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Frank D'Andrea

Vice President
Regulatory Affairs

BY COURIER

June 26, 2018

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON, M4P 1E4

Dear Ms. Walli,

**EB-2017-0049 Hydro One Networks Inc. 2018-2022 Distribution Custom IR Application
(the "Application") – Corrections to Evidence**

Please find enclosed corrections to Exhibit H1-02-03, Interrogatories I-45-CME-067 and I-46-Staff-219, and an update to Table 4 in Exhibit E1-01-02 to reflect the impact of the Fair Hydro Plan on the late payment charges revenue forecast.

This filing has been submitted electronically using the Board's Regulatory Electronic Submission System and two (2) hard copies will be sent via courier.

Sincerely,

ORIGINAL SIGNED BY FRANK D'ANDREA

Frank D'Andrea

Enc.

SPECIFIC SERVICE CHARGES

1. INTRODUCTION

Specific Service Charges are charges for specific services over and above the standard level of service as defined by the Distribution System Code. Each miscellaneous service has an OEB-approved fixed rate and is charged to a customer based on a customer's request or as the result of a customer's action or inaction that would impose a cost on Hydro One.

In its last distribution rate filing (EB-2013-0416), Hydro One proposed rates for miscellaneous services in Exhibit G2, Tab 5, Schedule 1 of that application. The rationale was that regular distribution rates only recover costs of providing standard distribution services. In its Decision issued on March 12, 2015 in relation to EB-2013-0416, the OEB directed Hydro One to file with this Application a study assessing whether its Specific Service Charges reflect its underlying costs to perform those services ("the Time Study") and propose changes accordingly. Hydro One has completed the Time Study and proposes the new charges detailed in this Exhibit.

2. THE STUDY

In response to the OEB's direction, with the support of Elenchus Research Associates Inc., Hydro One completed a year-long time study of the tasks involved in providing miscellaneous services and the associated costs, including labour rates and burdens, fleet costs, material costs and pass-through charges. The charges studied included those included in Chapter 11 of the OEB's *2006 Electricity Distribution Rate Handbook* (the "Rate Handbook").

1 Hydro One used the approaches found in Chapter 11 of the Rate Handbook to define the
2 level of the charge to bill the customer. The Study details its context and methodology
3 and is included as Attachment 1 to this Exhibit.

4
5 **3. THE PROPOSED SPECIFIC SERVICE CHARGES**

6
7 A summary of all the proposed 2018-2022 charges can be found in Table 1 of this Exhibit
8 (Schedule 11-1 of the Rate Handbook). Descriptions of the miscellaneous services (as
9 found in Attachment 1 of this Exhibit) and details of the methodology used to determine
10 the charges are provided in Appendices A and B to this Exhibit. Except where identified,
11 the proposed charges align with the associated labour and materials identified in the Time
12 Study.

13
14 In Appendices A and B, the Specific Service Charge for each service is based on average
15 elapsed hours required to carry out the work, as well as burdened labour rates, vehicle
16 costs, and material. Refer to Exhibit E1, Tab 1, Schedule 2, and Table 2 of this Exhibit
17 (“Capital Contributions”) for a summary of the historical volumes along with 2018-2022
18 forecasted volumes and projected revenues for each service.

19
20 Appendix A: Charges listed in Chapter 11 of the 2006 Rate Handbook and updated as
21 per the Time Study.

22
23 Appendix B: Hydro One-specific charges, primarily calculated based on labour, as per
24 the Time Study.

25
26 Appendix C: Hydro One-specific charges, calculated as per previously approved OEB
27 methodology.

- 1 For the services listed in Appendix C, Specific Service Charges are determined by
- 2 methodologies that take into account the value of assets, volumes of those assets and the
- 3 costs associated with the maintenance of those assets.

Table 1: Schedule 11-1 Specific Service Charges: Standard Amounts

(* indicates charges which reflect the average cost over the forecast period)

OEB Rate Code	Specific Service Charge Standard Name	Calculation Method	Currently Approved Rate	2018 Charge	2019 Charge	2020 Charge	2021 Charge	2022 Charge
1	Arrears Certificate	As described in Time Study (See Attachment 1)	N/A	N/A	N/A	N/A	N/A	N/A
2	Statement of Account*		\$15.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
3	Pulling post-dated cheques		\$15.00	N/A	N/A	N/A	N/A	N/A
4	Duplicate Invoices for Previous Billing*		\$15.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
5	Request for Other Billing Information*		\$15.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
6a	Easement Letter – Letter Request		\$15.00	\$86.90	\$88.29	\$89.67	\$91.12	\$92.51
6b	Easement Letter - Web Request		\$15.00	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
7	Income Tax Letter*		\$15.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
8	Notification Charge		\$15.00	N/A	N/A	N/A	N/A	N/A
9	Account History*		\$15.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
10	Credit Reference/Credit Check *		\$15.00 plus Credit Agency Costs	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
11	Returned Cheque Charge*		\$15.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00
12	Charge to Certify Cheque		\$15.00	N/A	N/A	N/A	N/A	N/A
13	Legal Letter Charge	\$15.00	N/A	N/A	N/A	N/A	N/A	

