points listed below during the time period herein stated.

[list of supply points, load, addition /deletion, date]

Reporting Period: _____

Corporation:

Name: Title: Date:

I have authority to bind the Corporation

Submit in PDF format to Enersource. It is the responsibility of the USL Customer to ensure that Enersource has acknowledged receipt of the declaration.



Schedule C Un-metered Electrical Supply Bus Usage Agreement

THIS AGREEMENT made in triplicate this day of

BETWEEN:

Bus Owner Name (the "UBO" – un-metered electrical bus owner)

– AND –

Connection Applicant Name (the "UCA" – un-metered electrical bus connection applicant)

- AND –

ENERSOURCE HYDRO MISSISSAUGA INC.

("Enersource")

WHEREAS UCA is requesting an electrical un-metered Secondary Voltage service(s) supplied from Enersource through the UBO un-metered electrical bus;

WHEREAS the UBO and the UCA is related by the same company/government/agency by ownership or affiliation;

WHEREAS this agreement does not provide permission for access to the public road allowance, access to Enersource's support structure, or land rights;

WHEREAS this agreement is for the use of un-metered electrical energy and not for generation of electrical energy;

AND WHEREAS UCA's connection to the UBO's un-metered electrical bus does not make the UBO an un-licensed electrical distributor as per Ontario Regulation 161-99.

ARTICLE I

DEFINITIONS

In and for the purpose of the Agreement:

I.1. **Affiliate** means a company that is affiliated with another within the meaning of the Canada Business Corporations Act.



- I.2 **Business Day** means the hours from 7:30 a.m. to 3:30 p.m., Eastern Time, on the weekdays from Monday to Friday inclusive with the exception of statutory holidays observed by Enersource;
- I.3. Conditions of Service means the published document describing the operating practices and connection policies of Enersource as mandated by the Ontario Energy Board through the Distribution System Code and is available on Enersource's website www.Enersource.com;
- I.4. Demarcation Point means the electrical point at which the Secondary Voltage supply cables terminate and change ownership between: 1. Enersource and the UBO, or 2. the UBO and the UCA. Each UBO / UCA Demarcation Point shall have weatherproof field tagging indicating the change of ownership;
- 1.5. **Emergency** means any abnormal system condition that requires remedial immediate action to prevent or limit loss of a distribution system or the supply of electricity that could adversely affect the reliability of the electricity system. The electrical context of Emergency includes prevention of loss of life or property;
- I.6. **ESA** means the Electrical Safety Authority of Ontario;
- I.7. Governmental Authority means any government, parliament, legislature or any regulatory authority, agency, commission or a board of any government, parliament or legislature, or any political subdivision thereof, or any court or, without limitation to the foregoing, any other law, regulation or rule making entity or any person acting under the authority of any of the foregoing or any other authority charged with the administration or enforcement of laws;
- I.8. **Representatives** in reference to a party, means the party's directors, officers, employees, and agents and contractors;
- I.9. **Secondary System** means the electrical equipment operating at the Secondary Voltage;
- I.10. Secondary Voltage means less than or equal to 750V;
- I.11. Words of similar import have reference to this Agreement as a whole and not to any particular article, section, subsection, or clause of the Agreement;
- I.12. The singular includes the plural, the plural the singular, and any gender the other gender; and
- I.13. Headings are included for convenience and references only and shall not affect the interpretations hereof.



ARTICLE II

UCA'S COVENANTS

- II.1. The UCA shall be subject to the terms hereof, Enersource's Conditions of Service, and the UBO's standards at the UCA's sole cost;
- II.2. The UCA shall apply for permission in writing with both the UBO and Enersource in advance of its new connections on the UBO's un-metered electrical bus. The UCA shall provide technical information required by the UBO so that the UBO can assess the individual connection request feasibility.
- II.3. Each UCA connection shall be meet the Ontario Electrical Safety Code requirements and shall be approved for its connection by ESA.
- II.4. The UCA shall report any changes in writing to its connection with the UBO and Enersource within five (5) Business Days.
- II.5. The UCA shall have a valid un-metered energy billing account with Enersource in good standing.
- II.6. The UCA shall have a Municipal Access Agreement, a temporary encroachment permit from the road authority, or legislative rights to install and maintain its equipment within the public road right of way.
- II.7. The UCA shall maintain and protect its electrical system is good working order.

II.8. The UCA shall have accurate records of its electrical system location, loads, and its Demarcation Point.

- II.9. The UCA shall meet the UBO standards for the UCA's connection on the UBO's unmetered electrical bus.
- II.10. The UCA shall not make or break a connection on the UBO or Enersource's unmetered electrical bus.
- II.11 The UCA shall not allow other un-metered customers that are related by the same company/government/agency by ownership or affiliation, to connect to its un-metered electrical bus without a similar agreement with Enersource.
- II.12 The UCA acknowledges that use of the un-metered electrical energy from the UBO's un-metered electrical bus on an as-is basis and the UBO and Enersource shall not be liable for the reliability or power quality of the energy provided.
- II.13 As UCA Representative changes occur, the UCA shall provide Enersource with the required local UCA contacts for:
 - a. Planned field installations, adjustments, and removals,



b. 24/7 emergency response to repair, adjust, and remove attachments due to emergency work.

ARTICLE III

UBO'S COVENANTS

- III.1. The UBO shall be subject to the terms hereof, Enersource's Conditions of Service, at the UBO's sole cost.
- III.2. The UBO shall apply for permission in writing with Enersource in advance of its new connections.
- III.3. Each UBO connection shall be meet the Ontario Electrical Safety Code requirements and shall be approved for its connection by ESA.
- III.4. The UBO shall report any changes in writing to its connection with Enersource within five (5) Business Days.
- III.5. The UBO shall have a valid un-metered energy billing account with Enersource in good standing.
- III.6. The UBO shall have a Municipal Access Agreement, a temporary encroachment permit from the road authority, or legislative rights to install and maintain its equipment within the public road with of way.
- III.7. The UBO shall maintain and protect its electrical system is good working order.
- III.8. The UBO shall have accurate records of its electrical system location, loads, and its Demarcation Point.
- III.9. The UBO shall make and break the UCA connections with its competent Representative on its un-metered electrical bus provided that the UAC has provided reasonable written notice to the UBO.
- III.10. The UBO shall not make or break a connection on Enersource's un-metered electrical bus.
- III.11. The UBO shall not allow other un-metered Customers that are not related by the same company/government/agency by ownership or affiliation, to connect to its un-metered electrical bus unless authorized by the Ontario Energy Board. The UBO may allow other un-metered Customers that are related by the same company/government/agency by ownership or affiliation, to connect to its un-metered electrical bus by executing this agreement with Enersource.
- III.12. As UBO Representative changes occur, the UBO shall provide Enersource with the required local UBO contacts for:



- a. Planned field installations, adjustments, and removals,
- b. 24/7 emergency response to repair, adjust, and remove attachments due to emergency work.

ARTICLE IV

ENERSOURCE'S COVENANTS

- IV.1. Enersource shall be subject to the terms hereof and its Conditions of Service.
- IV.2. Enersource shall not connect the UBO or allow connection of the UCA without approval from ESA for their new or modified electrical connections.
- IV.3. Enersource shall maintain and protect its electrical system is good working order.
- IV.4. Enersource shall bill the UBO and UCA for use of their un-metered energy as a result of this Agreement through UBO and UCA's un-metered energy account(s) with Enersource.
- IV.5. Enersource may break the UCA connection on the UBO's un-metered electrical bus during an Emergency, when the UCA is in arrears for its energy account(s) with Enersource, or when ordered by a Governmental Authority. Enersource shall notify the UBO and the UCA of such disconnection.
- IV.6. Enersource shall respond to the UCA unplanned outage notification (see Enersource Conditions of Service Appendix M. If the outage is with Enersource's system, it will proceed to rectify the electrical supply. If the outage is not from Enersource's system, the UCA is to contact the UBO's Representative to coordinate the investigation and repairs(s) as required.

ARTICLE V

RIGHT OF TERMINATION

- V.1. Enersource shall be entitled to terminate this Agreement by notice in writing to the UBO and the UCA if, in the opinion of Enersource, the UBO and the UCA are in substantial breach of this Agreement and fails to rectify such breach within thirty (30) Business Days of notice in writing delivered to them by Enersource or fails to commence such rectification within the said time and proceed with dispatch to its completion or if the breach cannot reasonably be rectified within thirty (30) Business Days.
- V.2. Any Governmental Authority with jurisdiction of any or all parts of this Agreement shall be entitled to terminate this Agreement by notice in writing.
- V.3 The UBO can terminate any UCA connections do to re-arrangements or additional capacity requirements with the UBO's un-metered bus with ninety (90) days written



notice to the UAC and Enersource. On such a termination, the UCA may request a supply point directly from Enersource.

V.4 If for whatever reason the UBO and the UCA relationship by the same company/government/agency by ownership or affiliation ceases, the UCA notify Enersource within thirty (30) Business Days and remove all of its electrical connections from the UBO's un-metered electrical bus within 180 Business Days.

ARTICLE VI

NOTICE

- VI. Any notice required or contemplated by this Agreement shall be in writing and shall be conclusively deemed to have been given to the party to whom it is addressed if the same is mailed by registered mail, post prepaid as follows:
 - (a) to Enersource if delivered or mailed by prepaid post addressed to Enersource at:

2185 Derry Rd. West Mississauga, Ontario L5N 7A6 Attention: Vice President, Asset Operations

(b) to the UBO if delivered or mailed by prepaid post addressed to the UBO at:

Attention:

to the UCA if delivered or mailed by prepaid post addressed to the UCA at:

Attention:

VI.2. Each party has the right to change its address for the purpose of servingcing notices and invoice by notice to the other at the address then in force.

ARTICLE VII

TERM OF AGREEMENT

Time shall be the essence of this Agreement. The term of this Agreement shall be from the date of execution to the Termination date and the payment of all Enersource costs.

ARTICLE VIII

ASSIGNS AND SUCCESSORS



- VIII.1. This Agreement and all covenants, conditions, and provisions herein contained shall enure to the benefit of and be binding upon each of the parties hereto and their respective heirs, executors, administration, successors and permitted assigns.
- VIII.2. No Party may assign this Agreement without the prior written consent of the others, not to be unreasonably withheld. Any assignment without such consent will be void and of no effect.

ARTICLE IX

GOVERNING LAW

- IX.1. This Agreement and the rights of the parties hereto hereunder shall be governed by and construed according to the laws of the Province of Ontario and the federal laws of Canada applicable therein.
- IX.2. If any item of this Agreement shall be found to be unlawful, such term shall be deemed to be severable and the remainder of this Agreement shall be and remain in full force and effect.

ARTICLE X

NO PARTNERSHIP / JOINT VENTURE / AGENCY

The parties expressly disclaim any intention to create a partnership, joint venture or agency. It is understood and agreed that nothing contained in this Agreement nor any acts of any party will constitute or be deemed to constitute neither the parties as partners or joint venturers nor any party as agent of the other for any purpose.

IN WITNESS THEREOF the parties hereto have caused this Agreement to be executed by their respective representatives duly authorized in that behalf.

UBO:	UCA:
Namo	
Name.	Name.
Title:	Title:
Date:	Date:
I have authority to bind the Corporation	I have authority to bind the Corporation

Enersource Hydro Mississauga Inc.

Name:

Title:

Date:

I have authority to bind the Corporation



APPENDIX R DELTA TO WYE CONVERSION REQUIREMENTS

It is the responsibility of the customer to ensure the following requirements are met:

- (1) Check and clear any ground fault within the Customer's internal electrical distribution system.
- (2) Remove all existing ground indicators and all openings filled.
- (3) Ensure the Customer's overcurrent protection is adequate for the available fault current it must interrupt.
- (4) Provide and install neutral block in the service box (main disconnect switch) as per ESA requirement.
- (5) Provide and install ESA-approved grounding electrode for incoming Neutral conductor connection. The Neutral conductor need not extend past the Neutral block in the service box (main disconnect switch).
- (6) Provice and install ESA-approved identifier/label indicating "Neutral conductor is used for metering purposes only".
- (7) Provide and install ground fault protection as per ESA requirements for following circuits:
 - (a) A service rated 600Y/347 volts and 1000 A and more; and
 - (b) A service rated 208Y/120 volts and 2000 A and more.
- (8) Obtain approval (Connection Authorization) from the ESA inspector before energization of the hydro service.
B-STAFF-28 ATTACHMENT 3 ALECTRA UTILITIES CONDITIONS OF SERVICE – HORIZON UTILITIES RATE ZONE





CONDITIONS OF SERVICE

EFFECTIVE JANUARY 1, 2015





The Distribution System Code ("DSC") requires that each distributor produce a "Conditions of Service" document. The purpose of this document is to provide a means for communicating the types and level of service available to the Customers within Horizon Utilities Corporation's service area. The DSC requires that the Conditions of Service be readily available for review by the general public. In addition, the most recent version of the document must be filed with the Ontario Energy Board ("OEB") for the purpose of facilitating dispute resolutions in the event that a dispute cannot be resolved between the Customer and Horizon Utilities.

Horizon Utilities' Conditions of Service document is based on the template presented in Appendix A of the DSC and is organized as follows:

- Section 1 (Introduction): contains references to the legislation that covers the Conditions of Service, the rights of the Customer and of Horizon Utilities, and the dispute resolution process.
- Section 2 (Distribution Activities [General]): contains references to services and requirements that are common to all Customer classes. This section covers items such as Rates, Billing, Hours of Work, Emergency Response, Power Quality, Available Voltages, and Metering.
- Section 3 (Customer Class Specific): contains references to services and requirements specific to individual Customer classes. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Special Contracts, etc.

Other sections in the document include the Glossary of Terms and Appendices.

Subsequent changes will be incorporated with each submission to the OEB. Comments on the Conditions of Service or subsequent revisions can be emailed to <u>info@horizonutilities.com</u>. Horizon Utilities will file with the OEB a summary of public comments received from Customers about the Conditions of Service and any subsequent changes.





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SECTION 1 INTRODUCTION

1.1 Identification of Distributor and Territory

Horizon Utilities Corporation, referred to herein as "Horizon Utilities" or "Distributor", is incorporated under the laws of the Province of Ontario to distribute electricity to Customers within its licensed service area as defined in Schedule 1 of the Electricity Distribution Licence ED-2006-0031 issued to Horizon Utilities by the OEB. Schedule 1 can be found in **Appendix H**.

The licensed service area generally consists of those parts of the City of Hamilton and the City of St. Catharines to which Horizon Utilities' distribution lines extend, except the areas serviced by Hydro One Networks Incorporated. Specific details of Horizon Utilities' service area boundary are outlined in **Appendix H**. Horizon Utilities' service area is subject to change with OEB approval.

Nothing contained in the Conditions of Service or in any contract for the supply of electricity by Horizon Utilities shall prejudice or affect any rights, privileges, or powers vested in Horizon Utilities by law under any Act of the Legislature of Ontario or the Parliament of Canada, or any regulations.

1.2 Related Codes and Governing Laws

Horizon Utilities operates in accordance with the applicable provisions of:

- Electricity Act
- Ontario Energy Board Act
- Electricity Distribution Licence
- Electricity Distribution Rate Handbook
- Affiliate Relationships Code ("ARC")
- Distribution System Code ("DSC")
- Retail Settlement Code ("RSC")
- Standard Supply Service Code ("SSS")
- Transmission System Code ("TSC")
- Electricity and Gas Inspection Act
- Ontario Electrical Safety Code ("OESC")
- Public Service Works on Highways Act
- Ontario Building Code
- Employment Standards Act
- Personal Information Protection and Electronic Documents Act ("PIPEDA")
- Municipal Freedom of Information and Protection of Privacy Act ("MFIPPA")
- Bankruptcy Act
- Accessibility for Ontarians with Disabilities Act ("AODA")
- Independent Electric System Operator (IESO) Market Rules
- Occupational Health and Safety Act
- Environmental Protection Act
- Green Energy Act 2009
- Law Enforcement and Forfeited Property Management Statute Law Amendment Act, 2005
- Customer Protection Act
- Any other obligation or requirement as prescribed by legislation or regulations Canada's Anti-Spam Law ("CASL")
- In the event of a conflict between the Conditions of Service and any of the Codes or Acts listed above, the Code or Act listed above shall prevail. In the event of a conflict between any of the Codes and any of the Acts listed above the Acts listed above shall prevail.



In the event of a conflict between the Conditions of Service and a Connection Agreement executed by the Customer and Horizon Utilities, the Connection Agreement shall govern.

Customers and their agents must plan and design the required electricity service with adherence to all applicable provincial and Canadian electrical codes, and all other applicable federal, provincial, and municipal laws, regulations, codes, and bylaws.





1.3 Interpretations

Words and phrases contained herein have the meanings ascribed to them in these Conditions of Service and in the documents listed in **Section 1.2**.

The division of these Conditions of Service into headings, Sections, paragraphs, subsections and the insertion of headings are for convenience of reference only and do not affect the interpretation of these Conditions of Service.

In these Condition of Services, unless there is something in the subject matter or context inconsistent therewith:

- Words or phrases importing the singular include the plural and vice versa.
- Words referring to a gender include any gender.
- Reference to a document, act, code or bylaw shall be reference to the document, act, code or bylaw as amended, re-enacted or replaced from time to time.
- Reference to a Section or Appendix refers to that Section or Appendix in the Conditions of Service unless stated otherwise.
- Any reference to duration of time in working days shall be a reference to the normal working days of Horizon Utilities and will not include any weekends, statutory holidays or holidays recognized by Horizon Utilities.

1.4 Amendments and Changes

The provisions of the Conditions of Service, and any amendments made from time to time, form part of any contract made between Horizon Utilities and any connected Customers or their agents. The most recent version of Horizon Utilities' Conditions of Service filed with the OEB will supersede all previous oral or written Conditions of Service of the Distributor, or those of its predecessor municipal electrical utilities.

When changes or amendments are made to the Conditions of Service, Horizon Utilities will provide notice to customers in accordance with the requirements of the DSC. Horizon Utilities may also post notice of changes to the Conditions of Service on its corporate website at: <u>www.horizonutilities.com</u>. The Customer may obtain a print version of the current document by contacting Horizon Utilities head office during normal business hours, Monday to Friday between 8:30 am and 4:30 pm. A reasonable fee for providing the Customer with a hard copy of this document will apply. The current version of the Conditions of Service is posted on the Corporation's website and can be downloaded from <u>www.horizonutilities.com</u>.





1.5 Contact Information for Horizon Utilities

Corporate Address:

Horizon Utilities Corporation

55 John Street North,

PO Box 2249 LCD 1,

Hamilton, ON L8N 3E4

Custon	ner Service:		
	Hamilton:	Phone: 905-522-9200, fax: 905-522-6228	
	St. Catharines:	Phone: 905-984-8961, fax: 1-866-731-0451	
	Toll-free	1-866-458-1236	
	Email:	info@horizonutilities.com	
	Normal Business Hours:	8:30 a.m. to 4:30 p.m. Monday to Friday (excluding holidays)	
Power Outage Inquiries:			
	Hamilton	905-522-6611	
	St. Catharines	905-684-8111	
Horizon Utilities Website:		www.horizonutilities.com	

1.6 Customer Rights

The Customer has the right to access Horizon Utilities' distribution system and services in accordance with the Conditions of Service and the applicable acts, regulations, and codes.

1.6.1 Obligation to Sell Electricity

Horizon Utilities is obliged to sell electricity to every Customer connected to its distribution system in accordance with:

- i.) Section 29 of the *Electricity Act*; and
- ii.) its Electricity Distribution Licence; and
- iii.) the requirements of codes and laws in Section 1.2

Except to a Customer who does not wish to purchase electricity from Horizon Utilities and advises Horizon Utilities in writing.

1.6.2 Access to Meter Information

The Customer has the right to interrogate the Customer's meter, and access meter information, or to assign these rights to others, in accordance with Section 11 of the Retail Settlement Code and any relevant technical specifications and codes.

1.6.3 Liability for Damage

Horizon Utilities will only be liable to the Customer and the Customer will only be liable to Horizon Utilities for any damages that arise directly out of the willful misconduct or negligence of:

- i.) Horizon Utilities in providing distribution services to the Customer; or
- ii.) the Customer in being connected to Horizon Utilities' distribution system; or



iii.) Horizon Utilities or the Customer in meeting their respective obligations under the Conditions of Service, their licences, and any other applicable codes and laws.

Neither Horizon Utilities nor the Customer will be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or goodwill, or for any indirect, consequential, incidental, or special damages including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

The Customer shall indemnify and hold harmless Horizon Utilities, its directors, officers, employees, and agents from any claims made by any third parties in connection with the construction, installation, and operation of the Customer's equipment.

Horizon Utilities assumes no risk and will not be liable for damages resulting from the presence of its equipment on the Customer's premises or approaches, or for any action, omission, occurrence, or negligence by any persons over whom the Corporation has no control as detailed in the Conditions of Service.

1.7 Distributor Rights

1.7.1 Assignment

The Distributor may on notice to the Customer assign all of its rights and obligations under this Agreement, in whole or in part, to any Affiliate which is a Distributor or to any other Person which is a Distributor (including by way of amalgamation) without the consent of the Customer; and upon such notice and assignment, Horizon Utilities shall have no further obligations or liabilities whatsoever under this Agreement

1.7.2 Access to Customer Property

Horizon Utilities requires access to a Customer's property in accordance with Section 40 of the Electricity Act in order to access such items as meters and metering equipment, overhead and underground plant, and/or to connect or disconnect equipment, or open or close circuits. At the request of Horizon Utilities, the Customer is required to provide keys and/or an area for mounting a key box to allow access to the above equipment.

In the event that access to a Customer's property is not made available within a reasonable time, Horizon Utilities may disconnect the supply of electricity to the Customer. Horizon Utilities' policies and procedures with respect to the disconnection process are further described in **Section 2.2- Disconnection/Reconnection Processes and Charges.**

Horizon Utilities may install a device at the metering point which allows Horizon Utilities access to safely connect or disconnect the supply of electricity as well as the right to relocate the meter to an accessible location on the Customer's property at the Customer's expense.

1.7.3 Safety of Equipment

The Customer will comply with all aspects of the Ontario Electrical Safety Code (OESC) to ensure that equipment is properly identified and connected for metering and operation purposes, and will correct any deficiencies in a timely manner. If the Customer does not take such action within a reasonable time, Horizon Utilities may disconnect the supply of electricity to the Customer.

The Customer will not build, plant or maintain any structure, tree, shrub or landscaping that would or could obstruct or encroach upon any clearance with the Distribution System, or interfere with the proper and safe operation of the Distribution System or Customer-owned equipment.



Where such obstruction or encroachment is discovered, Horizon Utilities will notify the Customer and provide a reasonable time for the Customer to remove any obstructions or reduce any encroachment. If the Customer does not remove such obstruction or reduce any encroachment within the time specified, Horizon Utilities may at the Customer's expense disconnect the supply of electricity to the Customer and/or remove or relocate the obstruction or in the case of shrubs or other vegetation, trim such obstructions, provided the shrubs or other vegetation do not pose a continuing obstruction or encroachment. Horizon Utilities will make best efforts to restore the property to its original state; however, Horizon Utilities will not be liable to the Customer for any damages. Horizon Utilities' policies and procedures with respect to the disconnection process are further described in Section 2.2 – Disconnection/Reconnection Processes and Charges.

The Customer will ensure that all electrical and mechanical equipment used by the Customer complies with the standards as outlined in **Section 2.3.2 – Power Quality**. The Customer agrees to take and use electricity in a manner that will not damage the equipment or other works of Horizon Utilities, or cause any wide or abnormal fluctuation of its line voltage or otherwise interfere with the use of electricity by other customers connected to Horizon Utilities' system.

The Customer will not use or interfere with the facilities of Horizon Utilities except in accordance with any written agreement with Horizon Utilities. The Customer grants Horizon Utilities the right to seal any point where a connection may be made on the line side of the metering equipment.

1.7.4 Damaged Electrical Equipment

The Customer will be required to pay the cost of repair or replacement of equipment owned by Horizon Utilities that has been damaged through the willful misconduct or negligence of the Customer and/or his agent(s) and/or employee(s) and/or constructor(s). The Customer is required to pay for such repair and replacement costs prior to reconnection of the service.

If a third party who is not under contract to the Customer damages equipment owned by Horizon Utilities, such as an accidental dig into energized underground cable, such third party will be responsible for the damages caused. Horizon Utilities will report all electrical contacts above 750 Volts to the Ministry of Labour.

1.7.5 Defective Customer Electrical Equipment

The Customer will repair or replace any equipment owned by the Customer that may affect the integrity or reliability of Horizon Utilities' distribution system. If the Customer does not take such action within a reasonable time, Horizon Utilities may disconnect the supply of electricity to the Customer. Horizon Utilities' policies and procedures with respect to the disconnection process are further described in **Section 2.2 – Disconnection/Reconnection Processes and Charges**.

1.7.6 Operating Control

The Customer will provide a convenient and safe place for the employees or agents of Horizon Utilities to install, maintain and operate its equipment at the Customer's premises.

The Customer will allow Horizon Utilities to install and use meters and other equipment at the Customer's premises to conduct tests to determine the electrical characteristics of the Customer's load.

The Customer will not allow any person to remove, replace, alter, repair, inspect or tamper with equipment owned by Horizon Utilities except an employee or an agent of Horizon Utilities, or other person lawfully entitled to do so. The Customer will be required to pay the cost of repairs or



replacement of Horizon Utilities' equipment that has been damaged, destroyed or lost by the direct or indirect act or omission of the Customer or the Customer's agent(s).

1.7.7 Customer-owned Physical Structures

The Customer is responsible for construction and maintenance of all civil works owned by the Customer on private property including, but not limited to, such items as poles, transformer vaults, transformer rooms, transformer pads, cable chambers, cable pull rooms and underground conduits. The Customer is also responsible for the repair or replacement of all civil works owned by the Customer on private property damaged as a result of tree roots or erecting of fence posts or other similar types of activities or occurrences. All civil work on private property must be inspected and accepted by both Horizon Utilities and the Electrical Safety Authority (ESA).

1.7.8 Allocation of Electricity During Emergencies

If the supply of electricity to Horizon Utilities is interrupted or reduced as a result of an emergency or equipment failure on the transmission or distribution system, Horizon Utilities, in its sole judgment, may allocate the available electricity among the Customer and other customers in its service area. An allocation of electricity under this Section shall be deemed not to be a breach of any contract.

1.7.9 Tree and Vegetation Management

Under the terms of the Electricity Act, adequate space or clearance and/or appropriate barriers must be provided between energized conductors, live electricity, operating equipment, and trees and vegetation. To ensure public safety and the continued reliable operation of its Distribution System, Horizon Utilities will maintain adequate space or clearance around its Distribution System on a cyclical or as-needed basis, in close cooperation with the municipality's forestry department or other applicable authorities. Horizon Utilities will maintain such adequate space or clearance whether located on the public road allowance or on easements over the Customer's property. The tree trimming cycle may vary depending on extent of storm damage, health of trees, and vegetation type.

Where a Customer owns the pole lines on his property, it is the Customer's responsibility to conduct tree trimming, brush and tree removal around these overhead lines and equipment so as to ensure that there is adequate space or clearance and/or appropriate barriers between pole lines, energized conductors, live electricity and the trees and bushes. Clearances must conform to the OESC. To facilitate the safe trimming or removal of brush and trees or other vegetation from overhead lines located on private property, Horizon Utilities will once each year, at the Customer's request, disconnect and reconnect the Customer's supply without charge and only during normal business hours. The Customer is required to give Horizon Utilities ten (10) days prior notice to receive this service.

1.7.10 Force Majeure

Neither the Customer nor Horizon Utilities shall be held to have committed an event of default in respect of any obligation under these Conditions of Service or the DSC if prevented from performing that obligation because of a force majeure event pursuant to Section 2.3 of the DSC.

1.8 Disputes

Any disputes between Consumers, Customers or Retailers and Horizon Utilities concerning the execution of Horizon Utilities' responsibilities under Section 16 of its Electricity Distribution Licence (for reasons other than termination of the Customer's Connection Agreement or disconnection of the Customer from Horizon Utilities' distribution system), will be settled according to the following dispute resolution process:



- i.) The Customer should endeavour to resolve the dispute by contacting a Horizon Utilities Customer Service Representative during regular business hours or email the complaint to info@horizonutilities.com.
- ii.) Upon receipt of the complaint, the Customer Service Representative will acknowledge its receipt within ten days (date stamped) and attempt to resolve the dispute through investigation and follow-up. If the Customer Service Representative cannot resolve the dispute to the satisfaction of the Customer, it will be referred to the appropriate Horizon Utilities' supervisor or manager who will attempt to resolve the dispute within 90 days.
- iii.) In the event that the dispute cannot be resolved between Horizon Utilities and the Customer, it may be referred to an independent third party complaints resolution agency approved by the OEB.
- iv.) Upon resolution of the dispute, the Customer may request and will receive a summary of the actions taken by Horizon Utilities in resolving the dispute. The Customer may also request and receive a copy of the code, policy or other document that affected the outcome of the dispute.

SECTION 2 DISTRIBUTION ACTIVITIES (GENERAL)

2.1 Connections – Process and Timing

Under the terms of the Electricity Act and the DSC, Horizon Utilities has the obligation to connect or to make an offer to connect any Customer that is within its service area.

The Customer or the Customer's representative is required to consult with Horizon Utilities concerning the availability of supply, the supply voltage, service location, metering and any other details. These requirements are separate from and in addition to those of the ESA. Horizon Utilities will confirm, in writing, the characteristics of the electricity supply.

The Customer or the Customer's representative is required to apply for new or upgraded electricity services and temporary power services in writing. The Customer will provide Horizon Utilities with sufficient lead-time in order to ensure:

- i.) the timely provision of new and upgraded electricity supply to a premise; or
- ii.) the availability of adequate capacity for additional loads to be connected in existing premises.

Horizon Utilities will make every effort to respond to a Customer's written request for a customer connection within fifteen (15) calendar days of receipt of the written request. Horizon Utilities will make an offer to connect within sixty (60) calendar days of receipt of the written request, unless other necessary information is required from the Customer before the offer can be made.

Horizon Utilities will notify the Customer of any extended lead times that may be necessary if the connection process requires special equipment or if equipment delivery problems arise.

In addition to any other requirements in the Conditions of Service, the connection of the Customer and the supply of electricity is conditional upon:

i.) Horizon Utilities being permitted and able to provide such a supply; and



- ii.) Horizon Utilities being able to obtain the necessary apparatus, material and easements; and
- iii.) Horizon Utilities being able to construct any necessary works required to provide the service; and
- iv.) The Customer having made application, provided necessary service details, accepted an Offer to Connect and paid any monies owing.

Should Horizon Utilities not be able to meet the conditions specified, Horizon Utilities shall have no obligation to connect or supply, and the Customer hereby releases Horizon Utilities from any such obligation or liability associated therewith.

When all conditions for a new or upgraded service have been met, Horizon Utilities will connect a new service of less than 750 Volts within five (5) working days, and a high-voltage service (greater than 750 Volts) within ten (10) working days (Section 5.2 of the OEB Electricity Distribution Rate Handbook).

Requirements regarding the process and timing of Embedded Generation Facility connections are set forth in **Section 3.7 – Embedded Generation**.

Requirements regarding the process and timing of Embedded Distributor connections are set forth in **Section 3.8 – Embedded Distributor**.

Requirements regarding Connection Agreements for an Embedded Market Participant, an Embedded Generator, an Embedded Distributor, and load transfers are set forth in **Sections 3.6, 3.7, 3.8, and 3.9.4**, respectively.

2.1.1 Building that Lies Along

For the purpose of the Conditions of Service, "lies along" means directly adjacent to or abutting the public road allowance where Horizon Utilities has distribution facilities of the appropriate voltage and capacity.

Under the terms of the DSC and as provided in Section 28 of the Electricity Act, Horizon Utilities has the obligation to connect a building or facility that "lies along" its distribution line, provided:

- i.) the building can be connected to Horizon Utilities' distribution system without an expansion; and
- ii.) the service installation meets the conditions listed in the Conditions of Service.

The location of the Customer's service entrance equipment is subject to the approval of Horizon Utilities and the ESA.

2.1.2 Expansions / Offer to Connect

If an expansion to Horizon Utilities' main distribution system is needed in order to connect a Customer, Horizon Utilities will make an offer in accordance with the DSC to construct the expansion and to charge the Customer, unless the Customer has been denied connection for the reasons specified in **Section 2.1.3 – Connection Denial**.

2.1.2.1 Expansions

An expansion is required when:

i.) building a new line to serve the connecting customer;





- ii.) rebuilding a single-phase line to three-phase to serve the connecting customer;
- iii.) rebuilding an existing line with a larger size conductor to serve the connecting customer;
- vi.) replacing a transformer to a larger MVA size;
- v.) converting a lower voltage line to operate at higher voltage;
- vii.) upgrading a voltage regulating transformer or station to a larger MVA size; and
- viii.) adding or upgrading capacitor banks to accommodate the connection of the connecting customer.

Where an expansion is required, the entire development will be treated as an expansion and, consequently, the Customer will not be eligible for a basic connection as detailed in **Appendix I**. Expansion Fees are referenced in **Appendix D**.

Where an expansion involves a commercial or industrial development in an area not previously serviced, and where the load and/or customer requirements are unknown, the developer is required to pay 100 per cent of the actual construction costs of the expansion. Each individual service resulting from the commercial or industrial development will be considered a new connection (see Section 2.1.2.2 – Offer to Connect).

The amount that Horizon Utilities charges a customer for the expansion, other than an Embedded Distributor or Embedded Generator, will include the calculated difference in present value between the projected capital and ongoing operating expenses and the projected revenue for distribution services due to the expansion along with other expenses permitted under the DSC. The methodology for conducting an economic evaluation is outlined in the DSC Appendix B. To determine the capital and ongoing maintenance costs of an expansion project, Horizon Utilities follows the process outlined in **Appendix E**.

If after calculating the economic evaluation of the project the Net Present Value (NPV) of the costs and revenues associated with the expansion is less than zero (i.e. negative), a capital contribution by the Customer in the amount of the shortfall is required.

When an expansion is required, the Customer may be required to enter into a Capital Cost Recovery Agreement (CCRA) with Horizon Utilities as outlined in **Appendix D**. The amount that Horizon Utilities charges a Customer for the expansion will be specified in the CCRA applicable to the expansion.

2.1.2.2 Offer to Connect

Horizon Utilities will provide one (1) offer to construct the expansion based on plans and load forecast submitted by the Customer. The initial estimate and the final economic evaluation will be calculated at no expense to the Customer. If the Customer subsequently submits revised plans, Horizon Utilities may provide, at the Customer's expense, a new offer based on the revised plans.

Horizon Utilities will provide the preliminary planning, design consultation and engineering specifications for the expansion and connection, and include these costs in the capital cost calculation for the work. Upon acceptance of an Offer to Connect, the Customer enters into a Capital Cost Recovery Agreement as defined in **Appendix D**.



2.1.2.3 Alternative Bid Option

A Customer requesting a connection that requires an expansion has the choice of obtaining alternative bids to construct the expansion and connection assets that are eligible for the alternative bid, if the work:

- i.) requires a capital contribution from the Customer; and
- ii.) will not involve work on Horizon Utilities' existing distribution assets.

If an expansion meets the above criterion it will be defined as "the work that is subject to alternative bid". If a Customer chooses to obtain the services of a contractor to construct the assets that are eligible for the work that is subject to alternative bid, the Customer is required to follow the conditions and requirements as outlined in Horizon Utilities' Residential Development Engineering Guide including:

- i.) select and hire the contractor from Horizon Utilities' list of approved contractors; and
- ii.) assume full responsibility for the construction of that aspect of the expansion; and
- iii.) pay Horizon Utilities to inspect all aspects of the constructed assets as part of the system commissioning and prior to connecting the constructed facilities to the existing distribution system; and
- iv.) perform all other requirements as outlined in Appendix D2 and D4.

2.1.2.4 Capital Contributions

Horizon Utilities will collect the estimated capital contributions as calculated in the economic evaluation model (see **Appendix E**) at the time specified in the CCRA. If the Customer has chosen Horizon Utilities to construct the expansion facilities based on an initial estimate, the actual capital costs to construct the expansion facilities will be used in the final economic evaluation calculation. Where the Customer has chosen the alternative bid option, the capital costs to be used in the final economic evaluation will be the lower of Horizon Utilities' offer to construct for the work that is subject to alternative bid or the actual construction costs as supplied by the Customer, plus Horizon Utilities' capital costs to construct to alternative bid.

2.1.2.5 Expansion Deposit

For expansions that require a capital contribution, Horizon Utilities may require an expansion deposit equal to 100 per cent of the present value of the projected revenues.

For expansions that do not require a capital contribution, Horizon Utilities may require an expansion deposit equal to 100 per cent of the present value of the projected capital and ongoing operating expenses.

Where the Customer has chosen the alternative bid option and Horizon Utilities is required to complete, repair or bring up to standard any part of the constructed facilities, such costs shall be covered by the expansion deposit.

Where the Customer has chosen the alternative bid option, Horizon Utilities will retain 10 per cent of the expansion deposit for a warranty period of two (2) years. Such warranty period begins after the entire expanded primary distribution system is energized. Once the facilities are energized, Horizon Utilities shall annually review and reassess the level of deposit required, based on actual loads for commercial and industrial developments



and number of connections for residential developments, and if warranted, return a percentage of the deposit. This calculation shall be performed annually for the term of the agreement. At the end of the agreement, if the Customer forecasted demand (for commercial and industrial developments) or Customer forecasted connections (for Residential developments) have not materialized, Horizon Utilities shall retain the remaining portion of the Expansion Deposit. (see **Appendix D2 or D4**) for details of the annual reduction).

Upon the completion of the two-year warranty period and subject to a final inspection by Horizon Utilities and the satisfactory correction by the Customer of any deficiencies revealed by the inspection, Horizon Utilities will refund the remaining portion of the expansion deposit, less any security amount used by Horizon Utilities in repairing any deficiencies, and provided that at least 10 per cent of the customer connections/kW load have materialized.

Horizon Utilities will retain any balance of the expansion deposit as an additional capital contribution at the end of the five-year connection horizon for any connections or kW that did not materialize.

2.1.3 Connection Denial

Horizon Utilities may deny connection by refusing to connect or by disconnecting a Customer for the following reasons:

- contravention of the laws of Canada or the Province of Ontario
- non-compliance with a court order
- non-compliance with an order or direction from the Independent Electricity System Operator (IESO)
- failure on the part of the Customer to comply with a directive that Horizon Utilities has given for the purpose of satisfying its licence obligations
- non-compliance with an order from the ESA or regulations of the OESC
- a stop-work order under the Building Code Act ("Ontario")
- existence of an unsafe worker situation beyond normal risks inherent in the operation of Horizon Utilities' distribution system
- direct hazard to the public
- adverse effect on the reliability or safety of Horizon Utilities' distribution system
- a material decrease in the efficiency of Horizon Utilities' distribution system
- a materially adverse effect on the quality of distribution services received by an existing connection
- inability of Horizon Utilities to perform meter reading, planned inspections or maintenance
- action on the part of the Customer to prevent access to distribution service by other Customers
- non-payment of a security deposit identified in the Conditions of Service
- arrears on payment for distribution services
- non-compliance with Horizon Utilities' technical requirements
- failure on the part of the Customer to enter into a Connection Agreement where required by the DSC and/or Horizon Utilities
- failure on the part of the Customer to comply with a term of any agreement made between the Customer and Horizon Utilities, including but not limited to a Connection Agreement or a Capital Cost Recovery Agreement



Horizon Utilities will inform the Customer of the reason(s) for denial and, where Horizon Utilities is able to provide a remedy will make an offer to connect or reconnect. If Horizon Utilities is unable to provide a remedy to resolve the issue, it is the Customer's responsibility to do so before a connection or reconnection can be made.

If Horizon Utilities determines that unsafe conditions exist on a Customer's property, Horizon Utilities may make application to the ESA for an inspection of the property.

2.1.4 Inspections Before Connection

A Customer is required to apply to the ESA for inspection of an electrical installation or part thereof before Horizon Utilities will connect or reconnect the Customer to its distribution system.

Before connecting to Horizon Utilities' distribution system, Horizon Utilities will inspect all electrical connections to ensure that they satisfy the Distributor's technical requirements. This inspection is not required when a protective device acceptable to Horizon Utilities separates the connection. Horizon Utilities will not connect a Customer if the connection does not satisfy its technical requirements.

Horizon Utilities may at any time re-inspect any electrical installation.

2.1.5 Relocation of Plant

If a Customer requests the relocation of any distribution plant such as meters, wires, poles, or other equipment owned by Horizon Utilities, Horizon Utilities will attempt to accommodate the request provided it will not result in degradation to system reliability.

The Customer will pay to Horizon Utilities the costs incurred for relocation of plant unless Horizon Utilities determines that the equipment was improperly located or due to be replaced. The Customer will also be responsible for any third-party transfer or rearrangement costs incurred by tenants with facilities on a relocated pole.

When a road authority requests a relocation of a Horizon Utilities' plant located on the public road allowance, the costs shall be shared, as outlined in the Ontario Public Service Works on Highways Act.

Horizon Utilities is not obligated to relocate its equipment. However, a relocation issue will be resolved with the requestor in a fair manner including an explanation of the feasibility or infeasibility of the relocation, and of a reasonable charge for relocation based on cost recovery principles.

2.1.6 Easements

Easements are required whenever Horizon Utilities facilities must pass over or under a private property in order to service a Customer other than the owner of that property. The Customer grants to Horizon Utilities the right, privilege and easement to use free of charge or rent as much of the Customer's land as Horizon Utilities may deem necessary, Horizon Utilities acting reasonably, to supply electricity to the Customer and another or other Customers. Where any of the Corporation's distribution equipment is on the Customer's lands at the date of any Connection Agreement, such right includes the maintenance and use of the distribution equipment in its present location.



The Customer will be responsible for acquiring, at his expense, all the necessary easements when portions of the Horizon Utilities' distribution system must be located on lands owned by another party for the benefit of the customer.

2.1.7 Contracts

2.1.7.1 Special Contracts

Special contracts and agreements that are outside the terms of a Connection Agreement for standard supply and that are specific to the service requested by the Customer normally include but are not limited to:

- construction sites
- mobile facilities
- non-permanent structures
- special occasions
- Embedded Generation Facilities
- load transfers with neighbouring distributors

2.1.7.2 Capital Cost Recovery Agreement (CCRA)

Where Horizon Utilities is entitled under the Conditions of Service to recover all or a portion of the costs of a connection or expansion, and/or to require that a Customer provide a revenue guarantee, Horizon Utilities requires that the Customer sign a Capital Cost Recovery Agreement as presented in **Appendix D** prior to the start of any construction activities involved with the connection or expansion. The Capital Cost Recovery Agreement describes the work Horizon Utilities will perform in respect of the connection or expansion, and any other conditions set forth in the Corporation's Offer to Connect, together with the applicable payment terms (including revenue guarantees, capital contributions, and/or expansion deposits).

2.1.7.3 Meter Communications Agreement

Horizon Utilities will, upon written request, provide a Customer with regular access to its interval meter information in accordance with Section 11.2 of the Retail Settlement Code, provided that the Customer has signed an Interval Meter Communications Agreement as presented in **Appendix F**.

2.1.7.4 Assignment and Succession

All agreements and contracts are binding upon Horizon Utilities and the Customer and their heirs, executors, administrators, successors, and assigns, respectively. The Customer cannot assign without prior written notice and written consent by Horizon Utilities. Such consent will not be unreasonably delayed or withheld.

2.2 Disconnection/Reconnection Processes and Charges

Horizon Utilities may disconnect a Customer or consumer as specified in **Section 2.1.3 Connection Denial**.

Horizon Utilities will provide a notice by personal service or prepaid mail, or by posting the notice on the Customer's property in a conspicuous place, prior to disconnection for an overdue account. The notice will be provided a minimum of7 (seven)) days in advance for non-residential customers and a minimum of ten (10) days in advance for residential customers.



The Customer, if eligible, will be advised that programs and / or assistance may be available to avoid disconnection.

Where the Customer is being disconnected for non-payment, Horizon Utilities will provide a Fire Safety Notice and any other relevant public safety notices to the Customer prior to disconnection.

Horizon Utilities will suspend the supply of electricity when a fire or other casualty occurs in the Customer's premises rendering the premises unfit for occupancy. The supply of electricity will be suspended until such time, as the electrical installation has been repaired and approved by the ESA.

Where a Customer has been disconnected from Horizon Utilities' distribution system for six (6) months or longer, Horizon Utilities may deem that the Customer is no longer a Horizon Utilities' Customer and require that the conditions of a "new service" be met upon receipt of a reconnection request. The Customer is required to apply to the ESA for inspection of the electrical installation before Horizon Utilities can reconnect the Customer.

Where a service has been disconnected for a period exceeding two (2) years, Horizon Utilities does not guarantee the availability of capacity. Any new service installed at the same location will be considered a new connection for purposes of calculating the amount the Customer will pay in accordance with the Conditions of Service.

Where a Customer has been disconnected from Horizon Utilities' distribution system, Horizon Utilities will require visual confirmation that the Customer's main disconnect device is safely disconnected or, alternatively, request the presence of the Customer at the location, prior to reconnecting the service.

Horizon Utilities will provide at no charge one (1) disconnect and reconnect per service during normal business hours in a calendar year for the purpose of maintaining electrical equipment owned by the Customer. If a Customer asks for disconnection more than once in a calendar year, the Customer will pay to Horizon Utilities the actual costs for disconnecting and reconnecting its connection assets. When the Customer requests that the disconnection/reconnection occur outside of normal business hours, the Customer will be charged the premium labour overtime rate.

For situations where Horizon Utilities owned equipment is located on a Customer's property, Horizon Utilities will disconnect and reconnect this equipment for maintenance purposes during normal business hours. If a customer requests that the disconnection/reconnection occur outside normal business hours, the Customers will be charged the premium overtime.

Horizon Utilities will not disconnect a Customer from its distribution system at the direction of a Retailer when an amount payable by a Customer to a Retailer is overdue.

The Horizon Utilities Schedule of Rates and Charges, including those associated with non-payment of account and disconnection / reconnection of supply of electricity are included in Appendix A.

2.2.1 Unauthorized Energy Usage

Horizon Utilities reserves the right to disconnect the supply of electricity without notice to a Customer for reasons of unauthorized energy use by the Customer including, but not limited to, energy diversion, fraud or abuse. Horizon Utilities will not assume any responsibility for damages caused by the disconnection.



The Customer will pay Horizon Utilities for all costs incurred by Horizon Utilities including, but not limited to, investigation and administration, repairs to damaged equipment, disconnect/reconnect, and estimated lost energy as calculated by Horizon Utilities.

The following conditions must be met before the service will be reconnected:

- i) the Customer has provided an ESA inspection for all repairs to the service and, if requested by Horizon Utilities, will provide an ESA inspection of the entire service; and
- ii) the Customer has paid in full to Horizon Utilities all costs, charges and security deposits.

Unauthorized use of energy is a criminal offence, and Horizon Utilities will notify, as appropriate, Measurement Canada, the ESA, the police and Retailers (if applicable).

2.3 Conveyance of Electricity

2.3.1 Limitations on the Guarantee of Supply

Horizon Utilities does not guarantee a regular and uninterrupted supply of electricity. Horizon Utilities will not be liable for damages to the Customer by reason of any failure in respect to supply of electricity. A Customer who needs a higher degree of security with regard to the supply of electricity is required to provide backup or stand-by facilities or protective devices at the Customer's own expense.

On occasion Horizon Utilities may be required to interrupt a Customer's supply of electricity to expand, remove, maintain or operate its distribution system in a reasonable and safe manner. In such circumstances, Horizon Utilities will endeavour to provide one (1) day's written notice to Customers in advance of, or to arrange a time for, the interruption whenever it is reasonable and practical to do so, except in the event of an emergency, critical risk to the reliability of its distribution system, or impending equipment damage.

Customers requiring a three-phase supply should install protective apparatus at the Customer's own expense, to avoid damage to equipment that may be caused by the interruption of one-phase or non-simultaneous switching of phases of Horizon Utilities' supply.

2.3.2 Power Quality

Horizon Utilities will endeavour to deliver a reliable supply of electrical energy to its Customers, but cannot guarantee unvaried voltage or frequency.

During periods of high load on the bulk transmission system or on the distribution system, it may be necessary for the IESO and/or Horizon Utilities to impose rotating load cuts to maintain system stability. Under these conditions, supply will be interrupted to specific feeders within Horizon Utilities' service territory on a scheduled basis.

When a Customer identifies a power quality concern, Horizon Utilities will perform investigative analysis to determine the underlying cause. Upon determination of the cause, Horizon Utilities will recommend and/or take appropriate mitigation measures. If Horizon Utilities determines that the problem lies within the Customer's system, the Corporation may at its discretion require reimbursement from the Customer for the costs of investigating the complaint. These costs will be considered costs of providing distribution services to the Customer and will adhere to Horizon's collection policies up to and including disconnection for non-payment.



Customers requiring an uninterrupted source of power for life-support equipment must provide their own equipment for these purposes. Customers with life-support systems are encouraged to inform Horizon Utilities Customer Services Department of their needs and their available backup power. Customers are responsible for ensuring that the information they provide to Horizon Utilities is accurate and up to date. For planned interruptions, Horizon Utilities will notify Customers requiring life-support systems in the same manner as other Customers. For unplanned interruptions anticipated to extend beyond two (2) hours, Horizon Utilities will endeavour to contact Customers requiring life-support systems but will not be liable in any manner to them for failure to do so.

The Customer's equipment will comply with the limitations for permissible distortion caused by harmonic currents and voltages as described in Tables 10.3 to 10.5 inclusive and Table 11.1 of the Institute of Electrical and Electronic Engineers Standard 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electric Power Systems, and will not cause the voltage distortion factor to exceed 5 per cent of the fundamental frequency voltage at the point of supply.

Where use of the Customer's equipment interferes with the supply of electricity to other Customers or requires the installation of other than normal connection assets, Horizon Utilities may, at its discretion, require the Customer to cease use of, or make alterations to, the offending equipment. The Customer may also be required to pay the cost of any additional connection assets that may be required as a condition of continuing the connection to that Customer, failing which Horizon Utilities may disconnect the Customer from its distribution system.

Horizon Utilities will maintain a voltage supply at the ownership demarcation point within the normal operating conditions and limits as specified in the Canadian Standards Association (CSA) Standard CAN3-235, Preferred Voltage Levels for AC Systems 0 V to 50,000 V, and voltage unbalance will be limited to 2 per cent (as specified in CAN/CSA E1000-2-2-97, rev. 2001, Compatibility Levels for Low-frequency Conducted Disturbances and Signaling in Public Low-voltage Power Supply Systems).

2.3.2.1 Emergency Service

In the event of a power interruption, the Customer should first ensure that failure is not within the Customer's own electrical system. Where the Customer has determined that the power interruption is a result of loss of supply from Horizon Utilities, the Customer should report these conditions at once to Horizon Utilities' Customer Service; Hamilton: Phone: 905-522-9200 St. Catharines: Phone: 905-984-8961

Horizon Utilities operates a Control Room twenty-four hours a day to provide emergency service to Customers. Horizon Utilities will initiate restoration efforts as quickly as practicable.

2.3.3 Electrical Disturbances

In the event of a force majeure, Horizon Utilities will not be held liable for the failure to deliver a reliable supply of electricity and unvaried voltage and frequency to its Customers.

A Customer that owns equipment connected to Horizon Utilities' distribution system must ensure that the operation or failure of that equipment does not cause an outage, disturbance or voltage fluctuation on the distribution system or on the systems of any third party.



If Horizon Utilities determines that the Customer's equipment is causing an undesirable system disturbance, the Customer will be required to cease operation of the equipment and to initiate remedial action. Horizon Utilities may require the Customer to install, at the Customer's expense, additional facilities to nullify the undesirable effects. The Customer is required to eliminate the cause of any outages, disturbances, fluctuations or interferences, or reduce them to a level deemed tolerable by Horizon Utilities. If the Customer does not take action within a reasonable time, Horizon Utilities may disconnect the supply of electricity to the Customer in accordance with **Section 2.2 – Disconnection/Reconnection Processes and Charges**.

2.3.4 Standard Voltage Offerings

Horizon Utilities distributes electricity at the following voltages and phases, as available:

i.) <u>High Voltage</u>

16,000/27,600 Volt three-phase four-wire; or 8,000/13,860 Volt three-phase four-wire; or 2,400/4,160 Volt three-phase four-wire (300 kVA maximum).

ii.) Low Voltage

347/600 Volt three-phase four-wire; or 120/208 Volt three-phase four-wire; or 120/240 Volt single-phase three-wire.

Although Horizon Utilities can provide the above voltages, they are not always available from the portion of the distribution system that the building lies along. The Customer is required to consult with Horizon Utilities to determine what voltage is available at any particular site. It may be necessary to expand the distribution system in order to provide the requested voltage. If an expansion is required, Horizon Utilities may require that the Customer provide a Capital Contribution in accordance with **Section 2.1.2.4 Capital Contribution**. Customers requiring voltages different from those available in their area will be required to provide their own step-down or step-up transformation equipment.