14	Account Set Up Charge/Change of Occupancy Charge (Plus Credit Agency Costs, if applicable)*		\$30.00	\$38.00	\$38.00	\$38.00	\$38.00	\$38.00
15	Special Meter Reads*		\$30.00	\$90.00	\$90.00	\$90.00	\$90.00	\$90.00
16	Collection of Account Charge – No Disconnection*		\$30.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
17	Collection of Account Charge – No Disconnection – After Regular Hours		\$165.00	N/A	N/A	N/A	N/A	N/A
18 & 19	Collection – Disconnect/Reconnect at Meter & Install/Remove Load Control Device – During Regular Hours*		\$65.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00
20 & 21	Collection – Disconnect/Reconnect at Meter & Install/Remove Load Control Device – After Regular Hours*		\$185.00	\$430.00	\$430.00	\$430.00	\$430.00	\$430.00
22	Collection – Disconnect/Reconnect at Pole – During Regular Hours*		\$185.00	\$320.00	\$320.00	\$320.00	\$320.00	\$320.00
23	Collection – Disconnect/Reconnect at Pole – After Regular Hours*		\$415.00	\$850.00	\$850.00	\$850.00	\$850.00	\$850.00
24	Meter Dispute Charge – Measurement Canada*		\$30.00	\$290.00 plus Measurement Canada fees	\$290.00 plus Measurement Canada fees	\$290.00 plus Measurement Canada fees	\$290.00 plus Measurement Canada fees	\$290.00 plus Measurement Canada fees
25	Service Call – Customer Owned Equipment – During Regular Hours		\$30.00	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00
26	Service Call – Customer Owned Equipment – After Regular Hours		\$165.00	\$775.00	\$775.00	\$775.00	\$775.00	\$775.00
27	Temporary Service Install & Remove – Overhead – No Transformer		\$500.00	N/A	N/A	N/A	N/A	N/A

28	Temporary Service Install & Remove – Underground – No Transformer		\$300.00	N/A	N/A	N/A	N/A	N/A
29	Temporary Service Install & Remove – Overhead – With Transformer		\$1,000.00	N/A	N/A	N/A	N/A	N/A
30	Specific Charge for Access to Power Poles – Telecom*		\$41.28	\$47.43	\$48.16	\$48.90	\$49.65	\$50.40
31a	Vacant Premise – Move in with Reconnect of Electrical Service at Meter*		NEW	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00
31b	Vacant Premise – Move in with Reconnect of Electrical Service at Pole		NEW	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00
32	Reconnect Completed after Regular Hours (Customer/Contract Driven) – at Meter*		NEW	\$245.00	\$245.00	\$245.00	\$245.00	\$245.00
33	Reconnect Completed after Regular Hours (Customer/Contract) Driven) – at Pole*		NEW	\$475.00	\$475.00	\$475.00	\$475.00	\$475.00
34 & 35	Additional Service Layout Fee – Basic/Complex (more than one hour)		\$635/\$845	\$561.08	\$569.51	\$577.91	\$586.72	\$595.20
36	Pipeline Crossings		\$2,540.00	\$2,363.12	\$2,396.75	\$2,430.28	\$2,465.43	\$2,499.29
37	Water Crossings		\$3,225.00	\$3,522.56	\$3,570.65	\$3,618.57	\$3,668.82	\$3,717.21
38	Railway Crossings		\$6,095.00	\$4,690.71 plus Railway Feedthrough Costs	\$4,760.48 plus Railway Feedthrough Costs	\$4,830.33 plus Railway Feedthrough Costs	\$4,899.24 plus Railway Feedthrough Costs	\$4,965.66 plus Railway Feedthrough Costs
39a	Overhead Line Staking Per Meter		\$4.95	\$4.17	\$4.24	\$4.30	\$4.36	\$4.42
39b	Underground Line Staking Per Meter		\$4.95	\$3.00	\$3.05	\$3.09	\$3.14	\$3.18
39c	Subcable Line Staking Per Meter		\$4.95	\$2.62	\$2.66	\$2.70	\$2.74	\$2.78

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	and Service Transaction Requests) as per the Handbook		\$0.25/request for request fee + \$0.50/request for process fee	\$0.25/request for request fee + \$0.50/request for process fee	\$0.25/request for request fee + \$0.50/request for process fee	\$0.25/request for request fee + \$0.50/request for process fee	\$0.25/request for request fee + \$0.50/request for process fee	\$0.25/request for request fee + \$0.50/request for process fee
47	Specific Charge for Access to Power Poles – LDC (for 10' of power space)*		\$47.82	\$85.25	\$86.56	\$87.90	\$89.24	\$90.60
48	Specific Charge for Access to Power Poles – Generators (for 10' of power space)*		\$47.82	\$85.25	\$86.56	\$87.90	\$89.24	\$90.60
49	Specific Charge for Access to Power Poles – Municipal Streetlights		\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04
50	Sentinel Light Rental Charge		\$9.51	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
51	Sentinel Light Pole Rental Charge		\$4.15	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00
52	Late Payment Charge		1.5%/month	1.5%/month	1.5%/month	1.5%/month	1.5%/month	1.5%/month

1 *Updated to incorporate modified productivity factor (as per Exhibit A, Tab 3, Schedule 2) and 2016 actual cost data.