2.3.5 Backup Generators

Customers who are planning to acquire backup generation equipment are required to consult with Horizon Utilities during planning and prior to the installation of the backup generation.

Customers with permanently connected emergency generation equipment are required to notify Horizon Utilities regarding the presence of such equipment.

Customers with portable or permanently connected emergency generation capability are required to comply with all applicable criteria of the OESC and, in particular, will ensure that the emergency generation does not back feed on Horizon Utilities' distribution system.

2.3.6 Metering

2.3.6.1 General

Horizon Utilities will provide, install, own and maintain a meter installation for all Customers except where the Customer or Embedded Distributor is an Embedded Market Participant. All metering equipment will remain the property of Horizon Utilities, and maintenance of this equipment will be the sole responsibility of Horizon Utilities.



The type of metering will be based on the Customer's rate class, energy consumption and peak load. The security and accuracy of the metering will be maintained under regulations and standards established by Measurement Canada and Horizon Utilities. The Customer will make provision for the meter installation in a form and in such location as provided in **Section 3 – Customer Class Specific**.

Where practical, the meter installation will be located at the operational demarcation point or point of supply.

Where access to the meter is restricted or where Horizon Utilities deems a self-contained meter to be in a hazardous location, the Customer is required to relocate the meter or agree to the installation of a remotely-read interval meter.

Every person who prevents or refuses lawful access to any meter in his possession or control is in contravention of the Electricity and Gas Inspection Act., and is liable on summary conviction or indictment to a fine as prescribed by the Act.

2.3.6.2 Instrument Transformer Enclosures

A Customer who requires a transformer-type meter installation will provide an acceptable instrument transformer enclosure as specified in the Meter Installation Standards in **Appendix G**.

2.3.6.3 Interval Metering

Any new installation that is forecast to have a monthly average peak demand during a calendar year of over 50kW will have an electricity meter which can record energy usage in hourly or sub hourly intervals and is read remotely via Horizon Utilities' approved meter communication platforms.

. All Customers will be provided access to their interval data. Demand levels for interval metering are subject to change based on government regulations.

Where applicable the Customer shall

- i.) install, maintain and pay the cost of a communication system that satisfies the requirements of Horizon Utilities and provide an ongoing communication line or communication link with the interval meter; and
- ii.) enter into an Interval Meter Communication Agreement as presented in Appendix F.

2.3.6.3.1 Interval Metering with Pulse Outputs

Horizon Utilities will provide an interval meter with pulse outputs upon written request from the Customer or through the Customer's Retailer in accordance with the Retail Settlement Code. The Customer will be responsible for all incremental costs, including the capital cost of the meter and installation.

2.3.6.4 Metering for Embedded Generation Facilities

Metering for an Embedded Generating Facility electrically connected to Horizon Utilities distribution system or connected to a load customer connected to Horizon Utilities distribution system must comply with:



- i.) Horizon Utilities' metering standards; and
- ii.) Measurement Canada requirements; and
- iii.) ESA requirements; and
- iv.) applicable IESO Market Rules; and
- v.) the Distribution System Code.

Any customer with an Embedded Generation Facility that sells energy and settles through Horizon Utilities' retail settlement system shall be responsible for:

- i.) all costs for Horizon Utilities to install the metering; and
- ii.) the costs to have a communication line installed and maintained unless other arrangements have been made which are suitable to Horizon Utilities.

2.3.6.4.1 Revenue Metering Standards

Revenue Metering Standards consist of the following, based on the connection configuration and the total on-site nameplate ratings of the generating facilities installed:

- i.) one or two two-register energy meters, measuring KWh delivered and KWh received; or
- ii.) one or two two-register interval meters connected to the Customer's telephone or Horizon Utilities' approved communication system; or
- iii.) one or two four-quadrant interval meters connected to the Customer's telephone line or Horizon Utilities' approved communication system.

2.3.6.4.2 Net Metering

Horizon Utilities will offer a net metering option to load customers who install a Generation Facility in accordance with Ontario Ministry of Energy Regulation 541/05, and who meet the following criteria:

- i.) the electricity generated by the Generating Facility is primarily for the Generator's own use; and
- ii.) the electricity generated by the Generating Facility is from a renewable energy source as approved by the Ministry of Energy; and
- iii.) the maximum accumulative output capacity of the Generating Facility does not exceed 500 kW; and
- iv.) the Generator conveys the electricity from the point of generation to the point of consumption within the same service location without utilizing Horizon Utilities' distribution system.

2.3.6.4.3 Feed-in Tariff Metering

In accordance with the Ontario Energy Board direction and Measurement Canada requirements, Horizon Utilities will offer to customers who have contracts with the Ontario Power Authority under the Feed-In Tariff (FIT) program and micro-FIT program, metering with the following connection configurations:

i.) Indirectly Parallel: where the generator is connected on the supply side of a load meter; and





ii.) Directly Parallel: where the generator is connected directly to Horizon Utilities' distribution system.

In-series metering configurations shall not be permitted.

2.3.6.5 Metering of Common Areas (Multi-unit Residential Buildings)

In multiple occupancy building structures, the supply of electricity to the common areas will be separately metered and independent of any other occupant's meter installation.

2.3.6.6 Meter Reading

The Customer is required to provide or arrange for free, safe and unobstructed access during normal business hours to any authorized representative of Horizon Utilities for the purpose of meter reading. If the Customer's premises are closed during Horizon Utilities' normal business hours, the Customer must, on reasonable notice, arrange for access at a mutually convenient time.

If the Customer fails to provide access and Horizon Utilities is unable to obtain a reading of the meter on the Customer's premises, the Customer may be required to provide a meter reading or pay a sum based on an estimate of energy use by the Customer and/or demand for electricity since the last meter reading by Horizon Utilities.

Horizon Utilities requires access to its meters at least once each year to read and visually inspect the meter. Failure to provide access will result in the relocation of the meter at the Customer's expense. Where the Customer does not comply with the request for access or relocation, Horizon Utilities may disconnect the Customer in accordance with **Section 2.2 – Disconnection/Reconnection Processes & Charges**.

2.3.6.7 Final Meter Reading

When a final meter reading is required for billing purposes, the Customer will provide Horizon Utilities with at least seven (7) business days' notice in advance of the date the service is to be discontinued, so that Horizon Utilities can obtain a final meter reading as close as possible to the required date. The Customer will provide Horizon Utilities with access for this purpose. If access is not obtained and a final meter reading is not possible, the Customer may be required to provide a meter reading or pay a sum based on an estimate of energy use by the Customer and/or demand for electricity since the last meter reading by Horizon Utilities. The Customer will be sent a reconciliation of the billed amount when the actual meter reading is obtained.

2.3.6.8 Faulty Registration of Meters

The security and accuracy of metering is governed by the federal Electricity and Gas Inspection Act and associated regulations under the jurisdiction of Measurement Canada. All revenue meters owned and/or installed by Horizon Utilities comply with these regulations. In the case of a measurement dispute between Horizon Utilities and the Customer, Horizon Utilities and/or the Customer may request intervention by Measurement Canada.

In the event of incorrect electricity usage registration, Horizon Utilities will correct billing errors as follows:





- Where a billing error, from any cause, has resulted in a Customer or Retailer being over-billed, and where Measurement Canada has not become involved in the dispute, Horizon Utilities will credit the Customer or Retailer with the amount erroneously billed. The credit that the Corporation remits to the appropriate parties will be the amount erroneously billed for a maximum period of two (2) years. Where the billing error is not the result of Horizon Utilities standard documented billing practices (i.e. estimated meter reads), Horizon Utilities will pay interest on the amount credited to the relevant party equal to the prime rate charged by Horizon Utilities' bank.
- Where a billing error, from any cause, has resulted in a Customer or Retailer being under-billed, and where Measurement Canada has not become involved in the dispute, Horizon Utilities will charge the Customer or Retailer the amount that was not previously billed. In the case of an individual Customer who is not responsible for the error, the allowable period of time for which the Customer may be charged is two (2) years.
- Where the customer is responsible for the under-billing, whether by way of tampering, wilful damage, unauthorized energy use or other unlawful actions, Horizon Utilities may require payment of the full under-billed amount by a charge on the next regularly scheduled bill or a separate bill issued to the customer. Horizon may charge interest to the customer for the under billing. Such interest shall be equal to the prime rate charged by the distributor's bank. Where disconnection has occurred, Horizon Utilities will require full payment prior to the reconnection of service

Horizon Utilities will be responsible for advising the Customer of any meter error and its magnitude and of the Customer's rights and obligations under the Electricity and Gas Inspection Act.

Where Measurement Canada has become involved in a dispute between Horizon Utilities and the Customer, Measurement Canada will act as an arbitrator and will determine the appropriate time period for adjustments.

2.3.6.9 Meter Dispute Testing

Should the accuracy of Horizon Utilities' meter be in dispute, either Horizon Utilities or the Customer may request the services of Measurement Canada to test the accuracy of the meter. Where the Customer initiates the dispute, Horizon Utilities will charge the Customer a meter dispute fee if the meter is found to be accurate by Measurement Canada.





2.4 Tariffs and Charges

2.4.1 Service Connection Rates and Charges

Horizon Utilities' Distribution Rates and Specific Service Charges are approved by the OEB as they pertain to services applicable to the recognized Customer classes as defined in **Section 3 – Customer Class Specific**. The Customer will pay for all services at the approved rates as listed in **Appendix A**, and will pay all invoices delivered in accordance with the terms outlined in **Appendix A**. The Customer commences paying from the date of connection to Horizon Utilities' distribution system. Horizon Utilities determines electricity usage for which its approved rates apply either by meter reading or by an estimate in cases where a meter reading has not been taken.

2.4.2 Supply of Electricity

2.4.2.1 Sale of Electricity

Horizon Utilities is required to sell Standard Supply Service (SSS) electricity to every Customer connected to its distribution system, except for those Customers who have advised Horizon Utilities in writing that they do not wish to purchase electricity from Horizon Utilities.

Horizon Utilities will continue to sell Standard Supply Service electricity to Customers until it receives the appropriate forms from a Customer and completes the transfer of the Customer to a Retailer in accordance with Section 10: Service Transaction Requests of the Retail Settlement Code, and the Service Agreement between Horizon Utilities and the competitive Retailer. The transfer will be effective as of the next scheduled meter read date.

Horizon Utilities will begin selling Standard Supply Service electricity to a Customer of a competitive Retailer who wishes to transfer back to Standard Supply Service upon receipt of the appropriate forms and completion of the transfer of the Customer to Standard Supply Service in accordance with Section 10: Service Transaction Requests of the Retail Settlement Code, and the Service Agreement between Horizon Utilities and the competitive Retailer. The transfer will be effective as of the next scheduled meter read date.

2.4.2.2 Re-sale of Electricity

Where a multiple unit establishment is bulk metered by Horizon Utilities, the Customer may collect the amount billed by Horizon Utilities from the unit holders in one of the following ways:

- i.) include the amount billed by Horizon Utilities in the rent or monthly fees paid by the unit holders (i.e. rent or monthly fees include the cost of electricity); or
- ii.) apportion the amount billed by Horizon Utilities among the unit holders based on the number of units, or based on square footage of use by unit holders, or by means of individual unit meters, through an invoice that will show separately each of the following:
 - a) the portion of bulk bill from Horizon Utilities; and
 - b) all reasonable costs to convey electricity to unit holders; such costs will not include a profit.





2.4.3 Deposits

2.4.3.1 Security Requirement

Horizon Utilities may require a security deposit from a new or existing Customer as a condition of supplying or continuing to supply electricity in accordance with the approved credit policies presented in **Appendix B**.

2.4.4 Billing

Horizon Utilities has the right to adjust billing cycles and frequencies as required. Horizon Utilities will bill the Customer or the Customer's Retailer, as applicable, for distribution services provided by the Corporation.

2.4.4.1 Opening and Closing of Accounts

Customers who wish to open an account for the supply of electricity by Horizon Utilities will notify the Corporation by phone, fax, mail, the Horizon Utilities' website or other means acceptable to Horizon Utilities. Notification must be provided at a minimum of three (3) business days prior to the opening of an account.

If responsibility for the billing of electricity service is not provided through the opening of an account, Horizon Utilities may disconnect the supply of electricity without notice.

Horizon Utilities will not be held liable for any damages arising from such disconnection.

Documentation received by Horizon Utilities from a solicitor representing a Customer which requests the opening of an account is considered acceptance of supply of electricity service.

If an account is opened in more than one person's name, all such persons are deemed to be Customers of Horizon Utilities, and all jointly and severally agree to comply with and to pay the rates and charges in accordance with the Conditions of Service.

A Customer who wishes to close an account with Horizon Utilities must notify the Corporation by phone, fax, mail, the Horizon Utilities' website or other means acceptable to Horizon Utilities. Notification must be provided at a minimum of three (3) business days prior to the closing of the account. Until Horizon Utilities receives such notification, the Customer is responsible for payment to the Corporation for the supply of electricity. Notification of the closing of an account may not be accepted for a historical date. If a Customer wishes to close an account where a Retailer is involved, the closing will be governed by applicable regulatory codes including, but not limited to, the Retail Settlement Code.

Should a Customer not advise Horizon Utilities of their acceptance of account responsibility, Horizon Utilities may disconnect the supply of electricity to the property. Horizon Utilities' policies and procedures with respect to the disconnection process are further described in **Section 2.2- Disconnection/Reconnection Processes and Charges.**

2.4.4.2 Billing Options

Horizon Utilities can accommodate the following billing options for Retailers:





- i.) **Retailer-Consolidated Billing:** Horizon Utilities will bill the designated Retailer for all competitive and non-competitive electricity costs incurred on behalf of the Customer; or
- ii.) **Distributor-Consolidated Billing:** Horizon Utilities will issue a bill to the Customer that includes the full cost of the electricity delivered to the Customer, along with the portion of the bill attributable to competitive electricity costs based on the contract terms between the Customer and the Retailer, or fixed pricing.

2.4.4.3 Frequency

Horizon Utilities reads meters and bills its Customers on a monthly or bi-monthly cycle, depending upon the Customer's rate classification and other factors.

2.4.4.4 Estimates

In months where no reading is obtained or provided by the Customer, Horizon Utilities will bill the Customer on energy usage and estimated demand based on the Customer's historical usage of electricity as supplied by Horizon Utilities. Upon obtaining an actual meter reading, Horizon Utilities will calculate and bill or credit any differences in charges since the date of the prior estimated meter reading and the date the meter was actually read.

2.4.4.5 Pro-ration of Accounts

Accounts will be pro-rated where the initial bill or final bill to a Customer is for a time period that is different from the normal billing period, or where rates have been revised effective from a date that does not match the Customer's billing date.

2.4.4.6 Adjustment Factor

When electricity is delivered over a power line, a small amount of power is lost as heat and/or as a result of weather conditions. These losses are known as line losses Adjustment Factors (also known as Loss Factors) can be found in **Appendix A**.

2.4.4.7 Power Factor

For General Service Customers, Horizon Utilities assumes that a Customer's electrical and mechanical equipment has a minimum power factor of 90 per cent when operating at maximum loads. If in any billing period the Customer's power factor falls below 90 per cent, the amount to be billed will be 90 per cent of the kilovolt Amperes (kVA) demand for that billing period.

2.4.4.8 Equal Payment Plan

An equal payment plan in conjunction with a pre-authorized payment plan is available to all Residential and General Service Less than 50 kW Customers (see **Section 3.2.1 – Application** for General Service Customer classifications), who do not have a balance owing. To help stabilize electricity payments over the year, the plan bills the Customer each month for an equal portion of the previous year's annual total charges, then reconciles the balance owing in the anniversary month of the signing of the Connection Agreement. Adjustments may be made to the regular equal billing amount due to rate or



usage changes. If adjustments are made, the Customer will be notified in writing and the adjusted equal billing amount will be applied to the next regular billing.

An equal payment plan without the requirement of a pre-authorized payment plan is available to Low-income Customers who do not have a balance owing.

2.4.4.9 Aggregated Billing

Each ownership demarcation point or point of supply will be billed as a separate service. A Customer having two or more ownership demarcation points or points of supply will not be permitted to aggregate electricity usage for billing purposes.

2.4.4.10 Billing Disputes

A Customer who has a dispute concerning charges on the Customer's bill should contact and advise Horizon Utilities of the reason for the dispute. Horizon Utilities will investigate all disputes promptly, and advise the Customer of the result. The Horizon Utilities' dispute process is outlined in **Section 1.8 - Disputes**.

2.4.4.11 Arrears Management Plan

Horizon Utilities offers an Arrears Management Plans to all eligible Low-Income Customers and or residential Customers to assist with the payment of billed charges and to avoid disconnection of the electricity supply for non-payment of account.

An Arrears Management Program enables the application of any held security deposit to reduce arrears and the creation of a multi-month payment plan. The Customer must pay an initial down-payment and agree to keep any subsequently billed amounts current. Failure to maintain the agreement contract results in removal from the Arrears Management Plan and collections activities may resume immediately.

2.4.5 Bill Payment and Late Payment Interest Charges

Bills are payable in full by the due date, otherwise late payment interest charges will apply. The due date is a minimum of nineteen (19) calendar days from the date of mailing or of hand delivery of the bill. A Customer may pay the bill without the application of a late payment charge up to the due date. The due date will be identified clearly on the Customer's bill. The options for payment are:

- i.) mailing a cheque or money order to Horizon Utilities at the address printed on the bill; or
- ii.) depositing a cheque or money order in a designated drop-off box located at Horizon Utilities' office in the City of Hamilton or the City of St. Catharines, or at City of Hamilton municipal service centers; or
- iii.) in person at most Canadian financial institutions; or
- iv.) through automated banking machines, telephone banking or Internet bill payment services as offered by the Customer's financial institution; or
- v.) pre-authorized automatic withdrawal from the Customer's bank account by Horizon Utilities on the due date; or
- vi.) using a credit card

Where payment is made by mail, payment will be deemed to be made on the date postmarked. Where payment is made at an acceptable financial institution, payment will be deemed to be



made when the bill is stamped or acknowledged by the financial institution or an equivalent transaction record is made.

Payments received after the due date will be subject to a late payment charge, unless the customer is enrolled in an arrears program as defined by our Credit Policy

Non-payment of an account may result in disconnection of the service and additional collection and reconnection charges, a requirement to post a security deposit, and/or the forfeiture of all or part of an existing security deposit.

2.4.5.1 Billing Breakdown Request

If a Customer requests a detailed breakdown of a service billing, Horizon Utilities may, at its discretion, charge the Customer for the cost of providing the breakdown.

2.5 Customer Information

2.5.1 Provision of Customer Information to Horizon Utilities

In order to provide on-going service, including the billing and collection of the Customer's account(s), Horizon Utilities will be required to collect and maintain personal information. All personal information is protected under privacy legislation and is not shared with third parties without the Customer's consent, except for the reasons mentioned in **Section 2.5.5** – **Restrictions on Provision of Information**. Additional information on Horizon Utilities' Privacy Policy is available on the website at <u>www.horizonutilities.com</u> or can be obtained by contacting our Corporate Office/Privacy Officer at 1-866-458-1236.

2.5.2 Provision of Current Usage Data to Retailers

Upon written authorization by a Customer, Horizon Utilities will provide the current meter usage data and information as specified in Section 11.1 of the Retail Settlement Code to a Retailer that sells electricity to a Customer located within Horizon Utilities' service area.

2.5.3 Provision of Current Usage Data to Customers

Horizon Utilities will provide its Customers and Retailers with current usage information in accordance with Section 11 of the Retail Settlement Code.

A Customer with a remotely read or non-remotely read interval meter will have access to current meter usage data and information under the same terms and conditions as for Retailers or may view their interval meter data by logging into the Horizon Utilities website.

A residential or small business Customer with a Smart Meter can access their consumption information via the Horizon Utilities website

A Customer with a manually read kilowatt-hour meter or any other type of non-interval meter will have access to current usage information either through direct access to the meter, as described below, or in printed form on the bill provided by his billing agent (e.g. either the Retailer, Horizon Utilities or both, depending upon the billing option in use). If a Customer requires regular access to his meter or meter information, Horizon Utilities will provide access under the following conditions:

i.) Timing: The Customer and Horizon Utilities will negotiate a time for Customer access to the meter; however Horizon Utilities has priority when selecting access time for the purpose of reading the meter.



- ii.) Access: If the Customer prevents access to the meter for the purpose of reading it, or if the Customer's access to the meter corrupts usage information, Horizon Utilities may suspend the Customer's right to access the meter until any outstanding problems are resolved.
- iii.) Costs: The Customer will pay the costs of any software, hardware or other services required in order for him to obtain direct access to meter information. This may include installation of a secondary meter access system. The Customer will pay any cost incurred by Horizon Utilities to correct problems caused by his direct access to the meter.
- iv.) Assignment of Right: If the Customer assigns his right to direct meter access to a Retailer or third party, the Customer remains responsible for the actions of the assigned party with respect to access to the meter.

2.5.4 Provision of Historical Information to Designated Parties

Horizon Utilities will provide its Customers with historical usage information in accordance with Section 11 of the Retail Settlement Code.

Upon written authorization by the Customer, Horizon Utilities will provide to one or more Retailers the Customer's historical information relating to usage data, meter data and payment information, as specified in Section 11.3 of the Retail Settlement Code.

Horizon Utilities will provide historical information data for no less than one (1) calendar year, unless the Customer has been connected to Horizon Utilities' system for less than one (1) year, in which case Horizon Utilities will provide data for the period during which the Customer has been connected to Horizon Utilities' system.

2.5.5 Restrictions on Provision of Information

Horizon Utilities will not disclose specific information regarding a Customer, Retailer, wholesale buyer or supplier, or generator to any party unless the release of such information has been authorized by the Customer, Retailer, wholesale buyer or supplier, or generator in writing, except where the Customer information is required to be disclosed for:

- i.) compliance with the Market Rules of the IESO; or
- ii.) compliance with any regulatory instrument approved by the OEB; or
- iii.) billing or market operation purposes; or
- iv.) Horizon Utilities or Ontario Power Authority conservation initiatives; or
- v.) law enforcement purposes; or
- vi.) the purpose of complying with a legal requirement; or
- vii.) the processing of past due accounts of the Customer which have been passed to a debt collection agency.

Except as provided above when Horizon Utilities discloses Customer information to any other third party, Horizon Utilities will, as a condition of such release, require the third party to limit the use of the said information to the purpose for which it is being specifically disclosed.

Horizon Utilities will not use customer information obtained for one purpose from a Customer for any other purpose without the consent of the Customer in writing.

Horizon Utilities may disclose customer information where the information has been sufficiently aggregated such that an individual Customer's information cannot reasonably be identified; such disclosure will be made available on a non-discriminatory basis.




2.6 General Information

2.6.1 Pole Attachments

Customers wishing to attach to poles owned by Horizon Utilities are required to apply in writing to the Corporation for authorization or approval.

The Customer will enter into an agreement with Horizon Utilities prior to installing any customerowned wires or apparatus on poles or other equipment owned by Horizon Utilities. Horizon Utilities reserves the right to refuse attachments to its poles.

Canadian Carriers as defined by the *Telecommunications Act,* S.C. 1993, c. 38 are allowed access to the power poles of Horizon Utilities, subject to the terms and conditions of access for the purpose of deploying the wireless and wireline components of distributed antenna systems.(DAS)

2.6.2 Services over Swimming Pools

The OESC and ESA allow electrical conductors to be located above swimming pools subject to adequate clearance to reduce the possibility of an electrical contact accident. As a further safety measure, Horizon Utilities recommends that electrical conductors not be located above swimming pools.

Where a service crosses a swimming pool, Horizon Utilities will provide up to thirty (30) meters of overhead service conductors, at no charge, to allow rerouting of the service. Any other costs, such as pole relocation (labour only) or underground servicing will be at the pool owner's expense.

2.6.3 Moving Oversized Loads

All costs incurred by Horizon Utilities in facilitating transportation of oversized loads (such as houses and boilers) will be recoverable from the person wishing to move the load. Horizon Utilities will provide an estimated cost for temporarily relocating its assets to facilitate the move of the oversized load. A deposit based on the estimate is required and must be paid to Horizon Utilities by the person wishing the move, prior to the move. Horizon Utilities reserves the right not to approve an oversized load move request. All requests for oversized load moves must be accompanied by the proper permits and licences.



SECTION 3 CUSTOMER CLASS SPECIFIC

Where connections are referred to in this Section, it is understood that all conditions outlined in **Section 2.1 – Connections - Process and Timing** have been satisfied.

3.1 Residential Services

3.1.1 Application

This classification refers to an account where the electricity is used exclusively in a separately metered living accommodation. Customers who fall under Residential classification reside in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, or freehold townhouse with a residential zoning. Separately metered dwellings within a townhouse complex, apartment or condominium building also qualify as Residential Customers. There will be one (1) ownership demarcation point only to a dwelling. **Appendix I** lists charges for connections.

Requests for additional meters for a Residential service (e.g. a duplex) will be granted only for Residential units in compliance with municipal zoning bylaws. Requests from a Residential Customer to meter garages, sheds or other accessory structures of non-residential land use will not be permitted under **Section 3.1 – Residential Services**.

Common areas (e.g. laundry facilities, recreation areas, site lighting) in apartment buildings, multiple-unit, townhouse or condominium complexes do not fall under the Residential rate class. These areas are considered General Service rate class and will be metered by house service meters, as described in **Section 3.2 – General (non-Residential) Service**.

3.1.2 Connection

Conditions for service:

- i) Electricity is supplied single-phase, three-wire, 60 hertz, having a nominal voltage of 120/240 Volts.
- ii) Only one (1) secondary voltage supply service (i.e. only one [1] ownership demarcation point) will be supplied to any one (1) property, within the limitations as outlined in **Section 2.3.4 Standard Voltage Offerings**.
- iii) The Customer portion of the service (from the ownership demarcation point) must meet all requirements of the OESC.
- iv) Connections to new, rebuilt or increased capacity services will be made only when the Customer has made arrangements with Horizon Utilities and the ESA, and connection authorization has been received by Horizon Utilities.
- v) The Customer must obtain a Service Layout from Horizon Utilities detailing meter location and ownership demarcation point before proceeding with the installation of any service or with a reconnection of a service that has been disconnected more than six (6) months. Failure to do so may result in the ownership demarcation point having to be relocated at the Customer's expense and may cause time delays. Service Layouts are guaranteed effective for a period not exceeding six (6) months from issue date.



- vi) Horizon Utilities is responsible for the installation and maintenance of its overhead or underground service wires. The decision whether services will be installed overhead or underground is at the discretion of Horizon Utilities.
- vii) Where the Customer is upgrading a Residential service, only one (1) point of supply will be permitted.

3.1.3 Demarcation Points

Appendix I contains details about ownership demarcation points.

The operational demarcation point will be the main disconnecting device at the Customer's premises that separates the connection of the Customer's facility or building from Horizon Utilities' distribution system.

3.1.4 Supply

The minimum permissible service entrance capacity is 100 Amperes.

For single-phase 120/240 Volt services, the maximum basic connection entrance capacity is 200 Amperes. Any voltage other than 120/240 Volts and any capacity over 200 Amperes must be approved by Horizon Utilities.

3.1.5 Metering

As of August 2007, Horizon Utilities will install smart (Time-of-Use [TOU]) meters on all new Residential accounts. Conventional meters will be changed to Smart Meters as required by provincial regulations.

3.1.5.1 Metering for Residential Customers (excluding those covered in 3.1.5.2, 3.1.5.3 and 3.1.5.4 below)

Horizon Utilities will provide one (1) meter per Residential service at no cost to the Customer. The Customer is required to supply a meter base and sealing ring as specified by Horizon Utilities for installation of the meter.

Meters will be installed in locations that are accessible during normal business hours. If for safety or security reasons the location must be locked, the owner is required to provide a key and/or lockbox to permit Horizon Utilities or its designated agent access to the meter. The Customer will supply and install an outdoor meter socket for both new and upgraded services. The centre of the meter socket must be installed within one (1) metre of the front of the building, and between 160 centimetres and 180 centimetres above finished grade.

Where service is provided from a distribution system that is located in the rear of the lot and there are no plans to move it to the front, Horizon Utilities may approve a meter location on the side of the building near the rear.

Overhead services of 100 Amperes require a minimum 100-Amp meter socket; 200-Amp services require a 200-Amp meter socket. Underground services of 200 Amperes or less require a 200-Amp Jumbo meter socket capable of accepting 250 MCM aluminum conductors.



Any service in excess of 200 Amperes requires special approval by Horizon Utilities and if approved the meter installation must be accessible to Horizon Utilities' installation technicians or authorized agents.

Meters will not be connected, disconnected or moved other than by authorized Horizon Utilities' employees or agents unless special authorization is given by Horizon Utilities.

When planned alterations, including repairs, are made to existing services that require a change of the service stack, conduit or wire and the meter is indoors, the terms as outlined in **Section 2.3.6 - Metering** will apply, and indoor meters will be changed to outdoor meters at the Customer's expense.

Horizon Utilities will repair or replace at no cost to the Customer any electrical overhead or underground plant owned by Horizon Utilities that has exceeded its life expectancy. In such circumstances, Horizon Utilities may require that the meter be relocated to the standard location of one (1) metre from the front face or roadside of the building. The Customer will be required to pay if the repair or replacement requires an upgrade in the size of the meter socket.

3.1.5.2 Metering for Condominium Townhouses

Condominium Townhouse blocks with multiple units on one property will be serviced to the end wall of the building to supply a maximum of six (6) sub-services, which under most circumstances will be attached to the same end wall of the building and be supplied by the same transformer. Horizon Utilities reserves the right to determine the number of services to be supplied.

Horizon Utilities must approve ganged (grouped) meter bases prior to installation. Residential unit numbers must be permanently marked on all meter bases prior to energization. Any cost incurred by Horizon Utilities due to incorrect or incomplete marking will be borne by the property owner and/or developer.

3.1.5.3 Metering for New Multi-Unit Residential Rental Buildings, Condominiums and Commercial Buildings that contain two or more demised premises

Units in new multi-unit residential rental buildings, new condominiums (MURBs) and commercial buildings that contain two or more demised premises will be individually metered. All metering will be installed in a dedicated electrical room or rooms, to Horizon Utilities' requirements. The Customer will provide unrestricted access to Horizon Utilities for entry to the electrical room(s) and lock boxes.

Building owners and developers have the following options:

i) Conventional Metering (meter centers with socket bases):

Building owner/developer provides a centralized house metering point and enters into a contract for the supply of electrical energy for all common areas or shared services (such as hallways, outside lighting and elevators) and provides individual metering points for each unit. Horizon Utilities will install the house meter and commercial metering at the Customer's expense and Horizon Utilities will provide residential unit meters at no charge.

ii) Unit Smart Metering with a Multiple Customer Metering System (MCMS):





Building owner/developer may choose to have a Horizon Utilities' owned MCMS. Individual units will be billed by Horizon Utilities and the building owner/developer shall enter into a contract with Horizon Utilities for the supply of electrical energy for all common or shared services. The building owner and developer may choose to have Horizon Utilities install the metering or choose the alternative bid option.

Alternative Bid MCMS:

The building owner/developer chooses to install the metering facilities and turn over the ownership, operation and maintenance to Horizon Utilities. Horizon Utilities shall pay the building owner and developer a transfer price. The transfer price shall be the lower of the cost to the building owner/developer to install the metering facilities or Horizon Utilities' cost to install the metering.

Under the Alternative Bid MCMS the building owner/ developer is required to: (1) select and hire a qualified contractor; (2) ensure all work is done in accordance with Horizon Utilities technical standards and specifications; (3) obtain Horizon Utilities' approval of the installation of the metering facilities; (4) assume full responsibility for the installation and warranty all aspects of the metering facilities for a period of two (2) years from the date of commissioning; and (5) transfer the metering facilities to Horizon Utilities.

iii) Bulk Metering (building owner/developer owned unit sub-metering):

The building owner and developer may choose to have Horizon Utilities install a bulk meter for the purpose of enabling unit sub-metering by a licensed unit sub-metering contractor. Under this option the building owner and developer chooses to own and operate the unit sub-metering system and allocate the bill to the individual units and the common areas.

3.1.5.4 Metering for Existing Multi-Unit Residential Rental Buildings, Condominiums and Commercial Buildings that contain two or more demised units

For existing multi-unit residential rental buildings and condominiums with no house meter or halls meter, where shared services are supplied through one or more unit meters, the building owner shall enter into a contract with Horizon Utilities for the supply of electricity to such units. The house meter accounts shall be in the name of the multi-unit site or condominium building owner's name who shall also be responsible for the payment of energy supplied through such meters.

Building owners who choose to convert from bulk metering to individual metered units may choose from the options described in 3.1.5.3.

3.1.6 Overhead Secondary Service

Where Horizon Utilities determines that the building is in an overhead distribution area, an overhead service will be installed under the following conditions.



Horizon Utilities will install, own and maintain one (1) 200-Amp overhead secondary service at no charge to the Customer provided that the distance from the point of entry to the ownership demarcation point is no more than thirty (30) metres. The basic connection is based on a 120/240 Volt, 200-Amp service. Service capacity exceeding 200 Amperes will be subject to an incremental cost that will be charged to the Customer.

Horizon Utilities will supply and install the transformation components, including upstream devices and connections to overhead primary service. Costs will be included in the connection fees.

The Customer is responsible for the supply and installation of the portion of the service from the ownership demarcation point to the Customer-owned equipment.

The Customer is responsible for the cost of any other materials and labour required to extend the service beyond thirty (30) metres. If the extension requires the installation of poles on private property to maintain adequate clearance, the poles will be supplied and installed by the Customer in accordance with the OESC, and subject to an ESA inspection prior to connection. The Customer will be advised on the Service Application Form of the requirement to install Customer-owned poles. The Customer is responsible for the future maintenance or replacement of poles located on private property.

The Customer is also responsible for ensuring that all private poles are capable of providing adequate support for the attached lines. Horizon Utilities reserves the right to disconnect a service if private poles are leaning badly or are in poor condition, making them incapable of providing adequate support for the service wire.

The point of the first attachment and meter will not be more than one (1) metre from the front of the building. For an existing service, "front" is defined as the side of the building nearest to Horizon Utilities' point of entry. For any new service, "front" is defined as the address side of the building.

Where the Customer requests an upgrade to the main service capacity, Horizon Utilities will upgrade the service wire at no cost to the Customer. If the replacement service wire exceeds thirty (30) metres, the Customer is required to pay for the portion beyond thirty (30) metres, and the charge will be noted on the Service Application Form.

3.1.7 Underground Secondary Service

An underground service may be provided at the discretion of Horizon Utilities. New underground services will have a minimum 200-Amp capacity and a maximum of 400-Amp capacity. All underground civil work is installed at the Customer's own expense. The cable will be supplied and installed by Horizon Utilities.

Horizon Utilities will supply and install the transformation components, including upstream devices and connections to overhead primary service. Costs will be included in the connection fees.

The Customer is required to supply, install and maintain:

- i.) a rigidly-mounted, ESA-approved service entrance conduit extending below grade and complete with conduit bushing; and
- ii.) a trench and appropriately sized conduit that meets Horizon Utilities' standards; and
- iii.) the Customer's internal service equipment beyond the ownership demarcation point.



The service entrance conduit must be located as specified by Horizon Utilities on the Service Layout. The Customer will maintain the underground civil component located on the Customer's property.

Where the nearest distribution pole is across the street from the Customer, Horizon Utilities may install, at no expense to the Customer, a road-crossing pole and overhead wire.

If a Customer requests an underground road crossing, the Customer will pay the actual costs of the underground road crossing. In circumstances where underground service under the road is impractical due to abnormal soil conditions or conflicts with other utility plant, Horizon Utilities will deny the underground road crossing request, and will install a road-crossing pole and overhead wire.

The Customer must use the services of a pre-approved contractor to supply and install duct from the point of entry to the ownership demarcation point. Horizon Utilities must inspect this work prior to connection. Horizon Utilities will complete all work relating to underground service outside the property line. The Customer will be charged for the actual costs arising from the installation of underground cable that is more than the basic thirty (30) metres.

A Customer wishing to upgrade existing underground service is required to contact Horizon Utilities to obtain a Service Layout. The Customer is responsible for all costs incurred by Horizon Utilities associated with the installation of the upgraded service beyond the basic connection (see **Appendix I**). Relocation of the existing meter to within one (1) metre from the front face or road side of the building is required for all service upgrades, except where no distribution system exists on the street and where there are no immediate plans for constructing a distribution system in the front yard.

Customer-requested relocation of underground service will be done at the Customer's expense.

Horizon Utilities will install and connect the underground cable for residential infill (subdivision) lots, once the developer has completed the installation of service conduit from the property line to the line side connection at the meter socket location.

3.2 General (non-Residential) Service

3.2.1 Application

General Service rate classification refers to all non-Residential Customers and includes single commercial and industrial buildings (e.g. churches, schools, shopping malls, plazas, institutional sites). This section refers to the supply of electricity to buildings housing General Service Customers. **Appendix I** lists charges for connections.

Horizon Utilities supplies electricity under the terms of the Corporation's General Service Rate Schedule for all services other than those eligible for the Residential Rate Structure.

General Service Less than 50 kW: This classification refers to a non-Residential account taking electricity at 750 Volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW.

General Service Greater than 50 kW: This classification refers to a non-Residential account whose monthly average peak demand is greater than, or is forecast to be greater than, 50 kW but less than 5,000 kW.



General Service Large Use (LU1): This classification refers to an account whose monthly average peak demand is greater than, or is forecast to be greater than, 5,000 kW. Such Customers will have to complete a Connection Agreement (see **Appendix C**) and none of the terms of **Section 3.2 – General (non-Residential) Service** will apply.

General Service Large Use – with Dedicated Assets (LU2): This classification refers to an account whose monthly average peak demand is greater than, or is forecast to be greater than, 5,000 kW. Such Customers will have to complete a Connection Agreement (see **Appendix C**) and none of the terms of **Section 3.2 – General (non-Residential) Service** will apply.

The Customer is required to obtain a Service Layout from Horizon Utilities that details both the ownership demarcation point and point of entry locations before Horizon Utilities can proceed with the installation of any service. Failure to request and obtain a Service Layout may result in the ownership demarcation point and/or the point of entry being relocated at the Customer's expense.

Customers in the General Service Less than 50 kW classification may be billed bi-monthly at the discretion of Horizon Utilities. All other General Service Customers will be billed monthly. Customers with a demand meter will automatically be billed monthly regardless of connected load.

The Customer must consult with Horizon Utilities in the early planning stages to ascertain what facilities and voltages are available at the specific location.

3.2.2 Connection

At least six (6) months prior to a proposed in-service date, the Customer is required to submit the following information:

- i.) an electrical site plan, to scale, showing the preferred location of the electrical room, preferred meter location(s), and service entrance equipment from the point of entry to the ownership demarcation point; and
- ii.) a drawing of the main secondary distribution system.

The Customer will be supplied at one (1) service voltage at one (1) ownership demarcation point to any building. There will be one (1) point of entry for each land parcel. Horizon Utilities reserves the right to require that a loop feed be completed for system reliability.

In circumstances where multiple services are provided to a General Service Customer and one (1) service is to be upgraded, the upgraded service will conform to one (1) single-phase or one (1) three-phase service per lot.

The Customer is responsible for the construction or installation of all civil infrastructure including, but not limited to, poles, conduits, cable chambers, cable pull rooms, transformer rooms, vaults, equipment bases and pads on private property, as required by Horizon Utilities as part of the connection assets. All civil infrastructure must meet Horizon Utilities' current standards, practices, specifications and Conditions of Service, and are subject to Horizon Utilities' inspection and acceptance, in addition to inspection and approval by the ESA. The Customer will ensure that Horizon Utilities has access to its equipment. The Customer is responsible for any costs associated with providing necessary access to the Corporation's equipment by employees or authorized agents of the Corporation for the purpose of maintenance or replacement.



Economic evaluation projects conducted for expansions related to Large User Class customers shall include the following Capital Costs:

- i.) Connection costs, including primary distribution facilities and metering that become the property of Horizon Utilities; and
- ii.) Cost of dedicated feeder(s) required by the Customer where other customers are not expected to share in the use of such facilities. The Customer requests such dedicated facilities or Horizon Utilities Corporation determines that the nature of the connection is such that the Customer must be isolated from the rest of customers. This is determined by Horizon Utilities based on its engineering design standards and good utility practices; and
- iii.) Cost of dedicated Transformer Station facilities required by the Customer. This includes either (1) upgrades to existing Transformer Station facilities solely for the benefits of the Customer, or (2) new Transformer Station facilities solely for the benefit of the Customer; and
- iv.) Where Transformer Station upgrades are not dedicated for the exclusive use of one Large Use customer (GS>5000kW), a portion of the cost of the Transformer Station upgrades will be included in the economic evaluation based on capacity requirements of the new customer and the capacity available for future use by Horizon Utilities.

Horizon Utilities designs its distribution system for customers so that alternate feeders can be used to provide power to customers in the event of a system outage. When a system outage occurs, Horizon Utilities, where available, will control the transfer of loads between feeders to restore power to customers.

Upon request of a Customer and where Horizon Utilities determines that such request is practical, Horizon Utilities will provide backup supply:

- i. to allow transfer of load between alternate feeders; and/or
- ii. for Customer Generation Facilities

Where Horizon Utilities provides backup supply, Horizon Utilities will charge the Customer a Standby Charge. The standby charge will be based on the amount of reserved load transfer capacity requested or the amount of monthly peak load displaced by a generating facility.

In addition, a capital contribution and/or deposit as outlined in the Capital Cost Recovery Agreement may be required.

Horizon Utilities is responsible for the maintenance and repair of its connection assets but not for the transformer room(s) or any other civil structure that forms part of the Customer's building.

A Customer who wants a disconnection for the purpose of repair, panel change or meter relocation must make a request for disconnect from Horizon Utilities. Horizon Utilities will prepare a Service Layout to determine if the service should be upgraded, the meter moved, or the conduit or meter base replaced. If any changes are required, the Service Layout will state the necessary changes and the reason for the service disconnection. All disconnected services require a connection authorization by the ESA before reconnection.



3.2.3 Service Removals and New Installations – General Service Customers

If a service has been removed and a new service is to be installed, the Customer will pay for the upgrade or new connection, an amount not to exceed the difference in the present value between the projected capital and ongoing operating expenses and the projected revenue for the distribution services provided by those facilities. The methodology used to calculate this amount is presented in Appendix B of the DSC.

Horizon Utilities does not guarantee the availability of capacity when a service has been removed for a period exceeding two (2) years.

If the service has been removed and within one (1) year the Customer requests reconnection , the customer load to be used for the calculation of capital contributions will be the incremental increase in load from the previous service to the new service.

3.2.4 Demarcation Points

For General Service applications other than unmetered connections (see **Section 3.9 – Unmetered Connections**), the ownership demarcation point will be located:

- i.) on overhead low voltage connection assets, at the Customer's conductors emerging from the service head or mast; or
- ii.) on underground low voltage connection assets operating at 300 Volts or less, at the line side of the Customer's meter base; or
- iii.) on underground low voltage connection assets operating in excess of 300 Volts, at the supply terminals of the Customer's main disconnecting device; or
- iv.) on high voltage connection assets where the transformer is owned by Horizon Utilities, at the load terminals of the transformer; or
- v.) on underground high voltage connection assets where the transformer is owned by the Customer, at the supply terminals of the Customer's main disconnecting device; or
- vi.) on overhead high voltage connection assets where the transformer is owned by the Customer, at the dead end strain insulators or Horizon Utilities' disconnecting device on the Customer's pole within thirty (30) metres of Horizon Utilities' point of entry; and
- vii.) no greater than thirty (30) metres from the point of entry onto the property where a private distribution system has been installed.

The operational demarcation point will be the main disconnecting device at the Customer's premises that separates the connection of the customer's facility or building from Horizon Utilities' distribution system.

Appendix I contains additional details about ownership demarcation points.

3.2.5 Supply

Horizon Utilities' standard voltage offerings are detailed in Section 2.3.4 – Standard Voltage Offerings.

The Customer is required to supply, install, and maintain internal transformers where voltages other than the supply voltage are required. The Customer will maintain a balanced, three-phase load.

Where three-phase service is required, supply is given at:

• 120/208 Volts, three-phase, four-wire, or



• 347/600 Volts, three-phase, four-wire.

Not all standard voltage offerings are available at every location. The Customer must consult with Horizon Utilities to determine what voltage is available at a particular site, and the Customer is required to obtain prior approval from Horizon Utilities for the use of a specific voltage at a specific location.

The Customer must ensure that the service entrance equipment has adequate short-circuit interruption capability. Upon request, Horizon Utilities will advise the Customer of the maximum available short-circuit symmetrical in-rush Amperes at any specific location.

It is the responsibility of Customers with large non-linear loads to install proper corrective measures such as filtering and/or grounding techniques that comply with the industry standard, IEEE Standard 519-1992. The harmonic voltage distortion limits are 3 per cent on any individual frequency, and 5 per cent on the total. A higher distortion may be acceptable for infrequent starts where no existing or potential third party will be adversely affected.

The Customer's equipment is limited in the permissible switching surges to 10 per cent for line switching and 4 per cent for capacitor switching.



Horizon Utilities installs equipment for the automatic re-closing of circuit breakers and, from time to time, changes their re-closing time. The Customer is responsible for providing at the Customer's own expense:

- i.) adequate protective equipment for any electrical apparatus or equipment that might be adversely affected by Horizon Utilities' re-closing facilities; and
- ii.) such equipment as may be required for the prompt disconnection of any of the Customer's apparatus or equipment that might affect the proper functioning of Horizon Utilities' re-closing facilities; and
- iii.) a coordination study for protection review.

3.2.6 Metering

As of August 2007, Horizon Utilities will install Smart (Time-of-Use [TOU]) Meters on all new General Service Less than 50 kW accounts. Conventional meters will be changed to Smart Meters as required by provincial regulations.

General Service Greater than 50 kW Customers (see **Section 3.2.1 – Application**) should refer to **Section 2.3.6.3 – Interval Metering**. All meters are supplied by Horizon Utilities at the Customer's expense.

The Customer must meet all requirements necessary for metering for all installations, in accordance with the metering specification of Horizon Utilities.

3.2.6.1 Metering in Malls or Plazas

Each business or unit separated by a firewall is required to have a separately metered service. An additional metered service will be provided for common areas (with a house meter).

The following will apply to all meter rooms:

- i.) meter room will be located at or above grade level
- ii.) meters will be installed in locations that are accessible twenty-four (24) hours a day; if for safety or security reasons the location must be locked, the Customer is required to provide a key and/or lockbox to permit access to Horizon Utilities' employees or its designated agent
- iii.) an above-grade meter room must be accessible by a standard stairway with handrail; vertical ladders are not permitted
- iv.) where meter sockets are used, sufficient wall space must be allocated for the possible installation of meter cabinets in the event that up to one-third of the units require enlarged service entrances in the future
- v.) adequate electrical illumination must be provided at the working level, plus a 120-Volt convenience outlet
- vi.) storage of other equipment in the meter room is not permitted

3.2.7 Overhead Secondary Service

Horizon Utilities will install, at the Customer's expense, an overhead secondary service from its circuits to the ownership demarcation point provided that the ownership demarcation point is located no more than thirty (30) metres from the point of entry.



For distances in excess of thirty (30) metres, additional facilities will be supplied, installed, and maintained by the Customer. All pole lines constructed or erected by the Customer are required to meet the requirements of the OESC.

Horizon Utilities will supply and install the transformation components, including upstream devices and connections to overhead primary service. Costs will be included in the connection fees.

The maximum service entrance capacity for which Horizon Utilities will install overhead secondary service wires is 200 Amps (at 120/240 or 347/600 Volts).

The capital contribution, which is required for all general service connections, is outlined in **Appendix D**.

3.2.8 Underground Secondary Service

In areas where distribution and transformation are supplied by overhead service and are located within thirty (30) metres of the ownership demarcation point, the Customer has the option of an underground secondary service. Horizon Utilities will supply and install underground cable inside the Customer-installed conduit, at the Customer's expense, for underground services up to 200 Amperes. Future maintenance and replacement of the underground cable is the responsibility of Horizon Utilities. The Customer is responsible for maintaining the civil component located on the Customer's property.

Where the nearest distribution pole is across the street from the Customer, Horizon Utilities may install, at no expense to the Customer, a road crossing pole and overhead wire. If the Customer requests an underground road crossing, the Customer will pay the actual costs for the underground road crossing. In circumstances where underground service under the road is impractical due to abnormal soil conditions or conflicts with other utility plant, Horizon Utilities will deny the request, and install a road-crossing pole and overhead wire.

Horizon Utilities will supply and install the transformation components, including upstream devices and connections to overhead primary service. Costs will be included in the connection fees.

If the Customer requests a relocation of an underground service installed by Horizon Utilities, Horizon Utilities will perform the relocation at the Customer's expense.

The maximum service entrance capacity for which Horizon Utilities will install underground secondary service wires is 200 Amps (at 120/240 or 347/600 Volts).

At its discretion, Horizon Utilities may provide a 400-Amp, 120/240 Volt service at the Customer's expense.

The capital contribution, which is required for all general service connections, is outlined in **Appendix D**.

3.3 Commercial and Industrial Developments

3.3.1 Application

This section refers to the supply of electricity to a development of two (2) or more industrial and/or commercial buildings on the same property.





3.3.2 Connection

The Customer is required to consult with Horizon Utilities in the early stages of the project development to ascertain Horizon Utilities' requirements.

At least six (6) months prior to the proposed in-service date, the Customer must submit to Horizon Utilities all of the following information:

- i.) required in-service date
- ii.) voltage requirements
- iii.) estimated initial maximum demand
- iv.) estimated seasonal and future maximum demand
- v.) specific listing of the type of loads for lighting, motor, welding, heating, air conditioning or other load requirements
- vi.) number and size of proposed individual services
- vii.) grading plan and site plan, to scale, showing the development in relation to existing and proposed property lines and other buildings and structures (such as parking garages, loading ramps)
- viii.) if requested by Horizon Utilities the customer shall provide a coordination study for protection review

The plans, which must include views of the proposed incoming duct bank from the point of entry to the ownership demarcation point, will show:

- i.) the area in which the transformer pad or indoor vault is to be located, showing all details of the vault (if applicable); and
- ii.) the electrical room and provision for the metering equipment and the rating of the main switch; and
- iii.) the number of units and the area of each.

3.3.3 Underground Supply

All developments are required to have an underground supply through a single point of entry for each land parcel, at a location specified by Horizon Utilities. Horizon Utilities reserves the right to require a loop feed to be completed for system reliability.

3.3.4 Supply of Equipment

Horizon Utilities will supply, install, own and maintain the following:

- i.) primary transformation per Section 3.4.1 Transformers Owned by Horizon Utilities; and
- ii.) meters and associated instrument transformer(s); and
- iii.) primary cable from the point of supply to the ownership demarcation point.

The Customer will supply, install, own, and maintain all of the following:

- i.) primary switchgear, as required
- ii.) transformer pad/vault and associated equipment, as specified by Horizon Utilities
- iii.) concrete encased duct bank extending from the point of supply to Horizon Utilities' system to the transformer, designed by the Customer to Horizon Utilities' specifications; where Horizon Utilities has determined that the cables may not be readily pulled through the duct bank, the Customer must also supply, install and maintain on the property a pulling manhole or pit, to Horizon Utilities' specifications



- iv.) one (1) main secondary disconnect per transformer will be installed at the discretion of Horizon Utilities for all service entrance capacities
- v.) dry-type transformers for special utilization voltages

Should the cable fail due to abnormal circumstances such as a dig-in, the cost of the damage will be charged to the party responsible for the damages.

3.3.5 Location of Transformers

The pad-mounted equipment will be located on the Customer's property.

The Customer is responsible for providing unobstructed access to the transformer for Horizon Utilities' vehicles by providing a paved or graveled surface of sufficient strength, as specified by Horizon Utilities. If an adequate roadway is not provided, resulting in damages to Horizon Utilities' vehicles, the Customer will take full responsibility for the necessary repairs to vehicles.

The Customer will provide, to Horizon Utilities' specifications, mechanical protection such as bollards for the protection of the pad-mounted equipment, where required.

Indoor transformer vaults constructed by the Customer must be constructed in accordance with the requirements, as outlined by both the OESC and Horizon Utilities.

3.4 Transformation

3.4.1 Transformers Owned by Horizon Utilities

For a transformer where the primary voltage is 27 kV or 13 kV, the maximum rating of a Customer's main disconnecting device supplied by transformers owned by Horizon Utilities will not exceed:

- i.) 1600 Amps at 347/600 Volts three-phase; or
- ii.) 2000 Amps at 120/208 Volts three-phase; or
- iii.) 400 Amps at 120/240 Volts single phase.

Transformation at the Customer's premises for services in excess of the ratings specified above will be owned by and under the responsibility of the Customer, and must be constructed, maintained, and operated by the Customer in accordance with the requirements of the OESC.