Table 2: Capital Contributions

Rate Code	Description	Bridge Year				Test Years											
		2013	2014	2015	2016	2017		2018		2019		2020		2021		2022	
		Volume	Volume	Volume	Volume	Volume Forecast	Proposed Capital	Volume Forecast	Proposed Capital	Volume Forecast	Proposed Capital	Volume Forecast	Proposed Capital	Volume Forecast	Proposed Capital	Volume Forecast	Proposed Capital
34 & 35	Additional Service Layout Fee – Basic/Complex (More than One Hour)	N/A	N/A	N/A	141	144	\$92,649.60	144	\$80,795.52	144	\$82,009.44	144	\$83,219.04	144	\$84,487.68	144	\$85,708.80
36	Crossing Application – Pipeline	N/A	N/A	N/A	0	1	\$2,540.00	1	\$2,363.12	1	\$2,396.75	1	\$2,430.28	1	\$2,465.43	1	\$2,499.29
37	Crossing Application – Water	N/A	N/A	N/A	0	1	\$3,225.00	1	\$3,522.56	1	\$3,570.65	1	\$3,618.57	1	\$3,668.82	1	\$3,717.21
38	Crossing Application – Railroad (Plus Railway Feedthrough Costs)	33	N/A	N/A	27	30	\$179,802.50	30	\$134,203.47	30	\$133,099.87	30	\$134,936.54	30	\$136,785.01	30	\$138,672.72
39a	Overhead Line Staking – per meter	81,200	86,800	137,900	108,031	97,650	\$483,367.50	97,650	\$407,200.50	97,650	\$414,036.00	97,650	\$419,895.00	97,650	\$425,754.00	97,650	\$431,613.00
39b	Underground Line Staking – per meter	34,800	37,200	59,100	46,299	41,850	\$207,157.50	41,850	\$125,550.00	41,850	\$127,642.50	41,850	\$129,316.50	41,850	\$131,409.00	41,850	\$133,083.00
39c	Subcable Line Staking – per meter	6,650	4,150	8,430	7,130	6,365	\$31,506.75	6,365	\$16,676.30	6,365	\$16,930.90	6,365	\$17,185.50	6,365	\$17,440.10	6,365	\$17,694.70
40	Central Metering – New service < 45 kW	148*	345*	387*	261*	796	\$95,520.00	796	\$79,600.00	796	\$79,600.00	796	\$79,600.00	796	\$79,600.00	796	\$79,600.00
41	Conversion to Central Metering < 45 kW	122*	285*	277*	241*	824	\$865,200.00	824	\$1,264,077.70	824	\$1,280,063.05	824	\$1,296,082.66	824	\$1,312,791.18	824	\$1,328,907.21
42	Conversion to Central Metering >= 45 kW	19*	67*	84*	72*	53	\$49,290.00	53	\$76,005.97	53	\$77,034.15	53	\$78,064.54	53	\$79,139.24	53	\$80,175.83
	Total Capital Contributions						\$1,000,248.85		\$2,189,995.14		\$2,216,383.32		\$2,244,348.63		\$2,273,540.46		\$2,301,671.76

2 *Data unavailable at the time the Application was originally filed.

1 **APPENDIX A**

2
3 The charges described in this section are listed in the Rate Handbook. Most of these
4 charges are calculated based on the labour required to perform the work, as per the Time
5 Study.

6
7 **1. SPECIFIC SERVICE CHARGES: STANDARD FORMULAE, UPDATED**
8 **AMOUNTS**

9
10 **1.1 SPECIFIC SERVICE CHARGES IN SCHEDULE 11-2(A) OF THE RATE**
11 **HANDBOOK**

12
13 Hydro One determined the costs for these services using the OEB-approved
14 methodology, adjusting for the labour hours and materials reported in the Time Study. It
15 found that the costs to provide some of these services were higher or lower than the
16 charges prescribed by the Handbook.

17
18 Hydro One provides a number of customer services described in Appendix A and
19 Schedule 11-2 of the Rate Handbook. For these services, identified by the OEB rate
20 codes 1 to 24 (excluding 6a), Hydro One proposes to charge customers flat fees over the
21 2018-2022 period in order to align with Hydro One's customer-friendly policies and
22 avoid customer confusion. Furthermore, implementing changes to the following systems
23 and processes on an annual basis would be costly: Hydro One's Customer Information
24 System ("CIS"), customer correspondence, Hydro One's website and self-service portal,
25 agent training, and internal work instructions.

26
27 In each case, the proposed fee is an average of the cost to provide the service over the
28 2018-2022 period, as indicated by the Time Study, rounded down to the nearest

1 dollar. For clarity, external revenue projections (as outlined in Exhibit E1, Tab 1,
2 Schedule 2) are based on the actual cost to provide the service as indicated by the Time
3 Study. As such, any corresponding revenue impacts would be borne by Hydro One and
4 would not affect ratepayers. No cross-subsidy from ratepayers would occur.