For a transformer where the primary voltage is 4 kV, the maximum rating of a Customer's main disconnecting device supplied by transformers owned by Horizon Utilities will not exceed:

- i.) 600 Amps at 347/600 Volts three-phase; or
- ii.) 800 Amps at 120/208 Volts three-phase; or
- iii.) 400 Amps at 120/240 Volts single phase.

3.4.1.1 Underground Primary Construction to Pad-Mounted Transformers

The Customer will pay for the cost of supplying, installing and maintaining a concreteencased duct bank located on the Customer's property (including the costs of trenching, ducts, pulling manholes and transformer pad). The duct bank will be to Horizon Utilities' specifications, and will extend from Horizon Utilities' existing distribution system to the ownership demarcation point.





Horizon Utilities will supply and install primary cable from the point of supply to the ownership demarcation point at the Customer's expense.

Horizon Utilities will be responsible for maintaining primary cable; if a cable is damaged through abnormal circumstances such as a dig-in, the party responsible for the damages will be charged the cost of repair or replacement.

Pad-Mounted transformers will be located within three (3) metres of an accessible roadway capable of carrying heavy trucks; the Customer is responsible for providing unobstructed access to the transformer by Horizon Utilities' vehicles; if an adequate roadway is not provided, resulting in damage to Horizon Utilities' vehicles, the Customer will take full responsibility for the necessary repairs to the vehicles.

The Customer, at his own expense, will supply and install two-hole compression style secondary lug connectors compatible with Canadian Standards Association (CSA) dies and National Electrical Manufacturers' Association (NEMA) spade two-hole spacing of the pad-mounted transformer secondary bushings; coiling of the secondary cable in the transformer foundation must make provision for expansion and contraction of the cable, and connection to a transformer with higher secondary bushings.

Where the ownership demarcation point is inside the building, the Customer will provide and maintain a vault to the specifications of both Horizon Utilities and the OESC; the Customer is not permitted to store other equipment in the vault.

3.4.2 Customer-owned Transformer or Substation

3.4.2.1 General

Customers are required to supply their own transformers under the following circumstances:

- i.) electrical demand exceeds the ratings listed in Section 3.4.1 Transformers Owned by Horizon Utilities; or
- ii.) requirement is for a secondary voltage not offered by Horizon Utilities (see Section 2.3.4 Standard Voltage Offerings).

Customers will supply, install and maintain substations on their properties consisting of transformers and associated facilities for receiving power.

- a. Customer owned transformers and high voltage switchgear shall be pre-approved by Horizon Utilities
- b. The customer shall locate the primary side disconnecting device in an easily accessible location. Preferably, the disconnecting device is to be located on ground level with exterior door access and unrestricted by gates.

Customers will pay for the cost of supplying and installing primary cable from the point of supply to the ownership demarcation point. Horizon Utilities is responsible for installing and maintaining primary cable.

3.4.2.2. Plans and Specifications for Transformers or Substations

Horizon Utilities will provide existing information related to fuse characteristics, relay settings and lightning arrestors to allow the Customer to perform a protection





coordination study. Horizon Utilities may specify that the Customer's transformer be supplied with multiple high-voltage windings, suitable for connection to two system voltages in order to facilitate voltage conversions. Horizon Utilities may also specify special tap settings to accommodate system voltage variations.

Customer-owned transformers located on the line side of the meter installation must be built in accordance with CAN/CSA Standard C802, *Maximum Losses or Distribution, Power and Dry Type Transformers*. Transformers whose losses exceed the values specified in this standard are not acceptable. For transformers larger than 3000 kVA, total losses that exceed 0.8 per cent of the kVA rating of the transformer will be subject to a penalty charge as determined by Horizon Utilities.

In addition to obtaining the approval of the ESA for substation equipment, the Customer must also obtain the approval of Horizon Utilities for any components that may affect Horizon Utilities' distribution system (e.g. cables, surge arrestors, terminators, and protective and switching devices). This approval must be obtained six (6) months prior to the tender documents being issued for construction of the substation.

Horizon Utilities will review and approve the original proposal and one (1) corrected proposal for each new substation, free of charge. Costs of any additional review will be charged to the Customer. When modifications not involving substantial load increases are being made to an existing substation, Horizon Utilities will charge the Customer all costs for the review and approval.

To obtain approval, the Customer is required to submit to Horizon Utilities two (2) copies of the detailed plans and the specifications that have been certified by a registered Professional Engineer, containing the following details.

Single line schematic diagram including:

- i.) all voltages of the proposed installation
- ii.) transformer bank apparent rating (kVA), reactance and cooling
- iii.) protective and switching devices with short circuit ratings

Work drawings and specifications for the substation installation including:

- i.) fencing drawing complete with proposed placards
- ii.) detailed dimensions in plan and elevation
- iii.) working and live parts clearance
- iv.) structure and guying for dead-ending incoming lines
- v.) grounding details
- vi.) material list
- vii.) interlocking schemes
- viii.) a survey plan and site plan indicating the location of the substation with respect to the public road allowance
- ix.) a list of the lighting, motor, welding, heating and other loads
- x.) ampere and voltage ratings of the main, secondary service switch
- xi.) location and details of the metering equipment
- xii.) a coordination study for protection review
- xiii.) Switchgear line-up
- xiv.) Metering IT locations and grounding points



3.4.2.3 Pre-service Inspection, Commissioning, and Energization of Substations

The Customer is responsible for obtaining a pre-service inspection and commissioning report by a third-party engineering firm, confirming that the substation and all its equipment have been tested. The pre-service inspection report must be certified, and copies must be provided to the Customer Connections department at Horizon Utilities for approval before the substation can be energized. Horizon Utilities shall be contacted to witness and verify the commissioning tests performed by the Customer.

When the Customer has completed and submitted the certified pre-service inspection and commissioning report and has received approval from both Horizon Utilities and the ESA, Horizon Utilities will energize the substation in accordance with the Corporation's normal operating procedures. There is no charge for this service if it is scheduled in advance during Horizon Utilities' normal business hours and is the first energization of a new or enlarged substation.

3.4.2.4 Operation of Primary Disconnect Devices on Substations

Customers must permit access to their substations by Horizon Utilities' employees or authorized agents at all times in order to operate primary disconnect devices on the substations.

Horizon Utilities will not be responsible for any associated costs to repair/refurbish/replace the device or any associated devices for a "customer owned primary disconnect" that fails during normal operations.

Customers may require the operation of primary disconnect devices for purposes of routine maintenance or other reasons. Horizon Utilities requires a minimum of two (2) weeks' notice for planned operation of such devices.

One (1) primary disconnect will be performed free of charge during normal business hours in each calendar year. The Customer will be charged for any subsequent disconnection requests during that same calendar year.

The Customer will ensure that the substation is maintained in a good state of repair and that the primary disconnect devices are accessible and operable.

3.4.2.5 Maintenance of Substations

Customers are responsible for performing regular maintenance on their substations so that inconvenience to themselves and to other Customers is not caused through equipment failure. To facilitate the maintenance of the substation and its equipment, Horizon Utilities will provide one (1) isolation on request, at the Customer's substation each calendar year, at no charge. The one-time isolation must occur during normal working hours, Monday to Friday, excluding statutory holidays. The Customer is required to pay a charge to offset the overtime cost for Horizon Utilities' crews for isolations arranged at times other than normal working hours.

Customers are also responsible for emergency maintenance on their substations, and should be aware at all times of the availability of materials and labour to perform emergency repairs in the event of a sudden substation failure.

At the request of Horizon Utilities, the Customer may be required to provide a report detailing regular and/or emergency maintenance performed on the Customer's substation.





3.5 Temporary Service

3.5.1 Application

Temporary services are typically installed for the purpose of providing construction power, power to special events, or for situations requiring power for up to but not exceeding one (1) year. Services that are anticipated to be in place longer than one (1) year will be considered permanent and are covered under the appropriate servicing conditions.

Appendix I contains details about ownership demarcation points and charges for connections.

3.5.2 Connection

Where adequate capacity and facilities are available, Horizon Utilities will provide up to thirty (30) metres of overhead secondary service for a maximum of 200-Amp service at 120/240 Volts, at a standard approved cost as detailed in **Appendix I**.

If no transformation or secondary service exists on the public road allowance, Horizon Utilities will supply and install and, later, remove these facilities at the Customer's expense.

When installation and removal charges for temporary service exceed those for basic temporary service, Horizon Utilities will provide an estimate of the variable costs to the Customer. The Customer is required to pay a deposit in the amount of the estimated variable costs prior to the installation of the service by Horizon Utilities. The variable costs will include installation and removal of primary or secondary wire, transformations, and metering. The Customer is responsible for supplying and installing all poles required for the installation of temporary service on private property.





3.5.3 Metering

For three-phase services, a main disconnect must be installed either immediately adjacent to, or in the same room as, or integral with the meter socket on the line side.

All conditions that apply to meter cabinet installations for general metering, as outlined in **Section 2.3.6.1 – Metering, General**, will apply to temporary service metering.

The Customer must provide unobstructed access to the metering for the purpose of routine meter reading, and may be required to provide keys.

Metering for portable locations at schools will be at one (1) central location, whenever possible.

3.6 Embedded Market Participant

An Embedded Market Participant is a Customer who is registered as a Wholesale Market Participant with the IESO and whose facility is connected to Horizon Utilities' distribution system instead of the IESO-controlled grid.

Embedded Market Participants are subject to the terms and conditions of the IESO. The IESO's *Market Rules for the Ontario Electricity Market*, Chapter 2, Section 1.2.1 states: "No persons shall participate in the IESO-administered markets or cause or permit electricity to be conveyed into, through or out of IESO-controlled grid unless that person has been authorized by the IESO to do so."

Once approved by the IESO, an Embedded Market Participant within Horizon Utilities' service area is required to inform Horizon Utilities in writing of its authorized status thirty (30) days prior to participation in the Ontario electricity market.

Embedded Market Participants are responsible for all applicable Horizon Utilities charges as approved by the OEB.

In the event that a Customer wishes to de-register with the IESO as a Wholesale Market Participant, the Customer is required to notify Horizon Utilities in writing at least sixty (60) days in advance of said registration to allow Horizon Utilities sufficient time to make the necessary changes to its billing systems. Concurrently, the Customer is responsible for providing sufficient time for IESO de-registration.

3.7 Embedded Generation

An Embedded Generation Facility is a generation facility that is not directly connected to the IESOcontrolled grid but is instead connected to Horizon Utilities' distribution system. A person who owns or operates an Embedded Generation Facility is known as an Embedded Generator.

This section applies to Embedded Generators and not to the connection or operation of an emergency backup generation facility, which is described in **Section 2.3.5 – Backup Generators**.

The connection of an Embedded Generation Facility that is greater than 10 kW in output capacity is subject to the result of a Connection Impact Assessment conducted by Horizon Utilities. Each Embedded Generator will complete and sign a Connection Agreement, as outlined in **Appendix C3** or **C4**, as applicable, which specifies the terms and conditions applicable to the connection with Horizon Utilities. The Embedded Generator may be required to provide a Capital Contribution to Horizon Utilities depending on the specific connection details. The technical requirements for an Embedded Generation Facility are specified **Appendix C2**.



Any equipment required to connect an Embedded Generation Facility to Horizon Utilities' distribution system, including step-up transformation required to step-up the Embedded Generation Facility's output voltage to the primary voltage of Horizon Utilities' distribution system, shall be supplied, installed, owned and maintained by the Embedded Generator. An ownership demarcation point on Customer property will be established by Horizon Utilities.

An Embedded Generation Facility may be permitted at Horizon Utilities' sole discretion to be connected through Horizon Utilities' existing distribution transformer. The cost of any incremental transformation and modifications to connection assets required to connect the Embedded Generation Facility to Horizon Utilities' distribution system shall be paid by the Embedded Generator.

Where the transformation is owned by the Embedded Generator and Horizon Utilities' metering is on the low voltage side of the transformer, Horizon Utilities' will apply a 1% loss factor to the output of the Embedded Generation Facility.

The Embedded Generator will be responsible for administration charges and any energy consumed by the Embedded Generation Facility.

3.8 Embedded Distributor

An Embedded Distributor is a licensed distributor who is not a Wholesale Market Participant and who is provided with electricity by Horizon Utilities.

Horizon Utilities will make every reasonable effort to respond promptly to an Embedded Distributor's written request for a connection to the Corporation's distribution system and will comply with all the requirements of the DSC, Appendix G – Process for Connecting Another Distributor. Horizon Utilities will provide an initial consultation regarding the connection process within thirty (30) days of receiving a written request for connection. A final offer to connect the distributor to Horizon Utilities' distribution system will be made within ninety (90) days of receiving the written request for connection, unless other necessary information outside the distributor's control to obtain is required before the offer can be made. Each Embedded Distributor will have a signed Connection Agreement with Horizon Utilities, as presented in **Appendix C1** or **C2**, as applicable, which specifies the terms and conditions applicable to connection with Horizon Utilities. The Embedded Distributor may be required to provide a Capital Contribution to Horizon Utilities depending on the specific connection details.

3.9 Unmetered Connections

3.9.1 General

A device owned by the Customer that is located on a public road allowance for the benefit of public services may be connected to the Horizon Utilities distribution system without being metered provided that Horizon Utilities has determined that the load is uneconomical to meter and consistent in magnitude. Unmetered connections shall be permissible at the sole discretion of Horizon Utilities.

In general, for the purpose of a new unmetered connection, the ownership demarcation point will be at the point of connection to the Horizon Utilities distribution system. . The point of demarcation will be documented on the Service Layout Form.

Pending qualification by Horizon Utilities, acceptable unmetered connections include street lighting, traffic signals, bus shelters, parks and pathway lighting, decorative lighting, and other small miscellaneous loads including communications amplifiers, telephone booths, road and utility cathodic protection, railway signals, flasher beacons, monitors and relay switches.





Horizon Utilities' connection, isolation, and re-energization fees are calculated based upon Horizon Utilities' costs. The Customer is responsible for the cost of connection and service conductors from the point of connection to the load.

3.9.2. Unmetered Customer Responsibilities

For each unmetered load, the Customer shall:

- Comply with the requirements of Horizon Utilities' standards and the Ontario Electrical Safety Code to ensure public safety.
- Install, operate, and maintain its secondary conductor or cable from the Horizon Utilities designated connection point to the intended load.
- Provide load data as requested by Horizon Utilities including the number of devices, type of device(s), loading, hours of device operation, etc. Energy consumption shall be calculated by Horizon Utilities based upon the information provided by the Customer such as:
 - The device's manufacturer's specifications for the device; or
 - The maximum continuous calculated load, or
 - The results of a Horizon Utilities' accepted audit.
- Provide revised or updated unmetered service information to Horizon Utilities immediately upon any changes to the unmetered load.
- Not allow any external party to connect to its unmetered service or its unmetered secondary bus. In the event where an organization allows an internal group to share or connect to its unmetered service, the Customer will be responsible for advising Horizon Utilities of the incremental load and all subsequent billing. Horizon Utilities will not manage separate accounts for multiple loads from a single unmetered service.

3.9.3 Horizon Utilities Responsibilities

Horizon Utilities shall:

- Where the connection point is from Horizon Utilities owned assets, provide a Service Layout Form (SLF) for each unmetered service location. The SLF will identify the connection point and include any applicable Horizon Utilities standards and conditions.
- Ensure that unmetered service billing information accurately reflects calculated electrical consumption by unit, quantity, load profile and demand as provided by the Customer
- Validate unmetered service data provided by the Customer in a timely manner (within 60 days), and advise the customer of the acceptance or rejection of the data
- Engage and communicate with the unmetered load customer class as appropriate, i.e. posting on the website for comment, letter, email, telephone and/or scheduled meeting, prior to the implementation of material changes to the class or its rate structure
 - o to ensure the utility has the most current and relevant customer information and
 - to contact or make available for comment information regarding the preparation of cost allocation studies, load profile studies or other related materials that may materially impact unmetered load customers.



3.9.4 Unmetered Service Load Revisions

Horizon Utilities must be advised immediately of all changes to the loading of unmetered services. All revisions are subject to acceptance and validation by Horizon Utilities.

Should the Customer reduce its unmetered load and not advise Horizon Utilities in a timely manner, the electricity charges billed will be revised on a go-forward prospective basis only and not retroactively adjusted.

Adjustments to the number of devices on an unmetered service will take effect as of the next billing period.

3.9.5 Load Transfers

Load transfers occur when one distribution company (i.e. the physical distributor) provides a supply of electricity to another distribution company (i.e. the geographic distributor) in either an emergency or contingency situation, or as standard supply to the other distributor's customers (i.e. load transfer customer).

3.9.5.1 Short-term Load Transfers

Short-term load transfers occur in an emergency or contingency situation and require the physical distributor to measure the load in some alternative manner, as metering is generally not available.

The physical distributor will bill the geographical distributor for the electricity and demand supplied at the physical distributor's approved rates and charges and the spot price for electricity, excluding the fixed distribution rate. There is no pro-rating of charges.

3.9.5.2 Long-term Load Transfers

Long-term load transfers occur when the physical distributor makes available the supply of electricity to a geographic distributor in order to connect a load transfer customer.

The geographic distributor is required to provide the customer consumption and demand to the physical distributor, in order to settle for the supply. The physical distributor will bill the geographic distributor for the electricity and demand supplied at the physical distributor's approved rates and the applicable rate for electricity, as determined by the Customer class.



SECTION 4 GLOSSARY OF TERMS

Alternative bid: the part of the work that the Customer may perform in the building of any expansion to Horizon Utilities' distribution system as defined in the Distribution System Code and further specified by Horizon Utilities.

Apparent Power: the total power, measured in kilovolt Amperes (kVA).

Back Feed: electrical energy that flows from a Customer into a distribution system.

Billing Demand: the metered demand or connected load after necessary adjustments have been made for power factor, intermittent rating, transformer losses and minimum billing; a measurement in kilowatts (kW) of the maximum rate at which electricity is consumed during a billing period.

Billing Error: Estimation(s) of meter read data for the calculation of electricity charges are <u>not</u> considered an error.

Capital Contribution: is the amount that a distributor may charge a customer which shall not exceed that customer's share of the difference between the present value of the projected capital costs and the on-going maintenance costs for the facilities costs and the present value of the projected revenues associated with the distribution services provided by those facilities.

Civil Component (of a project): any work involving boring, trenching, roadwork, masonry, concrete foundations and road crossing ducts.

Conditions of Service: the document developed by a distributor in accordance with Section 2.4 of the Distribution System Code that describes the operating practices and connection rules of the distributor.

Connection: the process of installing and activating connection assets in order to distribute electricity.

Connection Assets: that portion of Horizon Utilities' distribution system used to connect a Customer to the existing main distribution system and consists of the assets between the point of supply and the ownership demarcation point.

Connection Agreement: an agreement entered into between Horizon Utilities and a Customer connected to its distribution system that delineates the conditions of the connection and delivery of electricity to or from that connection.

Consumer: a person who uses for the person's own consumption, electricity that the person did not generate.

Customer: a person who has contracted for, or intends to contract for, connection of a building or embedded generation facility, and includes owners and developers of residential or commercial subdivisions.

Customer's Facility: any and all equipment, elements and facilities of any kind whatsoever owned by the Customer including, but not limited to, the equipment and facilities depicted in any schedule to the Customer's Connection Agreement.

Demand: the average value of power measured over a specified interval of time, usually expressed in kilowatts (kW). Typical demand intervals are 15, 30, and 60 minutes.

Demand Meter: a meter that measures a consumer's peak usage during a specified period of time. Typical Demand Meters:

- Kilowatt (kW) Demand Meter measures the peak real power used by the Customer, generally measured in base units of Watts.
- Kilovolt Ampere Reactive (kvar) Demand Meter measures the peak reactive power used by the Customer, and is generally measured in base units of Volts-Amperes reactive (var). It is the



power required to keep the customers equipment (transformers, motors) "excited"; it performs no actual work.

 Kilovolt Ampere (kVA) Demand Meter measures the peak Apparent Power used by the Customer, and is generally measured in base units of Volt-Amperes. Note: Horizon Utilities Corporation employs only kW and kVA Demand Meters within its electromechanical demand meter assets.

Developer: a customer, customers or entity owning property for which new or modified electrical services are to be installed.

Disconnection: a deactivation of connection assets that results in cessation of distribution services to a Customer.

Distribute: with respect to electricity, means to convey electricity at voltages of 50 kV or less.

Distribution Services: services related to the distribution of electricity and the services that the Ontario Energy Board requires Horizon Utilities to provide/offer.

Distribution Standards: Horizon Utilities' distribution standards as defined in the Standard Drawings Manual, latest edition, and in other standard specifications.

Distribution System: Horizon Utilities' system for distributing electricity, and includes any structures, equipment, or other items used for that purpose. The distribution system is composed of the main distribution system capable of distributing electricity to many Customers and the connection assets used to connect Customers to the main distribution system.

Distribution System Code or DSC: the Distribution System Code approved by the Ontario Energy Board that, among other things, establishes the obligations of the distributor with respect to the services and terms of service to be offered to Customers and Retailers, and provides minimum technical operating standards for distribution systems.

Distributor: a person who owns or operates an electricity distribution system.

Duct Bank: two (2) or more ducts that may be encased in concrete and used for the purpose of containing and protecting underground electric cables.

Easement: a right awarded to a person to make limited use of another person's property.

Electrical Safety Authority or ESA: the person or body designed under the regulations of the Electricity Act as the Electrical Safety Authority.

Electricity Act: the Electricity Act, S.O. c.15, Schedule A, as amended.

Electricity and Gas Inspection Act: the Electricity and Gas Inspection Act, R.S., 1985, c.E-4 as amended.

Embedded Distributor: a licensed distributor who is not a Wholesale Market Participant and who is supplied with electricity by Horizon Utilities.

Embedded Generation Facility: a generation facility that is not directly connected to the IESO-controlled grid but is instead connected to Horizon Utilities' distribution system.

Embedded Generator: the person who owns or operates an Embedded Generation Facility.

Embedded Market Participant: a Customer who is registered as a Wholesale Market Participant with the Independent Electricity System Operator (IESO) and whose facility is not directly connected to IESO-controlled grid but is connected to Horizon Utilities' distribution system.

Emergency: any abnormal system condition that requires remedial action to prevent or limit loss of Horizon Utilities' distribution system or supply of electricity that could adversely affect the reliability of the electricity system.



Emergency Backup: refers to a generation facility that has a transfer switch that isolates it from the distribution system.

Energized: provided with electric voltage or potential.

Energy: the product of power and time, usually expressed in kilowatt-hours (kWh).

Equipment: any structures, lines, transformers, breakers, disconnect switches, buses, voltage/current transformers, protection systems, telecommunications systems, cables or any other auxiliary equipment used for the purpose of conveying electricity, whether owned by Horizon Utilities, the Customer, or another distributor.

Expansion: an addition to Horizon Utilities' distribution system in response to a request for additional Customer connections that otherwise could not be made, such as increasing the length of the distribution system.

Expansion Fees: New Expansion Costs and Basic Connection Costs are collectively referred to as Expansion Fees. If an expansion of Horizon Utilities' distribution system is required, Horizon Utilities will perform an economic evaluation of the expansion project to determine if future revenue from the Customer(s) will pay for the costs pertaining to the expansion including but not limited to: a) on-going operating, maintenance & administration costs (OM&A Costs) whether actually incurred or apportioned; b) the distribution system expansion capital cost (New Expansion Costs); and c) the basic cost of connection (Basic Connection Costs).

Final reading date: the date that the meter is last read prior to discontinuing or disconnecting service, and represents the date that the account is closed.

Force Majeure: any cause which is beyond the reasonable control of and not the result of negligence or the lack of diligence of, the Party claiming force majeure or its contractors or suppliers.

General Service: any service supplied to premises other than those designated as Residential.

Generator: a person who owns or operates a generation facility.

Geographic Distributor: with respect to a load transfer, means the distributor that is licensed to service a load transfer Customer and is responsible for connecting and billing the load transfer Customer, but does not provide physical delivery of electricity to the Customer.

Host Distributor: the distributor who provides electricity to an embedded distributor.

House Service: that portion of the electrical service in a multiple occupancy facility that is common to all occupants (e.g. parking lot lighting, sign service, corridors).

House Service Meter: a meter that measures and records energy use in the common areas of a multiple occupancy facility.

Independent Electricity System Operator or IESO: the body established under the Electricity Act as the Independent Electricity System Operator.

Interval Meter: a meter that measures and records energy use and demand on an hourly or sub-hourly basis.

KVA Meter: see Demand meter above.

Kilowatt-hour Meter: a meter that measures a customer's energy consumption.

Late Payment Charge: a charge applied to the outstanding balance of a Customer's bill when the total amount of the bill has not been paid by the due date.

Lies Along: means directly adjacent to or abutting the public road allowance where Horizon Utilities has distribution facilities of the appropriate voltage and capacity.



Line Side: the input side of a component of electrical equipment, as opposed to the load or output side.

Load Transfer: a network supply point of one distributor that is supplied through the distribution network of another distributor, where this supply is not considered a wholesale supply point.

Load Transfer Customer: a Customer that is provided distribution services through a load transfer.

Low-income Customer: A residential Customer who has been qualified by a Social Service or Government Agency and/or who qualified for Emergency Financial Assistance under the Low-income Energy Assistance Program ("LEAP")

MCM: refers to "millicircular mils" and it is a measure of the size of an electrical conductor.

Main Disconnecting Device: a device that disconnects the electrical supply to a Customer's building or embedded generation facility from Horizon Utilities' distribution system. **Main Distribution System:** a distribution system less the connection assets.

Maintenance: any inspection, testing, cleaning, torqueing, adjusting and calibrating of electrical equipment or replacement of support structures associated with the electrical system, but does not include electrical betterments.

Market Rules: the rules made under Section 32 of the Electricity Act.

Measurement Canada: the Special Operating Agency established in August 1996 by the Electricity and Gas Inspection Act, 1980-81-82-83, c. 87, and Electricity and Gas Inspection Regulations (SOR/86-131).

Meter Installation: the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data, and monitor the condition of the installed equipment.

Metering Services: installation, testing, reading and maintenance of meters.

Meter Socket: the mounting device for accommodating a socket-type revenue meter.

MIST meter: Metering Inside the Settlements Timeframe (interval meter).

Nameplate Rating: the maximum power, voltage and current carrying capacity of a piece of equipment, as displayed on the equipment nameplate.

Net Metering: metering used in an electricity generation application. The meter records energy that is delivered from the utility in one register and records the energy the utility receives from the generator in another register. Both registers are netted to determine overall billable or credit amounts.

Normal Operating Conditions: the operating conditions that comply with the standards set by the Canadian Standards Association Standard CAN3-C235- 87 (latest edition).

Ontario Energy Board Act: the Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Schedule B, as amended.

Ownership Demarcation Point: the physical location on a distribution system at which a distributor's ownership of equipment, including connection assets, ends and the Customer's ownership begins.

Operational Demarcation Point: the physical location on a distribution system at which Horizon Utilities responsibility for operational control of equipment, including connection assets, ends.

Person: includes an individual, a corporation, sole proprietorship, partnership, unincorporated organization, unincorporated association, body corporate and any other legal entity.

Physical Distributor: with respect to load transfer, means the distributor that provides physical delivery of electricity to a load transfer Customer, but is not responsible for connecting and billing the load transfer Customer directly.



Point of Entry: the point at which Horizon Utilities' conductors cross over from the public road allowance or an easement, to the Customer's premises.

Point of Supply: the customer connection point, for both primary and secondary services, to Horizon Utilities' distribution system. This might be located at a manhole, hand hole, vault, pole or pad-mounted device. The electrical supply location might be located on an adjacent property from which Horizon Utilities has land access rights. With respect to an Embedded Generator, point of supply means the connection point where electricity produced by the Generator is injected into a distribution system. In all cases, Horizon Utilities shall designate the final point of supply.

Power Factor: the ratio between Real Power and Apparent Power, and will be a value between 0 and 1 (i.e. kW/kVA).

Premises: a building or embedded generation facility and its land.

Primary Service: any service that is supplied with a nominal voltage greater than 750 Volts.

Qualified Contractor: a contractor qualified to deal with electrical hazards in accordance with the requirements of the Occupational Health & Safety Act, (Ontario) as amended and all applicable regulations thereto including, Construction Projects – O.Reg.213/91, and who is approved by Horizon Utilities.

Rate: any rate, charge or other consideration, and includes a penalty or charge for late payment.

Reactive Power: the power component which does not produce work but is necessary to allow some equipment to operate, and is measured in kilovolt Amperes Reactive (kVAR).

Real Power: the power component required to perform real work, and is measured in kilowatts (kW).

Regulation: the regulations made under the Ontario Energy Board Act or the Electricity Act.

Residential Service: a service of less than 50 kW demand supplied to single-family dwelling units for domestic or household purposes.

Retailer: a person who retails electricity to consumers who do not take Standard Supply Service (SSS) and is licensed by the OEB

Retail Settlement Code or RSC: the Code issued by the Ontario Energy Board and in effect at the relevant time, which, among other things, establishes a distributor's obligations and responsibilities associated with financial settlement among retailers and Customers, and provides for tracking and facilitating Customer transfer among competitive Retailers.

Revenue Meter: any meter used for the purpose of establishing the basis of a charge for a supply of electricity is a revenue meter and includes any sub-metering device or any apportionment metering device used to determine the electricity charges to individual tenants in a multiple-client realty complex.

Secondary Service: any service that is supplied with a nominal voltage less than 750 Volts.

Service Agreement: the agreement that sets out the relationship between a licensed retailer and a distributor, in accordance with the provisions of Section 12 of the Retail Settlement Code.

Service Application Form or SAF: a form used by Horizon Utilities to illustrate electric servicing details, meter location, service routing and costs. This form is required to be completed by the Customer or Customer's contractor prior to any connection being made.

Service Area: the area in which Horizon Utilities is authorized by its licence to distribute electricity.

Service Entrance Capacity: the amperage rating of the main disconnect switch at the Customer's location.

Service Entrance Equipment: all Customer-owned equipment downstream from the ownership demarcation point.



Service Layout: refers to all the field activities required to complete the Service Application Form (SAF).

Smart Meter: an electronic meter that records hourly electricity usage. Smart Meters allow for Time-of-Use (TOU) pricing and are read remotely.

Standard Supply Service Code: the Code, issued by the Ontario Energy Board, and in effect at the relevant time, which, among other things, establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under Section 29 of the Electricity Act unless otherwise stated in its licence.

Standard Supply Service Customer or SSS Customer: a Customer who is sold electricity under Section 29 of the Electricity Act.

Step-up (step-down) Transformation Equipment: equipment that increases or decreases the voltage level.

Supply Side: has the same meaning as "line side".

Supply Voltage: the voltage at the ownership demarcation point.

Three-phase Load: an electrical load that requires three equal voltages that are 120 degrees out of phase with one another.

Time of Use Meter or TOU Meter: records energy consumption in prescribed registers for pre-defined time periods.

Total Losses: the sum of distribution losses and unaccounted for energy.

Transmission System Code or TSC: the Code, approved by the Ontario Energy Board, which regulates the financial and information obligations of the Transmitter with respect to its relationship with customers, as well as establishing the standards for connection of customers to, and expansion of, a transmission line

Work That is not Subject to Alternative Bid: the part of the work that only Horizon Utilities may perform in the building of any expansion to Horizon Utilities' distribution system as defined in the Distribution System Code and further specified by Horizon Utilities.

Un-forecasted Customer: A Customer whose connection within the five-year recommended connection Horizon was not anticipated at the time of constructing an expansion.

Unmetered Loads: electricity consumption that is not separately metered and that is billed based on estimated usage.

Wholesale Market Participant: a person that sells or purchases electricity or ancillary services through the IESO-administered markets.

B-STAFF-28 ATTACHMENT 4 ALECTRA UTILITIES CONDITIONS OF SERVICE – POWERSTREAM RATE ZONE



alectra

CONDITIONS OF SERVICE FOR THE POWERSTREAM SERVICE AREA

Alliston, Aurora, Barrie, Beeton, Bradford West Gwillimbury, Markham, Penetanguishene, Richmond Hill, Thornton, Tottenham and Vaughan



PowerStream Inc. 161 Cityview Boulevard Vaughan, Ontario, L4H 0A9 1-877-963-6900

Revision 4.2 Effective: May 1, 2015]



CONDITIONS OF SERVICE

DATE:			SECTION:		
May 1, 2015		New			
	Х	Revised			
NUMBER:	NAME:				
		Preface			

The Distribution System Code (DSC) requires that every Distributor produce its own Conditions of Service (COS) document. The purpose of this document is to provide a means for communicating the types and level of service available to the Customers within the PowerStream service area. The DSC requires that the COS document be readily available for review by the general public. In addition, the most recent version of the document must be provided to the Ontario Energy Board (OEB), which in turn will retain it on file for the purpose of facilitating dispute resolutions in the event that a dispute cannot be resolved between a Customer and PowerStream without the OEB's intervention.

This document follows the form and general content of the COS document template appended to the DSC and included in Section 5 as <u>Appendix A</u>. The template outlines the minimum requirements. However, as suggested by the DSC, PowerStream Inc. has expanded on the contents to encompass local characteristics and other specific requirements. The template also serves as a reference for PowerStream, in order to reflect in its COS document changes prescribed by governing legislation, licences and codes.

The "Distribution Activities (General)" section contains references to services and requirements that are common to all Customer classes. This section covers items such as Rates, Billing, Deposits, Hours of Work, Emergency Response, Power Quality, Available Voltages and Metering.

The "Customer Class Specific" section contains references to services and requirements specific to individual Customer classes. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Special Contracts, etc.

Other sections include the "Glossary of Terms" and "Appendices and References".

Subsequent changes will be incorporated with each submission to the OEB.

END OF SECTION



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This section includes information regarding PowerStream's defined service area, legislation and codes applicable to the distributor / customer relationship, rules for interpreting the Conditions of Service, how to contact PowerStream, customer and distributor rights and the dispute resolution process.

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This section defines a variety of terms in the context of this document. The terms reflect definitions in existing documents that apply to the distributor, such as the Distribution System Code and the Standard Service Supply Code. The text of the Conditions of Service expands on these definitions as applicable.

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The links to documents, forms, rates and sample agreements identified in the Conditions of Service as appendices and references are listed on the PowerStream website, on the <u>Conditions of Service web page</u>.



DATE:			SECTION:
May 1 2015		New	10 Introduction
May 1, 2015	х	Revised	1.0 Introduction
NUMBER:	NA	ME:	
1.1	Identification of Distributor and Service Area		

PowerStream Inc. (PowerStream) referred to herein is a corporation incorporated under the laws of the Province of Ontario to distribute electricity and to provide services to assist the government in achieving its goal in electricity conservation.

PowerStream is licensed by the Ontario Energy Board (OEB) to supply electricity to Customers and to operate distribution facilities within its licensed distribution service area as described in the OEB Distribution Licence ED-2004-0420 issued to PowerStream on August 30, 2004 and expiring on August 29, 2024. This Conditions of Service (COS) document, as prescribed by the Distribution System Code (DSC), outlines PowerStream's operating practices and connection policies, the obligations of PowerStream's Customers and the minimum standards of service PowerStream's Customers can expect in accordance with the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998*.

PowerStream may only operate within its licensed territory, roughly as defined in its Distribution Licence as:

- Community of Alliston Service Area
- Town of Aurora Service Area
- City of Barrie Service Area
- Community of Beeton Service Area
- Community of Bradford West Gwillimbury Service Area
- Town of Markham Service Area (now known as the City of Markham)
- Community of Penetanguishene Service Area
- Town of Richmond Hill Service Area
- Community of Thornton Service Area
- Community of Tottenham Service Area
- City of Vaughan Service Area

The service area is subject to change with the OEB's approval.

For exact description of service area refer to Reference 1 OEB Distribution Licence ED-2004-0420. For the Service Area Map refer to the Reference 2 Service Area Map of this COS document.

Nothing contained in this COS document or in any contract for the supply of electricity by PowerStream shall prejudice or affect any rights, privileges, or powers vested in PowerStream by law under any Act of the Legislature of Ontario or the Parliament of Canada, or any regulations there under.



DATE:			SECTION:
Mar. 4, 0045		New	1.0 Introduction
May 1, 2015	х	Revised	1.0 Introduction
NUMBER:	NA	ME:	
1.1	Identification of Distributor and Service Are		ation of Distributor and Service Area

1.1.1 Distribution Overview

PowerStream distributes electricity through its three phase primary distribution systems and 44 kilovolt (kV) sub-transmission system at nominal operating voltages of 44 kV, 27.6 kV, 13.8 kV, 8.32 kV and 4.16 kV. The primary voltage supply to a Customer will depend on the proximity of the Customer's property to the nearest distribution facility, the geographic location of the property and the capacity required by the Customer. Not all voltage levels are available throughout the PowerStream service area.

On the 44 kV system, PowerStream services directly multiple municipal substations and multiple Customer-owned substations. The municipal substations transform the 44 kV sub-transmission voltage to distribution voltages of 4.16 kV, 8.32 kV, 13.8 kV and 27.6 kV, which are distributed as feeders that run radially out from the municipal substations.

Feeders are typically arranged to run radially out from transformer stations owned by PowerStream and Hydro One Networks Inc. Open points exist between feeders and this determines the feeder geographical coverage. These feeders directly supply pole mounted, pad mounted or vault type distribution transformers that reduce the operating voltage to Customer levels.



DATE:			SECTION:
May 1, 2015		New	1.0 Introduction
May 1, 2015	х	Revised	1.0 Introduction
NUMBER: NAME:			
1.2		Related (Codes and Governing Laws

The supply of electricity or related services by PowerStream to any Customer shall be subject to various laws, regulations, and codes, including the provisions of the latest editions of the following documents:

- Electricity Act, 1998, S.O. c15 Schedule A and Regulations
- Ontario Energy Board Act, 1998 S.O. c15 Schedule B and Regulations
- Electricity Distribution Licence
- Independent Electricity System Operator Market Rules
- Affiliate Relationships Code for Electricity Distributors and Transmitters
- Transmission System Code
- Distribution System Code
- Retail Settlement Code
- Standard Supply Service Code
- Occupational Health and Safety Act, R.S.O. 1990 and Regulations
- Ontario Electrical Distribution Safety Code
- Environmental Protection Act, R.S.O 1990, c.E19 and Regulations
- Electricity Retailer Code of Conduct
- Personal Information Protection and Electronic Documents Act, 2000, C.5
- Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, CHAPTER M.56 and Regulations
- Electricity and Gas Inspection Act R.S., 1985, c. E-4
- Green Energy and Green Economy Act, 2009, S.O. 2009, c. 12, Schedule A and Regulations
- Law Enforcement and Forfeited Property Management Statute Law Amendment Act, 2005
- Public Service Works on Highways Act, R.S.O. 1990 c.P.49
- Ontario Building Code
- Any other obligation or requirement as prescribed by legislation or regulations

In the event of a conflict between this document and PowerStream's Distribution Licence or regulatory codes issued by the OEB, the Distribution Licence and associated regulatory codes shall prevail in the order of priority established by the OEB.

Customers and their agents must plan and design the required electricity service with adherence to the PowerStream COS document, all applicable provincial and Canadian electrical codes, and all other applicable federal, provincial, and municipal laws, regulations, codes and by-laws to also ensure compliance with their requirements. Without limiting the foregoing, the work shall be conducted in accordance with the latest edition of the Ontario *Occupational Health and Safety Act* (OHSA); the Regulations for Construction Projects, and the Electrical Utility Safety Rules published by the Infrastructure Health & Safety Association.



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1.3	Interpret		tation

In this COS document, unless the context otherwise requires:

- Headings, capitalization, paragraph numbers and underlining are for convenience only and do not affect the interpretation of this COS document;
- Words referring to the singular include the plural and vice versa; and
- Words referring to a gender include any gender.

Should PowerStream deem that the Customer is required to enter into an Offer To Connect (OTC) with PowerStream, and should the terms and conditions in the OTC conflict with this COS document, the OTC shall govern.

Should a conflict exist within this COS document, the hierarchy shall be:

- Standards (Drawings); followed by
- Appendices and References; followed by
- Tables; followed by
- Text



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1.4	Amendme		ents and Changes		

The provision of this COS document and any amendments made from time to time form part of any contract made between PowerStream and any connected Customer, Retailer, or Generator, and this COS document supersedes all previous versions of this document, oral or written, of PowerStream or any of its predecessor municipal electric utilities as of its effective date.

In the event of changes to this COS document, PowerStream will issue a notice with and/or on the Customer's bill. In dealing with some sections of the COS document, PowerStream may also issue a public notice in a local newspaper.

PowerStream will submit a new copy of the COS document to the OEB once it is implemented. The new document will be accompanied with a cover letter that outlines all revisions including a summary of any public comments on the changes.

The Customer is responsible for contacting PowerStream to ensure that the Customer has the current version of this COS document. PowerStream shall provide one copy per revision for each Person that requests it. The current version of the document is also posted on the PowerStream website, in the Publications section, and can be downloaded at <u>www.PowerStream.ca</u>.



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1.5	Contact I		nformation

PowerStream can be contacted by telephone, e-mail and postal mail as described below:

Telephone

PowerStream "One Number"*

1-877-963-6900

Press 1 to report a power outage, electrical emergency or to hear when power will be restored. This service is available 24 hours a day, seven days a week, 365 days a year.

Press 2 for Customer Service and general inquiries during normal business operating hours of 8:00 a.m. to 4:30 p.m., Monday through Friday, excluding holidays. Outside of normal business hours an automated, interactive service is available.

*Effective May 1, 2015 PowerStream's main contact telephone number is 1-877-963-6900. All previously published power outage and customer service telephone numbers continue to be in service and are connected to this main telephone number.

Underground Cable Locating by Ontario One Call 1-800-400-2255

Call Ontario One Call at before you dig to locate PowerStream's underground cables.

<u>Fax</u>

Customer Relations & General Inquiries:	1-877-236-6395
Collections & Payment Processing:	1-877-236-6396
All other departments:	1-877-236-6395



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1.5	Contact I		nformation

<u>E-Mail</u>

General Information:	Info@PowerStream.ca
Customer Service:	CustomerService@PowerStream.ca
Privacy Information:	PrivacyOfficer@PowerStream.ca
Procurement:	Procurement@PowerStream.ca
Website:	Webmaster@PowerStream.ca

Postal Mail

Account Payments:	P.O. Box 3700, Concord, Ontario, L4K 5N2
General Correspondence:	161 Cityview Boulevard, Vaughan, Ontario, L4H 0A9



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1.6	Customer Rights		r Rights and Mutual Obligations

PowerStream shall be liable to a Customer and a Customer shall be liable to PowerStream only for any damages that arise directly out of wilful misconduct or negligence:

- of PowerStream in providing distribution services to the Customer;
- of the Customer in being connected to PowerStream's distribution system; or
- of PowerStream or the Customer in meeting their respective obligations under this COS document, their licences and any other applicable law.

Notwithstanding the above, neither PowerStream nor the Customer shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

The Customer shall indemnify and hold harmless PowerStream, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction and installation of an embedded generator, or other electrical apparatus by, or on behalf of, the Customer.

1.6.1 Defective Customer Equipment

The Customer will be required, at their cost, to repair or replace any equipment owned by the Customer that may affect the integrity or reliability of PowerStream's distribution system. If the Customer does not take such action within a reasonable time, PowerStream may disconnect the supply of power to the Customer. PowerStream's policies and procedures with respect to the disconnection process are further described in <u>Section 2.2 Disconnection</u> of this COS document.

The Customer is responsible for the ongoing maintenance and good repair of their electrical service equipment. If any of the other items associated with the electrical equipment require repair or replacement, the new equipment or repair shall comply with all current codes, regulations and specifications.



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1.6	Customer Rights and Mutual Obligations				

1.6.2 Customer's Physical Structures

Depending on the ownership demarcation point, construction, repairs and maintenance of all civil works on private property owned by the Customer, including such items as transformer vaults, transformer rooms, transformer pads, cable chambers, manholes, cable pull rooms, underground conduits, bollards, fences or other structures, shall be the responsibility of the Customer. All civil work on private property must be inspected and accepted by PowerStream and the ESA.

The Customer is responsible for the maintenance and safe keeping conditions, satisfactory to PowerStream, of its structural and mechanical facilities located on private property.



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1.7	Distributor Rights and Mutual Obligations				

PowerStream shall be liable to a Customer and a Customer shall be liable to PowerStream only for any damages that arise directly out of wilful misconduct or negligence:

- of PowerStream in providing distribution services to the Customer;
- of the Customer in being connected to PowerStream's distribution system; or
- of PowerStream or the Customer in meeting their respective obligations under this COS document, their licences and any other applicable law.

Notwithstanding the above, neither PowerStream nor the Customer shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

The Customer shall indemnify and hold harmless PowerStream, its directors, officers, employees and agents from any claims made by any third parties in connection with the construction and installation of an embedded generator, or other electrical apparatus by, or on behalf of, the Customer.

1.7.1 Access to Customer Property

PowerStream shall have access to Customer property in accordance with the *Electricity Act 1998*, Section 40.

1.7.2 Safety of Equipment

The Customer will comply with all aspects of the Ontario Electrical Safety Code (OESC) with respect to ensuring that equipment is properly identified and connected for metering and operating purposes and will take whatever steps necessary to correct any deficiencies, in particular cross wiring situations, in a timely fashion. At the request of the Electrical Safety Authority (ESA), or if the Customer does not take such action within a reasonable time, PowerStream may disconnect the supply of power to the Customer. PowerStream's policies and procedures with respect to the disconnection process are further described in <u>Section 2.2 Disconnection</u> of this COS document.

Upon request, PowerStream shall, if able, locate without charge, all PowerStream-owned secondary and primary underground cables. If PowerStream is unable to locate an underground cable, PowerStream shall provide a service disconnection and reconnection during normal business operating hours without charge. PowerStream shall charge for locating underground cable outside



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1.7	Distributor Rights and Mutual Obligations				

normal business operating hours, other than in an emergency situation. Refer to <u>Section 1.5</u> <u>Contact Information</u> of this COS document.

The Customer shall not use or interfere with the facilities of PowerStream except in accordance with a written agreement with PowerStream. The Customer must also grant PowerStream the right to seal any point where a connection may be made on the line side of the metering equipment.

If any of PowerStream's facilities or equipment are damaged directly out of willful misconduct or negligence, the Customer shall pay PowerStream the value of said PowerStream facilities and equipment or the cost of repairing or replacing the same.

Energized conductors shall be barriered such that vegetation, equipment and unauthorized personnel do not come in contact with them or draw arcs, under reasonably foreseeable circumstances. Clearances shall conform to the OESC. To ensure public safety and the continued reliable operation of its distribution system, PowerStream will maintain clearance around its distribution lines on a cyclical or as-needed basis.

The Customer shall not build, plant or maintain or cause to be built, planted or maintained any structure, tree, shrub or landscaping that would or could obstruct the operation of distribution lines, endanger PowerStream equipment, interfere with the proper and safe operation of PowerStream's facilities or adversely affect compliance with any applicable legislation in the sole opinion of PowerStream.

Customers are responsible for all initial and continuing tree trimming and tree and brush removal for all new and existing secondary services, primary services, and substations on a Customer's property. To accomplish this safely, Customers should arrange for disconnection and reconnection of the electrical service. Refer to <u>Section 2.2.2.1 Maintenance Purposes</u> of this COS document. For more information on tree trimming near power lines, please refer to the following links:

www.powerstream.ca/app/pages/TreeManagement.jsp

www.esasafe.com/powerlinesafety/at-home-and-play/landscaping-and-trimming/

1.7.3 Operating Control



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1.7	Distributor Rights and Mutual Obligations				

The Customer will provide a convenient and safe place, satisfactory to PowerStream, for installing, maintaining and operating PowerStream's equipment in, on, or about the Customer's premises. PowerStream assumes no risk and will not be liable for damages resulting from the presence of its equipment on the Customer's premises or approaches thereto, or action, omission or occurrence beyond its control, or negligence of any Person over whom PowerStream has no control.

Unless an employee or an authorized agent of PowerStream or a Customer lawfully entitled to do so, no Customer shall remove, replace, alter, repair, inspect or tamper with PowerStream's equipment.

Customers will be required to pay the cost of repairs or replacement of PowerStream's equipment that has been damaged or lost by the direct or indirect act or omission of the Customer or its agents.

The physical location on the Customer's premises at which PowerStream's responsibility for operational control of distribution equipment, including connection assets, ends is defined by the DSC as the operational demarcation point.

Operation and operating control of high voltage equipment at a Customer's premises shall be as defined in an Operating Agreement entered into with the Customer.

1.7.4 Defective Customer Equipment

The Customer will be required, at their cost, to repair or replace any equipment owned by the Customer that may affect the integrity or reliability of PowerStream's distribution system. If the Customer does not take such action within a reasonable time, PowerStream may disconnect the supply of power to the Customer. PowerStream's policies and procedures with respect to the disconnection process are further described in <u>Section 2.2 Disconnection</u> of this COS document.

The Customer is responsible for the ongoing maintenance and good repair of their electrical service equipment. If any of the other items associated with the electrical equipment require repair or replacement, the new equipment or repair shall comply with all current codes, regulations and specifications.

1.7.5 Customer's Physical Structures

Depending on the ownership demarcation point, construction, repairs and maintenance of all civil works on private property owned by the Customer, including such items as transformer vaults,



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transformer rooms, transformer pads, cable chambers, manholes, cable pull rooms, underground conduits, bollards, fences or other structures, shall be the responsibility of the Customer. All civil work on private property must be inspected and accepted by PowerStream and the ESA.

The Customer is responsible for the maintenance and safe keeping conditions, satisfactory to PowerStream, of its structural and mechanical facilities located on private property.



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1.8		Disputes		

Any dispute between Customers or Retailers and the Distributor shall be settled according to the dispute resolution process specified in Section 16 of PowerStream's Distribution Licence.

1.8.1 Dispute Resolution Process

A Person shall submit their disputes in writing to PowerStream's Head Office via postal mail or email. Refer to <u>Section 1.5 Contact Information</u> of this COS document.

Each complaint will be date stamped and recorded.

PowerStream shall acknowledge receipt of a dispute within ten (10) business days.

PowerStream shall investigate the complaint and attempt in good faith to resolve the dispute within 90 calendar days of PowerStream receipt of the dispute. If resolution is expected to exceed the normal resolution period, PowerStream will advise the Person, including the reasons for the delay.

If PowerStream and the Person cannot reach a mutual agreement, PowerStream will refer the complaint to an independent third party resolution agency, which has been selected by the OEB. Until the OEB approves an independent third party complaints resolution agency, such complaints will be referred to the OEB, which has assumed this role.

PowerStream shall refer any disputes that lead to legal action against the corporation to its legal counsel.

PowerStream will keep records of all complaints. These records will include the following:

- Person's name and address
- Nature of complaint
- Resolution date
- Results of resolution



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1.9		Force Ma	jeure

If a Force Majeure event prevents either party from performing any of its obligations under this COS document, that party shall:

- other than a Force Majeure event related to acts of God, promptly notify the other party of the Force Majeure event and its assessment in good faith of the effect that the event will have on its ability to perform any of its obligations. If the immediate notice is not in writing, it shall be confirmed in writing as soon as reasonably practicable;
- not be entitled to suspend performance of any of its obligations under this COS document to any greater extent or for any longer time than the Force Majeure event requires it to do so;
- use its best efforts to mitigate the effect of the Force Majeure event, remedy its inability to perform, and resume full performance of its obligations;
- keep the other party continually informed of its efforts;
- other than for Force Majeure events related to acts of God, provide written notice to the other party when it resumes performance of any obligations affected by the Force Majeure event; and
- if the Force Majeure event is a strike or a lockout of PowerStream's employees or authorized representatives, PowerStream shall be entitled to discharge its obligations to notify its Customers in writing by means of placing an ad in the local newspaper.

PowerStream shall not be liable for any delay or failure in the performance of any of its obligations under this COS document to supply power due to any events or causes beyond the reasonable control of PowerStream, including, without limitation, severe weather, flood, fire, lightning, other forces of nature, acts of animals, epidemic, quarantine restriction, war, sabotage, act of public enemy, earthquake, insurrection, riot, civil disturbance, strike, restraint by court order or public authority, or action or non-action by or inability to obtain authorization or approval from any governmental authority, or any combination of these causes.



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Under the terms of the DSC, PowerStream has the obligation to connect or make an Offer to Connect (OTC) to any Customer that is within its service area.

If the Customer is not the registered landowner, PowerStream must have the written consent of the registered landowner in order to enter into any agreement. For further clarification refer to Sections 2.1.7.6 Tenant/Occupier Customer and 2.1.7.7 Owner Liability for Tenant or Occupier of this COS document.

The Customer, or its authorized representative, shall consult with PowerStream concerning the availability of supply, the supply voltage, service location, metering, and any other project-related details. These requirements are separate from and in addition to those of the ESA.

The Customer or its authorized representative shall apply, in writing, for new, upgraded or temporary electric service and the Customer is required to provide PowerStream with sufficient lead time in order to ensure:

- the timely provision of supply to new and upgraded premises; or
- the availability of adequate capacity for additional loads to be connected in existing premises.

PowerStream shall respond within 15 calendar days of a receipt of a written request for connection. The response shall include an application for service, herein after called the application.

Depending on the type of connection, and specified in Section 3 Customer Specific of this COS document, the Customer's completed application may be required to include:

- the requested in service date;
- one electronic and one hard copy of all relevant (electrical and/or civil) project drawings. Where the Customer requires an approved copy to be returned, additional copies of all plans must be submitted. All drawings must be submitted to PowerStream with adherence to PowerStream's standards;
- characteristic of supply primary and secondary voltage;
- the proposed service size (A), complete with peak and average demand (kW) and connected load (kW);
- proof of legal land ownership;
- any PowerStream facilities that are required to co-ordinate with site construction; and
- compliance with Section 2.1.6 Easements of this COS document.



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Provided all required information for the application has been submitted to the satisfaction of PowerStream and none of the conditions in Section 2.1.3 Connection Denial of this COS document apply, PowerStream shall make an OTC within 60 calendar days. PowerStream, at its discretion, may require a Customer, Generator or Distributor to enter into a connection agreement with PowerStream that would include terms and conditions in addition to those expressed in this COS document.

If special equipment is required or equipment delivery problems occur such that longer lead times may be necessary, PowerStream will notify the Customer of any such extended lead times.

PowerStream requires notice prior to occupancy of building. Where applicable, the following prerequisites may be required before energization:

- OTC signed and full payment received;
- easements;
- all Customer civil work completed and approved by PowerStream;
- pad mount transformer installed;
- Customer secondary cables installed in secondary duct bank and connected at service entrance;
- primary cable installed and connected at the transformer and to the distribution system;
- metering complete, including required telephone line(s);
- switchboard drawings (low or high voltage) received and approved by PowerStream;
- operating agreement and/or connection agreement, as required, signed;
- all required inspection certificates from the ESA received by PowerStream;
- Customer-owned transformer specifications supplied to PowerStream;
- pre-inspection test on Customer-owned transformer supplied to PowerStream;
- high pot testing results supplied to PowerStream on Customer-supplied primary underground cables; and
- final inspection by PowerStream's inspector.

Upon completion of all of the above items, PowerStream is entitled to the time stipulated in the OTC to energize the service.

2.1.1 Building That Lies Along / Connection



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For the purpose of this COS document, "Lies Along" means a Customer property or parcel of land that is directly adjacent to or abuts onto the public road allowance where PowerStream has distribution facilities of the appropriate voltage and capacity.

Under the terms of the DSC, PowerStream has the obligation to connect (under Section 28 of the *Electricity Act, 1998*) a building or facility that lies along its distribution line, provided:

- the building can be connected to PowerStream's distribution system without an expansion or enhancement to the distribution system; and
- the service installation meets the conditions, listed in this COS document, of PowerStream that owns and operates the distribution line.

PowerStream will designate the point of supply on its distribution system for all primary and secondary services. In some cases the point of supply could be located on an adjacent property for which PowerStream has an easement.

The location of the Customer's service entrance equipment is subject to the approval of PowerStream and the ESA.

2.1.1.1 Connection Charges

PowerStream will recover costs associated with the installation of connection assets, by Customer Class, via a Variable Connection Charge, as applicable. Refer to Section 3 Customer Specific of this COS document for information about the Variable Connection Charge and the Standard Allowance for basic connection.

To connect the Customer to the distribution system, further costs may be applicable to the Customer if an expansion is required. Refer to Section 2.1.2 Expansions/Offer To Connect of this COS document.

2.1.2 Expansions / Offer To Connect

Under the terms of the DSC, PowerStream is required to make an OTC, if, in order to connect a Customer, PowerStream must construct new distribution system facilities or increase the capacity of existing distribution system facilities deemed an expansion to its system.

In making an OTC, PowerStream may include, without limitation, the following components, as applicable:



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- distribution system expansion costs;
- capital contributions;
- securities;
- any policies regarding the treatment of Large User Customers (5 MVA or larger).

To evaluate if a capital contribution is required for the capital and on-going maintenance costs of the expansion project, PowerStream will perform an economic evaluation as outlined in the DSC Appendix B Methodology and Assumptions for an Economic Evaluation, referred to herein as the economic model. Refer to Section 5 <u>Appendix B of this COS</u> document.

PowerStream will include a summary of the economic evaluation with its OTC. This calculation will be based on the Customer's estimate of load energization (based on average demand, consumption, and yearly average Customer connections over the Customer connection horizon, for the type of Customer to be served) and provides an estimate of the project cost sharing between the Customer and PowerStream.

Refer to the References in Section 5 of this COS document <u>Offer to Connect–Industrial /</u> <u>Commercial / Institutional</u> and <u>Offer to Connect - Residential Subdivision</u>.

2.1.2.1 Capital Contributions

For expansion projects, and in accordance with the DSC, PowerStream may request a capital contribution from the Customer for the cost of the expansion project. The amount of the contribution shall be determined by the economic model, which considers the twenty-five (25) year revenue stream to PowerStream for forecasted electric loads connected on the lands in the first five (5) years, referred to herein as the connection horizon, calculated from the energization date of the facilities.

The Customer has the option to seek alternative bids for the contestable expansion work from PowerStream-approved contractors.

PowerStream's OTC is a firm cost unless design changes or unforeseen circumstances arise during construction. In these scenarios a final run of the economic model will be performed at time of energization.

2.1.2.1.1 Alternative Bid



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The Customer has the option to seek alternative bids for the contestable portion of the expansion work from PowerStream-approved contractors.

Specifications shall be made in accordance with PowerStream standards for design, materials and construction.

The Customer, having selected to pursue the alternate bid option, shall completely administer the capital cost of the expansion project.

2.1.2.2 Expansion Deposit / Security

PowerStream will determine an expansion deposit amount based on the forecasted connections and demand over a connection horizon and a maximum twenty-five (25) year revenue horizon.

The Customer is entitled to an annual reduction of the expansion deposit based on the number of connections and/or demand that occurred during each year. It is the Customer's responsibility to provide the connection details to PowerStream.

If, at the end of the connection horizon, the number of forecasted connections has not occurred, PowerStream will retain any remaining portion of the expansion deposit.

2.1.3 Connection Denial

The DSC provides a Distributor with the right to deny connections to its distribution system by an applicant. A Distributor is not obligated to connect a building within its service area:

- if the connection would result in any of the disconnection circumstances as set out in <u>Section</u> <u>2.2 Disconnections</u> of this COS document; or
- any other condition documented in this COS document or the DSC

If PowerStream refuses to connect a building or facility in its service area that lies along one of its distribution lines, PowerStream will inform the Person requesting the connection of the reasons for the denial. It is the responsibility of the Customer to correct any deficiencies before a connection can be made.

The Customer will have 30 calendar days from the date of PowerStream's response to complete the application and/or remove the connection denial condition, failing which the application shall be null and void. Should the Customer complete the application and/or remove the connection denial



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condition within the 30 calendar days, PowerStream will make an OTC within 60 calendar days of the date of receipt of the completed provision of required information.

2.1.4 Inspections Before Connection

All Customer electrical installations shall meet the requirements of the OESC and be inspected and approved by the ESA. All Customer electrical installations must also meet PowerStream standards and inspection requirements. PowerStream requires notification via a Connection Authorization from the ESA of the ESA's approval prior to the energization of a Customer's supply of electricity.

Services that have been disconnected for the purposes of upgrade or change, or services that have been altered subsequent to ESA approval, must be re-inspected and approved by the ESA via a Connection Authorization prior to the re-energization of a Customer's supply of electricity.

Services that have been disconnected for a period of 6 months or longer must also be re-inspected and approved by the ESA via a Connection Authorization, prior to reconnection.

Temporary services, typically used for construction purposes and for a period of 12 months or less, must be approved by the ESA via a Connection Authorization to connect prior to energization.

PowerStream may perform a pre-energization inspection on Customer-owned substations at its discretion.

Provision for metering shall be inspected and approved by PowerStream prior to energization and must comply with PowerStream Metering requirements. Refer to <u>Section 2.3.7 Metering</u> of this COS document.

2.1.5 Relocation of Plant

When requested to relocate distribution plant, PowerStream will exercise its rights and discharge its obligations in accordance with existing acts, by-laws and regulations including the *Public Service Works on Highways Act*, formal agreements, easements and common law. In the absence of existing arrangements, PowerStream is not obligated to relocate the plant. However, PowerStream will resolve the issues in a fair and reasonable manner. Resolution in a fair and reasonable manner will include a response to the requesting party that explains the feasibility of the relocation and a fair and reasonable charge for relocation based on full cost recovery principles.

2.1.6 Easements



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To maintain the reliability, integrity and efficiency of the distribution system, PowerStream has the right to have supply facilities on private property and to have easements registered against title to the property. Easements are required where facilities serve property other than property where the facilities are located and/or where PowerStream deems it necessary.

At the Customer's cost, PowerStream will require an easement, complete with reference plan, free from all encumbrances and in a form satisfactory to PowerStream acting reasonably, those easements required to maintain the reliability, integrity and efficiency during construction and maintenance of the distribution system and/or service.

Details will be provided upon application for service. Easements will be registered on title prior to energization of the service.

2.1.7 Contracts

2.1.7.1 Contract for New or Upgraded Service

PowerStream will only connect a building for a new or modified supply of electricity upon receipt by PowerStream of a completed and signed OTC or Service Layout, in a form acceptable to PowerStream, payment to PowerStream of any applicable connection charge, and an inspection and approval by the ESA of the electrical equipment for the new service, and agreed to be bound by all of the terms in the contract.

2.1.7.2 Implied Contract

In all cases, notwithstanding the absence of a written contract, PowerStream has an implied contract with any Customer that is connected to PowerStream's distribution system and receives distribution services from PowerStream. The terms of the implied contract are embedded in this COS document, the OEB's Rate Handbook, PowerStream's rate schedules, PowerStream's Distribution Licence, and the DSC, as amended from time to time.

Any Customer or Customers who take or use electricity from PowerStream shall be liable for payment for such electricity in accordance with any relevant OEB code or guideline. Any implied contract for the supply of electricity by PowerStream shall be binding upon the heirs,



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administrators, executors, successors or assignees of the Customer or Customers who took and/or used electricity supplied by PowerStream in accordance with any relevant OEB code or guideline.

2.1.7.3 Special Contracts

Special contracts that are customized in accordance with the service requested by the Customer normally include, but are not necessarily limited to:

- Operating
- Maintenance (Customer-owned facilities)
- Non-permanent structures (i.e. seasonal)
- Special occasions, events, etc.
- Construction sites
- Mobile facilities
- Offer To Connect (Residential Subdivisions, Industrial / Commercial / Institutional)
- Service Layout (Point of Connection Plan)
- Embedded generation facilities
- Embedded distributors
- Another distributor
- Farm / rural services
- Single phase emergency generator
- Request for interval metering

PowerStream may require a Customer to enter into an agreement to comply with reasonable and appropriate instructions from PowerStream during an unplanned outage or emergency situation.

2.1.7.4 Payment by Building Owner

The Owner of a building is responsible for paying for the supply of electricity by PowerStream to the Owner's building in accordance with any relevant OEB code or guideline, except for any supply of electricity to the building by PowerStream in accordance with a written request or other means acceptable by PowerStream, for electricity by an occupant(s) of the building.



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A building Owner wishing to terminate the supply of electricity to its building must notify PowerStream in writing. Until PowerStream receives such written notice from the building Owner, the building owner or the occupant(s), as applicable, shall be responsible for payment to PowerStream for the supply of electricity to such building. PowerStream may refuse to terminate the supply of electricity to an Owner's building when there are occupant(s) in the building (i.e. during certain periods of the winter).

In circumstances when a Customer's account has been disconnected for non-payment for a period longer than 6 months, PowerStream will attempt to notify the Customer by registered mail and if there has been no contact, PowerStream will physically remove its assets (meter, transformer, conductor, if available).

PowerStream will not terminate the supply of electricity when requested by a building Owner for the purpose of evicting a Tenant contracted with PowerStream for the supply of electricity.

2.1.7.5 Opening and Closing of Accounts – Final Meter Reading

Customers who wish to open an account for the supply of electricity by PowerStream shall notify PowerStream by telephone, fax, postal mail, PowerStream's website or other means acceptable to PowerStream. Such notification shall be provided a minimum of 3 business days prior to the opening of an account.

A Customer who wishes to close an account with PowerStream (i.e. because the Customer moves to another location, or otherwise) must notify PowerStream by telephone, fax, postal mail, PowerStream's website or other means acceptable to PowerStream for a final meter reading. Such notification shall be provided a minimum of 3 business days prior to the closing of an account. Until PowerStream receives such notice from the Customer or its authorized representative, the Customer shall be responsible for payment to PowerStream for the supply of electricity to the Customer. In the event a Customer wishes to close an account where a Retailer is involved, such closing shall be governed by any applicable regulatory code such as, but not limited to, the Retail Settlement Code (RSC).

The Customer shall provide access to PowerStream or its agents for this purpose. If a final meter reading is not obtained, the Customer shall pay a sum based on an estimated demand and/or energy for electricity used since the last meter reading.

In the event that the service has been disconnected but the account has not been closed, and at least six (6) months have elapsed without any Customer payment or contact, PowerStream will



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attempt to notify the Customer by registered mail following which, if PowerStream has not been contacted by the Customer, PowerStream will physically remove its assets (meter, transformer, conductor, if available).

2.1.7.6 Tenant or Occupier Customer

Where a new Customer is not the Owner of a building, premises or property to which electricity is requested to be supplied, the new Customer shall, upon request, provide to PowerStream a copy of the lease or agreement permitting occupation of the building premises or property; and comprehensive contact information concerning the landlord and/or Owner of the property, whichever the case may be. A duly executed confirmation acknowledgement and agreement is required from the Owner as set out in Section 2.1.7.7 Owner Liability for Tenant or Occupier of this COS document.

2.1.7.7 Owner Liability for Tenant or Occupier

Building Owners are responsible for notifying PowerStream of any changes in tenancies. Where a Tenant/occupier has terminated their account for the supply of electricity with PowerStream the account will automatically transfer to the Owner's name and a reasonable attempt will be made to notify the Owner of the change. The Owner will be responsible for the cost of the supply of electricity from the date of the change in accordance with any relevant OEB code or guideline. The Owner is responsible for providing PowerStream with current and comprehensive contact and mailing information.



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2.2.1 PowerStream Initiated

PowerStream disconnection procedures are consistent with the RSC, DSC, Section 31 of the *Electricity Act* and good utility practice. PowerStream may disconnect the supply of electrical energy for causes not limited to:

- Contravention of the existing laws of Canada, the Province of Ontario, or municipal bylaws;
- failure of the Customer or Customer's authorized representative to comply with a directive of PowerStream that PowerStream makes for purposes of meeting its license obligations;
- a materially adverse effect on the reliability or safety of PowerStream's distribution system;
- a material decrease in the efficiency of PowerStream's distribution system;
- a materially adverse effect on the quality of distribution services received by an existing connection;
- electrical disturbance propagation caused by Customer equipment that is not corrected in a timely fashion;
- failure of the Customer to enter into an OTC required by this COS document;
- unauthorized generation connected to the distribution system;
- electrical connection(s) to PowerStream's distribution system that do not meet PowerStream's design requirements;
- inaccessibility to PowerStream's energized electrical equipment for either installing, inspecting, operating, replacing, removing, or maintaining, including reading the meter. This includes contravention of accessibility requirements in PowerStream Standards, Ontario Building Code requirements, and CSA Standards. Refer to <u>Reference 18 Standards for Clearances Around</u> <u>Padmount Transformers and Switchgear</u> of this COS document;
- overdue amounts payable to PowerStream for the distribution or Retailing of electricity, or for non-payment of a security deposit, in part or in full, payable to PowerStream;
- where no Customer accepts responsibility for the account;
- imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system; or for public safety reasons;
- by order of the ESA;
- by order of the Independent Electricity System Operator (IESO);
- by order of another authority with jurisdictional power; or
- any other conditions documented in this COS document or when the requirements of this COS document are not satisfied.



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PowerStream may disconnect the supply of electricity to a Customer without notice in accordance with a court order or as provided for under the *Law Enforcement and Forfeited Property Management Statute Law Amendment Act*, 2005 (Bill 128), or for emergency, safety or system reliability reasons.

PowerStream shall not be liable for any damage to the Customer's premises resulting from such discontinuance of service.

Upon discovery that a hazardous condition or disturbance propagation (feedback) exists, PowerStream will notify the Customer to rectify the condition at once via written notification. In case the Customer fails to make satisfactory arrangements to remedy the condition within seven (7) calendar days after a notice has been given to the Customer, the service may be disconnected and not restored until satisfactory arrangements to remedy the condition have been made and payment of applicable fees received. PowerStream shall not be liable for any damage to the Customer's premises resulting from such discontinuance of service. Notices, if given by mail, shall be deemed to be received on the third business day after mailing.

If the hazardous condition poses a public safety risk, PowerStream reserves the right to disconnect the service without notice.

2.2.1.1 Disconnection and Reconnection – For Non-Payment of Overdue Amounts

Bills are payable when rendered but will be assigned a due date, of at least 16 calendar days following the billing date. Immediately following the due date, collection processes will be taken to collect the full amount of the bill. These collection processes will be in accordance with any relevant OEB Codes and Guidelines, and may result in final disconnection of the service. If a disconnection results, the service will not be restored until the amount due is paid in full as per <u>Section 2.4.5.2</u> Payment Options of this COS document. If given by mail, it shall be deemed to be received three (3) business days after mailing.

Such discontinuance of service does not relieve the Customer of the requirement to pay for arrears or minimum bills for the balance of the term of the contract, nor shall PowerStream be liable for any damage to the Customer's premises resulting from such discontinuance of service.

Disconnection of a service may occur if no Customer has accepted responsibility for the account after a final bill has been produced for the prior account holder. Reconnection will occur upon contact and acceptance from a party taking responsibility for the account. A reconnection charge shall apply.



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Where the reason for the disconnection has been remedied to PowerStream's satisfaction, PowerStream will reconnect the Customer. All costs associated with the disconnection and reconnection shall be paid for by the Customer prior to reconnection of the service.

A standard notice advising Customers that their power has been disconnected will be left at the service address with the disconnection notice in order to warn Customers of any potential fire and/or safety hazards.

In cases where a load-limiting device has been installed, instructions regarding the operation of the device will be left at the service address.

The Customer or responsible designate must attend at the premises when service is restored. If no responsible Customer representative is at the premises, the reconnection will not occur even if the applicable reconnection fees have been paid and conditions met.

If a service has been disconnected for more than 6 months and after an attempt to contact the Customer through registered mail has been made and satisfactory payment arrangements have not been made, PowerStream may remove its connection assets from the Customer's premises and close the Customer's PowerStream account.

2.2.1.2 Unauthorized Energy Use / Energy Diversion

Unauthorized use of energy is a criminal offence. PowerStream reserves the right to disconnect the service supply of electrical energy to a service location for unauthorized energy use for causes not limited to suspected energy diversion, fraud or abuse on the part of the Customer. Upon identification of unauthorized energy use, PowerStream will notify at its discretion; Measurement Canada, the ESA, police officials, Retailers (that service Customers affected by the unauthorized energy use), or other entities.

Regardless of whether the Customer is a Tenant or Owner, such service may not be reconnected until the condition is rectified and full payment to PowerStream is made including, but not limited to, all costs incurred by PowerStream arising from unauthorized energy use, including inspections, repair costs, and the cost of disconnection and reconnection. This may also include the application of an approved miscellaneous charge.

At PowerStream's discretion, this cost may be estimated and reconciled when actual costs are known.



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2.2.2 Customer Initiated

2.2.2.1 Maintenance Purposes

Where a Customer requires the isolation and re-energization (disconnection and reconnection) of an electrical service for the purpose of performing electrical maintenance, electrical upgrade work, or vegetation clearance work on or near electrical apparatus, the Customer must contact PowerStream Customer Service, in writing, to make arrangements. Once any and all requirements have been met, e.g. payment or purchase order received by PowerStream, the work will be scheduled within ten business days under normal circumstances.

Residential Customers are entitled to one annual isolation/re-energization service for electrical maintenance purposes, during regular business hours, at no cost.

Residential Customers requiring isolation/re-energization service for purposes other than performing electrical maintenance, electrical upgrade work, or vegetation clearance work on or near electrical apparatus will be advised of the cost.

All other Customer classes requiring isolation/re-energization service will be advised of the cost after they have contacted PowerStream Customer Service and stated the reason for requesting the isolation.

2.2.2.2 Termination or Disconnection of Supply



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Upon receipt of an owner's written request for disconnection or termination of supply, PowerStream Customer Service department will arrange for the disconnection and/or removal of PowerStream's connection assets. See the References in Section 5 of this COS document:

- Service Disconnect & Removal Form Permanent Service
- Service Disconnect & Removal Form Temporary Service

When required by the municipality, PowerStream will confirm removal of PowerStream's electrical equipment, e.g. demolition permits.



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2.3.1 Limitations on the Guaranty of Supply

PowerStream will use good utility practice to provide a regular and reliable supply of electricity, within its voltage guidelines referred to in Sections 2.3.4 Standard Voltage Offerings and 2.3.5 Voltage Guidelines of this COS document, but does not guaranty this supply or maintenance of unvaried frequency or voltage and shall not be liable for damages or production losses to the Customer for any loss of supply by reason of any failure in respect thereof.

Customers may require special protective equipment at their premises to minimize the effect of momentary power interruptions.

Customers requiring a 3-phase supply shall install protection apparatus to avoid damage to their equipment, which may be caused by the interruption of one phase, or non-simultaneous switching of phases of the PowerStream's supply.

PowerStream may interrupt supply to a Customer during an emergency:

- in response to a shortage of supply; or
- to conduct repairs on the distribution system; or
- if PowerStream's distribution system is adversely affected by Customer-owned equipment

To assist with distribution system outages or emergency responses, PowerStream may require a Customer to provide PowerStream with emergency access to their property:

- To operate Customer-owned equipment, under PowerStream operating control; or
- To operate PowerStream equipment.

Access to operable equipment shall not be reasonably withheld by the Customer. Refer to <u>Section</u> <u>1.7.1 Access to Customer Property</u> of this COS document.

2.3.2 Power Quality

2.3.2.1 Power Quality Investigations

In response to a Consumer power quality concern, where the utilization of electric power adversely affects the performance of electrical equipment, PowerStream may perform investigative analysis to attempt to identify the underlying cause. This may include review of relevant power interruption data, trend analysis, and/or use of diagnostic measurement tools.



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Where the power quality concern results from a system delivery issue and where industry standards are not met, PowerStream will recommend and/or take appropriate mitigation measures. PowerStream will take appropriate actions to control or solve power disturbances found to be detrimental to the Consumers. If PowerStream is unable to correct the problem without adversely affecting other PowerStream Consumers, then it is not obligated to make the corrections.

PowerStream will use appropriate industry standards, such as International Electro-technical Commission (IEC) Institute of Electrical and Electronic Engineers (IEEE) Standard 519-1992, Canadian Standards Association (CSA) Standard CAN3-C235-83 (R2006), or latest edition, and good utility practice as a guideline while maintaining its power quality on their distribution system. However, if the problem lies on the Consumer side of the system based on ownership demarcation points, PowerStream will charge the Consumer for the costs incurred in its investigation.

2.3.2.2 Power Factor

Customers connected to the PowerStream distribution system shall operate at a Power Factor within the range of 0.9 lagging to 0.9 leading as measured at the meter point.

Customers operating inside the specified power factor range will be billed for demand based on the metered kW.

If a Customer operates outside the specified power factor range, they will be billed for demand based on 90% of the metered kilovolt amperes (kVA).

2.3.2.3 Prevention of Voltage Distortion on Distribution System by the Customer

It is the responsibility of the Customer to ensure that their electrical usage does not have an adverse affect on the PowerStream distribution system. Customers having non-linear load shall not be connected to PowerStream's distribution system unless power quality is maintained by implementing proper corrective measures such as installing proper filters, and/or grounding. Further, to ensure the distribution system is not adversely affected, power electronics equipment installed must comply with IEEE Standard 519-1992. The limit on individual harmonic distortion is 3%, while the limit on total harmonic distortion is 5%.

2.3.2.4 Obligation of Customer to Assist in the Investigation

If PowerStream determines the Customer's equipment may be the source causing unacceptable harmonics, voltage flicker, voltage level or other disturbance on PowerStream's distribution



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system, the Customer is obligated to help PowerStream by providing PowerStream with required equipment information, relevant data and necessary access for monitoring the equipment.



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2.3.2.5 Obligation of Customer to Make Timely Correction of Deficiencies

If PowerStream determines that an undesirable system disturbance is being caused by a Customer's equipment, the Customer will be required to cease operation of the equipment immediately until satisfactory remedial action has been taken by the Customer at the Customer's cost. If the Customer does not take such action within a reasonable time, PowerStream may disconnect the supply of power to the Customer. Refer to <u>Section 2.2 Disconnection</u> of this COS document.

2.3.3 Electrical Disturbances

PowerStream shall not be held liable for the failure to maintain supply voltages within standard levels due to Force Majeure as defined in <u>Section 1.9 Force Majeure</u> of this COS document.

Voltage fluctuations and other disturbances can cause flickering of lights and other serious difficulties for Customers connected to PowerStream's distribution system. Customers are responsible to protect themselves from any external disturbance.

Customers must ensure that their equipment does not cause disturbances such as harmonics and spikes that might interfere with the operation of adjacent Customer equipment. Typical examples of equipment that may cause disturbances include large motors, welders, variable speed drives, etc. In planning the installation of such equipment, the Customer must consult with PowerStream.

Customers who may require an uninterrupted source of power supply or a supply completely free from fluctuation and disturbance must provide their own power conditioning equipment for these purposes.

2.3.3.1 Notification of Service Interruption to Customers

Although it is PowerStream's standard practice to minimize inconvenience to Customers, it is necessary to occasionally interrupt a Customer's supply to allow work on the electrical system. PowerStream will make reasonable efforts to provide Customers with reasonable notice of planned power interruptions. Notice may not be given where work is of an emergency nature involving public safety or damage to property or equipment. Refer to Section 2.3.3.2 Emergency Interruptions for Safety of this COS document.

PowerStream will endeavour to communicate to its Customer's outage information during unplanned and/or storm related outages. Depending on the outage duration and the number of


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Customers affected, PowerStream may issue a news release to advise the general public of the outage. For more information on Power Outages, please refer to the following link:

www.powerstream.ca/app/pages/PowerOutageMenu.jsp



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2.3.3.2 Emergency Interruptions for Safety

If an unsafe, hazardous or emergency condition is found to exist, or if the use of electricity by the Customer's apparatus, appliances or other equipment is found to be unsafe or damaging to PowerStream or the public, service may be interrupted without notice. Refer to <u>Section 2.2</u> <u>Disconnection</u> of this COS document.

2.3.3.3 Consumers Using Life Support

Consumers who require an uninterrupted source of power for life support equipment must provide their own back-up power supply equipment for these purposes and PowerStream shall not be liable in any manner for an interruption of power.

2.3.3.4 Emergency Service (Trouble Calls)

PowerStream will exercise reasonable diligence and care to deliver a reliable supply of electrical energy to the Customer. PowerStream operates 24 hours per day to provide emergency service to Customers.

If a no power or part power condition exists:

- 1. Contact PowerStream. Refer to <u>Section 1.5 Contact Information</u> of this COS document or Section 2.3.3.5 Outage Reporting of this COS document. PowerStream will investigate and initiate restoration efforts as quickly and as safely as practical.
- 2. Where systems exist, PowerStream may be able to confirm the cause of the outage or advise if the outage is due to the Customer's internal electrical system.
- 3. If the interruption is due to the operation or failure of Customer-owned equipment within their internal electrical system the Customer shall obtain the services of a licensed electrical contractor to conduct necessary repairs. Refer to Section 3 Customer Class Specific of this COS document for ownership demarcation points.

2.3.3.5 Outage Reporting

The Power Outage Communication Service (POCS) at 1-877-777-3810 is designed to handle a large volume of incoming calls and is an essential tool in communicating situation updates and estimated restoration times to callers. The POCS will identify current outage information. Callers with additional information that could assist PowerStream's restoration efforts are directed to speak with a System Controller or Customer Service Representative.



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The POCS is also linked to the PowerStream website, giving site visitors access to real-time information about affected outage areas and estimated restoration times. Please refer to the following link for additional information: www.powerstream.ca/app/pages/ReportPowerOut.jsp

2.3.4 Standard Voltage Offerings

2.3.4.1 Primary Supply Voltage

The primary distribution voltage and associated transformer capacity to be used will be determined by PowerStream. Refer to the <u>References in Section 5</u> of this COS document. Depending on the locations in PowerStream's service area, and capacity required, the primary supply of voltage offering will be:

- 44 kV, three wire; or
- 27.6/16 kV, grounded wye, 3 phase, 4 wire; or
- 13.8/8.0 kV, grounded wye, 3 phase, 4 wire; or
- 8.3/4.8 kV, grounded wye, 3 phase, 4 wire; or
- 4.16/2.4 kV, grounded wye, 3 phase, 4 wire

PowerStream will determine the voltage via consultation with the Customer or his representative.

2.3.4.2 Secondary Supply Voltage

The secondary distribution voltage and associated transformer capacity to be used will be determined by PowerStream. Refer to Section 5 Reference Voltage/kVA Guidelines of this COS document.

- 240/120 V 1 phase, 3 wire
- 208/120 V 3 phase, 4 wire
- 600/347 V 3 phase, 4 wire

The limit of supply capacity for any Customer is governed by the Nominal Operating Voltages identified in <u>Section 1.1.1 Distribution Overview</u> of this COS document.

2.3.4.3 Higher Reliability Supply Offerings



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The standard service for supply to industrial/commercial/institutional Customers is comprised of one high voltage feeder connection with a single step down transformer. For Customers requiring higher reliability, contact PowerStream to determine where this service may be available. A 100% capital contribution will be required from the Customer for all backup feeders.

2.3.5 Voltage Guidelines

PowerStream maintains service voltage at the Customer's service entrance within the guidelines of C.S.A. Standard CAN3-C235-83 (R2006), or latest edition.

Nominal	Voltage Variation Limited Application at Service Entrances (V)									
System	Extreme Operating Conditions									
Voltages		Normal Operat								
Single-Phase										
120/240	106/212	110/220	125/250	127/254						
240	212	220	250	254						
600	530	550	625	635						
Three-Phase 4-Conductor 120/208Y	110/190	112/194	125/216	127/220						
347/600Y	306/530	318/550	360/625	367/635						
Three-Phase 3-Conductor										
240	212	220	250	254						
600	530	550	625	635						
Taken from CSA Standard CAN3-C235-83 (R2006)										

Where voltages lie outside the indicated limits for normal operating conditions but within the indicated limits for extreme operating conditions, improvement or corrective action should be taken on a planned and programmed basis, but not necessarily on an emergency basis. Where voltages



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lie outside the indicated limits for extreme operating conditions, based on demarcation points, improvement or corrective action on an emergency basis should be taken by PowerStream or the Customer. The urgency for such action will depend on many factors such as; the location and nature of load or circuit involved and the extent to which limits are exceeded with respect to voltage levels and duration, etc.

PowerStream will use good utility practice in maintaining voltage levels, but is not responsible for variations in voltage from external forces such as operating contingencies, exceptionally high loads and low or high voltage supply from the Transmitter. Refer to <u>Section 1.9 Force Majeure</u> of this COS document.

2.3.6 Back-up Generators

Customers with portable or permanently connected generation capability (back-up generator) used for emergency back up shall comply with all applicable criteria of PowerStream and the latest edition of the OESC. In particular, the Customer shall ensure that the Customer's emergency generation does not parallel with PowerStream's system without proper interface protection and does not adversely affect PowerStream's distribution system.

Customers with permanently connected emergency generation equipment shall notify PowerStream, in writing, regarding the presence of such equipment. Depending on the type and location of the generator system, the Customer may be required to sign a contract detailing PowerStream requirements and limitations. Contact the PowerStream Customer Service department for further details. PowerStream will not be liable for damage to Customer-owned equipment.

If a Customer intends to use embedded generation for load displacement, refer to <u>Section 3</u>, <u>Customer Specific</u> of this COS document.

2.3.7 Metering

PowerStream will normally meter the Customer's load at the utilization voltage. Consult with PowerStream's New Connections department before secondary metering location is determined. Approved meter bases, enclosures and characteristics for the various types of metering installations can be found in the PowerStream's Metering Standards. Refer to the Reference in Section 5 Metering Standards of this COS document.



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For retail settlement and billing purposes, PowerStream will supply, arrange installation, own, and maintain all meters, instrument transformers, ancillary devices, and secondary wiring required for revenue metering except where the Customer elects to be a Wholesale Market Participant or is an Embedded Generator. Wholesale Market Participants in the IESO-administered wholesale market must meet or exceed all IESO metering requirements. The Customer agrees to provide PowerStream with remote access to the metering point, via an analog phone line, at the Customer's cost, for the purpose of maintenance and data collection. A capital contribution may be required from the Customer.

The type of meter will be based on the Customer's rate class, transformer ownership, supply voltage, energy consumption, and peak load. The security and accuracy of metering will be maintained under regulations and standards established by Measurement Canada and PowerStream.

The standard type of meter required for each rate class is as follows:

- a) Residential: Customers will be metered and billed based only on kWh using a standard Smart Meter
- b) GS<50kW: Customers will be metered and billed based only on kWh using a standard Smart Meter
- c) GS>50kW: Customers will be metered and billed based on kWh and kW (or 90% kVA) using an interval-like meter (for average monthly peak loads less than 200kW)
- d) GS>50kW: Customers will be metered and billed based on kWh and kW (or 90% kVA) using an interval meter (for average monthly peak loads greater than 200kW)
- e) Large User: Customers will be metered and billed based on kWh and kW (or 90% kVA) using an interval meter.

Each Customer will normally be restricted to one metering point.

No Person, except those authorized by PowerStream, may remove, connect, or otherwise interfere with meters, wires, or ancillary equipment.



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Unless otherwise noted in Section 3 Customer Specific of this COS document, this section contains PowerStream's standard metering requirements.

2.3.7.1 Location of Metering

The mutually agreed upon location for PowerStream metering shall provide direct outside access for PowerStream staff and shall be subject to satisfactory environmental conditions. Meter installations shall conform to PowerStream's Metering Standards. Refer to the Reference in Section 5 Metering Standards of this COS document.

Where PowerStream deems its meters to be in a hazardous location a meter cabinet or protective housing will be required. Where sprinkler equipment is in the vicinity of meter equipment, drip shields will be installed over all meters and related equipment.

Clear, unobstructed and safe access, deemed to be acceptable to PowerStream must be provided and maintained, to, and in front of, the meter location.

Any compartments, cabinets, boxes, sockets or other workspace provided for the installation of PowerStream's metering equipment shall be for the exclusive use of PowerStream.

2.3.7.2 Single Phase – Secondary Metered

Single Phase Customers with services up to and including 200 A shall have 4-jaw socket meters installed by PowerStream on the Customer's PowerStream-approved meterbase.

Where appropriate in a 400 A 120/240 V single phase installation, a self-contained 400 A meter base complete with a current transformer shall be supplied and installed by the Customer. Refer to the Reference in Section 5 Metering Standards of this COS document.

Single Phase Customers with services of over 400 A shall submit drawings to PowerStream for approval prior to construction.

When existing services are to be altered or changed, they must meet the current PowerStream Metering Standards.

2.3.7.3 Temporary Service Metering



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At the discretion of PowerStream one or more temporary services may be provided for a site, subject to the requirements of the ESA.

The location of the service entrance point and details of metering shall be established through consultation with PowerStream. Failure to comply may result in modifications at the Customer's expense.

The location of the Customer's service entrance equipment will be subject to the approval of PowerStream and the ESA.

2.3.7.4 Three-Phase – Secondary Metered

All proposed 3-phase secondary metered services are required to be submitted to PowerStream for approval prior to construction. Three phase services up to and including 200 A will be metered by self-contained socket meters on Customer-owned PowerStream approved meterbases. Services over 200 A shall be metered by transformer type metering.

Approved meterbase, cabinet and switchgear specifications and configurations are found in PowerStream's Metering Standards.

2.3.7.5 Totalized Metering

When a Customer requests totalizing in order to consolidate two or more delivery points at separate locations on one property, the following conditions shall apply:

- The Customer must own the distribution facilities, including transformers beyond the metering point. The effective metering point is defined as the location where the metering is installed.
- Totalizing will be accomplished by either primary or secondary metering, through the use of remote interrogation metering, or other similar units. The Customer shall be required to pay the incremental costs of providing totalized metering, including supplying an analog phone line.

2.3.7.6 Single Phase Central Metering

PowerStream may, at its discretion, require that a Customer with two or more buildings at one location, be metered by means of a PowerStream-owned central metering installation. The Customer shall be required to pay PowerStream for the labour and material charges.



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2.3.7.7 Multi-Unit Residential Suite (Condominiums) Buildings

Under Ontario Regulation 442/07, all new multi-unit condominium buildings must either be individually metered by the licensed Distributor or smart sub-metered by an alternative licensed service provider. For existing condominiums the installation of individual smart meters or smart sub-meters is at the discretion of the condominium's board of directors.

Where individual units of an existing or new multi-unit condominium building are individually metered by PowerStream, each unit will become a residential Customer of PowerStream and each unit and the common areas must have a separate account with PowerStream.

Where an existing or new multi-unit condominium building is sub-metered by an alternative licensed service provider, the condominium continues to be the Customer of PowerStream and will receive a single bill based on the measurement of the bulk (master) meter. The condominium corporation, which is responsible for the distribution of electricity on the consumer side of the bulk (master) meter, is an exempt Distributor under section 4.0.1 of Ontario Regulation 161/99— Definitions and Exemptions (made under the Act). The smart sub-metering provider will then issue a bill to each unit and the common areas based on the consumption of the unit or common area.

Where all units within a multi-unit building are individually metered, the building Owner shall provide a secure meter room or suitable enclosure within the building for the installation of a sub metering system.

This room or enclosure will have adequate lighting, a 120 V outlet and a dedicated analog telephone line for meter interrogation purposes.

The building Owner may opt for individual self-contained meters attached to individual bases, to a load centre as defined in the PowerStream Standards or a Sub-metered system.

2.3.7.8 Main Switch & Meter Installation for Industrial/Commercial Buildings

The metering provision and arrangement for service mains in excess of 200 A shall be submitted to PowerStream for approval before the building construction begins.

The Customer's main switch immediately preceding the meter and/or meters shall be installed as per OESC standards and the meter base at a height of not more than 1.8 metres and not less than 1.5 metres from the centre line of the meter base from the finished floor of the electrical room and shall permit the sealing and padlocking of:



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- the handle in the OPEN position; and
- the cover or door in the CLOSED position.

The Owner is required to supply and install PowerStream approved meter bases or load centres for PowerStream's self-contained socket meters. For all meter base configurations, see Section 5 References for PowerStream's Metering Standards. All plans for load centres shall be submitted to PowerStream for approval prior to material being ordered for a service.

For industrial / commercial / institutional services in excess of 200 A, the Customer is required to supply and install a meter cabinet to contain PowerStream's metering equipment, see Section 5 References for PowerStream Metering Standards for meter cabinet size.

All services in excess of 600 A will be of the switchgear type. See <u>Section 5 References for the</u> <u>PowerStream Metering Standards</u> for cabinet size.

2.3.7.9 Service Markings

The Customer shall permanently and legibly identify each metered service with respect to its specific address, including unit number. The identification shall be applied to all service switches, circuit breakers, meter cabinets, and meter mounting devices as well as those that are not immediately adjacent to the switch or breaker.

All new services and service upgrades in a industrial / commercial / institutional multiple-unit building are required to have unit numbers permanently and legibly identified on the Tenant entry doors matched directly to each service supply switch or breaker.

2.3.7.10 Special Enclosures

Specially constructed meter entrance enclosures will be permitted for outdoor use upon written application to and approval by PowerStream Metering department.

2.3.7.11 Meter Loops

Meter loops for industrial / commercial / institutional services shall be provided as per PowerStream Metering Standards.



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Line and load entry points shall be restricted to opposite ends and on the lower half of the meter cabinet. These entry points must be correctly marked LINE and LOAD.

The neutral conductor will be terminated on an insulated block at the bottom center of the meter cabinet. This neutral block shall be set back one to two inches from the front edge of the cabinet if the neutral is not required past the metering point. The neutral block shall have provisions for a #10 wire to be used for a metering neutral connection. If the neutral is needed past the metering point, the conductors will be run along the bottom of the cabinet and not be looped as the other phases. PowerStream will supply a split bolt and connect a #10 wire to the neutral inside the meter cabinet if necessary.

Any variation from the above must first be approved by PowerStream prior to installation.

2.3.7.12 Electrical Room for Meter(s) or Metering Installation(s)

Electrical rooms shall be constructed to comply with the Ontario Building Code (OBC) and the OESC.

The Customer is required to visibly identify the electrical room from the outside. PowerStream will install a PowerStream METERS identification label on the electrical room door.

When two or more metered services are required, the owner is required to supply and maintain an electrical room of sufficient size to accommodate the service entrance and meter requirements of the Tenants and provide clear working space in accordance with the OESC. All such rooms shall conform to all existing building standards.

The electrical room must be located to provide safe access from the outside so that it is readily accessible to PowerStream's employees and agents at all hours. Access doors, panels, slabs and vents shall be kept free from obstructing objects for the purpose of installing, removing, maintaining, operating or changing transformers and associated equipment. The room shall not be used for storage or contain equipment foreign to the electrical installation.

All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per the OBC and shall be located indoors.

In order to allow for an increase in load, the Owner shall provide spare wall space so that at least 30% of the Customers supplied through meter sockets can accommodate meter cabinets at a later date.



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Prior to energization, the Owner will be required to obtain through PowerStream a wall key holder to be mounted outside the meter room door by PowerStream personnel as per the PowerStream Metering Standards. Arrangements for purchasing this holder and obtaining extra keys shall be coordinated with a PowerStream Metering department supervisor. The Owner will then supply PowerStream with a key to the electrical room to be kept inside the holder for PowerStream's exclusive use.

All new electrical rooms are required to have an up to date building unit layout plan for the building mounted on an inside wall, showing the unit layouts, contact names and phone numbers for property managers and / or maintenance personnel.

All meter rooms, or electrical rooms containing metering equipment, shall have provisions for a voice quality, analogue telephone line with at least one spare pair of wires for PowerStream's exclusive use for meter interrogation purposes. It shall be the building Owner's responsibility to bear the installation, maintenance and monthly service charges for this line.

2.3.7.12.1 Barriers in Electrical Enclosures

Barriers are required in each section of switchgear or service entrance equipment between metered and unmetered conductors and/or between sections reserved for PowerStream use and sections for Customer use.

2.3.7.12.2 Doors for Electrical Enclosures

Side hinged doors shall be installed on all live electrical equipment where PowerStream personnel may be required to work, e.g. line splitters, un-metered sections of switchgear, breakers, switches, metering compartments, meter cabinets and enclosures.

These hinged doors shall have provision for sealing and padlocking. Where bolts are used, they shall be of the captive knurled type. All outer-hinged doors shall open no less than 135 degrees. All inner-hinged doors shall open to a full 90 degrees.

2.3.7.12.3 Auxiliary Connections

All connections to circuits such as fire alarms, exit lights, emergency backup generators and Customer instrumentation shall be made to the load side of PowerStream's metering without exception.



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No Customer equipment shall be connected to any part of PowerStream's metering circuit.

Fire sprinkler system services shall be installed as per the OESC.

2.3.7.12.4 Working Space for Metering Equipment

A minimum working space of 1 metre shall be maintained by the Customer in front of all equipment and from all side panels. This space shall have a minimum of 2.1 metres of unobstructed headroom. No meter installation will protrude into a doorway, be located behind sprinkler systems or be built into a closet with less than 1 metre clearance in front of the meter. All machinery located within 3 metres of the meter equipment shall have guards installed on the machinery to prevent injury to PowerStream personnel when servicing meter equipment. All self-contained meters will have a minimum of 450 millimetres of clearance from the side of the meterbase to an inside corner of a wall or equipment that protrudes more than 300 millimetres from the wall.

Where a hinged door in an open position would block an exit route, a further 600 millimetres of clearance from the edge of the open door shall be provided.

2.3.7.13 Instrument Transformer Enclosures and Connection to Meter Cabinet

All instrument transformer (current transformer (CT) and potential transformer (PT)) enclosures must be approved by PowerStream prior to construction.

When instrument transformers are incorporated into low voltage switchgear, the Customer will supply a separate meter cabinet. This meter cabinet will be located to the satisfaction of PowerStream and as close as possible to the instrument transformer compartment(s). The meter cabinet along with the instrument transformer enclosure must be visible from the main switch. The meter cabinet must also be properly grounded with a minimum #6 copper grounding conductor not connected to the metering circuit.

The Customer's electrical contractor is required to install PowerStream's current transformers in the Customer's low voltage switchboard. Arrangements must be made with the PowerStream Metering department to have the instrument transformers delivered to the site prior to installation of the meter.

The conduit for the PowerStream metering wires must run continuous from the Customer-owned instrument transformer compartment to the metering cabinet. The conduit will enter the utility compartment in an unobstructed location. The conduit is to be 38 mm diameter, run above grade,



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complete with pull string, to a maximum length of 9 metres. The use of "LB" type fittings is not permitted. A 12 mm conduit is also required from the meter cabinet to the phone switchboard, complete with pull string.

The metering cabinet must also have a 120V AC receptacle installed inside for powering 1A test equipment loads.

PowerStream will issue specific metering requirements where two or more circuits are totalized, or where remote totalizing is involved, or where instrument transformers are incorporated in high voltage switchgear (greater than 750 V).

2.3.7.14 Specialty Metering

For all metered services other than conventional low voltage applications, 0-750 V, the Customer will be required to pay the full cost of the specialty metering, including primary metering when required.

Primary metering is required when the Customer is supplied from the 44 kV sub transmission or the 27.6 kV/13.8 kV distribution system and there is to be more than one transformer to a designated single property. Commercial plazas may be excluded from primary metering requirements, but must in turn provide individual metering to the individual Tenants. Technical Requirements for Primary Metering can be found in the Metering Standards Section as shown in Section 5, Reference #12 Primary Metering Addendum.

2.3.7.14.1 Procurement and Supply of Primary Metering:

1) The Customer must purchase and supply the PTs and CTs after receiving approval from PowerStream's Metering department of their suitability of accuracy and use.

- a) Customer must obtain PowerStream's final approval on the ratios available; and
- b) All instrument transformers must have Measurement Canada approval prior to them being ordered.
- 2) The Customer must supply and install all grounding, conduit, switchgear compartments, and metering cabinets.



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- 3) The Customer must supply and install the 120V AC power supply receptacle inside the meter cabinet.
- 4) The Customer must supply and install a standard analog telephone line into the meter cabinet.
- 5) PowerStream will supply and install the secondary wiring from the CT/PT secondary's to the marshalling box, and from the marshalling box to the meter cabinet.
- 6) PowerStream will supply and install the interval meter and test blocks in the meter cabinet.

2.3.7.14.2 Commissioning of Primary Metering:

The Customer must choose one of the following options:

- 1) The Customer provides PowerStream with the test results from the switchgear manufacturer that has megger and ratio results of the actual instruments after they have been installed in the switchgear, traceable to NRC, or,
- 2) The contractor must unbolt the instruments from the bus so that PowerStream can megger & ratio the instruments and re-bolt the instruments back into the bus. This work must be coordinated with PowerStream metering.

2.3.7.14.3 Additional Labour Charges for Specialty/Primary Metering:

Any additional safety training required on-site for safety orientation, or specific site training required by the Customer, will be paid for by the Customer. These special labour charges are in addition to the normal meter work labour charges.

2.3.7.15 Interval Metering

Interval meters, or interval-like meters, will be installed for all new or upgraded services where the peak demand is forecast to be 50 kW or greater, pending any legislative changes, or for any Customer requesting the installation of an interval meter or interval-like meter.



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The Customer is responsible for the cost of the interval meter, or interval-like meter, and the installation.

2.3.7.15.1 Telephone Line for Interval Meters and Internal-Like Meters

Prior to the installation of an interval or interval-like meter the Customer must provide a telephone line or extension to the meter cabinet or meter base. The Customer will arrange for the installation of a telephone line in one half inch conduit, terminated at the metering point for the exclusive use of PowerStream to retrieve interval meter data. The Customer will be responsible for the installation, maintenance and ongoing monthly costs of operating the phone line. The phone line will be direct dialling voice quality, active 24 hours per day, and energized prior to installation of the meter. Failed Customer communication lines must be repaired within 48 hours of notification from PowerStream. If repairs are not completed within this time frame, PowerStream will have to manually collect the interval meter reads done every second day after the notification. The Customer will be invoiced for all costs associated with the manual meter readings.

2.3.7.15.2 Customer Request for Interval Metering

Other Customers that request interval metering shall compensate PowerStream for all incremental costs associated with that meter, including:

- the capital cost of the interval meter;
- installation costs associated with the interval meter;
- ongoing maintenance (including an allowance for meter failure);
- verification and re-verification of the meter; and
- installation and ongoing provision of a communication line or communication link with the Customer's meter.

2.3.7.15.3 Customer Request for Interval Meter Data

The Customer has the following three options to obtain their interval meter data:

- Direct access The Customer may elect to access the meter data directly using Customerpurchased software. PowerStream will provide information required to access and use the meter data;
- Web access provided by PowerStream (when available) Customers shall have access to their own interval meter data on the internet using their own account-specific password;



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• Information provided by PowerStream – Customers may request interval data to be forwarded to their authorized representative. For such requests, Customers must provide PowerStream with written authorization

2.3.7.15.4 Customer Request for Meter Pulse Output or Real-Time Meter Data

If the Customer requires metering pulses or real-time data, the Customer shall be responsible for installing and maintaining a telecommunications line at the Customers own expense.

When a Customer requires metering pulses or signals for load management purposes, two options exist:

- The Customer can supply and install their own instruments in a separate cabinet on the load side of PowerStream's metering; or
- PowerStream will supply the pulses from PowerStream's metering, provided the Customer pays all costs to provide the pulses, and that the control for the pulses will be remote from the revenue metering cabinet (Customer will not have access to revenue metering cabinet) for transformer rated installations only.

2.3.7.16 Meter Reading, Inspection and Access to Meter Equipment

The Customer must provide or arrange free, safe and unobstructed access during regular business hours to any authorized representative of PowerStream for the purpose of meter reading, meter changing, or meter inspection. Where premises are closed during PowerStream's normal business hours, the Customer must, on reasonable notice, arrange such access at a mutually convenient time.

2.3.7.17 Faulty Registration of Meters

Metering electricity usage for the purpose of billing is governed by the federal *Electricity and Gas Inspection Act* and associated Regulations, under the jurisdiction of Measurement Canada. PowerStream's revenue meters are required to comply with all specifications established by the Regulations under the above Act.

In the event of incorrect electricity usage registration, PowerStream will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage



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history. The Customer shall pay for all the energy supplied based on the reading of any meter formerly or subsequently installed on the premises by PowerStream, with due regard being given to any change in the characteristics of the installation and/or the demand. If Measurement Canada determines that the Customer was overcharged, PowerStream will reimburse the Customer for the amount incorrectly billed.

If the incorrect measurement is due to reasons other than the accuracy of the meter, such as incorrect meter connection, incorrect connection of auxiliary metering equipment, or incorrect meter multiplier used in the bill calculation, a billing correction will apply. PowerStream will correct the bills in accordance with the Regulations under the *Electricity and Gas Inspection Act* and/or the RSC.

2.3.7.18 Meter Dispute Testing

Metering inaccuracy is an extremely rare occurrence. Most billing inquiries can be resolved between the Customer and PowerStream without resorting to the meter dispute test.

Either PowerStream or the Customer may request the service of Measurement Canada to resolve a dispute.

If the Customer initiates the dispute, and the meter is found to be accurate and Measurement Canada rules in favour of PowerStream, PowerStream will charge the Customer an OEB-approved meter dispute fee.

If the incorrect measurement is due to reasons other than the accuracy of the meter, such as incorrect meter connection, incorrect connection of auxiliary metering equipment, or incorrect meter multiplier used in the bill calculation, a billing correction will apply. PowerStream will correct the bills for that period in accordance with the Regulations under the *Electricity and Gas Inspection Act* and/or the RSC.

2.3.8 Obstruction of Distribution Equipment on Public and Private Property

To maintain the reliability, integrity and efficiency of the distribution system, PowerStream has the right to have unobstructed access to PowerStream electrical distribution equipment, including but not limited to padmount transformers and switchgear, on private and public property at all times for inspection, repairs, maintenance, etc.