5
6 Hydro One does not offer the following services identified in the Rate Handbook for the
7 reasons indicated below.

- 8
- 9 1. **Arrears Certificate (Rate Code 1)** – Prior to 2005 and market restructuring, Ontario
10 Hydro recovered unpaid final bill arrears from property owners through the municipal
11 property tax roll under the *Public Utilities Act*. Market restructuring brought about the
12 corporatization of the distribution sector and removed this tool to collect arrears. The
13 former practice was to provide an "arrears certificate" to the purchaser's solicitor to
14 advise of any registered hydro liens and a final bill estimate for a hold back of funds if
15 required. Hydro One no longer offers this service.
 - 16 2. **Pulling Post-Dated Cheques (Rate Code 3)** - Customers may elect to send Hydro One
17 post-dated cheques at the beginning of the year. Hydro One's systems are unable to
18 retrieve or pull post-dated cheques. Therefore, Hydro One does not offer this service,
19 and customers must issue a stop payment on the cheque(s).
 - 20 3. **Notification Charge (Rate Code 8)** - Hydro One is unable to ascertain the definition of
21 this service and has never charged this fee.
 - 22 4. **Charge to Certify Cheque (Rate Code 12)** – Hydro One does not perform this service.
 - 23 5. **Collection of Account Charge – No Disconnection – After Regular Hours (Rate**
24 **Code 17)** - Hydro One does not perform collection tasks after regular hours. The cost of
25 overtime to perform this service after regular hours would add to the underlying costs and
26 may add further hardship to a customer.

1 **1.1.1 STATEMENT OF ACCOUNT (RATE CODE 2)**

2

3 Statements of account are used to satisfy customer requests for support documentation for
4 income tax purposes and to satisfy requests for other billing information.

1

Table 1: Statement of Account

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/ Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/ Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	2	Statement of Account	Direct Labour - Clerical	\$80.08	0.11	-	\$8.81	\$4.72		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	53.60%						\$13.53					\$0.80	\$14.33
2019	2	Statement of Account	Direct Labour - Clerical	\$81.00	0.11	-	\$8.91	\$4.84		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.30%						\$13.75					\$0.80	\$14.55
2020	2	Statement of Account	Direct Labour - Clerical	\$81.96	0.11	-	\$9.02	\$4.95		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.90%						\$13.97					\$0.80	\$14.77
2021	2	Statement of Account	Direct Labour - Clerical	\$82.92	0.11	-	\$9.12	\$5.07		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%						\$14.19					\$0.80	\$14.99
2022	2	Statement of Account	Direct Labour - Clerical	\$84.20	0.11	-	\$9.26	\$5.15		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%						\$14.41					\$0.80	\$15.21

1 **1.1.2 DUPLICATE INVOICES FOR PREVIOUS BILLING (RATE CODE**
2 **4)**

3

4 A customer may request a duplicate invoice to replace a lost or misplaced invoice or to
5 satisfy the request for other billing information.

1 **Table 2: Duplicate Invoices for Previous Billing**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	4	Duplicate Invoices for Previous Billing	Direct Labour - Clerical	\$80.08	0.10		\$8.01	\$4.29		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	53.60%					\$12.30						\$0.80	\$13.10
2019	4	Duplicate Invoices for Previous Billing	Direct Labour - Clerical	\$81.00	0.10		\$8.10	\$4.40		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.30%					\$12.50						\$0.80	\$13.30
2020	4	Duplicate Invoices for Previous Billing	Direct Labour - Clerical	\$81.96	0.10		\$8.20	\$4.50		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.90%					\$12.70						\$0.80	\$13.50
2021	4	Duplicate Invoices for Previous Billing	Direct Labour - Clerical	\$82.92	0.10		\$8.29	\$4.61		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$12.90						\$0.80	\$13.70
2022	4	Duplicate Invoices for Previous Billing	Direct Labour - Clerical	\$84.20	0.10		\$8.42	\$4.68		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$13.10						\$0.80	\$13.90

1 **1.1.3 REQUEST FOR OTHER BILLING INFORMATION (RATE CODE**
2 **5)**

3

4 A customer may request other billing information for a variety of reasons.

5

1

Table 3: Request for Other Billing Information

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	5	Request for Other Billing Information	Direct Labour - Clerical	\$80.08	0.11		\$8.81	\$4.72		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	53.60%						\$13.53					\$0.80	\$14.33
2019	5	Request for Other Billing Information	Direct Labour - Clerical	\$81.00	0.11		\$8.91	\$4.84		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.30%						\$13.75					\$0.80	\$14.55
2020	5	Request for Other Billing Information	Direct Labour - Clerical	\$81.96	0.11		\$9.02	\$4.95		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.90%						\$13.97					\$0.80	\$14.77
2021	5	Request for Other Billing Information	Direct Labour - Clerical	\$82.92	0.11		\$9.12	\$5.07		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%						\$14.19					\$0.80	\$14.99
2022	5	Request for Other Billing Information	Direct Labour - Clerical	\$84.20	0.11		\$9.26	\$5.15		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%						\$14.41					\$0.80	\$15.21