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No person shall build, plant, place or maintain any structure, tree, shrub, landscaping or other thing that could:

- Result in the obstruction of access to PowerStream's equipment;
- Interfere with the proper and safe operation of the distribution system (including, but not limited to, the ability to manually or remotely read a metering installation);
- Endanger any part of PowerStream's equipment; and
- Affect PowerStream's compliance with any applicable laws.

Should access to obstructed equipment be required, PowerStream may disconnect the supply of electricity and/or carry out the removal of the obstruction at the person's expense. In the event this occurs, PowerStream is not liable for any damages other than physical damage arising directly from entry to the private property.

Refer to <u>Reference 18 – Standards for Clearances Around Padmount Transformers and Switchgear</u> of this COS document.

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Tariffs and charges, under this section, pertain to OEB-approved rates and charges. These tariffs relate to the supply of energy and related distribution services to Customers in the service area. Refer to the References in <u>Section 5 Rates Schedule</u> of this COS document.

2.4.1 Service Connections

Charges for distribution services are set out in the Tariff of Rates and Charges available from PowerStream. Notice of rate revisions shall be in accordance with the OEB guidelines.

2.4.1.1 Customers Switching to Retailers

There are no physical service connection differences between Standard Supply Service (SSS) Customers and third party Retailers' Customers. For both Customer groups, energy supplies are delivered through the local Distributor with the same distribution requirements.

2.4.2 Energy Supply

2.4.2.1 Standard Supply Service (SSS)

All existing PowerStream Customers are SSS Customers until PowerStream is informed of their transfer to a competitive electricity Retailer. The Service Transfer Request (STR) must be made by the Customer or the Customer's authorized Retailer as per the RSC.

2.4.2.2 Retailer Supply

Customers transferring from SSS to a Retailer shall comply with the STR requirements as outlined in Sections 10.5 through 10.5.6 of the RSC.

All requests shall be submitted as electronic files and transmitted through the Electronic Business Transaction (EBT) system. STR's shall contain information as set out in Section 10.3 of the RSC. If the information is incomplete, PowerStream will reject the STR and notify the requesting party that the request cannot be processed as per the RSC, Section 10.4.

2.4.2.3 Wheeling of Energy

All Customers considering the delivery of electricity through the PowerStream distribution system are required to contact PowerStream for technical requirements and applicable tariffs.



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2.4.3 Deposits

An irrevocable (standby) letter of credit or a letter of guarantee from a chartered bank, trust company or credit union is acceptable in lieu of a cash deposit.

Refer to the References in <u>Section 5 Consumer Security Deposit Policy</u> of this COS document.

2.4.4 Billing

PowerStream has established a billing method and billing cycles to provide Customers with services through SSS or through a third party Retailer, as per the rules and regulations set out in the RSC.

2.4.4.1 Billing Cycle

PowerStream may, at its option, render bills to its Customers on either a weekly, monthly, bimonthly, quarterly or annual basis.

Bills for the use of electrical energy and services may be based on either a metered rate or a flat rate, as determined by PowerStream. Customers are divided into billing cycles and each cycle is read and billed at approximately the same time each billing period based on a previously determined schedule. PowerStream reserves the right to adjust billing cycles and frequencies as required.

2.4.4.2 Settlement Costs

The competitive and non-competitive settlement costs are calculated according to the RSC Sections 3 and 4.

The settlement options, as outlined in Section 7 of the RSC are:

- Retailer-consolidated billing;
- Distributor-consolidated billing;
- Split billing (when determined by the OEB); and
- SSS billing.

2.4.4.3 Transformer Allowance Credit



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Customers who own their own primary transformation facilities, and where this ownership information has been provided to PowerStream, are entitled to an OEB-approved transformation allowance credit. PowerStream has the authority to apply to the OEB for site specific loss rates for those secondary-metered Customers who own their own transformation equipment or who have additional stages of transformation prior to their loads being metered. Any revisions shall be published in accordance with the DSC. Customers must submit transformer losses for review and approval by PowerStream prior to energization.

2.4.5 Payments

2.4.5.1 Payments and Overdue Account Interest Charges

PowerStream has established payment methods for the Customer regarding distribution services, other non-competitive charges, and energy supply through SSS, or through a third party Retailer as per the rules and regulations set out in the RSC.

2.4.5.2 Payment Options

Customers may pay their bill by using any of the following methods: cheque, certified cheque or money order mailed to the address indicated on the bill; cash, cheque, debit card, certified cheque or money order at PowerStream's cashier locations; by bill payment services as offered through most Canadian financial institutions; and with the appropriate convenience fee, by a third party credit card service. All payments are to be in Canadian dollars.

Payments associated with the reconnection of a service due to non-payment of an account shall be by cash, money order or certified cheque at a PowerStream cashier location only and with the appropriate convenience fee, by a third party credit card service. Payments associated with a diversion of power shall be only by certified cheque or money order.

PowerStream also offers 2 pre-authorized payment plans. The Pre-Authorized Payment Plan (PAP) allows Customers to pay the amount due on the due date indicated on the bill. The Equal Payment Plan (EPP) allows Customers to pay an equal amount on a predetermined date each month. A customer's EPP amount is reconciled once per year, and is also reviewed at least once per year. All EPP accounts will be reviewed periodically to ensure the monthly payment amount accurately reflects billed amounts. PowerStream reserves the right to adjust the monthly EPP amount upon written notification.

2.4.5.3 Late Payment Charges



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Bills are due when rendered for services provided to the Customer. Bills are payable in full by the due date, which shall be a minimum of 16 calendar days from the date of billing. A Customer can pay without the application of a late payment charge up to the due date. Late payment interest charges shall apply at an OEB-approved rate of 1.5% per month, compounded monthly to 19.56% per annum, on past due balances. Where a partial payment has been made by the Customer on or before the due date, the interest charge shall apply only to any outstanding balance after the due date.

In the event of partial payment by a Customer, payments shall be allocated to the portions of the bill covering competitive and non-competitive electricity costs.

Outstanding bills are subject to the collection process and may ultimately lead to the service being disconnected, or, at the discretion of PowerStream, a load limiter being installed thereby restricting the supply of electrical power. Service shall be restored once satisfactory payment has been made. Discontinuance of service does not relieve the Customer of the liability for arrears.

Subject to regulation, PowerStream may exercise judgment with respect to risk of non-payment and individual Customer circumstances.

For further information refer to <u>Section 2.2 Disconnection</u> of this COS document.

The Customer will be required to pay additional charges for the processing of returned item from a Canadian financial institution, e.g. non-sufficient fund (NSF) cheques. For further information see Sections 2.4 Tariffs and Charges and 2.4.3 Deposits of this COS document.

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2.5	Customer Information		r Information		

PowerStream will not disclose information regarding a Customer, Retailer, Wholesale Market Participant or Generator to any other party without the written consent of the Customer, Retailer, Wholesale Market Participant or Generator, except where such information is required to be disclosed:

- To comply with any legislative or regulatory requirements;
- for billing, settlement or market operations purposes;
- for law enforcement purposes; or
- to a debt collection agency for the processing of past due accounts of the Customer or Retailer.

Additionally, PowerStream has a Privacy Policy in accordance with the *Personal Information Protection and Electronic Documents Act* and other applicable provincial legislation.

2.5.1 Disclosure of Historical Usage to a Third Party

Historical usage information requests, outside of the EBT system, on a particular Customer may be disclosed to a third party, with the written consent of the Customer. The information to be provided will be what is readily available to a maximum of 24 months. PowerStream may charge an OEB approved fee for this service.

2.5.1.1 Aggregated Information

PowerStream will disclose information regarding Consumers, Retailers, Wholesale Market Participants or Generators, where the information has been sufficiently aggregated such that their particular information cannot reasonably be identified. Fees for aggregated information will not be assessed to another Distributor, Transmitter, the IESO, the Ontario Power Authority (OPA) and the OEB. However, subject to OEB approval, PowerStream reserves the right to assess fees to other parties.

2.5.1.2 List of Retailers

At the request of a Customer, PowerStream will provide a list of Retailers that have service agreements in effect within the service area. The list will inform the Customer that an alternative Retailer does not have to be chosen in order to ensure that the Customer receives electricity and the terms of service that are available under SSS.



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2.5	Customer Information		r Information		

2.5.1.3 Request Response or Referral

Upon receiving an inquiry from a Customer connected to its distribution system, PowerStream will either respond to the inquiry if it deals with its own distribution services or provide the Customer with contact information for the entity responsible for the item of inquiry, in accordance with Chapter 7 of the RSC.

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3.1	Service Information – All Customer Classes				

PowerStream will recover costs associated with the installation of connection assets, by Customer class, via a Variable Connection Charge.

- Residential Service Customer
- General Service Customer (<u>GS < 50 kW, GS > 50 kW, Large User > 5,000 kW</u>)

PowerStream's standard servicing option is one service per property.

The Customer shall supply the following to PowerStream well in advance of installation commencement:

- Required in service date;
- Proposed service entrance equipment's rated capacity (A), voltage rating and metering requirements;
- Survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines; and
- Electrical, architectural and/or mechanical drawings as required by PowerStream.

Additional services charged to the Customer, as part of the Variable Connection Charge, are for redesign due to changes in the Customer's initial proposal, for utility inspections more than the standard allowance and for all civil inspections and / or scope and timing.

PowerStream is responsible for the maintenance and repairs of its connection assets but not the transformer room(s) or any other civil structure that forms part or is part of the Customer's building.

When effecting changes the Customer shall maintain sufficient clearances between electrical equipment and buildings and other permanent structures to meet the requirements of the OESC and the *Occupational Health & Safety Act* and OBC Regulations.

For metering requirements, refer to <u>Section 2.3.7 Metering</u> of this COS document.

If an electrical room is required, refer to <u>Section 2.3.7.12 Electrical Room for Meter(s) or Metering</u> <u>Installation(s)</u> of this COS document.



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3.1	Service Information – All Customer Classes				

It is the responsibility of the Owner, or its contractor, to obtain locates for the locations of all utility services, such as electric, gas, telephone, water and cable TV, from all utility companies, including PowerStream.

The Customer shall construct or install all civil infrastructure (including but not limited to poles, underground conduits, cable chambers, cable pull rooms, transformer room/vault/pad) on private property that is deemed required by PowerStream as part of its connection assets. All civil infrastructures are to be in accordance with PowerStream's standards, practices, specifications and this COS document and are subject to PowerStream's inspection and acceptance.

Where the size of the Customer's electrical service warrants, the Customer will be required to provide facilities on its property and an easement, as required, acceptable to PowerStream, to house the necessary transformer(s) and/or switching equipment. PowerStream will provide planning details upon application for service.

PowerStream will supply, install and maintain the electrical transformation equipment within the transformer vault or pad. PowerStream has the right to have this equipment connected to its distribution system.

The Customer's cables shall be brought to a point determined by PowerStream for connection to PowerStream's supply.

PowerStream will undertake the necessary programs to maintain and enhance its distribution plant at its expense. In the event that services or facilities to a Customer need to be restored as a result of construction or maintenance activities by PowerStream, they will be restored to an equivalent condition.

In addition, PowerStream will carry out the necessary construction and electrical work to maintain existing supplies by providing standard overhead or underground supply services to Customers affected by PowerStream's construction activities. If a Customer requests special construction beyond the normal PowerStream standard installation in accordance with the program, the Customer shall pay the additional cost, including engineering and administration fees.

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3.2	Residential Service				

The Basic Connection Charge is recovered through PowerStream's rates and covers the Standard Allowance for basic connection, referred herein as the standard allowance, consistent with the defined ownership demarcation point. This point may differ from the operational demarcation point.

The standard allowance is the supply and installation of up to 30 metres for a 200 A, low-voltage overhead wire or equivalent credit for underground service, and also transformation capacity or an equivalent credit for transformation equipment. The standard allowance does not include road crossings.

The Variable Connection Charge will be calculated and recovered based on firm costs associated with the installation of connection assets above and beyond the standard allowance.

3.2.1 Overhead Services

The Ownership Demarcation Point is typically the top of the Customer's service mast unless otherwise noted in the design. For an illustration of the typical overhead residential service demarcation point, please refer to Figure 3.2.1 at the end of this Section.

For the Variable Connection Charge the Customer is charged the firm service agreement costs.

In addition to the requirements of the OESC, the following conditions shall apply:

- clearance must be provided between utility conductors and finished grade of a least 6 metres over traveled portions of the road allowance and 4.5 metres over all other areas. A minimum horizontal clearance of 1 metre must be provided from utility conductors and any second storey windows; and
- although the OESC allows electrical conductors to be located at adequate height, PowerStream will not allow electrical conductors to be located above swimming pools.

Where a new swimming pool is to be installed it will be necessary to relocate, at the property Owner's expense, any electrical conductors located directly over the proposed pool location. Where overhead service conductors are in place over an existing swimming pool, PowerStream will provide up to 30 metres of overhead service conductors, at no charge, to allow rerouting of the service. The property Owner will pay all other costs.

3.2.2 Underground Services



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The Ownership Demarcation Point is the line side of the Customer's meter base for a typical installation / design.

Customers requesting an underground service will be required to pay 100% of the connection costs for the underground service less a credit for the Standard Allowance.

For the Variable Connection Charge the Customer is charged the firm costs for connection assets beyond the Standard Allowance, including road crossings.

The trench route must be approved by PowerStream and is to follow the route indicated on the underground drawing supplied by PowerStream. PowerStream must approve any deviation from this route. The Customer will be responsible for PowerStream's costs associated with re-design and inspection services due to changes or deviations initiated by the Customer or its agents.

It is the responsibility of the Owner to contact PowerStream to inspect each trench prior to the installation of PowerStream's service cables.

3.2.3 Multi-Building High Rise Condominiums on One Site

For multi-building high rise condominiums on one site, please refer to <u>Reference 3 of Section 5 –</u> <u>Appendices and References</u>, for more information.



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Figure 3.2.1 Demarcation Points for Overhead Residential Services (Typical)







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3.3	General Service (GS < 50 kW, GS > 50 kW, Large User > 5,000 kW)			

As permitted by Section 3.1.5 of the DSC, PowerStream defines a basic connection by rate class, and recovers the cost of the basic connection through a Basic Connection Charge to the customer. All connection requests for non-residential Customers are subject to a Variable Connection Charge. Unless otherwise noted, the Customer is charged the firm costs.

Additional services charged to Customer (as part of the Variable Connection Charge), unless otherwise noted are for redesign due to changes in the Customer's proposal.

The Ownership Demarcation Point, unless otherwise noted in the design, is:

- a) Overhead service
 - Secondary supply is the top of the service mast; or
 - primary supply is connection to PowerStream's system.
- b) Underground service
 - Secondary supply is the secondary terminals of PowerStream's transformer; or
 - primary supply is the line side of Customer's primary owned switchgear, the connection to PowerStream's distribution system.

General Service Customers will be serviced from the distribution system or sub-transmission system depending on Customer loading requirements and existing available voltages per geographic area. This will be determined by PowerStream staff. Refer to the Reference in Section 5 <u>Voltage/kVA Guidelines</u> of this COS document.

All loads and services above the Voltage/kVA Guidelines values will be supplied from Customerowned transformation. Refer to Section 3.3.1.9 Substation Information of this COS document for details.

3.3.1 Technical Information

Prior to the preparation of a design for a service, the Customer, or its authorized representative, will provide to PowerStream:

- The approximate date that the Customer requires the electrical service;
- one electronic and one hard copy of all relevant project drawings (if required);



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- proof of legal ownership;
- the due date that PowerStream's civil construction drawings are required to coordinate with site construction;
- proposed total load details in kVA and/or kW (winter and summer);
- details respecting heating equipment, air-conditioners, motor starting current limitation and any appliances, which demand a high consumption of electrical energy; and
- all drawings must be submitted to PowerStream with adherence to PowerStream's Standards. Where the Customer requires an approved copy to be returned, additional copies of all plans must be submitted.

3.3.1.1 Site & Grading Plans

The drawings and plans must indicate the lot number, plan numbers and when available, the civic address (street number). The site plan shall show the location of the Building on the property relative to the property lines, any driveways and parking areas and the distance to the nearest intersection. All elevations shall be shown for all structures and proposed installations. Additional drawing and plan requirements include:

- 1. a plan view is to be shown that details the perimeter of the facilities to be constructed.
- 2. a profile view is to be shown that details the perimeter of the facilities to be constructed.
- 3. municipal roads show full road allowance widths.
- 4. sidewalks and walkways are to be shown.
- 5. property lines (front, back and sides as applicable) to be clearly indicated.
- 6. driveways to be clearly indicated, and shall be setback a minimum clearance of 1.5 m from all above ground electrical distribution system components.
- 7. lights standards to be clearly indicated.
- 8. hydro poles and down guys to be clearly indicated.
- 9. telephone poles and down guys to be clearly indicated.



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10. transformers, either padmount or aerial to be clearly indicated and drawn to scale.

- 11. utility vaults, chambers, pedestals to be clearly indicated
- 12. trees, bushes and hedges to be clearly indicated.
- 13. existing structures to be demolished/and or maintained to be clearly indicated.
- 14. placement of all existing primary wires on the existing poles to be clearly indicated.
- 15. placement of all existing underground hydro wires are to be clearly indicated.
- 16. populating and placement of "x", "x1", "x2" (and Xn depending on the number required) dimensions that clearly identifies the new facilities and their proximity to existing primary lines and to the property lines. The distances shown must be in compliance with the latest version of relevant legislation (as a minimum, ESA, CSA, Building Code, PowerStream Standards) and must be shown in both the plan and profile drawings. These are required to explicitly depict the location of these relative to the proposed facilities on the submitted engineering drawing. If the proximity in any direction, as noted in the sample drawing is less than 4m, or if a grading change is within the 4m limit, then close scrutiny of the project will be initiated.
- 17. provide details of proposed grade changes that will affect existing hydro poles, transformers or switchgear (all drawn to scale). This includes the cases where existing equipment may lay just outside the limits of the development, but will be affected by the boulevard grading on roads adjacent to the development. These should be clearly shown on the drawing with its own profile, showing both the existing and proposed grades.

3.3.1.2 Mechanical Servicing Plan

Show the location on the property of all services proposed and/or existing such as water, gas, storm and sanitary sewers, telephone, etc.

3.3.1.3 Floor Plan

Show the service location, other services locations, driveway, and parking and indicate the total gross floor area of the building.



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3.3.1.4 Duct Bank Location

Show the preferred routing of the underground duct bank on the property. This is subject to approval by PowerStream.

3.3.1.5 Transformer Location

Indicate the preferred location on the property for the high voltage transformation. This is subject to approval by PowerStream. Transformation will be vault, pad, submersible type or pole mounted depending on the project load requirements.

3.3.1.6 Electrical Meter Room

Indicate preferred location in the building of the meter room and the main switchboard. Refer to <u>Section 2.3.7.12 Electrical Room</u> for Meter(s) or Metering Installation(s) of this COS document.

3.3.1.7 Single Line Diagram

Show the main service entrance switch capacity, the required supply voltage, and the number and capacity of all sub-services showing provision for metering facilities, as well as the connected load breakdown for lighting, heating, ventilation, air conditioning etcetera. Also, indicate the estimated initial kW demand and ultimate maximum demands. Provide protection equipment information where coordination is required between PowerStream and Customer-owned equipment. PowerStream will determine fusing later to coordinate with the transformer size selected.

3.3.1.8 Switchgear

For any service entrance switchgear that is proposed to be installed, three (3) copies of the switchgear drawing must be submitted for PowerStream's approval, including interlocking arrangement, if required.

3.3.1.9 Substation Information

Where a Customer-owned substation is to be provided, the owner will be required to provide the following in addition to the site information outlined above:


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- all details of the transformer, including kVA capacity, short-circuit rating, primary and secondary voltages, impedance and cooling details;
- a site plan of the transformer station showing the equipment layout, proposed primary connections, grounding and fence details, where applicable;
- a coordination study for protection review; and
- transformers must be solidly grounded wye, wye configuration.

3.3.1.10 Additional Information

- In the event that the drawing is not submitted or not adequately submitted, PowerStream will not provide its approval to the Municipality, and the Site Plan and/or Building Permit Approval process will be delayed.
- If the information provided by the applicant is found to be incorrect, and there are costs associated with remediation for code compliance, 100% of the costs shall be borne by the applicant.
- Any costs associated with remediation of conflicts with PowerStream existing services will be paid for by the Applicant, with the work being performed by PowerStream. Full cost of the required funds must be provided prior to any design work commencing.
- After approval of the drawing submission for the site plan application or building permit process, the applicant is required to contact PowerStream's New Connections department to create a project reference number and to discuss the project servicing needs with Distribution Design. This includes, but is not limited to, submission of the Service Information Application Form, submission of full site plans, architectural drawings, full elevations, building electrical loads, required voltage and metering needs.
- Note: the applicant shall retain the services of a consultant to resolve any conflict issues that may arise between the existing electrical distribution system and the proposed facilities.

3.3.2 Technical Considerations

3.3.2.1 Short Circuit Ratings

- 44,000 V supply: The Customer's protective equipment shall have a three-phase, short circuit rating of 1500 MVA symmetrical. The asymmetrical current is 32,000 A (1.6 factor used).
- 27,600/16,000 V supply: The Customer's protective equipment shall have a three-phase, short circuit rating of 800 MVA symmetrical. The asymmetrical current is 26,000 A (1.6 factor used).



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- 13,800/8,000 V supply: The Customer's protective equipment shall have a three-phase, short circuit rating of 500 MVA symmetrical. The asymmetrical current is 37,000 A (1.6 factor used).
- 8,320/4,800 V supply: The Customer's protective equipment shall have a three-phase, short circuit rating of 330 MVA symmetrical. The asymmetrical current is 37,000 A (1.6 factor used).
- 4,160/2,400 V supply: The Customer's protective equipment shall have a three phase, short circuit rating of 250 MVA symmetrical or 40,000 A asymmetrical (1.6 factor used).
- 600/347 V supply: The Customer's protective equipment shall have a minimum short circuit rating of 50,000 A.

3.3.2.2 Primary Fusing

All equipment connected to the PowerStream distribution system shall satisfy the short circuit ratings specified above. The Customer and/or its consultant shall specify the fuse-link rating and demonstrate coordination with PowerStream's upstream protection including station breakers and/or distribution fuses where possible. The Customer shall submit a coordination study to PowerStream for verification to ensure coordination with upstream protection including station breakers and/or distribution fuses. The Customer shall maintain an adequate supply of spare fuses to ensure availability for replacement in the event of a fuse blowing.

3.3.2.3 Ground Fault Interrupting

Where ground fault protection is required to comply with the OESC, the method and equipment used shall be compatible with PowerStream's practice of grounding transformer neutral terminals in vaults. Zero sequence sensing will normally apply. Where ground strap sensing is used, the ground sensing devices shall be set to operate at 600 A if transformer and switchboard buses are not bonded and 400 A if buses are bonded. Ground fault protection proposals for dual secondary supply arrangements shall be submitted to PowerStream for approval, before construction of the switchboard.

3.3.2.4 Lightning Arresters

Customer installations that are directly supplied from PowerStream's primary underground system are not protected with lightning arresters. If the Customer wishes to install lightning arresters they shall be located on the load side of the first protective device. For Customer installations that are supplied from PowerStream's primary overhead system, PowerStream will install lightning arresters at the pole and the Customer may install lightning arresters in the switchgear on the load side of



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the incoming disconnect device. The mimic diagram shall indicate the presence of such devices in the switchgear.

3.3.2.5 Basic Impulse Level (B.I.L.)

The Customer's apparatus shall have a minimum B.I.L. as per the requirements of the OESC.

3.3.2.6 Unbalanced Loads

On three-phase service, the unbalance due to single-phase loads shall not exceed 20% of the Customer's balanced phase loading expressed in kW.

3.3.2.7 Customer-Owned Substation

Where a primary service is provided to a Customer-owned substation, the Customer shall install and maintain such equipment in accordance with all applicable laws, codes, regulations, and PowerStream's requirements for high voltage installations. Customer-owned transformers must be approved by PowerStream. PowerStream will provide planning details upon application for service.

Customer-owned substations are a collection of transformers and switchgear located in a suitable room or enclosure owned and maintained by the Customer, and supplied at primary voltage, i.e. the supply voltage is greater than 750 V.

The Customer is required to bring out a neutral conductor for connection to the system neutral (except 44 kV systems). If not required for Customer's use, this neutral shall be terminated to the Customer's station ground system. PowerStream will provide Customer interface details and requirements for high-voltage supplies.

Customer-owned substations must be inspected by both the ESA and PowerStream. The Owner will provide a pre-service inspection report to PowerStream. A contractor acceptable to PowerStream shall prepare the certified report.

To ensure the security and reliability of the distribution system, and to ensure a safe and coordinated commissioning of station equipment, PowerStream requires all customer-owned substation equipment (including switches, transformers, fuses, etc.) to be fully installed and connected <u>prior</u> to energization. Staged or phased energization is not permitted. Customers may require internal system checks on energized components of their system as is practical during



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commissioning, but the entire substation must be installed and energized as a whole to PowerStream's distribution system.

3.3.3 Temporary Services

A temporary service is a normally metered service provided for construction purposes or special events. Temporary services can be supplied overhead or underground. The Customer will be responsible for all associated costs for the installation and removal of equipment required for a temporary service to PowerStream's point of supply. Temporary services may be provided for a period of no more than 12 months. Temporary services must be renewed thereafter, including payment of all applicable fees, if an extension is required and the equipment for such temporary service must be re-inspected at the end of the 12-month period.

Subject to the requirements of PowerStream, supply will be connected after receipt of a Connection Authorization from the ESA, a signed contract and a deposit from the Customer.

Where meter bases are required, they must be approved by PowerStream and shall be securely mounted on minimum 150 millimetre diameter poles (or alternative if approved by PowerStream) so that the midpoint of the meter is 1.73 metres (\pm 100 millimetres) from finished grade.

In the case of temporary overhead services, the Customer shall leave 800 millimetres of cable at the masthead for connection purposes.

In the case of temporary underground services, the Customer's cable shall extend to PowerStream's point of supply.



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3.4	Unmetered Connections (Scattered Loads)				

3.4 UNMETERED CONNECTIONS

This section pertains to the conditions of service and supply of electrical energy for unmetered connections. Unmetered connections are categorized as equal to GS < 50 kW class Customers. The point of demarcation and ownership for unmetered connections are as stated below:

The ownership demarcation point is:

- for overhead service, the top of the Customer's service standpipe/mast; and
- for underground service, the secondary spades of the transformer.

3.4.1 Introduction

Unmetered connections are intended for use within the road right-of-way and are permitted at the discretion of PowerStream. This type of service offering is specifically made available to companies that are in good standing with PowerStream and licensed for equipment access with the road authority, such as telecommunication companies and government agencies.

In accordance with the DSC, this section of the Conditions of Service document identifies the specific mutual obligations and responsibilities required of both PowerStream and the Customer for all unmetered single phase secondary service connections within PowerStream's service territory.

3.4.2 General Conditions for Unmetered Loads

Customers with existing unmetered connections, or requiring new unmetered connections, are subject to the terms and conditions identified here.

Where a Customer is attaching its equipment to a PowerStream asset, an additional Customer specific joint-use attachment agreement may be necessary. This agreement may include requests for additional data and/or may be subject to specific conditions.

3.4.2.1 Unmetered Customer Responsibilities

• Comply with the requirements of PowerStream standards and the Ontario Electrical Safety Code to ensure public safety.



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- Provide a load letter on a company's letter head, duly signed and stamped by a registered professional engineer with Professional Engineers of Ontario (PEO), indicating the estimated load of the unmetered connection.
- Retain all information provided to and by PowerStream per the terms in Section 3.4.4 Data Quality & Auditing Requirements. PowerStream may choose not to retain record details with each unmetered connection and thus will not be held responsible for any incomplete records.
- Provide an ESA Connection Authorization prior to the service being connected.
- Install, operate, and maintain its secondary conductor from the PowerStream designated Supply Point to the intended load.
- Provide timely and accurate energy consumption data. Accepted energy consumption is based on either:
 - The maximum continuous calculated load, or
 - The results of a PowerStream accepted audit.
- Allow no external party to connect to its unmetered connection and its unmetered secondary bus. For different internal corporate groups sharing the same unmetered bus, a tri-party agreement shall be executed with PowerStream to define operating, maintenance, and cost responsibilities with those groups.
- Where and when requested by PowerStream, the unmetered customer shall relocate, at the customer's cost, the secondary conductors of an unmetered connection to another designated supply point.
- Complete and sign the declaration in <u>Section 5, Reference 22</u>, and submit to PowerStream in a timely manner by January 31 of each year.

3.4.2.2 PowerStream Responsibilities

• Provide a service layout for each unmetered connection location that identifies the supply point and prescribes any applicable PowerStream standards and conditions.



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- Strive to make new unmetered connections within ten working days of having all PowerStream connection conditions met.
- Provide reasonable notice to the unmetered customer should the supply point require relocation:
 - Planned Supply Point relocations 90 day written notice.
 - Emergency Supply Point relocations when possible.
- Assign an USL energy account and service ID for each new Connection load.
- Ensure that unmetered connection billing information accurately reflects calculated electrical consumption by unit, quantity, load profile and demand. Devices of the same class by type or load will be grouped together where possible and assigned the same billing determinants.
- Consult with unmetered load customers prior to implementation of material unmetered load rate increases.

3.4.3 Data Requirements

3.4.3.1 New Unmetered Connections

- New unmetered connections shall meet with the data quality requirements described in Section 3.4.4 of this document.
- Unmetered connection Customers shall provide PowerStream with the necessary information to complete each unmetered connection layout per Section 5, Reference 21.

3.4.3.2 Existing Unmetered connections

- Throughout the lifecycle of the unmetered connection, unmetered connection customers are required to submit updated and accurate data to PowerStream when it becomes known by the customer or requested by PowerStream.
- The data, the timing, and method of submission are outlined in <u>Section 5, Reference 21</u>. Also, an annual declaration by the customer as per <u>Section 5, Reference 22</u> confirming data accuracy shall be made.



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3.4.4 Data Quality & Auditing Requirements, and Records Retention

In the event that PowerStream or the unmetered Customer identify or cause a billing error, PowerStream will rectify the matter consistent with this section, and <u>Section 2.4.4 (Tariffs and Charges)</u>, and also the <u>OEB Retail Settlement Code</u>. The customer shall meet the following data requirements for unmetered connections:

3.4.4.1 Data Quality Requirements

• GPS coordinates shall be provided in degrees: minutes: seconds (i.e., 45:26:45.25, - 75:20:88.1) or decimal format (45.354153, -75.9845542).

However, the measurement shall comply with NAD1983, UTM Zone 17N, threedegrees and have an accuracy within +/- 2.0m radius of the actual unmetered device location.

- Electrical profile, power quality, and usage accuracy studies are required when new unmetered equipment is introduced or when requested by PowerStream. The unmetered Customer, at its cost, has the following two options available to develop and prove this information to PowerStream:
 - (1) An in-house test plan (covering: scope, applicability, conditions, quality control, measurement devices, timing, staff competencies, control documents, error resolution process, and external references) for PowerStream approval. Final results and report shall be signed and sealed by a Professional Engineer of Ontario; or
 - (2) A signed and sealed certified test report from a Standards Council of Canada or ANSI compliant laboratory having competencies in electrical equipment testing.
 - (3) In either case, the test plan or report shall outline how the probability sampling ensures a 3.4% confidence interval with a 95% confidence level for each load type by similar energy usage profile for the proposed installation. Generally, stratified sampling may be needed to ensure conformance. To ensure adequate sampling requirements are met, ANSI/ASQC Z1.4 sampling tables may be referenced.

3.4.4.2 Data Auditing Requirements



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The unmetered connection Customer or PowerStream may initiate an audit at regular intervals or on notice.

3.4.4.3 Records Retention

The Customer shall retain information provided to and by PowerStream for a minimum period of seven years while the service is in a state other than "permanently removed" (see Section 3.4.6.5). Once the service has been permanently removed, the retention period shall be a minimum of two years.

The retained information shall include yet, not be limited to, the detail in <u>Section 5</u>, <u>Reference 21</u>, (column Information Source, Customer), and any other relevant correspondence or agreements regarding the un- metered account including the associated service connections and load.

The Customer not retaining such records would result in costs for PowerStream to research and reconstruct missing information plus the costs described in Section 3.4.9 Audit Costs, and Section 3.4.10 Error Costs, all of which such costs may be recoverable from the Customer.

3.4.5 Unmetered Load Types Defined

The types described below may qualify for unmetered single phase secondary servicing. The method and location of Supply Point may vary for each application and shall be established through consultation with PowerStream.

a) Street Lighting

Street lighting on public roads qualifies for unmetered servicing.

b) Traffic Signals

Traffic lights and crosswalks on public roads qualifies for unmetered servicing.

c) Bus Shelters

Bus shelters on public roads may qualify for unmetered servicing under the following conditions:

• Single-phase, two wire, 120 volts



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• Bus shelter loads less than or equal to 15 Amps may qualify to be unmetered; loads greater than 15 Amps shall be metered.

d) Parks & Pathway Lighting

Publicly owned park and/or pathway lighting may qualify for unmetered servicing under the following conditions:

- Single-phase, two wire, 120 volts
- Three wire, 120/240 volts
- Publicly owned park and/or pathway lighting loads less than or equal to 15 Amps may qualify to be unmetered; loads greater than 15 Amps shall be metered.

e) Decorative Lighting

Privately owned occasional festive or decorative streetscape lighting on public roads may qualify for unmetered servicing:

- Single-phase, two wire, 120 volts.
- Privately owned occasional festive or decorative streetscape lighting loads less than or equal to 15 Amps may qualify to be unmetered; loads greater than 15 Amps shall be metered.
- Pole attachment agreement if the decorative lighting is to be mounted on PowerStream owned poles.
- A temporary municipal encroachment permit for road access and assigned responsibilities.

f) Billboards

At PowerStream's discretion, billboards in PowerStream territory may qualify to be unmetered.

• Single-phase, three wire 120/240 volts.

g) Other Small Services



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Telephone booths, small power supplies and communication amplifiers and antennas, road and utility cathodic protection, railway signals, flasher beacons, and similar small Customer loads may within the public road right-of-way qualify for unmetered servicing.

- Single-phase, two wire, 120 volts
- Three wire, 120/240 volts
- Small service loads less than or equal to 15 Amps may be unmetered; loads greater than 15 Amps shall be metered.

3.4.6 Service Costs

3.4.6.1 General Billing Conditions and States of Connection

There are three life-cycle states of an unmetered connection. They are: "proposed," "in-service," or "permanently removed." Where an unmetered connection is deemed to be "in-service", the billing of the energy and fixed charges will continue monthly until PowerStream has been formally notified the service has been permanently removed.

3.4.6.2 Proposed

On request of a new connection, the Customer's proposal will initiate the service point as "Proposed" for a period of up to 90 days.

3.4.6.3 In-Service

An unmetered connection is deemed to be "in-service" when it has been energized or it has been electrically isolated (removed from any electrical energy source) at any time between being energized or permanently removed. The two in-service states are described as follows:

a) Energized

An existing unmetered connection that has been physically connected to the PowerStream distribution network is deemed to be "Energized".



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b) Electrically Isolated

An existing unmetered connection that has been physically detached from the PowerStream distribution network energy source is deemed to be "electrically isolated." Isolation of the unmetered connection may be initiated by PowerStream for power quality, outage problems, or data issues, or by the Customer through written request. Refer to <u>Section 2.2 Disconnection</u>.

In this state, PowerStream continues to calculate the bill (energy and fixed charges) on a per month basis for not more than six consecutive months. Following the sixth month of being "electrically isolated," the unmetered connection must either be put back "in-service" or be "permanently removed" from service. Refer to <u>Section 2.1.4 Inspections before Connections</u>. Should those actions fail, PowerStream retains the right to disconnect the service in accordance with <u>Section 2.2.1 PowerStream Initiated</u>.

3.4.6.4 Permanently Removed

An unmetered connection is deemed "permanently removed" following the sixth consecutive month in the "electrically isolated" state, or where the Customer requests that the unmetered connection be permanently cancelled and physically detached from the PowerStream distribution network energy source.

Where an unmetered load has been deemed "permanently removed," billing charges (energy and fixed charges) cease to accrue in the following month to the consolidated unmetered connection bill.

Re-energization of an unmetered connection in this state shall be treated as a new unmetered connection and be subject to the requirements contained within this document.

3.4.7 Ongoing Account Tariffs and Charges

The Customer shall work with PowerStream to classify like energy devices such that similar devices can be consolidated to similar energy usage profiles for energy billing purposes. When requested by PowerStream, the Customer shall consolidate their separate unmetered billing accounts down to at least the number of similar energy profile classifications or less.

3.4.8 Work by PowerStream



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PowerStream connection, isolation and re-energization fees will apply. Note that any extra work by PowerStream beyond a simple connection onto the overhead or underground system is at the Customer's expense, ie: "make-ready" work.

3.4.9 Audit Costs

Unmetered connection Customers are responsible for their costs associated with any audit.

3.4.10 Error Costs

PowerStream encourages voluntary data error disclosure and data quality improvement.

Recurring data errors or data quality problems may result in an unmetered load being "electrically isolated" or "permanently removed" from the PowerStream distribution network, with the option for the Customer to upgrade to a metered service from an PowerStream designated Supply Point.

Where an unmetered connection Customer volunteers corrected or improved data before commencement of a joint audit, the Customer will be responsible for their corrected consumption usage going forward.

To improve the quality of the unmetered data, PowerStream encourages the unmetered Customer to cooperate in a joint audit as described in Section 3.4.4. In this case, the Customer will be responsible for their associated audit costs and their corrected consumption usage going forward.

If the unmetered Customer provides PowerStream poor unmetered data (i.e., not meeting audit standards), no data, or late data, the unmetered Customer shall pay PowerStream's field verification and data correction costs, equivalent costs per each unmetered load, and the corrected consumption usage going forward.

3.4.11 Communication to Customer on Rate-Impact Matters



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Prior to filing a rate application, PowerStream will communicate to unmetered load customers regarding any changes in its proposed cost allocation and rate design that may materially impact them. In the event of changes materially impacting unmetered load customers, PowerStream will hold an information session where the customers can get additional information, ask questions and provide feedback on the proposals.

3.4.12 Street Lighting Service

The ownership demarcation point for street lighting varies with the type of service (underground or overhead), equipment, and municipal areas. Consult PowerStream to obtain the information on street lighting demarcation points.

Decorative or tree lighting, if connected to a municipal, regional, or provincial street lighting system, will be treated as the Street Lighting service class.

All information for new and subsequent connections must be supplied to PowerStream. Contact PowerStream to determine the format required.



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The Generator classifications set forth in the DSC are outlined in the table below.

Generator Classification	Rating
Micro	\leq 10 kW
Small	a) \leq 500 kW, connected on distribution system voltage < 15 kV
	b) \leq 1 MW connected, on distribution system voltage \geq 15kV
Mid-Sized	a) \leq 10 MW but > 500 kW connected on distribution system voltage < 15 kV
	b) > 1 MW but \leq 10 MW, connected on distribution system voltage \geq 15 kV
Large	> 10 MW

3.5.1 Connection and Operating Agreements

PowerStream will enter into a connection agreement with all existing Customers who have an embedded generation facility connected to the PowerStream distribution system and also with all new Customers prior to connecting a new generation facility. Customers may also be required to enter into an operating agreement. Refer to the References in Section 5 of this COS document.

For micro, small, mid-sized, and large embedded generation facilities, the connection agreement will be in the form set out on the PowerStream website.

Where PowerStream does not have a connection agreement with an existing Customer that has a generation facility connected to the PowerStream distribution system, the Customer shall be deemed to have accepted and agreed to be bound by all of the connection agreement terms and conditions set out on the PowerStream website and the terms of any operating schedule delivered to it from time to time by PowerStream.

3.5.2 Connection Process



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PowerStream has created an Embedded Generation Connection Overview which contains the following information:

- a) the process for having a generation facility connected to the PowerStream distribution system, including any form necessary for the application;
- b) information regarding any approvals from the ESA, the IESO, OEB, OPA, or a Transmitter that are required before PowerStream will connect a generation facility to its distribution system;
- c) the technical requirements for being connected to the PowerStream distribution system including the metering requirements; and
- d) the standard contractual terms and conditions for being connected to the PowerStream distribution system.

The Embedded Generation Connection Overview is posted on the PowerStream website at <u>www.PowerStream.ca</u>.

Subject to all applicable laws, and in accordance with the DSC, PowerStream will make all reasonable efforts in accordance with the provisions of Section 3.5 Embedded Generation of this COS document to promptly connect to its distribution system a generation facility, which is the subject of an application for connection.

3.5.3 Connection of Micro-Generation Facilities

A Customer who wishes to connect a micro-embedded generation facility to the PowerStream distribution system shall submit an application to PowerStream providing the following information:

- a) the name-plate rated capacity of each unit of the proposed generation facility and the total name-plate rated capacity of the proposed generation facility at the connection point;
- b) the fuel type of the proposed generation facility;
- c) the type of technology to be used; and
- d) the location of the proposed generation facility including address and account number where available.

Where the proposed micro-embedded generation facility is:

e) located at an existing Customer Connection and a site assessment is not required, PowerStream will, within 15 days of receiving the application, make an OTC or provide reasons for refusing to connect the proposed generation facility;



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- f) located at an existing Customer Connection and a site assessment is required, PowerStream will, within 30 days of receiving the application, make an OTC or provide reasons for refusing to connect the proposed generation facility; or
- g) located other than at an existing Customer Connection, PowerStream will, within 60 days of receiving the application, make an OTC or provide reasons for refusing to connect the proposed generation facility.

PowerStream will give the applicant at least 30 days to accept the OTC and will not revoke the OTC until this time period has expired. PowerStream will not charge the Customer for the preparation of the OTC.

PowerStream will make any necessary metering changes and connect the applicant's microembedded generation facility to its distribution system within five (5) business days, or at such later date as agreed to by the applicant and PowerStream, of the applicant completing the following:

- a) provide PowerStream with a copy of the Authorization to Connect from the ESA;
- b) enter into a connection agreement with PowerStream; and
- c) pay PowerStream for the costs of any necessary changes.

3.5.4 Connection of Small, Mid-Sized and Large Generation Facilities

After a Customer who is considering applying for the connection of a generation facility to the PowerStream distribution system has requested a preliminary meeting with PowerStream and has provided the required initial set of information listed below PowerStream will provide a time when its relevant employees are available to meet with the Customer.

- a) the nameplate rated capacity of each unit of the proposed generation facility and the total nameplate rated capacity of the generation facility at the connection point;
- b) the fuel type of the proposed generation facility;
- c) the type of technology to be used; and
- d) the location of the proposed generation facility including address and account number with PowerStream where available.

At the preliminary meeting, PowerStream will discuss the basic feasibility of the proposed connection including discussing the location of its existing distribution facilities in relation to the proposed generation facility and providing an estimate of the time and costs necessary to complete



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the connection. PowerStream will not charge for its preparation for, and attendance at, the preliminary meeting.

A Customer who wishes to apply for the connection of a generation facility to the PowerStream distribution system shall submit an application, pay their impact assessment costs and provide the following information:

- a) any of the initial set of information which has not yet been provided to PowerStream;
- b) a single line diagram of the proposed connection, signed and stamped by a Professional Engineer licensed within the Province of Ontario; and
- c) a preliminary design of the proposed interface protection, signed and stamped by a Professional Engineer licensed within the Province of Ontario.

For a small embedded generation facility, where connection to PowerStream's distribution system is deemed to have an impact on the distribution system, PowerStream will advise the Customer of the costs to conduct any required impact assessment.

PowerStream will provide the Customer with the results of its impact assessment of the proposed generation facility, a detailed cost estimate of the proposed connection, and an OTC within:

- a) 60 days of the receipt of the application where no distribution system reinforcement or expansion is required; or
- b) 90 days of the receipt of the application where a distribution system reinforcement or expansion is required.

Subject to any delays in commissioning and testing of the generation facility, which may be beyond the control of PowerStream, PowerStream will connect a proposed small embedded generation facility within:

- a) 60 days of the applicant taking the steps set out above, where no distribution system reinforcement or expansion is required; or
- b) 180 days of the applicant taking the steps set out above, where a distribution system reinforcement or expansion is required.

For a mid-sized embedded generation facility, PowerStream will provide the Customer with its impact assessment of the proposed generation facility within 60 days of receipt of the application.



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For a large embedded generation facility, PowerStream will provide the Customer with its impact assessment of the proposed generation facility within 90 days of receipt of the application.

The impact assessment will describe the impact of the proposed generation facility on the PowerStream distribution system and any of its Customers including:

- a) any voltage impacts, impacts on current loading settings and impacts on fault currents;
- b) the connection feasibility;
- c) the need for any line or equipment upgrades;
- d) the need for transmission system protection modifications; and
- e) any metering requirements.

The Customer shall submit any material revisions to the design, planned equipment or plans for the proposed generation facility and connection with PowerStream. PowerStream will then prepare a new impact assessment within the relevant time period as set out above.

In the case of an application for the connection of a mid-sized or large embedded generation facility, after receiving from PowerStream the impact assessment the applicant shall pay to PowerStream for the cost of preparing a detailed cost estimate of the proposed connection and enter into an agreement with PowerStream on the scope of the project. PowerStream will then provide the applicant with a detailed cost estimate and an OTC by the later of 90 days after the receipt of payment from the applicant and 30 days after the receipt of comments from a Transmitter or other Distributor that may have been advised under the following clause.

For a proposed large or mid-sized embedded generation facility, within 10 days of receiving payment from the applicant for preparing a detailed cost estimate, PowerStream will advise any Transmitter or Distributor whose transmission or distribution system is directly connected to the PowerStream distribution system that it is preparing a detailed cost estimate.

With respect to the paragraph above, when the detailed cost estimate involves a proposed small embedded generation facility PowerStream will use its discretion in advising the impacted Transmitter or Distributor.

After the applicant has entered into a connection cost agreement with PowerStream and has provided the detailed engineering drawings with respect to the proposal, PowerStream will conduct a design review to determine if the detailed engineering plans are acceptable.



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PowerStream has the right to witness the commissioning and testing of the connection of the generation facility to its distribution system. After the applicant has:

- a) informed PowerStream that it has received all necessary approvals;
- b) entered into the appropriate connection agreement, and, where applicable an operating agreement;
- c) PowerStream has received the Authorization to Connect from ESA, and
- d) PowerStream has issued the connection order.

PowerStream will act to connect the generation facility to its distribution system in accordance with this COS document.

Information on the process for connecting a generation facility to a distribution system is set out in Appendix F.1 of the DSC.

3.5.5 Technical Requirements

The Customer shall ensure that the connection of its generation facility to the distribution system does not materially adversely affect the safety, reliability and efficiency of the PowerStream distribution system. New or significantly modified generation facilities shall meet the technical requirements specified in Appendix F.2 of the DSC.

The Customer with an embedded generation facility connected to the PowerStream distribution system (other than a micro-embedded generation facility) shall reimburse PowerStream for any damage to the distribution system or increased operating costs that may result from the connection of a generation facility.

A Customer with a generation facility connected to the PowerStream distribution system shall include in the connection agreement a regular, scheduled maintenance plan that ensures that the Generator's connection devices, protection systems and control systems will be maintained in good working condition.

PowerStream may determine that equipment that was deemed to be in compliance with the technical requirements of the DSC as noted in the immediately preceding paragraph is not in actual compliance with the technical requirements due to any of the following conditions:

a) a material deterioration of the reliability of the distribution system resulting from the performance of the Generator's equipment; or



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- b) a material negative impact on the quality of power of an existing or a new Customer resulting from the performance of the Generator's equipment; or
- c) a material increase in Generator capacity at the site where the equipment deemed compliant is located.

In such a case, PowerStream will provide the Customer with rules and procedures for requiring such equipment to be brought into actual compliance. The Customer shall then bring its equipment into actual compliance with the technical requirements and within a reasonable time period specified by PowerStream.

When a Customer with an embedded generation facility is connected to the PowerStream distribution system, the Customer shall provide an interface protection that is capable of automatically isolating the generation facility from the PowerStream distribution system under the following situations:

- a) internal faults within the Generator;
- b) external faults in the PowerStream distribution system;
- c) certain abnormal system conditions, not limited to open phase and islanding, over/under voltage, over/under frequency.

The Customer shall disconnect the embedded generation facility from the PowerStream distribution system when:

- a) a remote trip or transfer trip is included in the interface protection; and
- b) the Customer effects changes in the normal connection arrangements other than those agreed upon in the operating agreement between PowerStream and the Customer.

3.5.5.1 Metering for Embedded Generation

The embedded Generator shall consult with PowerStream for all metering installations on embedded generators. The embedded Generator shall pay all costs associated with such metering. The embedded Generator shall provide PowerStream Metering with the technical details of the embedded generation facility.

The embedded Generator, if applicable, must provide the PowerStream Metering department with a single line diagram of all associated connected load at the facility, for the purpose of ensuring that all metering and rates are applied correctly.



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Embedded generation facilities that receive energy, such as for station use of back-up supply will be placed in the appropriate Rate class and billed for the energy consumed.

The embedded Generator must have a meter or a metering installation in accordance with the DSC and PowerStream Metering Standards installed. Refer to the References in Section 5 of this COS document.

3.5.6 Net Metering Program for an Embedded Generation Facility

As a way to encourage conservation, PowerStream has established a Net Metering policy for eligible Customers wishing to participate in the Net Metering program. Eligible Customers with specific generation facilities may reduce their net energy costs by exporting surplus generated energy back onto the utility distribution system for credit against the energy the Customer consumes from the distribution system.

Participation in the Net Metering Program is available to all PowerStream Customers with a Generator that meet all of the following conditions:

- a) The electricity is generated primarily for the Customer's own use;
- b) The electricity generated is conveyed to the Customer's own consumption point without reliance on the PowerStream distribution system;
- c) The maximum cumulative output capacity of the Generator does not exceed 500 kW; and
- d) The electricity is solely generated from a renewable energy source (such as wind, drop in water elevation, solar radiation, agricultural bio-mass, or any combination thereof).

In order to participate in the Net Metering program, the Customer will be required to meet all the parallel generation requirements for connecting micro-generation facilities (10 kW or less) or other generation facilities (greater than 10 kW and less than 500 kW), as applicable to the Generator size, as found in Section 3.5 Embedded Generation of this COS document.

The Customer must have a bi-directional revenue meter that records energy flow in both directions.

The PowerStream policy for the Net Metering program is posted, as amended from time to time, on the PowerStream website at <u>www.PowerStream.ca</u>.

3.5.7 OPA Feed-In Tariff (FIT) Program for an Embedded Generation Facility



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In conjunction with the OPA Feed-In Tariff (FIT) Program, PowerStream has established its policy to encourage and promote greater use of renewable energy sources such as wind, solar, photovoltaic (PV), renewable biomass, biogas, bio-fuel, landfill gas, or drop in water elevation for generating electricity. Renewable energy electricity generation projects with a capacity of 10 MW or less that meet the program's requirements may be connected to the PowerStream distribution system in order to export electricity.

In most circumstances, generating facilities participating in the FIT will connect directly to the PowerStream distribution system at a voltage of 27.6 kV or less. Output from the generating facility shall be metered as follows:

- a) for Generators of 10 kW or less and connected to the line side of the meter, a bi-directional kWh meter must be installed to measure energy consumed and energy exported; and
- b) for all other Generators, an interval meter must be installed.

The Generator will be solely responsible for any costs associated with the connection to the PowerStream distribution system and any required metering installation.

The PowerStream policy for the OPA FIT is posted, as amended from time to time, on the PowerStream website at <u>www.PowerStream.ca</u>.



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3.6	Embedded Market Participant					

Under the Market Rules for the Ontario Electricity Market, Chapter 2, Section 1.2.1, "No persons shall participate in the IESO-administered markets or cause or permit electricity to be conveyed into, through or out of IESO-controlled grid unless that person has been authorized by the IESO to do so".

All embedded market participants, including Wholesale Market Participants, within the service area of PowerStream, once approved by the IESO are required to inform PowerStream of their approved status in writing, 30 days prior to their participation in the Ontario electricity market.



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3.7		Embedde	ed Distributor			

An Embedded Distributor that receives electricity from PowerStream shall provide to PowerStream, as determined and required by PowerStream, load forecasts or any other information related to the Embedded Distributor's system load. PowerStream will not require any information from another Distributor unless it is required for the safe and reliable operation of each other's distribution systems or in order to meet a Distributor's licence obligations.

PowerStream will make every reasonable effort to respond promptly to another Distributor's request for connection. PowerStream will provide an initial consultation with another Distributor regarding the connection process within 30 days of receiving a written request for connection. PowerStream will provide an OTC to connect the Distributor's distribution system to the PowerStream distribution system within 90 days after receiving all the required information for connection.

The Distributor shall enter into a connection agreement and operating agreement with PowerStream to describe the relationship between PowerStream and the Distributor.

Also refer to <u>Sections 2.1.4 Inspections Before Connections</u> and <u>2.2 Disconnection</u> of this COS document.