1 **1.1.4 EASEMENT LETTERS (RATE CODE 6)**

2

3 An easement or right-of-way is an agreement that confers on an individual, company or
4 municipality the right to use a landowner's property in some way. While these agreements
5 grant rights, they also have the effect of partially restricting an owner's use of the affected
6 portions of land. The holder (beneficiary or grantee) of an easement or right-of-way holds
7 certain rights regarding usage of the property described in the agreement. The holder's rights
8 of use are described and restricted by the agreement. The landowner continues to own the
9 land and has only given up defined rights on the portion of land used for the right-of-way or
10 easement. The Hydro One Easement / Real Estate department deals with payments and
11 issues related to new easement and unregistered easements only. Search for unregistered
12 easements can be conducted on-line or by sending a letter of request to Hydro One with a
13 legal description of the property in question.

14

15 **1.1.4.1 EASEMENT LETTER – LETTER REQUESTS (RATE**
16 **CODE 6A)**

17

18 Based on the Time Study, the proposal is to increase the easement letter charge (for when the
19 request is made by letter to the Real Estate department) to the applicable rates as seen in
20 Table 4.

1

Table 4: Easement Letters – Letter Requests

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/ Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/ Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	6a	Easement Letters - Letter Requests	Direct Labour - Clerical	\$80.08	0.70		\$56.06	\$30.05		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	53.60%					\$86.10					\$0.80	\$86.90	\$86.90
2019	6a	Easement Letters - Letter Requests	Direct Labour - Clerical	\$81.00	0.70		\$56.70	\$30.79		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.30%					\$87.49					\$0.80	\$88.29	\$88.29
2020	6a	Easement Letters - Letter Requests	Direct Labour - Clerical	\$81.96	0.70		\$57.37	\$31.50		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.90%					\$88.87					\$0.80	\$89.67	\$89.67
2021	6a	Easement Letters - Letter Requests	Direct Labour - Clerical	\$82.92	0.70		\$58.04	\$32.27		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$90.32					\$0.80	\$91.12	\$91.12
2022	6a	Easement Letters - Letter Requests	Direct Labour - Clerical	\$84.20	0.70		\$58.94	\$32.77		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$91.71					\$0.80	\$92.51	\$92.51

1 **1.1.4.2 EASEMENT LETTERS – WEB REQUESTS (RATE CODE**
2 **6B)**

3
4 Hydro One currently charges \$25 for web-based easement searches to cover the costs of
5 web development, maintenance, data updates (i.e. as utilities are acquired), planned
6 enhancements, e-billing services and credit card fees. Hydro One has continued to
7 charge the historical fee of \$25 that Ontario Hydro had been charging for easement letters
8 irrespective of whether it was an easement letter request or self-initiated web inquiry.
9 This provides parties with an equal cost for inquiries irrespective of source option. This
10 fee did not reflect either the true cost of responding to letter inquiries, which based on the
11 Time Study should be a charge of approximately \$90, or the cost to develop the web
12 application.

13
14 The initial development cost of the web application was approximately \$500,000 with an
15 annual maintenance cost of \$10,000 to \$20,000 for database management. On a present
16 value basis and considering future enhancements of approximately \$100,000, such as a
17 GIS search interface and expanded payment capabilities, the costs are not estimated to be
18 fully recovered until 2022 at the present rate of \$25 per inquiry. More so, the future
19 enhancements in 2018 are considered key to the forecast for easement letters in the
20 forecast period.

21
22 **1.1.5 INCOME TAX LETTERS (RATE CODE 7)**

23
24 An income tax letter is usually used to satisfy customer requests for support
25 documentation for income tax purposes.

1

Table 5: Income Tax Letters

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	7	Income Tax Letters	Direct Labour - Clerical	\$80.08	0.10		\$8.01	\$4.29		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	53.60%					\$12.30					\$0.80	\$13.10	\$13.00
2019	7	Income Tax Letters	Direct Labour - Clerical	\$81.00	0.10		\$8.10	\$4.40		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.30%					\$12.50					\$0.80	\$13.30	\$13.00
2020	7	Income Tax Letters	Direct Labour - Clerical	\$81.96	0.10		\$8.20	\$4.50		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.90%					\$12.70					\$0.80	\$13.50	\$13.00
2021	7	Income Tax Letters	Direct Labour - Clerical	\$82.92	0.10		\$8.29	\$4.61		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$12.90					\$0.80	\$13.70	\$13.00
2022	7	Income Tax Letters	Direct Labour - Clerical	\$84.20	0.10		\$8.42	\$4.68		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$13.10					\$0.80	\$13.90	\$13.00

1 **1.1.6 ACCOUNT HISTORY (RATE CODE 9)**

2

3 Customer requests for account history only occur when there has been a change in the
4 Hydro One billing system. Customer account information for customers billed through
5 Hydro One's old retail customer information system until mid-1998 has been archived to
6 Microfiche. Account history information for customers billed using the Customer
7 Service System after mid-1998, is archived in Hydro One's Heritage Data Library.

1

Table 6: Account History

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	9	Account History	Direct Labour - Clerical	\$80.08	0.11		\$8.81	\$4.72		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	53.60%					\$13.53					\$0.80	\$14.33	\$13.00
2019	9	Account History	Direct Labour - Clerical	\$81.00	0.11		\$8.91	\$4.84		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.30%					\$13.75					\$0.80	\$14.55	\$13.00
2020	9	Account History	Direct Labour - Clerical	\$81.96	0.11		\$9.02	\$4.95		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	54.90%					\$13.97					\$0.80	\$14.77	\$13.00
2021	9	Account History	Direct Labour - Clerical	\$82.92	0.11		\$9.12	\$5.07		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$14.19					\$0.80	\$14.99	\$13.00
2022	9	Account History	Direct Labour - Clerical	\$84.20	0.11		\$9.26	\$5.15		Material	\$0.80	1.00	\$0.80			
			Payroll Burden	55.60%					\$14.41					\$0.80	\$15.21	\$13.00

1 **1.1.7 CREDIT REFERENCE/CREDIT CHECK (RATE CODE 10)**

2

3 The fee for performing this specific service is charged when a customer requests a credit
4 reference letter from Hydro One, to be used to show other utilities that they are a
5 satisfactory credit risk. This may determine whether the customer's security deposit can
6 be waived or not.

1

Table 7: Credit Reference/Credit Check

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	10	Credit Reference/Credit Check	Direct Labour - Clerical	\$80.08	0.16		\$12.81	\$6.87								
			Payroll Burden	53.60%					\$19.68						\$0.00	\$19.68
2019	10	Credit Reference/Credit Check	Direct Labour - Clerical	\$81.00	0.16		\$12.96	\$7.04								
			Payroll Burden	54.30%					\$20.00						\$0.00	\$20.00
2020	10	Credit Reference/Credit Check	Direct Labour - Clerical	\$81.96	0.16		\$13.11	\$7.20								
			Payroll Burden	54.90%					\$20.31						\$0.00	\$20.31
2021	10	Credit Reference/Credit Check	Direct Labour - Clerical	\$82.92	0.16		\$13.27	\$7.38								
			Payroll Burden	55.60%					\$20.64						\$0.00	\$20.64
2022	10	Credit Reference/Credit Check	Direct Labour - Clerical	\$84.20	0.16		\$13.47	\$7.49								
			Payroll Burden	55.60%					\$20.96						\$0.00	\$20.96

1 **1.1.8 RETURNED CHEQUE CHARGE (RATE CODE 11)**

2

3 Hydro One charges customers a fee if insufficient funds are available in the account on
4 which the money was drawn. There are no other pass-through costs; the banks invoice
5 their fees directly to the customer.

1

Table 8: Returned Cheque

Charge Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	11	Returned Cheque Charge	Direct Labour - Clerical	\$80.08	0.06		\$4.80	\$2.58								
			Payroll Burden	53.60%					\$7.38					\$0.00	\$7.38	\$7.00
2019	11	Returned Cheque Charge	Direct Labour - Clerical	\$81.00	0.06		\$4.86	\$2.64								
			Payroll Burden	54.30%					\$7.50					\$0.00	\$7.50	\$7.00
2020	11	Returned Cheque Charge	Direct Labour - Clerical	\$81.96	0.06		\$4.92	\$2.70								
			Payroll Burden	54.90%					\$7.62					\$0.00	\$7.62	\$7.00
2021	11	Returned Cheque Charge	Direct Labour - Clerical	\$82.92	0.06		\$4.98	\$2.77								
			Payroll Burden	55.60%					\$7.74					\$0.00	\$7.74	\$7.00
2022	11	Returned Cheque Charge	Direct Labour - Clerical	\$84.20	0.06		\$5.05	\$2.81								
			Payroll Burden	55.60%					\$7.86					\$0.00	\$7.86	\$7.00

1 **1.1.9 LEGAL LETTER CHARGE (RATE CODE 13)**

2

3 Legal letters are processed for many reasons and may include the requirement for Hydro
4 One’s legal department to do research into the matter. Hydro One proposes that actual
5 costs, based on time, equipment and materials, be charged for the performance of this
6 service.

7

8 **1.1.10 ACCOUNT SET UP CHARGE/CHANGE OF OCCUPANCY**
9 **CHARGE (RATE CODE 14)**

10

11 This charge is levied when a new account is set up or an account is transferred from one
12 person to another. A property owner or occupant requesting to open an account agrees to
13 be a Hydro One customer and assumes responsibility for distribution service charges
14 provided to the service address. This process is triggered by a Customer / Landlord
15 request for a Start / Transfer Contract via phone, fax or e-mail. A new account set up
16 charge applies to the new accounts and appears on the customer’s first electricity bill.
17 This occurs when a customer is opening a new electricity account or moving from one
18 Hydro One property to another.