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3.8	Pole Attachments (Temporary and Permanent)				

All non-utility pole attachments must comply with PowerStream Standard 16-397 and Section 3.8 of this COS document. All pole attachments must be situated in the cross hatched area as shown on PowerStream Standard 16-397. No attachments are permitted on poles with cables that traverse vertically on the pole to an underground termination point. PowerStream reserves the right to request a pole load analysis report, stamped and signed by a Professional Engineer, licensed within the Province of Ontario, for any type of attachment to a PowerStream-owned pole.

All attachments are subject to review by PowerStream, and PowerStream reserves the right to remove any attachments that does not meet the requirements of Standard 16-397 and Section 3.8 of this COS document.

3.8.1 Material:

All attachments shall be constructed and composed of a non-flammable material and be supported by a bracket made of stainless steel, galvanized steel, aluminum or an aluminum alloy and should be easily removable from the pole.

All attachments must meet the safety requirements of Ontario Regulation 22/04.

3.8.2 Dimensions/Weight Restrictions:

Banner (Complete attachment including the brackets):

- Dimensions (maximum) 900mm (3'0") wide and 900mm (3'0") long.
- Surface area (maximum) 0.81 sq. m (9 sq. ft).
- Weight (maximum) 9kg (20lb).

Flower Basket (Complete attachment including the brackets):

- Dimensions (maximum) 900mm (3'0") wide and 900 mm (3'0") long
- Weight (maximum) Dry 9kg (20lb) and Wet 18kg (40lb).

Seasonal Decorations (Complete attachment including the brackets):

• Dimensions (maximum) – 900mm (3'0") wide and 900mm (3'0") long.



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• Weight (maximum) – 18kg (40lb).

3.8.3 Methods of Attachment to Poles:

- Attachments to poles shall be by means of stainless steel banding or galvanized lag bolts. Banding shall be a minimum of 13mm wide. Lag bolts shall not be greater than 115mm (4 ½") long or 13mm (1/2") wide.
- No drilling is allowed in any poles.

3.8.4 Requirements for Attaching to PowerStream Poles

- Attachments must meet a minimum clearance of 2750 mm (9'0") above finished grade.
- Attachments must be below all primary/secondary/neutral and communications cables. See Standard 16-397 for further information.
- Attachments are not allowed on poles having traffic lights or pedestrian crossovers.
- Attachments are not allowed on poles with primary/secondary risers, transformers and switches.
- Attachments must comply with all applicable local by-laws.

3.8.5 Exceptions for Municipalities

- Speed limit, bus route and other pertinent signs may be attached to poles below the cross hatched area shown on Standard 16-397.
- Section 3.8.3 Methods of Attachment of this COS document must still be followed, and the distance below the neutral wire on the pole must never be less than 3.0m.
- At intersections where no other attachment options are available except poles with primary/secondary cable risers, transformers and/or switches, street name signs are permitted to be attached to the pole.



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3.8	Pole Attachments (Temporary and Permanent)				



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4.1	Sources for Definitions					

- EA Electricity Act, 1998, Schedule A, Section 2, Definitions
- MR IESO Market Rules for the Ontario Electricity Market, Chapter 11, Definitions
- TDL Transitional Distribution License, Part I, Definitions
- TTL Transitional Transmission License, Part I, Definitions
- DSC Distribution System Code Definitions
- RSC Retail Settlement Code Definitions



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4.2			Other Ac	ronyms Defined in the Text				
AAA:	Authorized Actual A	mou	unt					
COS:	Conditions of Servic	e						
CCA:	Connection Cost Ag	reer	ment					
CSA:	Canadian Standards	s As	sociation					
DSC:	Distribution System	Co	de					
EBT:	Electronic Business	Electronic Business Transaction						
EPP:	Equal Payment Plan	Equal Payment Plan						
ESA:	Electrical Safety Authority							
EUSA:	Electrical & Utilities Safety Association (superseded by IHSA)							
IEC:	International Electro-technical Commission							
IEEE:	Institute of Electrical and Electronics Engineers							
IESO:	Independent Electri	Independent Electricity System Operator						
IHSA:	Infrastructure Healt	h &	Safety Ass	sociation (formerly EUSA)				
kV:	kilovolts	kilovolts						
kVA:	kilovolt amps	kilovolt amps						
NPV:	Net Present Value	Net Present Value						
NSF:	non sufficient funds							
OBC:	Ontario Building Co	de						
OEB:	Ontario Energy Board							



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OESC:	Ontario Electrical Safety Code							
OHSA:	Occupational Health and Safety Act							
OPA:	Ontario Power Authority							
OTC:	Offer to Connect							
PAP:	Pre-authorized Payment Plan							
POCS:	Power Outage Communication System							
RSC:	Retail Settlement Co	ode						
SOP:	Standard Offer Program							
SSS:	Standard Service Supply							
STR:	Service Transfer Request							
V:	Volts							



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Affiliate Relationships Code means the code, approved by the Board and in effect at the relevant time, which among other things, established the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies (TDL, DSC)

Ancillary services means services necessary to maintain the reliability of the IESO-controlled grid including frequency control, voltage control, and reactive power and operating reserve services (MR, TDL, DSC)

Applicant means a Customer who is submitting an application for service from PowerStream

Application for service, or application, means the agreement or contract with PowerStream under which electrical service is requested

Backup generator means permanent or temporary generation that does not back feed into the Distributor's system

Bandwidth means a Distributor's defined tolerance used to flag data for further scrutiny at the stage in the validating, estimating and editing (VEE) process where a current reading is compared to a reading from an equivalent historical billing period. For example, a 30% bandwidth means a current reading that varies 30% lower or higher than the measurement from an equivalent historical billing period. The VEE process will identify variances requiring further scrutiny and verification (DSC)

Barrie/Simcoe County Service Area means the PowerStream licenced territory as defined in Distribution Licence ED 2002-0534 which includes the City of Barrie and the communities of Bradford West Gwillimbury, Thornton, Alliston, Beeton, Tottenham, and Penetanguishene

Basic Connection Charge means the charge for the standard allowance for basic connection consistent with the defined ownership demarcation point. The Basic Connection Charge is recovered through distribution rates.

Billing demand means the metered demand or connected load after necessary adjustments have been made for power factor intermittent rating, transformer losses and minimum billing. A measurement in kW of the maximum rate at which electricity is consumed during a billing period

Board or OEB means the Ontario Energy Board (EA, TDL, DSC)

Board of Directors – means the Board of Directors of PowerStream Inc.



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Building means a building, portion of a building, structure or facility

Business days means Mondays to Fridays, 8:00 am to 4:30 pm, and does not include hours outside those stated or weekends or statutory holidays or holidays prescribed by PowerStream

Code means the Distribution System Code

Commercial plaza means a multi-unit non-residential building used for retail or commercial purposes

Competitive retailer is a Person who retails electricity to Consumers who do not take Standard Supply Service ("SSS")

Complex metering installation means a metering installation where instrument transformer, test blocks, recorders, pulse duplicators and multiple meters may be employed (DSC)

Conditions of Service or COS means the document developed by a Distributor in accordance with subsection 2.4 of the Code that describes the operating practices and connection rules for the Distributor (DSC)

Connection means the process of installing and activating connection assets in order to distribute electricity to a Customer (DSC)

Connection agreement means an agreement entered into between a Distributor and a Person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to that connection; (DSC)

Connection assets means that portion of the distribution system used to connect a Customer to the existing main distribution system, and consists of the assets between the point of connection on a Distributor's main distribution system and the ownership demarcation point with that Customer (DSC)

Connection Authorization when concerning supply of electrical energy to an electrical installation from a supply authority, means written permission by the inspection department to a supply authority, or any other person or corporation, to supply electric energy to a particular electrical installation; or when concerning supply of electric energy from one part of an electrical installation to another, or from a source of electric energy other than that of a supply authority, means permission from the inspection department to a contractor to connect a particular electrical installation or part thereof to a source of electric energy;



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Connection horizon means the 5-year period following the date of initiation of energization of electric loads, connected on the Lands, as certified in writing from PowerStream – (Economic Model)

Consumer means a Person who uses, for the Person's own consumption, electricity that the person did not generate (EA, MR, TDL, DSC)

Customer means a Person that has contracted for or intends to contract for connection of a building(s) or an embedded generation facility. This includes Developers of residential or commercial sub-divisions (DSC)

Demand means the average value of power measured over a specified interval of time, usually expressed in kW. Typical demand intervals are 15, 30 and 60 minutes (DSC)

Demand meter means a meter that measures a Consumer's peak usage during a specified period of time (DSC)

Developer means a Customer, Customers or entity owning property for which new or modified electrical services are to be installed

Disconnect/collect trip means a visit to a Customer's premises by an employee or agent of the Distributor to demand payment of an outstanding amount or to shut off or limit distribution or electricity to the Customer failing payment

Disconnection means a deactivation of connection assets that result in cessation of distribution services to a Consumer (DSC)

Distribute, with respect to electricity, means to convey electricity at voltages of 50 kV or less (A, MR, TDL, DSC)

Distribution losses means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows (DSC)

Distribution loss factor means a factor or factors by which metered loads must be multiplies such that when summed equal the total measured load at the supply point(s) to the distribution system (RSC)



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Distribution services means services related to the distribution of electricity and the services the Board has required distributors to carry out, for which a charge or rate has been approved by the Board under the *Ontario Energy Board Act*, Section 78 (RSC, DSC)

Distribution system means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many Customers and the connection assets used to connect a Customer to the main distribution system (EA, MR, TDL, DSC)

Distribution System Code or DSC means the code, approved by the Board, and in effect at the relevant time, which, among other things, establishes the obligations of the Distributor which respect to the services and terms of service to be offered to Customers and Retailers and provides minimum technical operating standards of distribution systems (TDL, DSC)

Distributor means a Person who owns or operates a distribution system (EA, MR, TDL, DSC)

Duct bank means two or more ducts that may be encased in concrete used for the purpose of containing and protecting underground electric cables

Electricity Act or Electricity Act, 1998 means the *Electricity Act, 1998, S.O. 1998*, c.15, Schedule A (MR, TDL, DSC)

Electrical Safety Authority or ESA means the person or body designated under the *Electricity Act* regulations as the Electrical Safety Authority (EA)

Electric service means the Customer's conductors and equipment for energy from PowerStream

Embedded Distributor means a Distributor who is not a wholesale market participant and that is provided electricity by a host Distributor (RSC, DSC)

Embedded Generator or embedded generation facility means a generator whose generation facility is not directly connected to the IESO-controlled grid but instead is connected to a distribution system (DSC)

Embedded retail Generator means an embedded generator that settles through a Distributor's retail settlements system and is not a wholesale market participant (DSC)

Embedded wholesale Generator means an embedded generator that is a wholesale market participant; (DSC)



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Emergency means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity that could adversely affect the reliability of the electricity system (DSC)

Emergency backup means a generation facility that has a transfer switch that isolates it from a distribution system (DSC)

Energy means the product of power multiplied by time, usually expressed in kilowatt-hours (kWh)

Energy Competition Act means the Energy Competition Act, 1998, S.O. 1998, c. 15 (MR)

Energy diversion means the electricity consumption unaccounted for but that can be quantified through various measures upon review of the meter mechanism, such as unbilled meter readings, tap off load(s) before revenue meter or meter tampering

Enhancement means a modification to an existing distribution system that is made for purposes of improving system operating characteristics such as reliability or power quality or for relieving system capacity constraints resulting, for example, from general load growth (DSC)

Expansion means an addition to a distribution system in response to a request for additional Customer connections that otherwise could not be made for example, by increasing the length of the distribution system (DSC)

Extreme operating conditions means extreme operating conditions as defined in the Canadian Standards Association ("CSA") Standard CAN3-C235-83 (R2006), or (latest edition)

Final reading date means the date that the meter is last read prior to discontinuing or disconnecting service and represents the date that the account is closed

Force Majeure means events or causes beyond the reasonable control of PowerStream, including, without limitation, severe weather, flood, fire, lightning, other forces of nature, acts of animals, epidemic, quarantine restriction, war, sabotage, act of public enemy, earthquake, insurrection, riot, civil disturbance, strike, restraint by court order or public authority, or action or non-action by or inability to obtain authorization or approval from any governmental authority, or any combination of these causes

Four-quadrant interval meter means an interval meter that records power injected into a distribution system and the amount of electricity consumed by the Customer (DSC)


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General Service or GS means any service supplied to premises other than those designated as residential and includes multi-unit residential establishments such as apartments buildings supplied through one service (bulk-metered)

Generate, with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a Transmitter or Distributor through the operation of a transmission or distribution system (EA, TDL, DSC)

Generation facility means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a Transmitter or Distributor through the operating of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose (EA, MR, TDL, DSC)

Generator means a Customer who owns or operates a generation facility (EA, MR, TDL, DSC)

Good utility practice means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to the acceptable practices, methods, or acts generally accepted in North America (MR, DSC)

GS < 50 kW means a Customer classification that applies to a non-residential account taking electricity at 750 V or less whose average monthly maximum demand is less than, or is forecast to be less than, 50 kW

GS > 50 kW means a Customer classification that applies to a non-residential account whose average monthly demand used for billing purposes is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 5000 kW. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformer

Holiday means a Saturday, Sunday, or statutory holiday recognized by the Province of Ontario

Host distributor means the registered wholesale market participant Distributor who provides electricity to an embedded Distributor (RSC, DSC)



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House service means that portion of the electrical service in a multiple occupancy facility which is common to all occupants, (i.e. parking lot lighting, sign service, corridor and walkway lighting, fire alarms etc.)

IESO-controlled grid means the transmission systems with respect to which pursuant to agreements, the IESO has authority to direct operation (EA, TDL, DSC)

In service date means the date that the Customer and PowerStream mutually agree upon to begin the supply of electricity by PowerStream

Interval meter or interval metering means a meter that measures and records electricity use on an hourly or sub-hourly basis (RSC, DSC)

Large embedded generation facility means an embedded generation facility with a name-plate rated capacity of more than 10 MW;

Large user means a Customer classification that applies to a non-residential account whose average monthly demand used for billing purposes is equal to or greater than, or is forecast to be equal to or greater than, 5,000 kW. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformer

Lies along means a Customer property or parcel of land that is directly adjacent to or abuts onto the public road allowance where a distributor has distribution facilities of the appropriate voltage and capacity

Load displacement means, in relation to a generation facility that is connected on the Customer side of a connection point, that the output of the generation facility is used or intended to be used exclusively for the Customer's own consumption

Load transfer means a network supply point of one Distributor that is supplied through the distribution network of another Distributor and where this supply point is not considered a wholesale supply or bulk sale point (DSC)

Load transfer Customer means a Customer that is provided distribution services through a load transfer (DSC)

Main service refers to PowerStream's incoming cables, bus duct, disconnecting and protective equipment for a building or from which all other metered sub-services are taken

Market Rules means the IESO rules made under section 32 of the Electricity Act (MR, TDL, DSC)



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Measurement Canada means the Special Operating Agency established in August 1996 by the *Electricity and Gas Inspection Act, 1980-81-82-83,* c87, and Electricity and Gas Inspection Regulations (SOR/86-131) (DSC)

Meter service provider means an entity that performs metering services on behalf of a Distributor, (DSC).

Meter installation means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment (RSC, DSC)

Meter base socket means the mounting device for accommodating a socket type revenue meter

Metering services means installation, testing, reading and maintenance of meters (DSC)

Micro-embedded generation facility means an embedded generation facility with a name-plate rated capacity of 10 kW or less

Mid-sized embedded generation facility means an embedded generation facility with a nameplate rated capacity of 10 MW or less and;

- (a) more than 500 kW in the case of a facility connected to a less than 15 kV line; and
- (b) more than 1 MW in the case of a facility connected to a 15 kV or greater line;

MIST meter means an interval meter from which data is obtained and validated within a designated settlement timeframe. MIST refers to "Metering Inside the Settlement Timeframe" (RSC, DSC)

Municipal refers to a municipality located in the PowerStream service area

Municipal street lighting means all services supplied to street lighting equipment owned by the municipality or the utility

Normal operating conditions means the operating conditions comply with the standards set by the Canadian Standards Association ("CSA") Standard CAN3-C235-87 (latest edition)

OEB – see Board



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Ontario Energy Board Act means the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B (MR, DSC)

Operating agreement means an agreement entered into between a Distributor and a Customer connected to the distribution system that delineates ownership, responsibilities and operating control of the equipment connected

Operating control means the control exercised on an electrical facility by the exclusive authority to perform, direct or authorize the operation of any devices in that electrical facility. Operating control is not synonymous with ownership

Operational demarcation point means the physical location at which a Distributor's responsibility for operational control of distribution equipment including connection assets ends at the Customer (DSC)

Owner means an individual, partnership, corporation, association, or other incorporated or unincorporated organization or legal entity that has legal ownership of a property

Ownership demarcation point means the physical location at which a Distributor's ownership of distribution equipment, including connection assets, ends (DSC)

Person includes an individual, sole proprietorship, partnership, unincorporated association, unincorporated syndicate, unincorporated organization, trust, body corporate, and a natural person in his or her capacity as trustee, executor, administrator, or other legal representative

Performance standards means the performance targets for the distribution and connection activities of the Distributor as established by the Board pursuant to the *Ontario Energy Board Act* and in the Rate Handbook (DSC)

Point of supply, with respect to an embedded Generator, means the connection point where electricity produced by the Generator is injected into a distribution system (DSC)

Point of Connection Plan - see Service Layout

Power factor means the ratio between real power and apparent power (i.e. kW/kVA)

Primary service means any electrical service that is supplied with a nominal voltage greater than 750 V

Private property means the property beyond the existing public street allowances

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Provincial means the province of Ontario

Rate means any OEB-approved rate, charge or other consideration, and includes a penalty for late payment (TDL, DSC)

Rate Handbook means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of Distributor rates (RSC, DSC)

Regulations means the regulations made under the *Ontario Energy Board Act* or the *Electricity Act*, (TDL, DSC)

Residential Service, or residential, means a Customer classification that applies to an account taking electricity at 300 V or less where the electricity is used exclusively in a separately metered living accommodation. Customers shall be residing in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential Customers

Residential underground subdivision means a residential area with three or more homes electrically supplied from a mini pad transformer(s) via underground secondary cables

Retail, with respect to electricity means, a) to sell or offer to sell electricity to a Consumer or b) to act as agent or broker for a Retailer with respect to the sale or offering for sale of electricity, or c) to act or offer to act as an agent or broker for a Consumer with respect to the sale or offering for sale of electricity (EA, MR, TDL, DSC)

Retail Settlement Code, or RSC, means the code approved by the Board and in effect at the relevant time, which, among other things, establishes a Distributor's obligations and responsibilities associated with financial settlement among Retailers and Consumers and provides for tracking and facilitating Consumers transfer among competitive Retailers (TDL, DSC)

Retailer means a person who retails electricity (EA, MR, TDL, DSC)

Secondary service means any electrical service that is supplied with a nominal voltage less than 750 V $\,$

Semi-detached means a dwelling divided vertically to provide two dwelling units separated by a common wall



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Service agreement means the agreement that sets out the relationship between a licensed Retailer and a Distributor, in accordance with the provisions of Chapter 12 of the Retail Settlement Code (RSC)

Service area, with respect to a Distributor, means the area in which the Distributor is authorized by its licence to distribute electricity (EA, TDL, DSC)

Service Layout (Point of Connection Plan) means a contract with PowerStream when a Customer requests a new or upgraded electrical service

Small embedded generation facility means an embedded generation facility which is not a micro-embedded generation facility with a name-plate rated capacity of 500 kW or less in the case of a facility connected to a less than 15 kV line and 1 MW or less in the case of a facility connected to a 15 kV or greater line

Standard allowance means the standard allowance for basic connection and is up to 30 metres of 200 A, low-voltage overhead wire or equivalent credit for underground service, and also transformation capacity or an equivalent credit for transformation equipment. The standard allowance does not include road crossings

Standard Supply Service Code, or SSS, means the code approved by the Board and in effect at the relevant time, which, among other things, establishes the minimum conditions that a Distributor must meet in carrying out its obligations to sell electricity under the *Electricity Act*, Section 29 (TDL)

Street Lighting means a Customer classification that applies to an account for roadway lighting with a municipality, regional municipality, Ministry of Transportation and private roadway lighting, controlled by photocells. The consumption for these Customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template.

Subdivision means two or more lots that require an expansion of underground primary cable complete with a padmount transformer

Sub-service means a separately metered service that is taken from the main building service

Supply voltage means the voltage measured at the Customer's main service entrance equipment (typically below 750 V). Operating conditions are defined in the Canadian Standards Association Standard CAN3-C235 (or latest edition)



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Support structure means any equipment that physically supports and routes the distribution system between the substation and the Customer. This includes poles, duct structures, transformer and switchgear vaults, hand holes, guy wires and anchors

System enhancement - see Enhancement

Temporary service means an electrical service granted temporarily, for a period of 12 months or less, for such purposes as construction, real estate sales, trailers, etcetera

Tenant means a Person, Persons or entity that has entered into a tenancy agreement with the Owner or agent of a building in accordance with the applicable regulations

Termination means a removal of connection assets that result in the service location no longer being connected to the distribution system, and results in a cessation of distribution services to a Consumer

Total losses means the sum of distribution losses ad unaccounted for energy (DSC)

Transformer room means an isolated enclosure built to applicable codes, PowerStream standards and which will house transformers and associated electrical equipment

Transmission system means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose (EA, MR, TDL, DSC)

Transmission System Code or TSC means the code, approved by the Board, that is in force at the relevant time, which regulates the financial and information obligations of the Transmitter with respect to its relationship with Customers, as well as establishing the standards for connection of Customers to, and expansion of, a transmission system (DSC)

Transmit, with respect to electricity, means to convey electricity at voltages of more than 50 kV (EA, TDL, DSC)

Transmitter means a Person who owns or operates a transmission system (EA, MR, TDL, DSC)

Unaccounted for energy, means all energy losses that cannot be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and unmetered loads, energy theft and non-attributable billing errors (DSC)

Unmetered connections means a Customer classification that applies to an account taking electricity at 750 V or less whose average monthly maximum demand is less than, or is forecast to



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be less than, 5 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The Customer will provide detailed manufacturer information / documentation with regard to electrical demand / consumption of the proposed unmetered load

Unmetered loads means electricity consumption that is not metered and is billed based on estimated usage (DSC)

Upgrade means replacement of an existing component of a distribution system with a new component for purposes of improving the distribution system's operating characteristics (DSC)

Validating, estimating and editing, or VEE, means the process used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data for settlement purposes (MR, DSC)

Variable Connection Charge means the calculation of the costs associated with the installation of connection assets above and beyond the standard allowance. PowerStream may recover this variable connection fee, which shall be based on firm cost

Wholesale buyer means a Person that purchases electricity or ancillary services in the IESOadministered markets or directly from a Generator (TDL DSC)

Wholesale market participant, means a Person that sells or purchases electricity or ancillary services through the IMO-administered markets (RSC, DSC)

Wholesale settlement cost means costs for both competitive and co-competitive electricity services billed to a Distributor by the IESO or a host Distributor, or provided by an embedded retail generator or by a neighbouring Distributor (RSC, DSC)

Wholesale supplier means a person who sells electricity or ancillary services through the IESOadministered markets or directly to another person, other than a Consumer (TDL, DSC)

York Region Service Area means the PowerStream licenced territory as defined in Distribution Licence ED 2004-0420 which includes the Cities of Markham and Vaughan and the Towns of Aurora and Richmond Hill

END OF SECTION

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1. Introduction

The Ontario Energy Board requires that each Distributor publish a Conditions of Service document following the template appended to the Distribution System Code. Guelph Hydro Electric Systems Inc.'s (Guelph Hydro's) Conditions of Service document has expanded on this template to encompass Guelph Hydro specific characteristics and requirements.

The purpose of this document is to inform Customers of the types and levels of service available within the Guelph Hydro's service territory. The Conditions of Service document is also filed with the Ontario Energy Board for the purpose of facilitating consumer complaint resolutions.

1.1 Identification of Distributor and Service Territory

Guelph Hydro Electric Systems Inc. referred to herein as "Guelph Hydro" is incorporated under the laws of the Province of Ontario.

Guelph Hydro is licensed as a local distribution company by the Ontario Energy Board to deliver electricity to Customers within the boundary of the City of Guelph and the boundary of the Village of Rockwood.

Guelph Hydro may only operate distribution facilities within its Licensed Territory as defined in the Distribution License. This territory is subject to change with the Ontario Energy Board's approval.

1.1.1 Distribution System Overview

Guelph Hydro distributes electricity through an integrated 13.8/8.0 kilovolt (kV) three-phase four-wire primary Distribution System.

The primary supply of electricity by Guelph Hydro to any Customer will generally be at 13.8/8.0 kV and (8.3/4.8 kV in Rockwood). This voltage can be stepped down to the Customer's utilization voltage in accordance with connection policies in Section 3.

1.2 Related Codes and Governing Laws

The supply of electricity or related services by Guelph Hydro to any Customer shall be subject to the provisions of the latest editions including, but not limited to, the following documents:

- a. Electricity Act, 1998
- b. Ontario Energy Board Act, 1998
- c. Electricity Distribution Licence (ED-2002-0565)
- d. Affiliate Relationships Code
- e. Transmission System Code
- f. Distribution System Code
- g. Retail Settlement Code
- h. Standard Service Supply Code
- i. Green Energy and Green Economy Act, 2009
- j. Municipal by-laws
- k. Guelph Hydro Electric Systems Inc. Conditions of Service

In the event of a conflict between this document and the Distribution License or regulatory Codes issued by the Ontario Energy Board, or the *Energy Competition Act, 1998*, the provisions of the Act, the Distribution License and associated Regulatory Codes shall prevail in the order of priority indicated above.

When planning and designing for an electricity service, Customers and their agents shall refer to all applicable federal, provincial, and municipal laws, Regulations, codes and by-laws to ensure compliance with their requirements.

Any reference to a document includes all amendments or supplements to, or replacements of, that document or that provision of the document.

All the standards and technical specifications referred to in this Conditions of Service document are available at Guelph Hydro's office.

1.3 Interpretations

In these Conditions of Service, unless the context otherwise requires:

- a. Headings, paragraph numbers and underlining are for convenience only and do not affect the interpretation of these Conditions of Service;
- b. Words referring to the singular include the plural and vice versa;
- c. Words referring to a gender include any gender;

Effective: 11/2004 Revised: 09/2017

- d. Where there is a reference to a number of days between two events, they shall be counted by excluding the day on which the first event occurred and including the day on which the second event occurs; and
- e. Any event that is required under these Conditions of Service to occur on or by a stipulated date, which is a holiday, may occur on or by the next business day.

1.4 Abbreviations

In these Conditions of Service, the following abbreviations are used as defined in the Glossary of Terms:

- A ampere
- kW kilowatt
- kWh kilowatt hour
- kV kilovolt
- kVh kilovolt hour
- kVA kilovolt ampere
- MW megawatt
- MWh megawatt hour

1.5 Amendments and Changes

The provisions of these Conditions of Service and any amendments made from time to time form part of any Contract made between Guelph Hydro and any connected Customer, Retailer, or Generator, and these Conditions of Service supersede all previous Conditions of Service, oral or written, of Guelph Hydro.

In the event of changes to these Conditions of Service, Guelph Hydro will include a notice with the normal Customer billing and will post these changes on the Guelph Hydro website at <u>www.guelphhydro.com</u>.

The Customer or an agent working on behalf of the Customer is responsible to contact Guelph Hydro to obtain a current version of the Conditions of Service. Guelph Hydro may charge a reasonable fee to provide a copy of this document.

The current version of this document is also posted on the Guelph Hydro website and can be downloaded free from <u>www.guelphhydro.com</u>.

Alternate formats of this document are available upon request in accordance with the Accessibility for Ontarians with Disabilities Act, 2005.

1.6 Contact Information

Guelph Hydro can be contacted during regular business hours at 519-822-3017 or such other numbers as Guelph Hydro may advise through its website, invoices or otherwise. Emails may be sent to <u>cservice@guelphhydro.com</u>. Normal business hours are Monday to Friday between 8:00 a.m. and 4:30 p.m. For emergencies after normal business hours, Guelph Hydro can be contacted at 519-822-3010. The corporate mailing address is 395 Southgate Drive, Guelph, Ontario, N1G 4Y1.

1.6.1 Underground Cable Locates

Persons and/or contractors who intend to excavate any portion of a property are required to first obtain underground cable locates to ensure personal safety and avoid damage. Ontario One Call receives excavation locate requests and notifies registered owners of underground facilities within the vicinity of the digsite of the planned excavation. Further information about this service is outlined within *The Ontario Underground Infrastructure Notification System Act.*

To obtain underground cable locates in Guelph Hydro's service area, contact Ontario One Call at the website and phone number below or such other numbers as Guelph Hydro may advise through its website or otherwise.

Ontario One Call 1-800-400-2255 <u>www.on1call.com</u>

1.7 Customer Rights

The Customer has a right to receive safe reliable power in accordance with these Conditions and subject to the latest editions of the various codes and laws as outlined in Section 1.2.

1.8 Distribution Rights

1.8.1 Supply Equipment on the Customer's Property

The location of Guelph Hydro's supply equipment (i.e., transformers, cable, switches and metering equipment) on the Customer's property is subject to the approval of Guelph Hydro and is to be located in a manner that does not create a safety hazard to Guelph Hydro's personnel, the Customer, the Customer's

employees or the general public. In addition, the location of transformers or other grade-level equipment may be subject to applicable City of Guelph Zoning By-Laws and the Ontario Electrical Safety Code.

All Guelph Hydro equipment located on the Customer's property is in the care of the Customer and if damaged, other than by normal usage, the Customer will be charged for any repair or replacement cost. The Customer is responsible for providing and maintaining any physical protection in accordance with Guelph Hydro standards deemed necessary to protect Guelph Hydro's equipment, employees and agents.

The Customer shall not build, plant, or maintain any structure, tree, shrub or landscaping that would or could obstruct access to and/or maintenance of Guelph Hydro equipment or facilities.

Only employees or agents of Guelph Hydro shall remove, replace, alter, repair, or inspect Guelph Hydro's equipment.

1.8.2 Repair of Defective Customer Electrical Equipment and Physical Structures

The Customer shall repair or replace any equipment or structures owned by the Customer that may affect the integrity or reliability of Guelph Hydro's Distribution System. If the Customer does not take such action within a reasonable time, Guelph Hydro may disconnect the supply of power to the Customer. Guelph Hydro's policies and procedures with respect to the disconnection process are further described in these Conditions.

1.8.3 Right to Disconnect

Guelph Hydro reserves the right to disconnect a Customer's service as described in Section 2.2.

1.9 Disputes

To resolve disputes, Guelph Hydro will follow the procedures of Guelph Hydro Policy ADM-9 – Customer Complaint Resolution. A copy of the current policy is attached to these conditions as Appendix A in Section 5.5.

2. Distribution Activities (General)

2.1 Connections

Under the terms of the Distribution System Code, Guelph Hydro has the obligation to either connect or to make an offer to connect any Customer that is located within its service territory.

The Customer or their representative shall consult with the Technical Services Department of Guelph Hydro well in advance of requiring a connection to determine the availability of supply, the servicing options and location, metering requirements and other details. These requirements are separate from and in addition to those of the Electrical Safety Authority ("ESA").

All electrical connections to the system shall meet Guelph Hydro's requirements. All services, whether Residential or Commercial, must have a main service switch. If an electrical connection does not meet Guelph Hydro's design requirements, Guelph Hydro will refuse to connect the Customer.

2.1.1 Building that "Lies Along"

For the purpose of these Conditions, "lies along" means a property or parcel of land that is directly adjacent to or abuts the public road allowance where Guelph Hydro has primary distribution facilities.

Under the terms of the Distribution System Code, Guelph Hydro has the obligation to connect a building or facility that "lies along" its distribution line, provided:

- a. The building can be connected to the Guelph Hydro's Distribution System without an Expansion or Enhancement; and
- b. The service installation meets the conditions listed in these Conditions of Service.

2.1.1.1 Connections

In general, Guelph Hydro may, depending on Customer Class, recover costs associated with the installation of a "Connection Asset" via a Basic Connection Fee or a Variable Connection Charge, as further described below. Connection charges and available connection types for

Residential and General Service Class Customers are further described in Section 3. A Basic Connection is defined as the actual or equivalent costs to supply and install overhead distribution transformer capacity and up to 30 metres of overhead service conductor. Residential Class Customers receive this Basic Connection without charge. Variable Connection Charges are based on 100% of the actual costs incurred to install Connection Assets. For Residential Class Customers, the equivalent Basic Connection cost is deducted from these Variable Connection Charges. For General Service Class Customers, only the cost of the transformer is deducted from these Variable Connection Charges unless otherwise indicated in these Conditions of Service.

2.1.2 Expansions or Offers to Connect

2.1.2.1 General

Under the terms of the Distribution System Code, should Guelph Hydro be required to construct Distribution System facilities or increase capacity of an existing Distribution System in order to accommodate a connection, Guelph Hydro will perform an economic evaluation and make an "Offer to Connect".

Guelph Hydro will perform an economic evaluation to determine if the future revenue from the Customer will pay for the capital and on-going maintenance costs of the Expansion project. The economic evaluation will be based on the Customer's proposed load.

In performing the economic evaluation, should the Net Present Value of future revenue not cover the Expansion costs, a capital contribution in the amount of the shortfall is to be paid by the Customer.

Guelph Hydro's offer will generally be based on an estimate of the costs to construct the expansion and not a firm offer. The final amount charged to the Customer will be based on actual costs following completion of the work. Guelph Hydro will calculate one estimate and the final payment at no expense to the Customer.

Where the offer to connect meets the conditions identified in the Distribution System Code, Guelph Hydro will inform the Customer that

the Customer may obtain other bids from contractors pre-qualified by Guelph Hydro for this type of work.

A Customer that chooses an alternative bid may be charged by Guelph Hydro for any costs associated with the expansion including costs for additional design and installation of facilities, costs for administering the contract between the Customer and contractor and costs for inspection and approval of the work done by the contractor.

Preliminary planning, design and engineering specifications of the work required for connection which involves Guelph Hydro's assets cannot be completed by a qualified contractor.

2.1.2.2 Securities and Rebates related to Expansions

The Customer may be required to submit to Guelph Hydro a security deposit in the amount of the total estimated costs of the Expansion. This security deposit is in addition to any other charges or deposits and is to be paid prior to allocation of material by Guelph Hydro.

If after two years from the connection date, the Customer's actual 12month average peak demand is not equal to or within 10% of the Customer's proposed load (winter/summer) of the project, Guelph Hydro will re-calculate the economic evaluation based on the Customer's actual peak demand load to determine the shortfall as described under Section 2.1.2.1.

If there is no shortfall, Guelph Hydro will refund the full security deposit plus any applicable earned interest. If there is a shortfall, Guelph Hydro will apply the security deposit to this amount and will refund any credit as applicable. If there is a net balance owing the Customer will be required to pay Guelph Hydro the outstanding balance.

In scenarios where Guelph Hydro installs a new plant solely for the connection of a Customer, the Customer will be required to pay Guelph Hydro 100% of the calculated shortfall. If within five years of the connection date, new Customers (not originally projected) are connected to this new plant, the first Customer will be entitled to a rebate without interest based on an apportioned benefit for the remaining period.

2.1.3 Connection Denial

The Distribution System Code allows a Distributor to deny a connection of a building within its service territory if the connection would result in any of the following:

- a. Contravention of existing laws of Canada and the Province of Ontario;
- b. Violations of conditions in a Distributor's License;
- c. Adverse effect on the reliability and safety of the Distribution System;
- d. Public safety reasons or imposition of an unsafe work situation beyond normal risks inherent in the operation of the Distribution System;
- e. A material decrease in the efficiency of the Distributor's Distribution System;
- f. A material adverse effect on the quality of distribution services received by an existing connection;
- g. Discriminatory access to distribution services;
- h. Potential increases in monetary amounts that already are in arrears with the distributor; or
- i. Any other conditions documented in Guelph Hydro's Conditions of Service document and the Regulatory Codes (i.e., Distribution System Code, Retail Settlement Code, etc.)

Guelph Hydro will advise the party requesting the connection of the reasons for not connecting. Where Guelph Hydro is able to provide a remedy it will do so and then make an offer to connect. If Guelph Hydro is unable to provide a remedy to resolve the issue, it is the responsibility of the appropriate party to do so before a connection can be made.

2.1.4 Inspections Before Connection

All electrical installations requiring a service connection from Guelph Hydro shall be inspected by and connection authorization received from the Electrical Safety Authority ("ESA") prior to being connected by Guelph Hydro. Where a service has been disconnected to permit repairs, or has been disconnected for a period of six months or longer, authorization from the Electrical Safety Authority is also required prior to reconnection.

All Guelph Hydro supply related facilities installed by the Customer such as trenches, conduit systems, transformer bases, and rooms and provision for metering are subject to Guelph Hydro inspection and approval prior to installation of supply facilities.

2.1.5 Relocation of Plant

The placement of Guelph Hydro distribution facilities including poles, guying, surface mounted equipment and underground systems is governed by various acts, Regulations, and Easements. Unless the conditions for relocation are included under an Act or Regulation, Guelph Hydro is not obligated to relocate these facilities. However, if Guelph Hydro receives a request to relocate facilities, Guelph Hydro will make its best effort to resolve the issue in a fair and reasonable manner with associated costs being charged to the requesting party.

2.1.6 Easements

As a condition of service, the Property Owner may be required to grant an Easement for the purpose of ensuring the right of access by Guelph Hydro personnel and equipment to facilities located on Private Property.

Where required, the Customer shall prepare and register at their expense a reference plan and associated Easement documents to the satisfaction of Guelph Hydro prior to completing supply arrangements associated with a new connection. Details will be provided upon Application for Service. Easements will be registered on title prior to energization of the service.

2.1.7 Contracts and Agreements

2.1.7.1 General

The Customer may be required to enter into one or more of the following contracts or agreements with Guelph Hydro:

 Application for Service – Outlines terms and conditions associated with receiving electrical energy from Guelph Hydro. At this time, Guelph Hydro only requires General Service Customers to sign the agreement. Residential Customers are not required to sign an agreement.

- b. Implied Contract In all cases, notwithstanding the absence of a written contract, the taking and/or use of electricity from Guelph Hydro by any Person or Persons shall be deemed to be acceptance of a binding contract with Guelph Hydro, including the acceptance of all conditions established by Guelph Hydro from time to time.
- c. Subdivision Servicing Agreement Outlines terms and conditions associated with servicing developments involving the creation of new lots, blocks and/or public road allowances.
- d. Service Connection Agreement Outlines terms and conditions associated with servicing private developments.
- e. Operating Agreement Outlines terms and conditions associated with the Customer operating Customer owned primary equipment and/or Customer owned generating facilities in parallel with Guelph Hydro's Distribution System.

2.2 Disconnections

Guelph Hydro reserves the right to disconnect the delivery of electrical energy to a Customer for causes including, but not limited to:

- a. Overdue amounts payable to Guelph Hydro for the delivery or retail of electricity;
- b. Hazardous conditions;
- c. Electrical disturbance propagation caused by Customer equipment that is not corrected quickly within a reasonable time frame;
- d. Non-authorized use of energy;
- e. Adverse effect on the reliability and safety of the Distribution System;
- f. Imposition of an unsafe worker situation beyond normal risks inherent in the operation of the Distribution System;
- g. A material decrease in the efficiency of Guelph Hydro's Distribution System;
- h. A materially adverse effect on the quality of distribution services received by an existing connection;

- i. Inability of Guelph Hydro to perform planned inspections and maintenance, including but not limited to the Customer preventing Guelph Hydro from inspecting, reading, maintaining, repairing, or replacing a meter;
- j. Failure of the consumer or Customer to comply with a directive of Guelph Hydro made for purposes of meeting its License obligations;
- k. Unauthorized generation connection to the Distribution System; or
- I. Any other conditions identified in this Conditions of Service document.

Guelph Hydro shall not be liable for any damage to the Customer's premises or equipment resulting from such discontinuance of service.

Guelph Hydro may disconnect the supply of electricity to a Customer without notice in accordance with a court order, or for emergency, safety or system reliability reason.

2.2.1 Disconnections and Reconnection – Processes and Charges

2.2.1.1 Non-Payment of Accounts

Immediately following the due date, steps will be taken to collect the full amount of the bill. Guelph Hydro will initially contact the Customer with a past due balance by mailing a physical Reminder Notice. In the future, Guelph Hydro may introduce an automatic dialing feature that will, for the most part, replace physical Reminder Notices. If the bill remains unpaid 30 calendar days after the due date and 10 calendar days after a Disconnect Notice has been delivered to the Customer, the service may be disconnected and not restored until the debt is paid in full, or satisfactory payment arrangements have been made, including costs of reconnection. Such discontinuance of service does not relieve the Customer of the liability for arrears or responsibility of payment for the balance for the term of contract, nor shall Guelph Hydro be liable for any damage on the Customer's premise resulting from such discontinuance of service. Disconnect Notices will be in writing and hand delivered.

If Guelph Hydro delivers a Disconnection Notice, it will make a reasonable effort to contact the Customer 48 hours before scheduling disconnection.

Disconnection Notices sent to Residential Customers will contain prescribed information, such as the earliest and the latest date disconnection may occur, the forms of payment a Customer may use, that an Ontario Energy Board-prescribed arrears management program is available, the sources of obtaining additional assistance for Eligible Low-Income Customers, and that a disconnection may take place whether or not the Customer is home at the time.

Residents who have provided documentation from a physician that disconnection will pose a significant health risk will receive 60 days' notice before being disconnected for non-payment.

When a Disconnection Notice is issued in a building with multiple units and a master meter, a copy of the notice will be posted in a conspicuous place in the building.

2.2.1.2 Electrical Hazards or Disturbances

Upon discovery that an electrical hazard or disturbance (see Section 2.3.3.1) exists involving Customer-owned facilities, Guelph Hydro will notify the Customer to rectify the condition. Should, in the opinion of Guelph Hydro, the hazard have the potential of causing injury to person(s) or further damage to equipment, little or no notice will be given before Guelph Hydro disconnects the service. Where the hazard or disturbance does not have an immediate potential of causing injury to person(s) or further damage to equipment, the Customer will be given a reasonable amount of time to correct the condition. Should the Customer fail to correct the condition, Guelph Hydro may:

- a. Request the Electrical Safety Authority investigate the hazard if applicable to the Ontario Electrical Safety Code. Any associated inspection costs will be directed to the Customer; or
- b. Proceed with disconnecting the service where the condition relates to an electrical hazard or disturbance which does not fall under the Electrical Safety Authority's jurisdiction.

Once disconnected, the service will not be restored until satisfactory arrangements to correct the condition have been made including where applicable, clearance is received from the Electrical Safety Authority. Guelph Hydro shall not be liable for any damage on the

Customer's premise resulting from such discontinuance of service. Disconnect Notices will be in writing and hand delivered.

2.2.1.3 Disconnection Procedures

Guelph Hydro will make a reasonable effort to contact the Customer one final time, in person or by telephone, prior to disconnecting service at least 48 hours before the scheduled disconnection date. There is certain prescribed information that Guelph Hydro will provide, such as advising of the potential availability of an arrears program.

If Guelph Hydro has been unable to contact a Customer 48 hours before a planned disconnection, it will generally make a reasonable attempt to communicate with the Customer at the door (subject to consideration of the safety and security of Guelph Hydro field staff).

Guelph Hydro will have the facilities and staff available during regular business hours so that Residential Customers can pay overdue amounts by debit and/or credit card. Field customer service staff will carry a mobile payment machine, which allows a Customer to pay with a bank debit card.

Guelph Hydro will reconnect a service within two business days, at least 85% of the time, following payment in full or entering into an arrears management agreement. Guelph Hydro may reconnect a service the same day, provided payment is received no later than 3 p.m. during the same business day. If payment is received after 3 p.m., reconnection will occur the following business day.

In accordance with the Distribution System Code, Guelph Hydro will not disconnect a Residential or General Service less than 50 kW Customer with a Smart Meter or interval meter based solely on an estimated bill. Guelph Hydro may issue a bill to a Residential or General Service less than 50 kW Customer with a Smart Meter or interval meter based on estimated consumption twice every 12 months as outlined in the Distribution System Code and Section 2.4.4.1 of this Conditions of Service.

For safety reasons, the Customer or a Customer Designate must be present when the electrical service is reconnected. See Section 2.2.1.5 for more details.

2.2.1.4 Suspending Disconnection Action

If, during the disconnection notice period, a registered charity, Government Agency or Social Service Agency advises Guelph Hydro they are assessing whether a Residential Customer is eligible for bill payment assistance, Guelph Hydro will suspend disconnection action for a period of 21 days after receiving notification from the agency.

If, during the Disconnection Notice period, a third party who had previously been designated by the Customer to receive any Disconnection Notices, advises Guelph Hydro they are attempting to arrange assistance to help the Customer pay their bill, Guelph Hydro will suspend disconnection action for a period of 21 days.

Guelph Hydro must act on the Disconnection Notice within 11 days of its issuance or the lifting of a suspension. If disconnection does not occur within 11 days from the date of the notice or the lifting of the suspension, Guelph Hydro will issue a new Disconnection Notice and re-initiate the process.

2.2.1.5 Service Connection or Reconnection

Guelph Hydro performs service connections or reconnections during business days, no later than 3 p.m.

Guelph Hydro does not require a Customer to be present for a service disconnection. However, Guelph Hydro requires the Customer or a Customer Designate to be present for service reconnection. This requirement is regardless of whether the electrical service to be turned on is related to a new service connection, restoration of service due to credit/collection issues, service repairs, service changes and turn offs for non-signature, or other turn on requests. Guelph Hydro will require access to the metering location as well as service panel.

Should a Customer or Designate miss an on-site turn-on appointment, the appointment will need to be rescheduled with Guelph Hydro to arrange for the service to be turned on.

2.2.1.6 Customer Requested Isolation and Re-energization

Customer or Contractor initiated requests for service disconnection for the purpose of performing work on or near electrical equipment and the subsequent reconnection is referred to as "Isolation/Re-energization."

Only an authorized Guelph Hydro employee is permitted to Isolate or Re-energize services, including isolation at the meter. Guelph Hydro must be contacted to arrange for any Isolation prior to commencement of customer work. When the work is complete, Guelph Hydro must be contacted to arrange for Re-energization. General Electrical Contractors are prohibited from performing this service.

The Customer or Contractor must contact Guelph Hydro's Technical Services Department to arrange for relocation or rearrangement of service for any of the following reasons:

- Service upgrade (e.g. 60-amp to 100-amp)
- Moving the overhead connection to the home
- Relocation of meter-base or panel
- Splitting service or load and adding a meter
- Meter panel change out (changing panel size or rating)
- Replacement with no change to service (e.g. old 100-amp panel to a new 100-amp panel)
- Installation of embedded generation such as photovoltaic generation; energy storage, such as battery storage; or an electric vehicle charging unit

The Customer or Contractor may submit a request for Isolation/Reenergization through any of the following options:

- 1. Online form located on Guelph Hydro's website titled "Request for Temporary Disconnection of Electrical Service";
- 2. Email technicalservices@guelphhydro.com; or
- 3. Telephone (519) 822-3017 ext. 4601

Within five business days of submitting a request, a Guelph Hydro representative will contact the Customer to review the details and schedule a site visit, if required.

Following the site visit (if applicable), Guelph Hydro will provide instructions and issue an Electrical Service Layout.

After Guelph Hydro issues the Electrical Service Layout, the Customer or Contractor must contact Technical Services to schedule the Isolation and Re-energization service dates. Isolation/Re-energization services are performed between the hours of 8:00 a.m. and 3:00 p.m., Monday, Tuesday, Wednesday and Friday and cannot be scheduled after 2:30 p.m. Guelph Hydro reserves the right to reschedule in the event of weather concerns or emergency.

Should the Customer or Contractor need to cancel a scheduled Isolation/Re-energization service, Guelph Hydro requires a minimum of 24 hours notice.

The Customer or Contractor must be present on site for Isolation and when Guelph Hydro returns to Re-energize the service. If the meter is located indoors, Guelph Hydro will require access to the meter. If access inside the building is required, the Customer or representative of at least 18 years of age must be present.

The Customer or Contractor must schedule an inspection by the Electrical Safety Authority (ESA) for the day of Re-energization. An ESA inspection is required for any home improvements that involve modifications to electrical service. Guelph Hydro will not Re-energize services without having received an ESA Connection Authorization from the ESA.

Customer or Contractor requested Isolation/Re-energization service fees will be charged on a cost recovery basis. Work performed outside of the regular Isolation/Re-energization hours may incur overtime charges calculated by individual site and circumstance.

Guelph Hydro shall provide each Customer one free electrical service Isolation/Re-energization for completing non-electrical maintenance (i.e., no upgrades, or wire changes). Conditions are such that an ESA

permit is not required, and applies to an existing electrical service, during regular business hours, once per service location per rolling year. Examples of non-electrical maintenance include tree trimming, eaves trough repair, painting, siding, and brick pointing.

2.2.2 Non-authorized Use of Energy

Guelph Hydro reserves the right to disconnect the delivery of electrical energy to a Customer for such actions as energy diversion, fraud or abuse on the part of the Customer, a tenant or occupant. Such service will not be reconnected until the Customer rectifies the condition and provides full payment of the costs of energy used (estimated or actual) as well as costs related to the disconnection, reconnection and repair of Guelph Hydro facilities as needed.

Once disconnected, the service will not be restored until satisfactory arrangements to correct the condition have been made, including where applicable, clearance is received from the appropriate authorities such as the Electrical Safety Authority and the City of Guelph Building Services. Guelph Hydro shall not be liable for any damage on the Customer's premise resulting from such discontinuance of service. Disconnection Notices will be in writing and hand delivered. If the Disconnection Notice cannot be given to a member of the household at the time of delivery, the notice will be left in a place where the Customer is likely to find it.

2.3 Conveyance of Electricity

2.3.1 Limitations on the Guarantee of Supply

Guelph Hydro will endeavour to use reasonable diligence in providing a regular and uninterrupted electricity supply, but does not guarantee a constant supply or the maintenance of unvaried frequency or voltage, and shall not be liable in damages to the Customer by reason of any failure in respect thereof.

Customers requiring a higher degree of security than that of normal supply are responsible to provide their own backup or standby facilities. Customers may require special protective equipment on their premises to minimize the effect of momentary power interruptions.

Customers requiring a three-phase supply should install protective apparatus to avoid damage to their equipment, which may be caused by the interruption

of one phase, or non-simultaneous switching of phases of the Distributor's supply.

2.3.2 Power Quality

2.3.2.1 Power Quality Testing

In response to a Customer power quality concern, where the utilization of electricity adversely affects the performance of electrical equipment, Guelph Hydro will perform an investigative analysis to attempt to identify the underlying cause. Depending on the circumstances, this may include review of relevant power interruption data and/or use of power measurement tools. Connection of power measurement tools will be at the demarcation point or nearest safely accessible point of connection.

Should Guelph Hydro determine that the power quality concern is deemed to be a system delivery issue where industry standards are not being met, Guelph Hydro will recommend and/or take appropriate mitigation measures. Guelph Hydro will use appropriate industry standards (such as International Electro-technical Commission ["IEC"], Institute of Electrical and Electronic Engineers ["IEEE"] or Canadian Standards Association ["CSA"] standards) and good utility practice as a guideline. If the problem lies on the Customer side of the system, and provided that the problem does not impact other Customers connected to the system, Guelph Hydro will take no further action.

2.3.3 Electrical Disturbances

2.3.3.1 Voltage Distortion from Customer Equipment

The Customer shall not connect electrical equipment which may produce an undesirable system disturbance. Examples of equipment which may cause disturbances, either individually or collectively, are large motors, welders, variable speed drives and other non-linear loads. In planning the installation of such equipment, the Customer is required to consult with Guelph Hydro.

If the Customer's use of electrical energy interferes with the electrical energy supplied to other Customers, Guelph Hydro reserves the right to disconnect the supply to the Customer causing the interference.

Reasonable notice will be given before disconnection unless the interference is, in the opinion of Guelph Hydro, intolerable. The Customer will be responsible to correct the interference at their expense and to Guelph Hydro's satisfaction before supply is reconnected.

To ensure the Distribution System is not adversely affected, non-linear loads must comply with IEEE Standard 519-1992 including a limit on individual voltage harmonic distortion of 3% and Total Harmonic Distortion of 5%.

2.3.3.2 System Disturbances

Normal operation of an electrical Distribution System includes capacitor bank and feeder switching, both of which may create transient over-voltages which may cause operating difficulties on some computer controlled processes. The Customer should consult with the manufacturer of their equipment regarding steps to mitigate these disturbances.

2.3.3.3 Planned and Unplanned System Interruptions

Guelph Hydro's operating practice is to minimize inconvenience to Customers. However, situations may arise which make it necessary to interrupt a Customer's supply. To permit work on the Distribution System to be completed safely and efficiently, Guelph Hydro will endeavor to provide Customers with reasonable notice and, where practical, make arrangements suitable to the Customer. Notice may not be given where work is of an Emergency nature involving public safety or damage to equipment. Guelph Hydro's electrical Distribution System also incorporates a number of automated features, which will interrupt power in response to a system problem. Most interruptions are momentary to clear transient faults on overhead lines thereby avoiding a prolonged interruption.

Customers who require an uninterrupted source of power for life support equipment must provide their own back-up power supply equipment for this purposes. Guelph Hydro shall not be liable in any manner for an interruption of power.
2.3.4 Standard Voltage Offerings

2.3.4.1 Supply Voltage

See Table 2 for available Supply Voltages and service limitations.

2.3.5 Voltage Guidelines

Guelph Hydro maintains service voltage levels at the Customer's service entrance within the guidelines of CSA Standard CAN3-C235 (latest edition) which allows variations from nominal voltage in accordance with Table 4.

Where voltages lie outside the indicated limits for Normal Operating Conditions but within the indicated limits for Extreme Operating Conditions, improvement or corrective action should be taken on a planned and programmed basis, but not necessarily on an Emergency basis. Where voltages lie outside the indicated limits for Extreme Operating Conditions, improvement or corrective action should be taken on an Emergency basis. The urgency for such action will depend on many factors such as: the location and nature of the load or circuit involved, the extent to which limits are exceeded with respect to voltage levels, duration, etc.

Guelph Hydro will practice reasonable diligence in maintaining voltage levels, but is not responsible for variation in voltage as a result of external forces. Guelph Hydro shall not be liable for any delay or failure in the performance of its obligations under any part of these Conditions of Service due to any events or other causes beyond Guelph Hydro's reasonable control including, without limitation, the actions of a Transmitter or other Distributor, unusually severe weather, flood, fire, lightning, other forces of nature, acts of animals, epidemic, quarantine restriction, war, sabotage, act of a public enemy, earthquake, insurrection, riot, civil disturbance, strike, restraint by court order or public authority, or action or non-action by or inability to obtain authorization or approval from any governmental authority, or any combination of these causes (Force Majeure).

2.3.6 Backup Generators

Customers with portable or permanently connected generation shall comply with all applicable criteria of the Ontario Electrical Safety Code and Guelph Hydro specifications and approval. In particular, the Customer shall ensure Emergency generation is not capable of being operated in parallel with Guelph

Hydro's Distribution System without Guelph Hydro approved interface protection. See Section 3.4 for Embedded Generation requirements.

Customers with permanently connected emergency generation equipment shall notify Guelph Hydro, in writing, regarding the presence of such equipment. Depending on the type and location of the generator system, the customer may be required to sign a contract detailing Guelph Hydro requirements and limitations. Guelph Hydro will not be liable for damage to Customer-owned equipment.

2.3.7 Metering

2.3.7.1 General

Guelph Hydro will supply, install, own, and maintain all meters; instrument transformers (except for Customer installed metering facilities where specified in these Conditions of Service); ancillary devices; and secondary wiring required for revenue metering, except where the Customer is a Wholesale Market Participant or is an Embedded Generator. Guelph Hydro will provide specific meter types by Customer class, with the type of meter based on the Customer's rate class, transformer ownership, supply voltage, energy consumption, and peak load. Metering accuracy and security will be maintained by Guelph Hydro in accordance with regulations and standards established by Measurement Canada, Industry Canada and Guelph Hydro.

Customers with metering requirements not normally provided in their rate class will be charged for the additional metering facilities.

Wholesale Market Participants in the IESO-administered wholesale market must meet or exceed all IESO metering requirements. As a condition of service, the Customer agrees to provide Guelph Hydro with reliable daily remote access to the metering point for the purpose of data acquisition, at the Customer's expense. A capital contribution may be required from the Customer.

As a condition of service, the Customer shall make provision for revenue metering facilities including providing a convenient and safe

location satisfactory to Guelph Hydro, for the installation of meters, wires and ancillary equipment. See Section 3 for technical standards.

No person, except those authorized by Guelph Hydro, shall remove, connect, or otherwise interfere with meters, wires, or ancillary equipment.

2.3.7.2 Smart Meters

In general, Smart Meters will be installed for all Residential or General Service < 50kW (Small Commercial) Customer Rate classes. Smart Meters record electricity consumption on an hourly basis, and transmit the consumption information through wireless radio frequency equipment for daily processing.

Upon written request, Guelph Hydro Customers have the option of replacing their Smart Meter with an Interval Meter that is read daily via a dedicated analog phone line. If this option is pursued, the Customer will move from the Regulated Price Plan (RPP) to a monthly meter read cycle and different Rate class associated with this type of Interval Meter. In addition, by leaving the Regulated Price Plan, the Ontario Energy Board requires that an exit fee be applied to the Customer's account, which can be either a credit or a charge depending on the Rate determined by the Ontario Energy Board. The Customer will also be responsible for all costs associated with this request.

2.3.7.3 Multi-Unit Residential Rental Buildings and Condominiums

Guelph Hydro offers the installation of "individual unit" or "suite" metering for multi-unit residential rental buildings and condominiums ("MURBS"). Developers of new multi-unit residential rental buildings and new and existing condominiums (collectively, "MURBs"), boards of directors of condominiums, or authorized persons identified under Ontario Regulation 389/10, may choose to have Guelph Hydro install unit smart metering, or to have Guelph Hydro install a bulk interval meter for the purpose of enabling unit sub-metering by an alternate licensed unit sub-meter service provider.

Installation of Individual Unit Smart Metering by Guelph Hydro

Where individual units of an existing or new multi-unit condominium building are individually metered by Guelph Hydro, each unit will become a residential Customer of Guelph Hydro, and the common areas must have a separate account with Guelph Hydro. Common area servicing typically includes lighting, heating and air conditioning of all common areas shared by the tenants or unit owners, as well as water heating, elevators, and common laundry facilities.

For Guelph Hydro individual unit smart metering, the building Owner shall provide a secure meter room or suitable enclosure within the building for the installation of a sub metering system. This room or enclosure will have adequate lighting, a 120 V outlet and a dedicated analog telephone line for meter interrogation purposes.

As an alternative to individual unit smart metering, the building Owner may opt for individual self-contained meters using individual meter bases, per Guelph Hydro technical standards.

Installation of Bulk Interval Metering by Guelph Hydro

Where bulk interval metering is supplied by Guelph Hydro for the purpose of enabling unit sub-metering, the responsible party (i.e., the developer, condominium corporation, or landlord, but not the unit submeter provider) shall enter into a contract with Guelph Hydro for the supply of electrical energy to the building.

2.3.7.4 Demand Metering

(Replaces Current Transformer Boxes in Appendix A of the Distribution System Code)

In general, Demand Meters will be installed for all new or upgraded services equal to or greater than 100 A at 600 V or 400 A at 208 V or existing Customers with consumption greater than 200 megawatt hours over the previous 12 months.

2.3.7.5 Interval Metering

In general, Interval Meters will be installed for all new or upgraded services equal to or greater than 600 A at 600 V or existing Customers

with loads greater than 300 kW average monthly peak demand over the previous 12 months.

In the event that an Interval Metered Customer's average monthly peak demand over the previous 12 months has moved below 240 kW, interval metering is no longer required. The Interval Meter will be removed by Guelph Hydro unless the meter had been previously paid for by the Customer or the Customer requests the meter remain, and the Customer reimburses Guelph Hydro for the meter costs. At the discretion of Guelph Hydro, interval metering may be required for loads under the threshold.

Customers requesting to be, or required to be on interval metering shall provide Guelph Hydro access to a telephone line at the Customer's expense, or will utilize other communication means as approved by Guelph Hydro, as outlined in Guelph Hydro specification ME2-1 "Customer Provision for Remote Interrogation Metering of Single Feeder Installations" and specification ME1-3 "Customer Provision for Remote Interrogation Metering of Dual Feeder Installations". This phone line is required for daily interrogation and consumption data processing. In the event the phone line is not operational or accessible, the Customer will be responsible for the actual cost of a daily manual meter read.

2.3.7.5.1 Metering Wireless Communication

Guelph Hydro has implemented "wireless" metering technology to obtain meter readings and interval usage data for Residential Customers, and is expanding this technology to General Service Customers. In order to facilitate reliable wireless communication to these meters, Guelph Hydro may need to install additional communication equipment (i.e., antenna and coax cable) at a Customer's location. As a condition of service, the Customer will work with Guelph Hydro to facilitate the installation of this ancillary equipment at the Customer's location.

2.3.7.6 Embedded Load Displacement Generation Metering

Guelph Hydro may require the installation of revenue grade interval metering for Embedded Load Displacement Generation ("LDG") or Behind-the-Meter Generation ("BMG") projects, at the customer's expense.

Embedded or Behind-the-Meter energy storage systems such as battery or flywheel storage are deemed to have the potential to generate on to the distribution grid. Guelph Hydro may require the installation of revenue grade interval metering and supporting communications equipment, at the customer's expense, for energy storage systems.

The customer will work with Guelph Hydro's Engineering and Metering Departments to satisfy these requirements, including the provision of communications equipment acceptable to Guelph Hydro to facilitate the daily collection of the LDG and energy storage metering data.

2.3.7.7 Meter Reading, Changing or Maintenance

The Customer shall provide or arrange free, safe and unobstructed access during Guelph Hydro's regular business hours to any authorized representative of Guelph Hydro for the purpose of meter reading, meter changing, or meter inspection. Where premises are closed during Guelph Hydro's normal business hours, the Customer shall, on reasonable notice, arrange such access at a mutually convenient time, or provide keys to access the electrical meters. Should the Customer not provide access during Guelph Hydro's regular business hours, the Customer will be responsible for the actual costs to read, change or maintain the metering equipment outside of Guelph Hydro's regular business hours.

2.3.7.8 Final Meter Reading

When the responsibility for the payment of electrical energy is to be transferred to another party or the service is no longer required, a final meter reading is necessary for account reconciliation. The Customer shall provide at least two business days' notice of the date the service is to be discontinued so that Guelph Hydro can obtain a final meter

reading as close as possible to the final meter reading date. Guelph Hydro will make every reasonable attempt to obtain this reading on the date specified by the vacating party. The Customer must provide clear, safe and unobstructed access to Guelph Hydro staff for obtaining the final meter reading. The disconnection or continuation of electrical service will depend on the following:

- With written confirmation or verbal consent from the property owner or their agent, the electrical service will not be disconnected and all energy consumption charges after the final reading will be the responsibility of the property owner.
- With written confirmation or verbal consent from the property owner or their agent, the electrical service will be disconnected until a service contract has been completed for reconnection of the electrical service.
- If a New Account Application has not been executed at the time of the final reading, notification will be left at the property for the owner/occupant to contact the offices of Guelph Hydro immediately.
- Where no written direction or verbal consent has been received from the owner/occupant, the service will remain energized for a period of at least three business days to allow for the completion of a new service contract. If no service contract has been completed within that period, the service will be scheduled for immediate disconnection. Guelph Hydro will not be responsible for any damages due to disconnection of services. Service reconnects for disconnected services will be scheduled for the next regular business day during normal operating hours.
- If a final meter reading is not obtained, the Customer shall pay a sum based on an estimated demand and/or energy consumption for electricity used since the last meter reading.

2.3.7.9 Faulty Registration of Meters

Metering electricity usage for the purpose of billing is governed by the federal Electricity and Gas Inspection Act and associated regulations, under the jurisdiction of Measurement Canada, Industry Canada. Guelph Hydro's revenue meters are required to comply with the

accuracy specifications established by the regulations under the above Act.

In the event of incorrect electricity usage registration, Guelph Hydro will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage history. The Customer shall pay for all the energy supplied based on the reading of any meter formerly or subsequently installed on the premises by Guelph Hydro, due regard being given to any change in the character of the installation and/or the demand. If Measurement Canada, Industry Canada determines that the meter recorded the consumption inaccurately, then Guelph Hydro will reimburse the Customer for the over billed consumption, or charge the Customer for under billed consumption.

Where a billing error, from any cause, has resulted in a Customer being over billed and where Measurement Canada, Industry Canada has not become involved in the dispute, Guelph Hydro will correct the bills for a period of up to two years. Where a billing error, from any cause, has resulted in a Customer being under billed and where Measurement Canada, Industry Canada has not become involved in the dispute, Guelph Hydro will correct the bills for Residential Class Customers who are not responsible for the error for a period of up to two years. For instances of willful damage, the billing correction will apply for the duration of the error.

2.3.7.10 Meter Dispute Testing

Metering inaccuracy is an extremely rare occurrence. Most billing inquiries can be resolved between the Customer and Guelph Hydro without resorting to the meter dispute test.

Either Guelph Hydro or the Customer may request the service of Measurement Canada, Industry Canada to resolve a dispute. If the Customer initiates the dispute, Guelph Hydro will charge the Customer an OEB-approved Meter Dispute Fee if the meter is found to be accurate by Measurement Canada, Industry Canada.

If the incorrect measure is due to reasons other than the accuracy of the meter, such as an improper meter connection, incorrect connection

of auxiliary metering equipment, or incorrect meter multiplier used in the bill calculation, a billing correction will apply.

2.4 Tariffs and Charges

2.4.1 Service Connection Charges

Guelph Hydro will recover costs associated with Connection Assets as outlined in Section 2.1 and Section 3.

2.4.2 Energy Supply

2.4.2.1 Standard Supply Service (SSS)

All existing Guelph Hydro Customers are Standard Service Supply (SSS) Customers until Guelph Hydro is informed of their switch to a competitive electricity supplier. A Service Transfer Request (STR) must be made by the Customer or the Customer's authorized Retailer.

New Customers wishing to obtain a connection for the supply of electrical energy from Guelph Hydro shall comply with Section 2.4.1 of this document.

2.4.2.2 Retailer Supply

At the request of a Customer, Guelph Hydro will provide a list of Retailers who have Service Agreements in effect within its distribution territory. The list will inform the Customer that an alternative Retailer does not have to be chosen in order to ensure that the Customer receives electricity and the terms of service that are available under Standard Supply Service.

Customers transferring from Standard Service Supply (SSS) to a Retailer shall comply with the Service Transfer Request (STR) requirements as outlined in Section 10.5 through Section 10.5.6 of the Retail Settlement Code.

All requests shall be in an electronic file transmitted by way of a regulated HUB. Such Service Transfer Request (STR) shall contain information as set out in Section 10.3 of the Retail Settlement Code.

If the information is incomplete, Guelph Hydro shall notify the Retailer or Customer about the specific deficiencies and await a reply before proceeding to process the transfer request.

2.4.3 Deposits

2.4.3.1 Security Deposit

As a condition for supplying or continuing to supply distribution services, Guelph Hydro will request security deposits from Customers, based on the Customer Classification and Customer's payment history. All new Customers without a Guelph Hydro payment history will require a security deposit. Security Deposits shall be determined and managed in accordance with Sections 2.4.6.1 to 2.4.29 of the Distribution System Code (DSC).

2.4.3.2 Non-Residential Security Deposit

The security deposit amount for non-Residential Customers is based upon the average monthly load at the subject service location during the most recent twelve (12) month period, where some of the consumption history has been established in the previous (24) months. Where usage is available at the service location, the deposit amount shall be calculated as 2.5 times an average monthly bill for a non-Residential Customer. Where usage history is not available, Guelph Hydro shall reasonably estimate electricity consumption, based on the Service Size (voltage/amperage) and Load type. In accordance with Section 2.4.14 of the Distribution System Code, the pricing estimate for electricity costs shall be the same as the price used by the Independent Electricity System Operator (IESO) for the purpose of determining prudential support obligations of distributors.

2.4.3.2.1 Non-Residential Security Deposit Waiver or Reduction Conditions

Non-Residential Customers opening an account may qualify for a deposit waiver, based on the following criteria:

a. The Customer has previously established a satisfactory payment history with Guelph Hydro as an account holder in the same name, where some of that satisfactory

payment history has occurred within the previous five (5) or seven (7) years, or

- b. The Customer provides a letter from another electricity or gas distributor in Canada, confirming a satisfactory payment history for the relevant time period (five or seven years), as outlined in Section 2.4.9 of the Distribution System Code, and which has occurred within the previous five (5) or seven (7) years and is in the same account holder name, or
- c. The Customer, other than a customer in a greater than 5,000 kW demand rate class, provides a satisfactory credit check at their expense. Guelph Hydro is not responsible for the data integrity of external credit rating agencies.
- d. Where a non-Residential Customer greater than 50 kW demand rate class is required to provide a security deposit as determined in Section 2.4.3.2, and has a credit rating from a recognized agency, the amount of security deposit required shall be adjusted according to the following credit ratings:

Credit Rating (Using Standard and Poor's Rating Terminology)	Allowable Reduction
AAA-equivalent and above	100%
AA-, AA, AA+ or equivalent	95%
A-, From A, A+ to below AA or equivalent	85%
BBB-, From BBB, BBB+ to below A or Equivalent	75%
Below BBB-, or equivalent	0%

e. Guelph Hydro shall reduce the security deposit held by Customers greater than 5,000 kW, by a maximum of fifty percent (50%), after seven (7) years of good payment history has been achieved. The remaining balance of the security deposit will be refunded only when the account is closed.

2.4.3.2.2 Non-Residential Customer Satisfactory Payment History

- a. The minimum time frame for establishing satisfactory payment history, provided some payment history has occurred within the past twenty-four (24) months, varies by Customer class as follows:
 - Commercial less than 50 kW demand: five (5) years
 - Commercial greater than 50 kW demand: seven (7) years
- b. Non-Residential Customer Payment history is deemed unsatisfactory if more than one of the following events occur, during the relevant time period, as set out in Section 2.4.3.2.2(a):
 - a Disconnection Notice is issued;
 - a payment cannot be processed due to non-sufficient funds (NSF); or
 - a field visit by Guelph Hydro is made to Disconnect Service.
 - a full or partial security deposit was applied to a Customer's arrears and that Customer was required to repay the security deposit.
- c. A security deposit may be required if a non-Residential Customer fails to maintain a good payment history, as outlined in Sections 2.4.3.2.2.a and 2.4.3.2.2.b.
- d. If any of the events set out in Section 2.4.3.2.2.b occur due to an error on the part of Guelph Hydro, the Customer's payment history shall not be negatively affected.
- e. If a non-Residential Customer is required to increase their existing security deposit amount, that increase shall be included in their next regular bill and associated due date.

2.4.3.2.3 Forms of Acceptable Security

Non-Residential Customers may provide a security deposit to Guelph Hydro in the form of:

- cash;
- automatically renewing, irrevocable letter of credit from a bank, as defined in the *Bank Act, S.C. 1991, c.46*;

2.4.3.2.4 Security Deposit Management and Refund

At a minimum of once per calendar year, Guelph Hydro will complete a security deposit review to assess deposit requirements, amounts and refund eligibility, for non-Residential Customers. A Customer's billing and payment history will determine if a security deposit is required, due for an adjustment or refundable, in accordance with Section 2.4.3.2.

Customers with active accounts that are eligible for a partial or full deposit refund shall have their cash deposit, plus accrued interest, applied to their account. As an alternative, a Customer may request a cheque for a partial or full deposit refund. Upon closure of an account, Guelph Hydro shall automatically transfer the balance to the Customer's new Guelph Hydro account, as required or, where no such requirement or account exists, apply the deposit and accrued interest to the final bill. Any residual credits shall be returned by cheque, within six (6) weeks of account closure.

Deposit interest on cash deposits shall accrue monthly and be applied to the customer's account at least annually, commencing from the date the deposit was paid in full. The interest rate shall be at the Prime Business Rate, as published on the Bank of Canada website, less two percent (2%), updated quarterly.

2.4.3.2.5 Failure to Comply with Security Deposit Request

Payment of a requested security deposit is a condition of service and continuing service, which shall be enforced through standard collection practices for amounts overdue.

Guelph Hydro may enforce payment of the required security deposit by withholding or withdrawing Electrical Service provided a minimum of seven (7) calendar days' written notice is provided to Commercial Customers and ten (10) calendar days' written notice is provided to Residential Customers (see Section 31 of the *Electricity Act, 1998*).

2.4.3.3 Residential Customer Security Deposit

For the purpose of security deposit requirements, the following Customers shall be deemed Residential Customers:

- a. A Customer that is a corporation within the meaning of the *Condominium Act, 1998*, who has an account with Guelph Hydro, shall be deemed a Residential Customer, if, the following conditions apply:
 - i. the account relates to a Property defined in the *Condominium Act, 1998*, and is comprised predominantly of units that are used for residential purposes, and
 - ii. the account relates to more than one unit of Property, provided that the Customer files a Declaration Form with Guelph Hydro attesting to the Customer's status as a corporation within the meaning of the *Condominium Act, 1998, S.O. 1998, c.19*.

2.4.3.3.1 Security Deposit Requirement

Security deposits shall be required from Residential Customers who have demonstrated an unsatisfactory payment history over the past twelve (12) months, if one or more of the following events occurs:

• a Disconnection Notice is issued;

- a payment cannot be processed due to non-sufficient funds (NSF);
- a field visit by Guelph Hydro is made to Disconnect Service; or
- a full or partial security deposit was applied to a Customer's arrears and that Customer was required to repay the security deposit.

2.4.3.3.2 Security Deposit Payment

The requested deposit amount shall be applied to the Customer's bill. Customers may pay their deposits in up to six (6) equal installments.

2.4.3.3.3 Security Deposit Calculation

A Residential Customer's security deposit amount is calculated according to the average bill of that account over the most recent consecutive twelve (12) month span within the past twenty-four (24) months. Where billing history is available, the deposit amount shall be calculated as 2.5 times the average monthly bill. If less than twelve (12) months of billing history exists, Guelph Hydro will base the Residential Customer's security deposit upon a reasonable estimate.

2.4.3.3.4 Security Deposit Exemption

- A Customer who has been qualified as an eligible Low-Income Customer is not required to provide or maintain a deposit, in accordance with Section 2.4.11.1 of the Distribution System Code (DSC).
- b. Customers who apply for eligibility as a Low-Income Customer shall be provided twenty-one (21) calendar days to confirm eligibility, in accordance with Section 2.4.11.2 of the Distribution System Code.
- c. Customers who have a deposit on their account and subsequently qualify as a Low-Income Customer will have the deposit waived and applied as a credit to the

Customer's account. Guelph Hydro will receive the Customer's qualification information from the LEAP Agency and will advise the LEAP Agency of any remaining balance owing after the deposit has been applied to the Customer's account.

2.4.3.3.5 Security Deposit Management and Refund

Residential Customers with a security deposit on their account will have any deposit on file applied to their arrears in advance of receiving a Disconnection Notice and potential disconnection. As noted in Section 2.4.26B of the Distribution System Code a replacement security deposit shall be required.

In accordance with Section 2.4.23A of the Distribution System Code, Residential Customers may request, in writing or by phone, a review of their deposit level or requirement, once twelve (12) months have elapsed from the date the first deposit installment was paid. In accordance with Section 2.4.22A of the Distribution System Code, Guelph Hydro shall review Deposit amounts and requirements on the one (1) year anniversary of the first deposit installment.

Should a review result in an upward adjustment of the security deposit held, the Customer shall be provided up to six (6) months to pay the additional amount owed, in equal monthly installments, per Section 2.4.25A of the Distribution System Code.

Deposits shall be automatically refunded to the customer's account once twelve (12) months of satisfactory payment history is established, commencing from the date the deposit was paid in full, or the customer's account is closed, whichever comes first.

Deposit interest on cash deposits shall accrue monthly and be applied to the customer's account at least annually, commencing from the date the deposit is paid in full. The interest rate shall be at the Prime Business Rate as published

on the Bank of Canada website, less two percent (2%), updated quarterly.

2.4.3.3.6 Failure to Comply with Security Deposit Request

Payment of a requested security deposit is a condition of service and continuing service, which shall be enforced through standard collection practices for amounts overdue.

Guelph Hydro may enforce payment of the required security deposit by withholding or withdrawing electrical service provided a minimum of seven (7) calendar days' written notice is provided to Commercial Customers and ten (10) calendar days' written notice is provided to Residential Customers (see Section 31 of the *Electricity Act, 1998*).

2.4.4 Billing

Guelph Hydro bills its Customers on a monthly basis. Bills for the use of electrical energy may be based on either a metered rate or a flat rate, as determined by Guelph Hydro.

A Customer may elect totalized billing for multiple services provided all of the following conditions are met. For certainty, aggregation of the electricity consumption of two or more discreet locations, except as described below, is not permitted.

- The premises and businesses are situated on one contiguous parcel of land (i.e., not separated by public roadway);
- All premises are under one ownership;
- The services exist at the same civic address;
- The services are supplied and metered at the same voltage class;
- The meters are of the interval type, allowing logical totalization of the coincident demands. If Interval Meters are not already in place, the Customer will install the necessary equipment, at the Customer's expense, to Guelph Hydro specifications; the Customer will provide a dedicated phone line or other communication medium approved by Guelph Hydro in order to collect the consumption data at their own expense; and

• The Customer meets the requirements of this document for having more than one metered service.

2.4.4.1 Billing Frequency

Guelph Hydro bills its Customers on a monthly basis. Guelph Hydro may also bill a Customer on a weekly or bi-weekly basis if the Customer's electricity bill exceeds certain thresholds as defined in the Distribution System Code.

Where the meter is inaccessible, bills for the use of electrical energy may be estimated based on electricity used since the last meter reading, or based on the actual historical usage. Guelph Hydro may issue a bill to a Residential or General Service less than 50 kW Customer with a Smart Meter or interval meter based on estimated consumption twice every 12 months as outlined in the Distribution System Code.

2.4.4.2 Billing Determinants

For an Energy-only Metered Customer, the billing determinant is the Customer's metered energy consumption (kWh) adjusted by the Total Loss Factor as approved by the Ontario Energy Board and set out in the Tariff of Rates and Charges available upon request from Guelph Hydro or as posted on its website at <u>www.guelphhydro.com</u>.

Applicable to small business and unmetered load customers, the billing determinant for the Debt Retirement Charge is the metered kWh.

For a Demand Metered Customer without an Interval Meter, the billing determinant for the Distribution Volumetric Rate and for both Transmission Network and Transmission Line and Transformation Connection Service Rate is the Customer's peak demand at any time of the month.

The peak demand is 90% kVA demand for Power Factor less than 90%, and kW demand for Power Factor equal to or higher than 90%.

The billing determinant for the Wholesale Market Service Rate is the Customer's metered energy consumption (kWh) adjusted by the Total Loss Factor.

The billing determinant for the Debt Retirement Charge is the metered kWh.

For an Interval Metered Customer, the Transmission Network Rate will apply to an individual end-use Customer's non-coincident peak demand in the month during the peak period defined as between 7 a.m. and 7 p.m. (local time) on weekdays that are not statutory holidays. The billing determinant for the Line and Transformation Connection Service Rate is the Customer's peak demand at any time of the month.

The Distribution Volumetric Rate billing determinant for an Interval Metered Customer is the Customer's non-coincident peak demand at any time of the month.

The non-coincident peak demand is the highest Customer's demand at a given time during the month and is 90% kVA demand for Power Factor less than 90% and kW demand for Power Factor equal to or higher than 90%.

The billing determinant for the Wholesale Market Service Rate is the Customer's metered energy consumption (kWh) adjusted by the Total Loss Factor.

The billing determinant for the Debt Retirement Charge is the metered kWh.

2.4.4.3 Billing Adjustments

Over or under-billing adjustments are permitted over a period of up to two years for all classes of Customers. If a Customer has been overbilled by an amount equal to or greater than the Customer's average bill, the Customer has the option of receiving a cheque or a credit on their next bill.

If Guelph Hydro issues a bill to an Eligible Low-Income Customer for an under-billed amount, the Customer will be notified about the options of paying the amount which remains outstanding. In this case the under-billed amount can be paid over a period up to two years or over a period of 10 months where the outstanding amount is less than twice the Customer's average monthly bill.

If a Customer has been over-billed and the amount of overpayment is less than the Customer's average bill, the Customer will receive a credit on their next bill. If the Customer has outstanding arrears, Guelph Hydro may apply the over-billed amount to the arrears first, and may credit or repay the balance to the Customer.

If a Customer is under-billed and is not responsible for the error, the Customer is allowed to pay the under-billed amount in equal installments over the same amount of time as they were under-billed for up to a maximum of two years. (i.e., if a Customer has been underbilled for five months, they will have five months to pay the under-billed amount).

When a Customer is responsible for the under-billing error, Guelph Hydro may require payment of the full amount on the next bill or on a separate bill.

These rules do not apply when Guelph Hydro has under-billed or overbilled a Customer but issues a corrected bill within 16 days of the date the incorrect bill was issued.

Guelph Hydro will charge interest on under-billed amounts where the Customer was responsible for the error, whether by way of tampering, willful damage, unauthorized energy use, or other unlawful actions.

2.4.4.4 Opening and Closing Accounts

If Guelph Hydro opens a new account based on a request from a third party, a letter will be sent to the new user within 15 days of the opening of the account. The account will not be set up if the new user has not approved the opening of the account within 15 days of the letter. However, a solicitor or person with Power of Attorney can agree on behalf of the new Customer to the opening of the account.

Guelph Hydro can only recover charges from a person who has agreed in writing to become a Customer. When a tenant Customer moves out of a rental unit, Guelph Hydro cannot seek to recover future charges from any other person, including the landlord, unless that person has agreed verbally and where possible in writing to assume responsibility for the account.

Guelph Hydro and a landlord may enter into an agreement where the landlord agrees to automatically assume responsibility for paying for continued service after the closure of a tenant's account.

2.4.4.5 Arrears Payment Agreements

Guelph Hydro will make Arrears Management Programs available to any Residential Customer unable to pay their electricity charges.

If a Guelph Hydro Residential Customer who is unable to pay his electricity charges declines an Arrears Agreement, Guelph Hydro may proceed with disconnection and is not required to offer an Arrears Agreement after disconnection.

Any security deposit will be applied to the amounts owing before entering into an Arrears Payment Agreement.

Customers may be required to make a down payment of up to 15% of the arrears plus any accumulated late payment charges (not including other service charges such as reconnection charges) when entering into an Arrears Management Agreement.

If an Eligible Low-Income Customer enters into an Arrears Payment Agreement for the first time or a subsequent time and has successfully completed a previous Arrears Payment Agreement as an Eligible Low-Income Customer, Guelph Hydro may require a down payment of up to 10% of the electricity charge arrears accumulated, including applicable late payment charges, but excluding other service charges.

If a Customer owes less than twice their average monthly bill after applying the security deposit and down payment, the minimum length of time to pay the remaining amount is five months.

If a Customer owes more than twice their average monthly bill after applying the security deposit and down payment, the minimum length of time to pay the remaining amount is 10 months.

The time periods to repay arrears under a Low-Income Arrears Agreement are:

- Eight months if the amount the Customer owes is less than or equal to two times his or her average monthly bill
- 12 months if the amount the Customer owes is more than two and less than or equal to five times his or her average monthly bill
- 16 months if the amount the Customer owes is more than five times his or her average monthly bill.

Where a Customer (including Eligible Low-Income Customer) defaults on more than two occasions in making a payment in accordance with an Arrears Payment Agreement, or a Payment on Account of a current electricity charge billing or an under-billing adjustment, Guelph Hydro may cancel the Arrears Payment Agreement.

Customers will be given 10 days' written notice before an agreement can be cancelled, and the agreement will be reinstated if the Customer pays in full before the cancellation date.

If an Eligible Low-Income Customer successfully completes an Arrears Payment Agreement, he or she can request a new agreement anytime needed thereafter.

However, if a new Arrears Agreement is requested within 12 months of the end of the first successfully completed Low-Income Arrears Agreement, Guelph Hydro may offer the new Arrears Agreement on the terms applicable to the standard Residential Customer Arrears Agreement. If a Customer failed to perform his obligations under Arrears Payment Agreement and the agreement was terminated, Guelph Hydro may require a Customer to wait one year before entering another agreement.

2.4.4.6 Electronic Billing

Guelph Hydro offers free and secure electronic billing ("ebilling") services to Customers that elect to receive bills electronically. Customers must register for ebilling through Guelph Hydro's website.

Guelph Hydro Customers who are billed for electricity and enroll or have enrolled in ebilling are eligible to receive the ebill credit. The ebill

credit will be applied only to the electricity portion of the bill, before HST.

The ebill credit will be applied to the Customer's electronic bill after three (3) bill cycles have passed since registering for ebilling.

The ebill credit will be applied to an eligible Guelph Hydro Customer's account one time only.

Customers who opt-out of ebilling after receiving the credit and decide to re-enroll are not eligible to receive an additional credit.

Customer accounts which are closed for any reason after receiving the credit and are then re-opened are not eligible to receive an additional credit.

2.4.5 Payments and Late Payment Charges

Bills are payable in full by the due date; otherwise, a late payment charge will apply. Where a Customer makes a partial payment on or before the due date, the late payment penalty will apply only to the amount of the bill outstanding at the due date, inclusive of arrears from previous billings. In the event of partial payment by a Customer, payments shall be allocated by the portions of the bill covering competitive and non-competitive electricity costs based on the ratios of the amount billed for competitive and non-competitive costs.

Outstanding bills are subject to the collection process and may ultimately lead to the service being discontinued. Service will be restored once satisfactory payment has been made. Discontinuance of service does not relieve the Customer of the liability for arrears.

Guelph Hydro shall not be liable for any damage on the Customer's premises resulting from such discontinuance of service. A reconnection charge will apply where the service has been disconnected due to non-payment.

Late payment charges as well as charges related to disconnection, nonpayment or Load Control Devices will not be imposed on Eligible Low-Income Customers after they entered into an Arrears Payment Agreement. Eligible Low Income Customers can request this once per year.

The Customer will be required to pay additional charges for the processing of non-sufficient funds (NSF) cheques.

2.4.5.1 Payment Methods

- a. Pre-Authorized Payment Plan (PAP) Guelph Hydro offers a pre-authorized payment plan where the billed amount is deducted from the Customer's bank account and applied against their Guelph Hydro bill on the due date. This service may be initiated in writing by a Customer at any point in time during the year and may be terminated upon request. In addition to a signed application, Guelph Hydro will also require a void cheque for the bank account the Customer wishes to have charged with the pre-authorized amount.
- b. Equal Payment Plan (EPP) An estimate of the Customer's annual consumption for the following year is divided into 12 equal monthly payment amounts. The equal monthly payment is deducted from the Customer's bank account on one of three option dates, determined upon EPP enrollment. Once a year, the account is reconciled and any overpayment or underpayment is included as part of the next period's payment plan. Accounts will be reviewed on an interim basis and the equal billing amount is adjusted where necessary as determined by Guelph Hydro.

The Customer's average monthly billing amount will be calculated as an aggregate of the total charges billed to the Customer in the most recent 12 months.

If the annual reconciliation shows that the Customer is owed an amount equal to or exceeding the Customer's average monthly billing, the amount will be credited to the Customer's account. The Customer will be notified of this credit and will have 10 days to request a refund cheque instead of the credit on their bill.

If the annual reconciliation shows that the Customer owes an amount equal to or exceeding the Customer's average monthly billing, Guelph Hydro will recover the balance over the first 11 months of the following year's equal payment plan.

If the annual reconciliation shows that the amount the Customer owes is less than the Customer's average monthly billing, Guelph Hydro may collect the full amount by a charge on the bill in the 12th month of the equal payment plan.

Payment Plans are available to Customers as per section 2.6.2 of the Standard Supply Service Code. An equal monthly payment plan option (whereby an equalized payment amount is automatically withdrawn from a Customer's account with a financial institution on a monthly basis) is available for qualifying residential Customers. Except, where the Customer is in arrears and has not entered into an arrears payment agreement with Guelph Hydro. Customers can join equal payment plans any time of the year.

Guelph Hydro offers all Residential Customers including those considered to be Eligible Low-Income Customers who receive Standard Supply Service to enter into an equal payment plan.

Residential equal payment Customers who participate in automatic payment arrangements will be given a choice of at least three dates within a month for automatic payments to be withdrawn.

In addition to the equal payment plan available to all Customers (including Eligible Low-Income Customers), which require the Customer to have a bank account, Eligible Low-Income Customers could request from Guelph Hydro to provide them with an equal payment plan that does not require monthly withdrawals from a bank account.

If the Customer leaves the equal payment plan, Guelph Hydro will include reconciliation as a charge or a credit on the next regularly scheduled bill.

2.4.5.2 Overdue Interest Charges

Bills rendered for energy related services are provided to the Customer. Bills are payable in full by the due date identified on the bill whether a bill is based on a meter reading or Guelph Hydro's estimate. The due date shall be at least 16 calendar days from the date of

mailing. After the due date, interest is calculated daily based on a monthly interest rate of 1.5% or 19.56% annually.

2.4.5.3 Bill Issuance and Payment

The minimum payment period (before a late payment penalty can be applied) will be at least 16 calendar days from the date the bill was issued to the Customer.

The date on which the bill was issued is determined to be three days after it was printed if sent by mail or on the date on which an email was sent over the internet.

A bill payment is deemed to be received from the Customer: three days before it is received by Guelph Hydro if sent by mail; on the date when the payment is acknowledged by a bank, or when the credit card payment is accepted by the financial institution.

Any payment made after 5:00 p.m. is still effective on the day the payment is made. If a due date is a non-business day, it is extended to the next business day.

If payment is not sufficient to cover electricity charges, security deposits and billing adjustments Guelph Hydro will allocate the payments in the following order: electricity charges, payments towards an arrears payment agreement, past due amounts, outstanding security deposit, under-billing adjustments and non-electricity charges.

If payment is sufficient to cover electricity charges, Guelph Hydro will not issue late payment charges, a Disconnection Notice or disconnect the electricity supply. This applies to joint billing agreements when they are renewed, or after two years, whichever comes sooner.

2.5 Customer Information

2.5.1 Historical Load Information

Guelph Hydro will only provide historical load data and other account information to a third party with the written authorization of the Customer. The historical load data will be limited to a maximum of the previous two years' history, where available. The reports provided will be in a standard format

determined by Guelph Hydro. Fees may apply for this service for more than two data requests per year.

2.5.2 Access to Interval Metering Point

A Customer may request read only access to an interval metering point where it exists. The Customer shall provide and maintain a communication link to the metering point for remote interrogation by both Guelph Hydro and the Customer.

An agreement shall be signed by the Customer to cover all the terms and conditions associated with the provision of read only access, including payment of applicable setup and installation costs and/or fees, as well as ensuring that Guelph Hydro's access to the Interval Meter for remote interrogation is unhindered.

2.5.3 Appointment Scheduling

If a Customer requests an appointment to a premise for connection Guelph Hydro will schedule it to take place within five days after all applicable service conditions are satisfied. All the appointments Guelph Hydro schedules are during regular hours of operation.

If the appointment is missed or going to be missed, Guelph Hydro will attempt to inform the Customer before the appointment and to contact the Customer within one business day to reschedule the appointment.

2.5.4 Emergency Response

Emergency calls are responded by Guelph Hydro within 60 minutes. The arrival of a qualified person is deemed to be a response.

2.6 Use of Load Control Devices

Guelph Hydro may install a load control device instead of disconnecting supply to a Customer for non-payment of arrears.

In case of installation of the load control device for non-payment Guelph Hydro will also provide to the Customer the Fire Safety Notice of the Office of the Fire Marshal and any other public safety notices or information bulletins issued by public safety authorities.

If Guelph Hydro installs a load limiter device, it will deliver a written notice with an explanation of the operation of the device, the maximum capacity of the device and how to reset the device as well as a telephone number to obtain further information.

If Guelph Hydro installs a load control device for non-payment of arrears and an agreement for payment is reached, Guelph Hydro will make every effort to remove the device within two business days.

3. Customer Class Specific

3.1 Residential Class

3.1.1 General

This section applies to the delivery of electrical energy to detached, semidetached and freehold townhouse units that lie along a public road allowance.

For the purpose of these Conditions of Service:

- Apartment Buildings are considered as General Service Class connections;
- Townhouse sites or other private developments where individual units are serviced internally (i.e., not directly from a public road allowance) are considered as connections and will require a Service Connection Agreement between Guelph Hydro and the Developer; and
- Residential subdivisions involving creation of new lots, blocks and/or public road allowances are considered as expansions and will require a Subdivision Servicing Agreement between Guelph Hydro and the Developer.

The Customer or his agent is to consult with Guelph Hydro in advance of requiring power to ensure supply facilities are available and to obtain a "Service Layout" which will identify the meter location and any other servicing instructions. Detached and semi-detached residences and freehold townhouses are permitted one point of supply per unit.

All new developments consisting of three or more adjacent lots or all new developments within areas having existing underground facilities will be supplied from an underground system.

3.1.2 Overhead Supply

Overhead supply may be available in areas with existing overhead distribution lines, provided such connections may be made without crossing other properties. In all other cases an underground supply will be required. Guelph Hydro will provide the Basic Connection or an allowance for the equivalent as defined in Section 2.1.1.1 at no cost to the Customer. Supply facilities in excess

of the above may be installed by Guelph Hydro or the Customer. Facilities installed by Guelph Hydro will be based on the Variable Connection Charge. Facilities installed by the Customer are to comply with the requirements of the Ontario Electrical Safety Code and Guelph Hydro standards.

3.1.3 Underground Supply from Overhead Facilities

The Customer shall provide a trench and conduit system from the property line to the building as per standard 15-1008105-STD for services not in excess of 200 A. Alternatively, Guelph Hydro can provide the trench and conduit on a chargeable basis.

Guelph Hydro will supply and install facilities on the road allowance and all secondary conductors. The Customer will be charged actual costs for these facilities including any restoration less the Basic Connection Allowance as defined in Section 2.1.1.1.

3.1.4 Underground Supply from Underground Facilities

Guelph Hydro will supply and install service conductor and trench from the road allowance to each Residential unit at no additional cost to the Customer, provided the conditions of the original subdivision servicing agreement are met. Additional costs may be applicable for installations involving frost conditions, service cables in excess of 30 metres, work around obstructions, services in excess of 200 A or additional Residential units not provided for in the original subdivision servicing agreement.

3.1.5 Metering

The meter shall be located in a Guelph Hydro approved location one metre from the front corner of the building. Locations where one metre is not practical due to windows, porches or other obstructions will be reviewed by Guelph Hydro on an individual basis. Notwithstanding the above, no location shall exceed three metres from the front corner of the building. The mounting height above finished grade shall be 1.7 metres to the centre of the meter.

The Customer shall provide a socket type meter base with a minimum rating of 100 A for overhead services and 200 A for underground services. The meter base size shall be in accordance with specification ME3-1 "Residential and Dual Gang Townhouse Single Phase Meter Base."

Meters for blocks of condominium townhouses are to be located on an end wall in a location approved by Guelph Hydro. Meter bases are to consist of dual gang socket type for pairs of units and shall clearly and permanently identify each meter location with the associated unit number in accordance with Standard 15-1007441-STD.

3.2 General Service Class

3.2.1 General

This section applies to the delivery of electrical energy to Industrial, Commercial and Apartment Buildings.

All individual properties will be permitted one point of supply at a specific voltage. Special consideration may be given to large developments involving multiple buildings or other applications where a single point of supply is not practical. Where permitted, multiple pad-mounted transformers or vaults on a single development are to be interconnected between two points of connection on the primary Distribution System (looped system).

The Customer shall construct or install civil infrastructure including but not limited to underground conduit systems, cable chambers, and transformer room, vault or base on private property that is deemed required by Guelph Hydro to facilitate the service connection. The civil infrastructure shall be constructed in accordance with Guelph Hydro's current standards, practices and specifications and are subject to Guelph Hydro's inspection and acceptance.

Alternatively, the Customer may request that Guelph Hydro complete the civil infrastructure that forms part of Guelph Hydro's Connection Assets on private property. The Customer shall be responsible for all costs as part of the Variable Connection Charge.

The Customer is responsible for repairing civil infrastructures required by Guelph Hydro to facilitate the service connection that is on the Customer's property and that forms part or is part of the Customer's building / structure / facility and/or for costs where repairs are completed by Guelph Hydro.

All connection costs associated with General Service Class service connection are recovered from the Customer through a Basic Connection Fee or Variable Connection Charge as outlined in Section 2.1.1.1.

To initiate Guelph Hydro's design process and to ensure the Customer's needs are properly met, the Customer shall provide the following information:

- i. A completed "Request for Electrical Service Form";
- ii. An electrical single line drawing including metering facilities;
- iii. An architectural and electrical site plan showing the Customer's preferred transformer location when applicable;
- iv. Details of the electrical room; and
- v. Detailed load information.

3.2.1.1 Assignment to Rate Classes

All General Service (GS) Customers are assigned to rate classes based on monthly peak demand.

Guelph Hydro will review each Non-Residential Customer's rate classification at least once in each calendar year to determine whether the Customer should be assigned to a different rate class. Guelph Hydro may review a Non-Residential Customer's classification at any time if the Customer's demand falls outside the upper or lower limits applicable to the Customer's current classification for a period of five consecutive months.

A Non-Residential Customer may request that Guelph Hydro review their rate classification once in any calendar year or at any time that the Customer's demand falls outside of the upper or lower limits applicable to the Customer's current rate classification for a period of five consecutive months.

Should a review that was initiated by Guelph Hydro result in the assignment of a Customer to a different rate classification, Guelph Hydro will provide written notice of the reclassification no less than one billing cycle before the reclassification takes place for billing purposes.

Guelph Hydro does provide transformer service up to 1500 kVA, or 1600 A (see Section 5 – Tables and Appendices –Table 2). For services above these service limitations (GS >1000 kW) the approved Distribution Volumetric Rate is based on the assumption that Guelph

Hydro will not provide transformer service below primary distribution voltages.

3.2.1.2 General Service (Below 50 kW) – Definition of Class

All Non-Residential Customers with an average peak demand below 50 kW over the preceding twelve months are to be classified as General Service < 50 kW Customers. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

3.2.1.3 General Service (Above 50 and Below 999 kW) – Definition of Class

All Non-Residential Customers with an average peak demand above 50 kW and below 1000 kW over the preceding 12 months are to be classified as General Service 50 kW to 999 kW. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

Customers in the General Service class with demand between 50 and 999 kW and who own transformation facilities are eligible for a transformer allowance credit. The transformer allowance credit is a rate applied to the monthly billed peak demand.

3.2.1.4 General Service (Above 1000 and Below 4999 kW) – Definition of Class

All Non-Residential Customers with an average peak demand of 1000 kW or higher over the preceding 12 months are to be classified as General Service above 1000 kW. For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

3.2.1.5 Large Users (Above 5000 kW) – Definition of Class

All Non-Residential Customers with an average peak demand of 5000 kW or higher over the preceding 12 months are to be classified as Large Users (above 5000 kW). For new Customers without prior billing history, the peak demand will be based on 90% of the proposed capacity or installed transformation.

3.2.2 Overhead Secondary Supply

Overhead secondary supply may be available in areas with existing overhead distribution lines, provided such connections may be made without crossing other properties in accordance with Section 3.1.2. In all other cases an underground supply will be required.

3.2.3 Underground Secondary Supply

3.2.3.1 From Road Allowance

The Customer shall provide a conduit system from the supply side of the service main to the property line in accordance with the latest Guelph Hydro Standard – contact Technical Services for standard drawings.

Guelph Hydro will supply and install underground facilities on the road allowance and service cable.

3.2.3.2 From Pad-Mounted Transformer

The Customer shall provide conduit system on private property, service cable and transformer base complete with grounding, guard posts and/or protective barriers (where specified by Guelph Hydro) in accordance with the latest Guelph Hydro Standards – contact Technical Services for standard drawings.

Guelph Hydro will supply and install the transformer, connectors for the service cable, primary cable and all facilities on the road allowance.

The Customer owned secondary cables shall be in accordance with Guelph Hydro's approved list. Guelph Hydro allows a maximum of six (6) secondary service conductors per phase contained in duct. All secondary service ducts are to be plugged by the Customer to prevent water entering into service entrance equipment.

The transformer shall be located on the Customer's property in a location approved by Guelph Hydro. In general, the location shall be:

i. Within three metres of a driveway accessible to Guelph Hydro vehicles;

- ii. In accordance with the Ontario Electrical Safety Code; and
- iii. Approved by the City of Guelph if located within the setback area as defined in the local zoning by-laws.

3.2.3.3 From Transformer Vault

The Customer shall provide conduit system on private property and transformer vault in accordance with standard 1002186-STD and the Ontario Building Code.

The transformer vault shall be located at grade level with direct access to a driveway accessible to Guelph Hydro vehicles.

Guelph Hydro will supply and install supply facilities including transformers, secondary cable to the bus stub, primary cable, fusing, switching and all facilities on the road allowance.

3.2.4 Supply from Customer Owned Transformation

3.2.4.1 General

This section applies to the delivery of energy to Customer owned substations including transformer(s) and associated primary switchgear.

A dead-front pad-mounted switchgear supplied by the customer will be required to facilitate the interconnection and demarcation between Guelph Hydro and the Customer-owned equipment. The Customer shall provide switchgear drawings for Guelph Hydro approval prior to procurement.

This switchgear shall be located at the property line or as physically close to the property line as a demarcation point, in a manner which will allow Guelph Hydro's personnel and equipment clear and direct access at all times.

The Customer shall also provide a conduit system on private property, associated equipment. Guelph Hydro will supply and install underground facilities on the road allowance and primary cable for service connections to the demarcation point (only up to 5000 kVA).

Guelph Hydro will accommodate Customers who require a service connection greater than 5000 kVA on a case-by-case basis.

3.2.4.2 Operating Control

Guelph Hydro will install Guelph Hydro locks on all high voltage Customer-owned devices and retain operating control unless the Customer enters into an Operating Agreement. Notwithstanding the above, Guelph Hydro will retain operating control of main incoming and tie loadbreak switches of substations fed from multiple Guelph Hydro supplies (looped system) and all revenue metering facilities including the compartment for metering transformers.

At installations with demarcation dead-front pad-mounted switchgear, Guelph Hydro will install locks on the incoming switch (utility or line side only).

3.2.4.3 Supply Limitations

Customers requiring transformer capacity in excess of 5000 kVA will require additional points of connection to Guelph Hydro's Distribution System. The maximum transformer capacity permitted for each point of connection is 5000 kVA. Standard 02161-STD illustrates examples of typical supply arrangements and associated limits.

3.2.4.4 Design Requirements

In addition to the design requirements identified in Section 3.2.1, the Customer shall provide the following information:

- i. An electrical single line drawing showing all primary and secondary voltage facilities including any interlocking schemes, rating of protective devices or fuses, primary and secondary switchgear and metering facilities;
- ii. Manufacturer's drawings for switchgear complete with foundation details and nameplate information for the transformer;
- iii. Layout of substation including fences, enclosures, equipment placement and grounding; and
A coordination study of all levels of protective devices is to be performed. The time current characteristics shall be plotted on a log graph paper and submitted for Guelph Hydro's review.

3.2.4.5 Loadbreak Switches

All loadbreak switches shall have lockable operating mechanisms. Tie switches on looped systems shall be interlocked with the main incoming switches. Open points on looped systems will be determined and controlled by Guelph Hydro and are subject to change without notice.

All switchgear, device configuration and fuse sizes or relay settings are subject to review and approval by Guelph Hydro.

Device nomenclature and its location will be determined by Guelph Hydro upon receiving switchgear drawings. Nomenclature plates shall consist of "lamicoid" type labels with 25-millimeter-high lettering and mounted with rivets or self-tapping screws.

3.2.4.6 Transformers

Transformers exceeding 1500 kVA shall be connected Delta-Wye. Transformers with a WYE connected primary winding where permitted shall have an exposed H0 bushing with removable ground strap.

Transformers shall be manufactured to comply with CSA Standard C802 (latest edition) when the service metering is located on the load side of the transformer.

3.2.4.7 Pre-Service Testing

Prior to energizing the Customer's substation, a Pre-Service Report shall be prepared in accordance with Guelph Hydro Specification PS1-1 and submitted to Guelph Hydro for review. A contractor who is qualified to perform high-voltage testing shall prepare this report. All testing shall be performed after the substation has been assembled and installed on the site. Guelph Hydro shall be given adequate notice to permit witnessing of test procedures.

3.2.5 Temporary Services

Temporary services may be supplied overhead or underground subject to supply facilities and standards as outlined under Section 3.2. All connection and removal costs associated with Temporary Service Connections are recovered from the Customer through a Variable Connection Charge as outlined in Section 2.1.1.1.

3.2.6 Metering

3.2.6.1 General

Guelph Hydro will meter the Customer's service at the utilization voltage except for primary metered services as described in Section 3.2.6.7.

Every metered service or sub-service must have a separate disconnecting device with provision for locking. Metering facilities will be installed on the load side of and adjacent to the disconnecting device for all three-phase services and 240/120 V services greater than 200 A.

Meter locations are subject to approval by Guelph Hydro. Metering facilities shall not be located in an environment that could be hazardous to Guelph Hydro personnel or equipment. Metering facilities are to be located in an electrical room or contained in appropriate cabinets.

3.2.6.2 Multi-unit Buildings

To qualify for a separate meter, a unit must be a defined commercial space, or rentable area.

Any adjoining units having a common tenant or occupant are to be supplied by a single meter where practical.

All multiple metering installations are to be contained within an approved electrical room.