1

Table 9: Account Set Up Charge/Change of Occupancy Charge

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	14	Account Set Up Charge/Change of Occupancy Charge	Direct Labour - Clerical	\$80.08	0.30		\$24.02	\$12.88								
			Payroll Burden	53.60%						\$36.90					\$0.00	\$36.90
2019	14	Account Set Up Charge/Change of Occupancy Charge	Direct Labour - Clerical	\$81.00	0.30		\$24.30	\$13.19								
			Payroll Burden	54.30%						\$37.49					\$0.00	\$37.49
2020	14	Account Set Up Charge/Change of Occupancy Charge	Direct Labour - Clerical	\$81.96	0.30		\$24.59	\$13.50								
			Payroll Burden	54.90%						\$38.09					\$0.00	\$38.09
2021	14	Account Set Up Charge/Change of Occupancy Charge	Direct Labour - Clerical	\$82.92	0.30		\$24.88	\$13.83								
			Payroll Burden	55.60%						\$38.71					\$0.00	\$38.71
2022	14	Account Set Up Charge/Change of Occupancy Charge	Direct Labour - Clerical	\$84.20	0.30		\$25.26	\$14.04								
			Payroll Burden	55.60%						\$39.30					\$0.00	\$39.30

1 **1.1.11 SPECIAL METER READS - RETAILER REQUESTED OFF-**
2 **CYCLE READ (RATE CODE 15)**

3
4 Where a Service Transfer Request is made, a switch bill will be issued to the customer.
5 This bill will be based on an actual meter read unless the Customer, Hydro One and the
6 Retailer agree in writing to an alternative. The effective date of the service transfer shall
7 be the next scheduled meter reading date unless a request is made for a special meter
8 reading and Hydro One can accommodate the request. In these instances, Hydro One
9 proposes to recover the cost of labour and material by implementing the charge in Table
10 10.

1 **Table 10: Special Meter Reads (Retailer Requested Off-Cycle Read)**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	15	Special Meter Reads (retailer requested off-cycle read)	Direct Labour - Clerical	\$80.08	0.11		\$8.81	\$4.72	\$13.53	Small Vehicle Time	\$10.00	0.75	\$7.50			
			Direct Labour - Field Staff (MRDC)	\$60.55	0.75		\$45.41	\$24.34	\$69.75							
			Payroll Burden	53.60%					\$83.28					\$7.50	\$90.78	\$90.00
2019	15	Special Meter Reads (retailer requested off-cycle read)	Direct Labour - Clerical	\$81.00	0.11		\$8.91	\$4.84	\$13.75	Small Vehicle Time	\$10.00	0.75	\$7.50			
			Direct Labour - Field Staff (MRDC)	\$60.91	0.75		\$45.68	\$24.81	\$70.49							
			Payroll Burden	54.30%					\$84.24					\$7.50	\$91.74	\$90.00
2020	15	Special Meter Reads (retailer requested off-cycle read)	Direct Labour - Clerical	\$81.96	0.11		\$9.02	\$4.95	\$13.97	Small Vehicle Time	\$10.00	0.75	\$7.50			
			Direct Labour - Field Staff (MRDC)	\$61.31	0.75		\$45.98	\$25.24	\$71.23							
			Payroll Burden	54.90%					\$85.19					\$7.50	\$92.69	\$90.00
2021	15	Special Meter Reads (retailer requested off-cycle read)	Direct Labour - Clerical	\$82.92	0.11		\$9.12	\$5.07	\$14.19	Small Vehicle Time	\$10.00	0.75	\$7.50			
			Direct Labour - Field Staff (MRDC)	\$61.71	0.75		\$46.28	\$25.73	\$72.02							
			Payroll Burden	55.60%					\$86.21					\$7.50	\$93.71	\$90.00
2022	15	Special Meter Reads (retailer requested off-cycle read)	Direct Labour - Clerical	\$84.20	0.11		\$9.26	\$5.15	\$14.41	Small Vehicle Time	\$10.00	0.75	\$7.50			
			Direct Labour - Field Staff (MRDC)	\$62.35	0.75		\$46.76	\$26.00	\$72.76							
			Payroll Burden	55.60%					\$87.17					\$7.50	\$94.67	\$90.00

1 **1.1.12 COLLECTION OF ACCOUNT CHARGES**

2
3 As outlined in Chapter 11 of the Rate Handbook, Section 11.3.2, pursuant to section 31
4 of the *Electricity Act*, a distributor may consider disconnection of electricity services for
5 non-payment of account. The collection of account charge is intended to cover the field
6 costs, or part of the costs, of additional collection activities that are beyond the routine of
7 a distributor, as a result of an individual customer's non-payment of its account. The
8 Distribution System Code defines a disconnect/collect trip as, a visit to a customer's
9 premises by an employee or agent of the distributor to demand payment of any
10 outstanding amount, or to shut off or limit distribution of electricity to the customer
11 failing payment. Furthermore, as outlined in Section 11.3.3 of the Rate Handbook, a
12 distributor may establish a reconnection of electricity service charge. This charge would
13 recover the costs of the physical process of re-establishing power to the customer.

14
15 **1.1.12.1 COLLECTION OF ACCOUNT CHARGE - NO**
16 **DISCONNECTION - DURING REGULAR HOURS (RATE**
17 **CODE 16)**

18
19 This service covers the field collection activities due to customer non-payment of bill.
20 The work is initiated by a notification / order. If on arrival at the customer's site, the
21 customer pays the outstanding balance, no disconnect will occur, however this charge
22 will still apply to recover the cost of scheduling the visit and the staff making the visit to
23 the customer's property.