The Customer shall provide a floor plan identifying the unit numbers prior to the meters being installed and shall clearly and permanently

identify each individual disconnect and meter location with the associated unit number in accordance with Standard 15-1007441-STD.

Metering for large plazas with multiple supplies shall have the metering grouped with relationship to the supply transformer.

3.2.6.3 Apartment Buildings

As an alternative to an electrical room, a closet with access from a common area may be provided. Metering for very large Apartment Buildings may be grouped by floors. The size of the meter closet is to be approved by Guelph Hydro.

Small Apartment Buildings will be permitted up to four grouped meters in an outdoor location without a main disconnecting device providing the main incoming service entrance capacity does not exceed 200 A.

3.2.6.4 Approval of Metering Assemblies and Switchgear

Where manufactured switchgear is to be installed, copies of the manufacturer's drawings must be submitted to Guelph Hydro for review with sufficient notice to permit Guelph Hydro to forward current transformers to the manufacturer for installation. Should sufficient notice not be provided, any costs associated with the installation of the current transformers will be chargeable to the development.

3.2.6.5 Metering Cabinet and Socket Information

The Customer shall provide meter bases or cabinets in accordance with Table 3.

Cabinets shall be installed in accordance with standards 15-1001715 STD and 15-1001716 STD complete with metal tabs for locking and removable steel backplate.

Guelph Hydro will supply and install connectors on the cable and make connections to the current transformers.

3.2.6.6 Meter Location

A minimum unobstructed clearance of one metre is to be maintained in front of meter cabinets and meters at all times.

Access to electrical rooms containing metering facilities shall be direct to the exterior of the building or to a common area and shall not be obstructed in any manner. The Customer shall provide a key to the electrical room and any additional doors necessary for the purpose of gaining access to the electrical room. As an alternative, the Customer may mount a key safe provided by Guelph Hydro for containing the appropriate keys on or adjacent to the door(s) in accordance with standard 15-1001872 STD.

Electrical rooms or the space allocated to contain the electrical metering facilities shall have a minimum ceiling height of 2.1 metres and shall include lights with switch and duplex receptacle. The room shall not be used for storage in any manner. Meter locations shall be free from, or protected against, the adverse effects of moving machinery, vibration, dust, moisture or fumes.

3.2.6.7 Primary Metered Services

The Customer shall supply and install all primary metering in accordance with specification ME2-1 "Customer Provision for Remote Interrogation Metering of Single Feeder Installations" and specification ME1-3 "Customer Provision for Remote Interrogation Metering of Dual Feeder Installations".

3.3 New Residential Developments

3.3.1 Townhouse Developments

Townhouse sites and other private developments where individual units are serviced internally (i.e., not directly from a public road allowance) are considered as connections and will require a Service Connection Agreement between Guelph Hydro and the Developer.

Where Guelph Hydro installs the distribution facilities within the development, the cost of installing these facilities, less an allowance based on the equivalent of a Basic Connection to each Residential unit, as defined in Section 2.1.1.1, shall be paid for by a capital contribution from the Developer.

The Developer may undertake the expansion work within the development provided such work does not involve existing Guelph Hydro Distribution System facilities. All material supplied and work performed shall be in

accordance with Guelph Hydro specifications and the terms of the Service Connection Agreement. All design work including service locations and trench routes will be performed by Guelph Hydro.

3.3.2 New Residential Subdivisions

New Residential subdivisions involving the creation of new lots, blocks and municipal roadways are treated as Non-Residential Class Customers and will require a subdivision servicing agreement between Guelph Hydro and the Developer.

Guelph Hydro will perform an economic evaluation in accordance with Section 2.1.2.1 to identify any shortfall relating to the cost of the required expansion work, and this shortfall shall be paid for by a capital contribution from the Developer. The Developer will provide financial security sufficient to cover the cost of facilities being installed until the individual Residential services are connected.

Where a capital contribution is required, the Developer may undertake the expansion work within the development provided such work does not involve existing Guelph Hydro Distribution System facilities. All material supplied and work performed shall be in accordance with Guelph Hydro specifications and the terms of the subdivision servicing agreement. All design work including service locations and trench routes will be performed by Guelph Hydro.

3.4 Embedded Generation

Operation of a Customer's Embedded Generator shall not endanger workers or jeopardize public safety, or adversely affect or compromise equipment owned or operated by Guelph Hydro, or the security, reliability and the quality of electrical supply to other Customers connected to Guelph Hydro's Distribution System.

When the Customer connects an Embedded Generator to Guelph Hydro's Distribution System, an interface protection system shall be provided to minimize the severity and extent of disturbances to the Guelph Hydro's Distribution System and to minimize the effect on other Customers. Guelph Hydro may require this protection to include a transfer-trip scheme tied to the Guelph Hydro distribution feeder protection. The interface protection shall be capable of automatically isolating the generator(s) from Guelph Hydro's Distribution System and is subject to review and acceptance by Guelph Hydro. The Customer may be required to supply equipment to allow Guelph

Hydro to monitor the status of the protection components at the generator, as well as the generator's output, at the Customer's expense.

The generating facilities shall be constructed in accordance with the Ontario Electrical Safety Code, Appendix F (Process for Connecting an Embedded Generator) of the Distribution System Code and shall comply with the detailed requirements outlined in "Distributed Generation Technical Interconnection Requirements". The Customer will be required to enter into an Embedded Generation Agreement for operating the generating facilities in parallel with Guelph Hydro's Distribution System.

3.4.1 Design Requirements

The Customer shall provide the following information:

- i. An electrical single line drawing showing all primary and secondary voltage facilities connected to the generator(s) including any interlocking schemes, rating of protective devices or fuses, primary and secondary switchgear and metering facilities;
- ii. Trip settings and delays at the interface devices;
- iii. Layout of generating facilities including all associated switchgear and metering facilities; and
- A coordination study of all levels of protective devices is to be performed. The time current characteristics shall be plotted on a log-log graph paper and submitted for Guelph Hydro's review.

3.4.2 Connection of Micro-Generation Facilities

From every applicant for the connection of a micro-embedded load generation facility, Guelph Hydro requires information about capacity of the units, fuel type, technology and location of the facility. Where a site assessment is required, payment of an Assessment Fee to Guelph Hydro is required.

If the applicant received all necessary approvals, Guelph Hydro will make all metering arrangements and connect the generation facility to the system within five business days. If an Embedded Load Generation Facility is located at an existing Customer connection and a site assessment is not required, Guelph Hydro will connect the generation within 15 days after receiving the application. If an Embedded Load Generation Facility is located at an existing Customer connection and a site assessment is required, Guelph Hydro will connect the

generation within 30 days after receiving the application. Where the connection is proposed at a new Customer location, Guelph Hydro will connect the generation within 60 days after receiving the application.

Guelph Hydro gives the applicant at least 30 days to accept the offer to connect the generation in each circumstance.

Where the owner of a micro-generation facility has a contract with the Independent Electricity System Operator ("IESO" or its predecessor, the Ontario Power Authority) under which the IESO is purchasing output from the Embedded Generation Facility, Guelph Hydro will purchase energy from the contract owner of a micro-generation facility in accordance with the pricing provisions of the contract and any rules as may be determined by the Ontario Energy Board or the IESO. The payments for energy purchased from the Embedded Generation Customers will be issued to the person or entity identified in the IESO (or its predecessor, the Ontario Power Authority) contract as the supplier/owner. The endorsement or redirection of payments to a third party or a representative of the supplier/owner is not permitted. The rules determined by the Ontario Energy Board or IESO are generally posted on the respective websites of each entity and are subject to updates and changes.

3.4.3 Connection of Other Generation Facilities

From every applicant for the connection of a generation facility, Guelph Hydro requires information about capacity of the units, fuel type, technology and location of the facility as well as payment of an assessment fee to Guelph Hydro.

If the Customer who applies for connection of a generation facility requests the preliminary meeting with Guelph Hydro, it will be scheduled within 15 days after it was requested. Guelph Hydro will not charge the Customer for the preparation to complete the connection and attendance at the meeting.

Guelph Hydro provides an applicant who requests connection of a generation facility with its assessment of the impact of the facility, a detailed cost estimate and an offer to connect the facility within 60 and 90 days for a mid-sized and a large facility respectively. The assessment will cover the impact of the proposed generation facility relating to voltage impact, connection feasibility, the need for line upgrades, transmission system protection and metering requirements.

The generation facility will be connected no later than 90 days after the payment has been made and 30 days after receiving of comments from the transmitter.

If the Customer makes any material changes in the design, equipment and connection, the Customer must file the new information to Guelph Hydro for preparation of a new assessment.

After the Customer enters into a cost agreement, Guelph Hydro will conduct a design review to ensure the detailed engineering plans are acceptable. Guelph Hydro has a right to witness the testing and commissioning of the connection of the Embedded Generation Facility to the Distribution System.

Where the owner of an Embedded Generation Facility has a contract with the Independent System Operator ("IESO" or its predecessor, the Ontario Power Authority) under which the IESO is purchasing output from the Embedded Generation Facility, Guelph Hydro will purchase energy from the contract owner of an Embedded Generation Facility in accordance with the pricing provisions of the contract and any rules as may be determined by the Ontario Energy Board or the IESO. The payments for energy purchased from the Embedded Generation Customers will be issued to the person or entity identified in the IESO (or its predecessor, the Ontario Power Authority) contract as the supplier/owner. The endorsement or redirection of payments to a third party or a representative of the supplier/owner is not permitted. The rules determined by the Ontario Energy Board or IESO are generally posted on the respective websites of each entity and are subject to updates and changes.

3.4.4 Load Displacement Generation Requirements

This section applies to a Customer with an installed Embedded Generation project used to displace load or using generated power for its own facility. Requirements under this section also apply to embedded or behind-the-meter energy storage systems such as battery or flywheel storage.

For Load Displacement Generation projects, Guelph Hydro has a requirement for the installation of revenue metering, and the provision of Supervisory Control and Data Acquisition ("SCADA") monitoring capability.

The revenue metering will be bidirectional interval metering, supplied and installed by Guelph Hydro at the Customer's expense. The primary load

revenue meter may also be upgraded to a bidirectional interval meter by Guelph Hydro at the Customer's expense. The Customer will provide field communication infrastructure as outlined in these Conditions of Service to support the revenue metering installation.

SCADA monitoring capability will either be provided by Guelph Hydro through the installation of a Supervisory Control and Data Acquisition Remote Terminal Units ("SCADA RTU") at the Customer's expense, or by other means acceptable to Guelph Hydro.

The Customer will work with Guelph Hydro to provide a suitable wireless antenna installation acceptable to Guelph Hydro for SCADA RTU telemetry, which could be in the form of a communications tower, monopole, roof mounted tripod or other alternative, along with ancillary equipment. Proposed project installation details are subject to Guelph Hydro review and approval.

3.4.4.1 Standby Power Charge

The Standby Power charge is applicable to Load Displacement Generation projects of 50 kW or higher capacity that require standby or backup power when the generator is partially generating, or not generating.

Costs associated with the maintenance and system capacity of the distribution system to be able to supply backup power to an Embedded Generator Customer, will be recovered in the form of a Distribution Standby Power charge. The Standby Power charge will be applied to the generator's peak demand per kilowatt for a month where standby power is partially provided or is not provided.

3.4.5 Net Metering

Load Customers who install a generation facility in accordance with Ontario Ministry of Energy Regulation 541/05 and who meet the following criteria may participate in Net Metering:

- i. The generator generates the electricity primarily for the generator's own use;
- ii. The generator generates the electricity solely from a renewable energy source;

- iii. The maximum cumulative output capacity of the equipment used to generate the electricity that the generator intends to return to the distributor for net metering purposes is no greater than 500 kW based on the rated maximum output capacity of the equipment; and
- iv. The generator conveys the electricity that is generated directly from the point of generation to another point for the generator's own consumption without reliance on the Distributor's Distribution System before conveying any electricity that is in excess of the generator's own needs at the time of generation into the Distributor's Distribution System.

The connection of an eligible generator to Guelph Hydro's Distribution System is subject to any conditions of Guelph Hydro's distribution license governing the connection of generation facilities to the Distribution System. A net metering Customer must meet all generation requirements for Embedded Generation Facilities, as applicable, in Section 3.4 of this Conditions of Service document.

Eligible Customers with generation facilities may return surplus generated energy back into the utility-owned Distribution System to reduce their net energy consumption.

An electricity bill for a net metered Customer will reflect the difference between the value of the units of electricity exported to the grid and the value of the units of energy consumed from the grid each month. If the difference results in a net export of electricity by the Customer, a credit for the value of the units of net energy exported will appear on the Customer's account and will be carried forward and applied in a future billing period(s). After issuing a bill in any billing period where a Customer has carried an energy credit for all billing periods in the previous 10 consecutive months, the value of any remaining accrued electricity credits will be reduced to zero dollars (\$0) for the purpose of the next billing period.

Regulated electricity charges apply to the net consumption of electricity. Customer class specific fixed monthly service charges apply to all Customers.

To participate in net metering, the Customer must have an operational bidirectional revenue meter that records energy consumed and energy exported.

3.5 Embedded Market Participant

Under the "Market Rules for the Ontario Electricity Market" Section 1.2.1, "No persons shall participate in the IESO-administered markets or cause or permit electricity to be conveyed into, through or out of IESO-controlled grid unless that person has been authorized by the IESO to do so".

All Embedded Market Participants, within the service jurisdiction of Guelph Hydro, once approved by the IESO are required to inform Guelph Hydro of their approved status in writing, 30 days prior to their participation in the Ontario Electricity Market.

3.6 Embedded Distributor

The terms and conditions applicable to the connection of an Embedded Distributor shall be defined in the Connection Agreement with Guelph Hydro. This agreement is to be negotiated and executed prior to any connections to Guelph Hydro's Distribution System.

All Embedded Distributors within the service jurisdiction of Guelph Hydro are required to inform Guelph Hydro of their status, in writing, 30 days prior to the supply of energy.

3.7 Unmetered Connections

3.7.1 General Conditions for Unmetered Load Connections

The preferred arrangement for the connection of electrical services is through a revenue metered connection, and all attempts will be made to connect customer electrical services in this manner. However, some loads are small in size and have predictable consumption patterns with consistent load magnitudes. Connections for these loads may under certain circumstances be provided without revenue metering. At the sole discretion of Guelph Hydro, Unmetered Load Connections will be offered in limited circumstances. If at any time, Guelph Hydro determines that an electric meter should be installed to measure electricity consumption at an existing unmetered connection, the Customer shall install all necessary equipment, in accordance with Guelph Hydro. This will permit Guelph Hydro to install an electric revenue meter and bill based on actual usage. An Unmetered Load Connection may be permitted on a standard service with no accessories, while a service connection to power

supply units that have additional accessories such as heaters or air conditioners, may require revenue metering, at Guelph Hydro's discretion. Where a revenue metered connection is established, it will be set up as an individual metered account.

Services that may be unmetered include cable TV power supplies, telephone switching equipment, telephone booths, bus shelters, rail way crossing signals, pedestrian cross-walks, traffic signals, cathodic protection, flasher beacons, outdoor signs, and other small fixed loads. Only loads connected at 750 volts or less, whose average monthly peak demand is less than, or forecasted to be less than 50 kW, may qualify as Unmetered Load Connections.

In order to bill and settle the electricity consumed through these connections, the Customer shall provide detailed manufacturer information and documentation with regards to electrical demand and / or consumption of the proposed unmetered load. Energy consumption will be based on connected wattage on the line side of the demarcation point, and based on an average twenty-four hours of use, calculated to include the impacts of both heating and cooling seasons over a year. The demarcation point for a metered connection is the line side of service entrance disconnect, switch, fuse, relay or other point of connection as determined by Guelph Hydro, while the demarcation point, typically at the line tap on the secondary supply conductor.

In some instances, a detailed load study acceptable to Guelph Hydro may be required for calculation of the magnitude of the load and determination of its hours of usage. From time to time, Guelph Hydro may request the Customer to undertake, at the Customer's expense, an electrical usage profile study by using either a Guelph Hydro acceptable certified lab or acceptable field metering unit, the results of which are to be provided to Guelph Hydro in an acceptable format.

In addition, at Guelph Hydro's sole discretion, Guelph Hydro may elect to install revenue metering equipment at a number of Unmetered Load Connection locations, in order to independently validate the information provided by the Customer. Should the information provided by the Customer vary from the electricity consumption measured by Guelph Hydro's revenue metering equipment, Guelph Hydro reserves the right to disqualify the Customer's connection(s) as Unmetered Load Connection(s), as well as retroactively recover the unbilled consumption from the Customer, for the

usage above that provided by the Customer through the Unmetered Load Connection documentation.

The Customer is responsible for notifying Guelph Hydro of any change in equipment and/or usage. Without such notice, Guelph Hydro is not obligated to make retroactive adjustments to billing or to continue to offer unmetered service to the fixed load.

The Customer shall contact Guelph Hydro for a new service connection request. For installations on Guelph Hydro owned poles, Guelph Hydro must approve the method of attachment and location of installations and the owner must enter into a Joint Use Agreement. For installations on poles owned by other joint use parties, Guelph Hydro will direct the Customer to the joint use party, in order for the Customer to obtain appropriate approvals prior to the new service connection.

When unmetered service connections are requested, and system enhancements or expansion are needed, the Customer shall pay for the cost of the required system enhancement or expansion, per Guelph Hydro's Conditions of Service and the Distribution System Code. Where transformation is required and does not currently exist, it will be provided in accordance with Guelph Hydro's Conditions of Service and the Distribution System Code. A capital contribution may be required. Any service connection relocation, re-design and/or inspection services may be provided by Guelph Hydro at the Customer's expense.

All Unmetered Load Connections are subject to Electrical Safety Authority requirements, including an Electrical Safety Authority "Authorization to Connect" prior to connecting the service. Guelph Hydro reserves the right to verify the connected Unmetered Load equipment against the connection request data. Data discrepancies may result in a delay in the connection of a new Unmetered Load Connection request, or potentially disconnection of an existing connection.

For an Unmetered Load Connection, the Customer will supply and install the service conductor to the demarcation or connection point indicated by Guelph Hydro, and Guelph Hydro will make the final supply connection to energize the service, as per Guelph Hydro's Conditions of Service. Any service connection relocation, re-design and / or inspection services may be provided by Guelph Hydro at the Customer's expense.

Guelph Hydro owns and has operational control of the connection to the distribution system. The Customer owns and has operational control of all downstream equipment and facilities on the load side of the demarcation point. The Customer's disconnect device should be operated by qualified personnel. The Customer is responsible for maintaining and repairing its equipment and/or facilities.

Customers with Unmetered Load Connections shall not allow other Consumers to use unmetered electrical power from the Unmetered Load Connection(s) without the express written consent of Guelph Hydro.

All Unmetered Load connections fall under one of Unmetered Scattered Load, Sentinel Lighting or Street Lighting Rate classifications, and will be billed accordingly.

All metered connections will be classified as General Service ("GS") less than 50 kW, and will be billed with GS < 50 kW rates.

Guelph Hydro no longer offers new unmetered sentinel light services.

Consistent with Guelph Hydro practices, all Customers have the ability to provide input and comments in relation to the preparation of cost allocation studies, load profile studies and other rate-related materials. Guelph Hydro will communicate with and engage Unmetered Load Connection Customers in relation to the preparation of load profile and cost allocation studies.

3.7.2 Street Lighting

This section pertains to the supply and distribution of electrical energy for street lighting. Street lights are owned by the Municipality or the Township.

Connections for street lights are either overhead or underground, and are subject to Electrical Safety Authority requirements, including the provision of a suitable disconnect device. The supply of materials and street light installation will be at the Customer's expense, and the Customer will be responsible for paying the cost of work performed by Guelph Hydro related to the connection of Street Lighting.

Street lights will be individually or group controlled by a photocell. The Customer is required to provide regular updates of the number and type of street light connections. Information required includes individual luminaire

wattage, including lamp and ballast or driver, and field installation or removal date. The street light records are added to Guelph Hydro's Geographic Information System (GIS) to support various distribution system operations and customer service functions, such as responding to street light outages for the Municipality.

The energy consumption calculation for street lights is based on the connected luminaire load overlaid with a street light load profile. The street light load profile determined by Guelph Hydro, and is based on local sunrise and sunset time, adjusted throughout the year. The energy charge is based on installed load, the load profile and Ontario Energy Board approved rates.

As part of Guelph Hydro's Customer Engagement program, on an annual basis, Guelph Hydro will meet with the Municipality or Township to review the number of street lights recorded as connection to the distribution system, as well as discuss other items. Related discussion and communications items may include electricity rates, bill calculation methodology, invoicing, load profile and cost allocation, as well as operational and/or maintenance concerns.

4. Glossary of Terms

"Affiliate Relationship Code" means the code, approved by the Ontario Energy Board and in effect at the relevant time, which among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies.

"Apartment Building" refers to a building containing four or more dwelling units having access from an interior corridor system or common entrance.

"Application for Service" is the agreement or contract with Guelph Hydro under which electrical service is requested.

"Building" means a building, portion of a building, structure or facility.

"Conditions of Service" means the document developed by a Distributor in accordance with subsection 2.4 of the Distribution System Code (DSC) that describes the operating practices and connection rules for the Distributor.

"Connected Load" is the total kilowatt rating of all the electrical equipment on the Customer's premises that is connected to the main service.

"Connection" means the installation and activation of Connection Assets.

"Connection Assets" means the portion of the distribution system used to connect a customer to the existing main distribution system, and consists of the assets between the point of connection on a Distributor's main distribution system and the ownership demarcation point with that customer.

"Customer" means a person that has contracted for or intends to contract for connection of a building or an embedded generation facility. This includes developers of residential or commercial sub-divisions.

"Demand" means the average value of power measured over a specified interval of time, usually expressed in kilowatts (kW). Typical demand intervals are 15 and 60 minutes.

"Demand meter" means a meter that measures a Customer's peak usage during a specified period of time.

"Developer" means the person(s) owning property for which new or modified electrical services are to be installed.

"Disconnection" means a deactivation of Connection Assets that results in cessation of distribution services to a Customer.

"Distribute", with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less.

"Distribution Losses" means energy losses that result from the interaction of intrinsic characteristics of the distribution network, such as electrical resistance with network voltages and current flows.

"Distribution Loss Factor" means a factor or factors by which metered loads must be multiplied such that when summed equal the total measured load at the supply point(s) to the Distribution System.

"Distribution Services" means services related to the distribution of electricity and the services the Ontario Energy Board has required distributors to carry out.

"Distribution System" means the Guelph Hydro system for distributing electricity, and includes any structures, equipment or other things (located along streets, highways, or easements on private property) used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many customers and the connection assets used to connect a customer to the main distribution system.

"Distribution System Code (DSC)" means the code, approved by the Ontario Energy Board, and in effect at the relevant time, which, among other things, establishes the obligations of the distributor with respect to the services and terms of service to be offered to Customers and retailers and provides minimum technical operating standards of Distribution Systems.

"Distributor" means a person who owns or operates a Distribution System.

"Electricity Act" means the *Electricity Act, 1998, S.O. 1998*, c.15, Schedule A.

"Easement" means a legal right-of-way on a Customer's property for Guelph Hydro facilities, personnel and equipment.

"Electrical Safety Authority (ESA)" means the person or body designated under the Electricity Act regulations as the Electrical Safety Authority.

"Eligible Low-Income Customer" means:

- a. a Residential electricity Customer who has been approved by the Central Service Provider for the Ontario Electricity Support Program; or
- a Residential electricity Customer who has been approved by a Low-income Energy Assistance Program ("LEAP") Intake Agency for Emergency Financial Assistance.

"Embedded Distributor" means a Distributor who is not a Wholesale Market Participant and that is provided electricity by a Host Distributor.

"Embedded Generator" or "Embedded Generation Facility" means a generation facility which is not directly connected to the IESO-controlled grid but instead is connected to a Distribution System.

"Embedded Retail Generator" means a customer that:

- a. is not a Wholesale Market Participant or a Net Metered generator
- b. owns or operates an Embedded Generation Facility, other than an emergency backup generation facility; and
- c. sells output from the Embedded Generation Facility to the Independent Electricity System Operator ("IESO") under contract or to a Distributor.

"Embedded Wholesale Generator" means an Embedded Generator that is a Wholesale Market Participant.

"Emergency" means any abnormal system condition that requires remedial action to prevent or limit loss of a Distribution System or supply of electricity that could adversely affect the reliability of the electricity system.

"Emergency Backup" means a generation facility that has a transfer switch that isolates it from a Distribution System.

"Emergency Financial Assistance" means emergency financial assistance under Low-Income Energy Assistance Program (LEAP).

"Energy" means the product of power multiplied by time, usually expressed in kilowatt hours (kWh).

"Energy Competition Act" means the Energy Competition Act, 1998, S.O. 1998, c. 15.

"Energy Diversion" means unaccounted for electricity consumption which can be quantified through various measures upon review of the meter mechanism, such as unbilled meter readings, tap off load(s) before revenue meter or meter tampering.

"Enhancement" means a modification to the main Distribution System that is made to improve system operating characteristics, such as reliability or power quality or to relieve system capacity constraints resulting, for example, from general load growth, but does not include a renewable enabling improvement.

"Expansion" means a modification or addition to the main Distribution System in response to one or more requests for one or more additional Customer connections that otherwise could not be made.

"Extreme Operating Conditions" are as defined in the Canadian Standards Association (CSA) Standard CAN3-C235-87 (latest edition).

"General Service" means any service supplied to premises other than those designated as Residential, Large User, or Municipal Street Lighting. This includes Multi-unit Residential establishments such as Apartment Buildings.

"Generate", with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or Distribution System.

"Generation Facility" means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or Distribution System, and includes any structures, equipment or other things used for that purpose.

"Generator" means a person who owns or operates a generation facility.

"Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America.

"House Service" means that portion of the electrical service in a multiple occupancy facility which is common to all occupants, (i.e., parking lot lighting, sign service, corridor and walkway lighting, et cetera).

"IESO" means the Independent Electricity System Operator established under the *Electricity Act*.

"IESO-Controlled Grid" means the transmission systems with respect to which, pursuant to agreements, the IESO has authority to direct operation.

"Interval Meter" means a meter that measures and records electricity use on an hourly or sub-hourly basis.

"Large User" means a Customer with a monthly peak demand of 5000 kilowatts (kW) or greater, regardless if the demand occurs in the peak or off-peak periods, averaged over 12 months.

"LEAP" means the Low-Income Energy Assistance Program established by the Ontario Energy Board.

"LEAP Intake Agency" means a social service agency, municipality or government agency that assesses a Residential electricity Customer's eligibility for Emergency Financial Assistance.

"Load Control Device" is a load limiter, timed load interrupter or similar device that limits the consumption used to 30 A as a maximum or interrupts normal electricity service. This will typically allow the Customer to heat their premises and allow for a few other appliances to be used.

"Load Factor" means the ratio of average demand for a designated time period (usually one month) to the maximum demand occurring in that period.

"Load Displacement Generation" ("LDG") or "Behind-the-Meter Generation" ("BMG") refers to a Customer with an installed Embedded Generation project that is connected on the Customer side of a connection point, where the output of the generation facility is used or intended to be used exclusively for the Customer's own consumption.

"Load Limiter Device" is a device that will allow a Customer to run a small number of electrical devices in his or her premises at any given time, and if the Customer exceeds the limit of the load limiter (30 A maximum), then the device will interrupt the power until it is reset.

"Main Service" refers to the incoming cables, bus duct, disconnecting and protective equipment for a Building or from which all other metered sub-services are taken.

"Market Rules" means the rules made under Section 32 of the *Electricity Act, 1998*.

"Measurement Canada" means the Special Operating Agency established in August 1996 by the *Electricity and Gas Inspection Act, 1980* 81 82 83, c. 87, and Electricity and Gas Inspection Regulations (SOR/86 131). The purpose of the Measurement Canada is to ensure the integrity and accuracy of measurement in Canada and has jurisdiction over the accuracy of electricity meters.

"Meter Installation" means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment.

"Meter Service Provider" means any entity that performs metering services on behalf of a Distributor.

"Meter Socket" means the mounting device for accommodating a socket type revenue meter.

"Metering Services" means installation, testing, reading and maintenance of meters.

"MIST meter" means an interval meter from which data is obtained and validated within a designated settlement timeframe. MIST refers to "Metering Inside the Settlement Timeframe".

"Multiple Dwelling" refers to a building which contains more than one self-contained dwelling unit.

"Non-coincident Peak Demand" is the highest Customer's demand at a given time during the month and is 90% kilovolt ampere (kVA) demand for Power Factor less than 90% and kilowatt (kW) demand for Power Factor equal or higher than 90% kilovolt ampere (kVA).

"Normal Operating Conditions" are as defined in the Canadian Standards Association (CSA) Standard CAN3-C235-87 (latest edition).

"Ontario Energy Board Act" means the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B.

"Operational Demarcation Point" means the physical location at which a Distributor's responsibility for operational control of distribution equipment including connection assets ends at the Customer.

"Owner" is a person or corporation owning property within the City of Guelph or Village of Rockwood.

"Ownership Demarcation Point" means the physical location at which a Distributor's ownership of distribution equipment including connection assets ends at the Customer.

"Peak Demand" is 90% kilovolt ampere (kVA) demand for Power Factor less than 90% and kilowatt (kW) demand for Power Factor equal or higher than 90% kilovolt ampere (kVA).

"Person" includes an individual, a corporation, sole proprietorship, partnership, unincorporated organization, unincorporated association, body corporate, and any other legal entity.

"Plaza" refers to any building containing two or more commercial business tenants.

"Power Factor" refers to the ratio between Real Power and Apparent Power (i.e., kilowatt (kW)/kilovolt ampere (kVA).

"Primary Supply" includes any service or Distribution System which is supplied with a nominal voltage greater than 750 volts, typically 13.8/8.0 kilovolts.

"Private Property" means the property beyond the existing public road allowances.

"Rate" means any rate, charge or other consideration, and includes a penalty for late payment.

"Rate Handbook" means the document approved by the Ontario Energy Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates.

"Regulations" means the regulations made under the *Electricity Act, 1998* or the *Ontario Energy Board Act, 1998*.

"Residential" refers to all services less than 50 kilowatts (kW) supplied to single-family dwelling units for domestic or household purposes.

"Retail" with respect to electricity means:

- a. To sell or offer to sell electricity to a Customer;
- b. To act as agent or broker for a Retailer with respect to the sale or offering for sale of electricity; or
- c. To act or offer to act as an agent or broker for a consumer with respect to the sale or offering for sale of electricity.

"Retail Settlement Code (RSC)" means the code approved by the Ontario Energy Board and in effect at the relevant time, which, among other things, establishes a Distributor's obligations and responsibilities associated with financial settlement among Retailers and Customers and provides for tracking and facilitating Customer transfers among competitive Retailers.

"Retailer" means a person who retails electricity.

"Secondary Supply" includes any service or Distribution System which is supplied with a nominal voltage less than 750 volts.

"Service Area", with respect to a Distributor, means the area in which the Distributor is authorized by its license to distribute electricity.

"Service Date" is the date that the Customer and Guelph Hydro mutually agree upon to begin the supply of electricity by Guelph Hydro.

"Smart Meter" means a meter that is part of an advanced metering infrastructure that meets the functional specification referenced in the Criteria and Requirements for Meters and Metering Equipment, Systems and Technology Regulation, O. Reg. 425/06.

"Social Service Agency or Government Agency" is a social service agency or government agency that partners with Guelph Hydro to assess eligibility for Emergency Financial Assistance.

"Standard Supply Service (SSS) Code" means the code approved by the Ontario Energy Board and in effect at the relevant time, which, among other things, establishes

the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under Section 29 of the *Electricity Act, 1998*.

"Subservice" refers to a separately metered service that is taken from the main building service.

"Supply Voltage" is the voltage at the Customer's main service entrance equipment (typically below 750 volts). Operating conditions are defined in the Canadian Standards Association (CSA) Standard CAN3-C235 (latest edition).

"Temporary Service" refers to an electrical service granted temporarily for such purposes as construction, real estate sales, trailers, ect.

"Total Losses" means the sum of distribution losses and unaccounted for energy.

"Transformer Room" means an enclosure built within a building to applicable codes to house transformers and associated electrical equipment.

"Transmission System" means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose.

"Transmission System Code" means the code, approved by the Ontario Energy Board, that is in force at the relevant time, which regulates the financial and information obligations of the Transmitter with respect to its relationship with Customers, as well as establishing the standards for connection of Customers to, and expansion of a transmission system.

"Unmetered Loads" means electricity consumption that is not metered and is billed based on estimated usage.

"Upgrade" means replacement of an existing component of a Distribution System with a new component for purposes of improving the Distribution System's operating characteristics.

"Validating, Estimating and Editing (VEE)" means the process used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data for settlement purposes.

"Wholesale Market Participant" means a person that sells or purchases electricity or ancillary services through the IESO-administered markets.

5. Tables and Appendices

5.1 Table 1 – Demarcation Points and Charges for Connection Assets

Service Class	Service Type	Ownership Demarcation Point	Service Charges
Residential	Overhead ¹	Connections at top of mast	No charge for basic connection or equivalent. Variable connection charge for additional facilities.
	Underground	Line side of meter base	Variable connection charge less basic connection allowance.
General Service	Overhead ¹	Connections at top of mast	Variable connection charge.
	Underground from overhead transformer	Line side of main switch or exterior meterbase where applicable	Variable connection charge.
	Underground from pad mounted transformerConnections at load side of transformer		Variable connection charge.
	Transformer vault in building	Bus stub between electrical room and vault	Variable connection charge.
	Underground supplied Customer owned station 8,300 volt or 13,800 volt terminations at first point of isolation		Variable connection charge.
	Overhead supplied Customer owned station	First point of attachment on Customers property	Variable connection charge.

¹ Supply from overhead facilities is available in limited areas

5.2 Table 2 – Available Voltages and Service Limitations

UTILIZATION VOLTAGE	Overhead Transformers ¹		Pad-mounted Transformers		Transformer Vault	
	Maximum Service Size ²	Maximum Transformer Size	Maximum Service Size ²	Maximum Transformer Size	Maximum Service Size ²	Maximum Transformer Size
240/120 V 3 wire	400 A	75 kV.A	600 A	100 kV.A	N/A	N/A
208Y/120 V 4 wire	N/A	N/A	2500 A ³	750 kV.A	2500 A ³	750 kV.A
600Y/347 V 4 wire	200 A	150 kV.A	1600 A ³	1500 kV.A	1600 A ³	1500 kV.A

N/A - not available

¹ Supply from overhead facilities is available in limited areas.

² Limitations to service entrance size are intended as a guide and may be further reduced depending on the nature of the load. In all cases, the transformer capacity in kVA will be the limiting factor.

³ Service Entrance equipment has to be 80% rated.

5.3 Table 3 – Metering Cabinet and Socket Information

	Wire	Phase	Socke Service Type Size No. o Jaws	Socket	Size of Metering Cabinet containing CTs & PTs ³		Size of Metering
Voltage				Type No. of Jaws	Copper Conductor	Aluminum Conductor	Cabinet for Switchgear containing CTs & PTs
			Up to 200 A	4	N/A	N/A	N/A
240/12 0 V	3	1	400 A	N/A	36" x 36" x 12"	48" x 48" x 12"	30" x 30" x 10"
			600 A	N/A	48" x 48" x 12"	48" x 48" x 12"	30" x 30" x 10"
	3	1	up to 200 A	5	N/A	N/A	N/A
209V/1			up to 200 A	7	N/A	N/A	N/A
208471 20 V 4	4	3	400 A	N/A	36" x 36" x 12"	48" x 48" x 12"	30" x 30" x 10"
			600A and up	N/A	48" x 48" x 12" ¹	48" x 48" x 12"	30" x 30" x 10" ¹
600Y/3 47 V 4		up to 100 A	7	N/A	N/A	N/A	
		4 3	200 A	see note²	36" x 36" x 12"	36" x 36" x 12"	N/A
	л		400 A	N/A	36" x 36" x 12"	48" x 48" x 12"	30" x 30" x 10"
	4		600 to 800 A	N/A	48" x 48" x 12" 1	48" x 48" x 12"	30" x 30" x 10" 1
			1,000A and up	N/A	N/A	N/A	30" x 30" x 10" 1
8,300/4 ,800 V	4	3	See Section 4	N/A	N/A	N/A	30"x 30" x 10" ¹
13,860/ 8,000 V	4	3	See Section 4	N/A	N/A	N/A	30" x 30" x 10" 1

N/A – not available

¹ Provision is to be made for a remote interrogated metering system (RIMS), refer to Guelph Hydro standards.

² Socket type (7 jaw) meter bases will be permitted in buildings with multiple metered sub-services. Guelph Hydro continues to require metering cabinets as specified for individual buildings with 200A, 600Y/347V services and single metering point. ³ If using triple conductor runs, contact Guelph Hydro's Technical Services Department prior to installation.

5.4 Table 4 – Recommended Voltage Variation Limits for Circuits up to 1000 V, at Service Entrances

	Voltage Variation Limited						
Nominal System Voltages	Application at Service Entrances						
	Extreme Operating Conditions						
Single Phase 120/240	106/212	110/220	125/250	127/254			
240	212	220	250	254			
Three-Phase							
4-Conductor							
120/208Y	110/190	112/194	125/216	127/220			
347/600Y	306/530	318/550	360/625	367/635			
Three-Phase							
3-Conductor							
600	530	550	625	635			

Appendix A

5.5 Appendix A: Customer Complaint Resolution Policy

Guelph Hydro Electric Systems Inc. Administration procedure	Subject:CUSTOMER COMPLAINT RESOLUTIONNumber:ADM-9Date:April 2003Revised:December 2013Page 1 of 1
Approved by:	Signature:
Chief Financial Officer	

1.0 PURPOSE

The purpose of this procedure is to outline a complaint resolution process consistent with Guelph Hydro Electric Systems Inc. ("Guelph Hydro") Distribution Licence.

2.0 VERBAL COMPLAINT

- A Guelph Hydro Customer who has a complaint will be asked to provide their name, address, telephone number and the nature of the complaint. The complaint will be logged in the Customer Information System.
- The matter will be referred to the appropriate department and will be resolved by the department in a normal manner for this type of item.
- If the Customer wishes to escalate the matter, the item will follow Guelph Hydro's organizational level of authority until the matter is brought to the attention of the CFO.
- If the CFO feels the matter is significant enough, the CFO shall have the option to bring the matter to the attention of the COO or CEO for further action.

3.0 WRITTEN COMPLAINT

- A Customer complaint in writing is to be delivered simultaneously to the CFO, COO or CEO.
- The CFO, COO or CEO will assign the complaint investigation to the appropriate member of the senior management team.
- The investigation will be completed in no more than five business days and the results of the investigation will be reported to the CFO, COO or the CEO.
- The Customer is to be advised of the results of the investigation by letter immediately following the report to the CFO, COO or CEO.

4.0 THIRD PARTY COMPLAINTS RESOLUTION

Customers are to be advised that if they are not satisfied with the resolution the matter can be addressed to the Ontario Energy Board (OEB) www.ontarioenergyboard.ca.

5.6 Appendix B: General Service and Residential Service Deposit Policies



INTRODUCTION

Guelph Hydro Electric Systems Inc. (Guelph Hydro) is a Local Distribution Company (LDC) regulated by the Ontario Energy Board (OEB) by the powers granted to the OEB by the Provincial Government through the enactment of Bill 35, 1998; *The Energy Competition Act, The Electricity Act, and The Ontario Energy Board Act 1998.*

Deposit policies are an integral component of Guelph Hydro's risk management processes. The deposit policies contained herein are established in accordance with the aforementioned legislation and are consistent with the applicable guidelines established by the OEB (Retail Settlement Code, Standard Supply Service Code, the Distribution System Code and the Electricity Distribution Rate Handbook).

DEFINITIONS

"Distributor Consolidated Billing" – Under this billing scenario, Guelph Hydro issues a bill to the Retailer's Customer for all applicable charges, including the cost of electricity. Guelph Hydro bears all Customer non-payment risk.

"NSF Payments" – NSF payments are defined as payments returned by financial institutions for reasons of non-sufficient funds, and include cheques and automatic withdrawals.

"Retailer Consolidated Billing" – Under this billing scenario, the Retailer issues the bill to the Customer for all applicable charges, including distribution charges. In this case, the Retailer is responsible for all non-payment risk.

"Satisfactory Payment History" – A satisfactory payment history is achieved when there has been not more than one non-sufficient funds (NSF) cheque or Pre-Authorized Payment returned NSF presented by the Customer in the previous five years, as well, the Customer must have received not more than one disconnection notice or collection trip in the past five years. The same conditions apply for a seven-year period for a non-residential Customer in the greater than 50 kW demand rate class.

"Standard Supply Service" – Customers who have not enrolled with a Retailer are provided "standard supply service" by Guelph Hydro. Electricity is supplied to standard supply service

Customers at wholesale market or fixed prices. Under this billing option, Guelph Hydro issues bills to the Customer for all charges and Guelph Hydro bears all Customer non-payment risk.

TYPE OF DEPOSITS

- Deposits may be paid in cash, cheque, money order, credit card, irrevocable letter of credit, or letter of guarantee from a recognized financial institution, or a power bond.
- A Letter of Guarantee or a Letter of Credit issued by a recognized financial institution must be irrevocable instruments, issued for a minimum of one year and contain a clause to automatically extend the Letter of Guarantee or Letter of Credit until Guelph Hydro provides a letter authorizing its cancellation.
- A Power Bond issued by an Insurance Company must be irrevocable and proof of premium payments must be provided to Guelph Hydro annually.
- In special circumstances, deposits may be paid in installments with the approval of the Credit Supervisor.
- Deposits are not transferable from one Customer to another unless approved by the Credit Supervisor.

DEPOSIT REQUIREMENTS AND DEPOSIT REFUNDS

All General Service Customers shall pay a deposit, with the following exceptions:

- Existing General Service Customers who do not have a deposit currently posted with Guelph Hydro are exempt provided they have maintained a satisfactory payment history as defined above.
- Customers who are billed under the Retailer Consolidated option are not required to post a deposit.
- Where an existing General Service Customer moves location or expands to an additional facility, the Chief Financial Officer, or the Credit Supervisor, has the authority to waive a security deposit where that Customer has established a satisfactory payment history in the previous five years if they are in the less than 50 kW demand rate class. The same applies for a seven year period for a non-residential Customer in the greater than 50 kW demand rate class.
- New Customers may provide to Guelph Hydro a letter of reference from their former utility or a credit report from a recognized credit rating agency stating that they have maintained an account for five consecutive years in the previous six years for General Service Customers in the less than 50 kW demand rate class. The same applies for a seven consecutive year period

in the previous eight years for any other non-residential Customer in the greater than 50 kW demand rate class. The letter or Credit Bureau Report must indicate a Satisfactory Payment history. A utility is defined as an Electricity or Gas Distribution Company.

• A non-residential Customer in any rate class other than a < 50 kW demand rate class may have their security deposit reduced upon receipt of a Credit Bureau rating as follows:

Credit Rating	Reduction
(Standard and Poor's ratings)	
AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%
A-, from A, A+ to below A or equivalent	85%
BBB-, from BBB, BBB+ to below A or equivalent	75%
Below BBB- or equivalent	0%

- Note: Any letter of reference or Credit Bureau report presented must be in the same Company name as the Company requesting service.
- New Customers who receive a satisfactory credit rating from a recognized credit reporting agency, the cost and responsibility for attaining a credit report are with the Customer.
- New Customers who receive a credit reference from a gas or hydro Utility with a satisfactory payment history, the cost and responsibility for attaining a credit reference are with the Customer.

Deposits will be refunded to the Customer once a satisfactory payment history as defined above has been established for a period of five years if they are in the less than 50 kW demand rate class and a period of seven years if they are in the greater than 50 kW demand rate class, as long as the Customer remains a standard supply service or distributor consolidated Customer. If the Customer switches from distributor consolidated or standard supply service to the retailer consolidated billing option, or terminates service with Guelph Hydro, any deposit on record will be refunded. Deposits are refunded as a credit on the Customer's final account. The deposit and interest will be used to pay the Customer's final account. Any remaining credit will be refunded to the Customer. Deposits will only be refunded to the Customer whose name appears on the bill.

In the event the Customer chooses not to provide a deposit, Guelph Hydro reserves the right to discontinue service in accordance with the Guelph Hydro Conditions of Service document and the OEB code.

DEPOSIT AMOUNT

Should a deposit be necessary, the amount of the deposit will be 2.5 times the average consumption for a like business in the past 12 months.

A new Customer will be required to provide information on its premises, intended uses and electricity requirements to enable Guelph Hydro to estimate monthly consumption. If a new Customer is moving to a location that has previously been occupied and is unable to provide data on electricity consumption, the distributor will make a reasonable estimate. If the previous occupant was not a similar type of business, Guelph Hydro may use the consumption of another business of a similar type and size in Guelph to estimate the deposit amount.

Deposit requirements will be reviewed annually and will be adjusted for variance in rates, OEB requirements, payment history, and Customer consumption. If the Customer's price is fixed, the deposit amount will be based on the fixed price.

INTEREST

Interest will be paid to a Customer on a yearly basis.

Interest will be calculated at the rate prescribed by the OEB, currently the prime business rate, less 2% and updated quarterly.

Interest on cash security deposits shall begin to accrue from date of receipt by Guelph Hydro at its head office.

On installment security billing deposits, interest shall begin to accrue from the date of receipt by Guelph Hydro at its head office of the last installment payment.



RESIDENTIAL SERVICE DEPOSIT POLICY

INTRODUCTION

Guelph Hydro Electric Systems Inc. (Guelph Hydro) is a Local Distribution Company (LDC) regulated by the Ontario Energy Board (OEB) by the powers granted to the OEB by the Provincial Government through the enactment of Bill 35, 1998; *The Energy Competition Act, The Electricity Act,* and *The Ontario Energy Board Act 1998*.

Deposit policies are an integral component of Guelph Hydro's risk management processes. The deposit policies contained herein are established in accordance with the aforementioned legislation and are consistent with the applicable guidelines established by the OEB (Retail Settlement Code, Standard Supply Service Code, the Distribution System Code and the Electricity Distribution Rate Handbook).

DEFINITIONS

"Distributor Consolidated Billing" – Under this billing scenario, Guelph Hydro issues a bill to the Retailer's Customer for all applicable charges, including the cost of electricity. Guelph Hydro bears all Customer non-payment risk.

"NSF Payments" – NSF payments are defined as payments returned by financial institutions for reasons of non-sufficient funds, and include cheques and automatic withdrawals.

"Retailer Consolidated Billing" – Under this billing scenario, the Retailer issues the bill to the Customer for all applicable charges, including distribution charges. In this case, the Retailer is responsible for all non-payment risk.

"Satisfactory Payment History" – A satisfactory payment history is achieved when there has been not more than one payment or Pre-Authorized Payment returned as NSF presented by the Customer in the previous 12 months and not more than one disconnection/collection notice in the previous 12 months. As well, a Customer must not have had any disconnection or collection trips in the previous 12 months.

New Customers may provide to Guelph Hydro a letter of reference from their former utility stating that they have maintained an account for 12 consecutive months within the past 24 months (alternatively, the Customer may provide a credit report from a recognized credit rating agency). The letter or credit bureau report must indicate a satisfactory payment history. A utility is defined as an electricity or gas distribution company.

"Standard Supply Service" – Customers who have not enrolled with a Retailer are provided "standard supply service" by Guelph Hydro. Electricity is supplied to standard supply service Customers at wholesale market or fixed prices. Under this billing option, Guelph Hydro issues bills to the Customer for all charges and Guelph Hydro bears all Customer non-payment risk.

DEPOSIT REQUIREMENTS

All Residential Customers are required to post a deposit, except in the following circumstances:

- Customers who have maintained a satisfactory payment history as defined above
- New Customers who receive a satisfactory credit rating from a recognized credit agency
 - o The cost and the responsibility for attaining a credit report are with the Customer
- Customers who are billed under a Retailer Consolidated Billing agreement
- New Customers who receive a credit reference from a gas or hydro utility with a satisfactory payment history
- Customers enrolled in Pre-Authorized Payment Plan or Equal Payment Plan

In the event the Customer chooses not to provide a deposit, Guelph Hydro reserves the right to discontinue service in accordance with the Guelph Hydro Conditions of Service document and the OEB Code.

DEPOSIT AMOUNT

In the event that a deposit is required, the amount of the deposit will be determined as follows:

For monthly accounts, the deposit will be based on 2.5 times the average consumption for a like residence over a 12-month, consecutive period in the last two years. For Customers who received more than one disconnection/ collection notice in the relevant 12 month period, a deposit will be calculated based on the highest actual or estimated bill in the past 12 months.

Deposit requirements will be reviewed annually and will be adjusted for variances in rates, OEB requirements, payment history and Customer consumption. If a fixed rate is applicable at the time the deposit is being calculated, the bills used as a reference point will be adjusted to reflect the fixed price.

Effective January 1, 2011

Residential Customers can pay a required deposit, an increase in a security deposit or a replacement of a deposit applied against arrears, in equal installments over at least six months, if a payment arrangement is approved by Guelph Hydro's Credit department and/or Credit Supervisor.

There will be a review of the security deposit during the year after the first anniversary of the first installment payment.

Security deposits will be applied against arrears to cover any amounts owing before a disconnection notice can be issued to a residential Customer.

When a security deposit has been applied against any arrears, the Customer may have to repay the security deposit, and may be allowed to do so in equal installments at the discretion of Guelph Hydro's Credit department and/or Credit Supervisor.

TYPE OF DEPOSITS

Deposits may be paid by cash, cheque, money order, credit card, or Paymentus.

DEPOSIT REFUNDS AND INTEREST

Deposits will be refunded to the Customer once a satisfactory payment history, as defined above, has been established for a period of 12 consecutive months.

Deposits will be refunded when a Customer switches from distributor consolidated billing or standard supply service, to retailer consolidated billing. Deposits will also be refunded when a Customer terminates their account with Guelph Hydro.

Deposits are refunded as a credit to the Customer's account. For a final account, the deposit and interest will be used to pay the Customer's final account. Any remaining credit will be refunded to the Customer. Deposits will only be refunded to the Customer whose name appears on the bill.

Deposit refunds for final accounts will be sent to the Customer within six weeks after closing their account.

Deposits are not transferable from one Customer to another unless approved by the Credit Supervisor.

Interest will be paid to the Customer on a yearly basis.

Interest will be calculated at the rate prescribed by the OEB, currently prime business rate, less 2%, and updated quarterly.
Appendix B

Interest on cash security deposits shall begin to accrue from date of receipt by Guelph Hydro at its head office.

On installment security billing deposits, interest shall begin to accrue from the date of receipt by Guelph Hydro at its head office of the last installment payment.

Appendix B



Self-Declaration Form for Consumer Security Deposits on Bulk-Metered Residential Condominium Corporations

Bulk-metered residential condominiums may qualify for residential customer treatment of their security deposit if they meet certain criteria.

In order to qualify, the property of the customer must be a property as defined in the *Condominium Act, 1998* and also be a *residential* condominium corporation.

For these security deposit rules to apply, qualifying electricity consumers must provide a signed declaration attesting to their legal status as a residential condominium corporation.

If you have more than one qualified account, you must complete a separate form for each account.

Account Number:

Customer Name (as it appears on your bill)

Service Address:

Certification

The information provided on this form and any additional attachments must be provided by an individual having the authority to certify the accuracy of that information. This individual should be either the current President or Treasurer of the applicable condominium corporation.

I certify the above information to be true, correct and complete. Any penalty or action resulting from false declaration shall be borne by the customer.

Condominium Corporation's Name:

Name, Phone Number and Title of Authorized Signatory:

Signature:	-	
Date:		

Appendix B

All information submitted in this process will be used by Guelph Hydro in support of our obligations under the Electricity Act, 1998, and the Ontario Energy Board Act, 1998, applicable Ontario Energy Board Codes and Rules, associated policies, standards and procedures and Guelph Hydro's license. Guelph Hydro will use the information collected on this form for billing and auditing purposes.

This information will be retained by Guelph Hydro and may be subject to review by the Minister of Finance pursuant to the Ontario Energy Board Act, 1998. If you have any questions about this collection, or the ways in which your personal information may be used by Guelph Hydro, please consult our <u>Privacy Policy</u>. If you have any questions regarding this process, please call our Customer Service Department at 519-822-3010.

Guelph Hydro Electric Systems Inc. is firmly committed to providing accessible, quality service to all customers and visitors. It is our goal to ensure that all members of the public receive the same level and quality of service, regardless of any barriers there may be. If you require this form in an alternate format, please contact our Customer Service Department by telephone at 519-822-3010, by email at <u>cservice@guelphhydro.com</u>, or visit the <u>Guelph Hydro website</u> and use our online chat function.

Please return this completed form to:

- By Mail: Guelph Hydro Electric Systems Inc. 395 Southgate Drive, Guelph, ON N1G 4Y1 Attention: Customer Service
- By Fax: 519-822-0960
- By Email: <u>cservice@guelphhydro.com</u>