1 **Table 11: Collection of Account Charge - No Disconnection - During Regular Hours**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	16	Collection of Account Charge - No Disconnection - During Regular Hours	Direct Labour - Clerical	\$80.08	0.25		\$20.02	\$10.73	\$30.75	Small Vehicle Time	\$10.00	0.66	\$6.60			
			Direct Labour - Field Staff (MRDC)	\$60.55	0.66		\$39.96	\$21.42	\$61.38							
			Payroll Burden	53.60%					\$92.13					\$6.60	\$98.73	\$100.00
2019	16	Collection of Account Charge - No Disconnection - During Regular Hours	Direct Labour - Clerical	\$81.00	0.25		\$20.25	\$11.00	\$31.25	Small Vehicle Time	\$10.00	0.66	\$6.60			
			Direct Labour - Field Staff (MRDC)	\$60.91	0.66		\$40.20	\$21.83	\$62.03							
			Payroll Burden	54.30%					\$93.28					\$6.60	\$99.88	\$100.00
2020	16	Collection of Account Charge - No Disconnection - During Regular Hours	Direct Labour - Clerical	\$81.96	0.25		\$20.49	\$11.25	\$31.74	Small Vehicle Time	\$10.00	0.66	\$6.60			
			Direct Labour - Field Staff (MRDC)	\$61.31	0.66		\$40.46	\$22.22	\$62.68							
			Payroll Burden	54.90%					\$94.42					\$6.60	\$101.02	\$100.00
2021	16	Collection of Account Charge - No Disconnection - During Regular Hours	Direct Labour - Clerical	\$82.92	0.25		\$20.73	\$11.53	\$32.26	Small Vehicle Time	\$10.00	0.66	\$6.60			
			Direct Labour - Field Staff (MRDC)	\$61.71	0.66		\$40.73	\$22.65	\$63.37							
			Payroll Burden	55.60%					\$95.63					\$6.60	\$102.23	\$100.00
2022	16	Collection of Account Charge - No Disconnection - During Regular Hours	Direct Labour - Clerical	\$84.20	0.25		\$21.05	\$11.70	\$32.75	Small Vehicle Time	\$10.00	0.66	\$6.60			
			Direct Labour - Field Staff (MRDC)	\$62.35	0.66		\$41.15	\$22.88	\$64.03							
			Payroll Burden	55.60%					\$96.78					\$6.60	\$103.38	\$100.00

1 **1.1.12.2 COLLECTION OF ACCOUNT CHARGE –**
2 **DISCONNECT/RECONNECT AT METER &**
3 **INSTALL/REMOVE LOAD CONTROL DEVICE – DURING**
4 **REGULAR HOURS (RATE CODES 18 & 19)**

5
6 When a customer has not paid their electricity bill for an extensive period (45 days) of
7 time, an electricity disconnection notice is issued. If payment is still not received, a
8 disconnection or the installation of a load limiter is performed. These activities are
9 performed in accordance with Subsection 31(1) of the *Electricity Act, 1998* which
10 provides that:

11
12 *A distributor may shut off the distribution of electricity to a property if any*
13 *amount payable by a person for the distribution or retail of electricity to*
14 *the property pursuant to Section 29 is overdue.*

1

Table 12: Disconnect/Reconnect at Meter & Install/Remove Load Control Device – During Regular Hours

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	18&19	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - During Regular Hours	Direct Labour - Clerical	\$80.08	0.43		\$34.43	\$18.46	\$52.89	Small Vehicle Time	\$10.00	0.62	\$6.20			
			Direct Labour - Field Staff (MRDC)	\$60.55	0.62		\$37.54	\$20.12	\$57.66	Meter Seal	\$0.17	1.00	\$0.17			
			Payroll Burden	53.60%						Meter Ring	\$4.95	0.10	\$0.50			
									\$110.55	Sleeves	\$0.07	2.00	\$0.14	\$7.01	\$117.56	\$120.00
2019	18&19	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - During Regular Hours	Direct Labour - Clerical	\$81.00	0.43		\$34.83	\$18.91	\$53.74	Small Vehicle Time	\$10.00	0.62	\$6.20			
			Direct Labour - Field Staff (MRDC)	\$60.91	0.62		\$37.76	\$20.51	\$58.27	Meter Seal	\$0.17	1.00	\$0.17			
			Payroll Burden	54.30%						Meter Ring	\$4.95	0.10	\$0.50			
									\$112.01	Sleeves	\$0.07	2.00	\$0.14	\$7.01	\$119.02	\$120.00
2020	18&19	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - During Regular Hours	Direct Labour - Clerical	\$81.96	0.43		\$35.24	\$19.35	\$54.59	Small Vehicle Time	\$10.00	0.62	\$6.20			
			Direct Labour - Field Staff (MRDC)	\$61.31	0.62		\$38.01	\$20.87	\$58.88	Meter Seal	\$0.17	1.00	\$0.17			
			Payroll Burden	54.90%						Meter Ring	\$4.95	0.10	\$0.50			
									\$113.47	Sleeves	\$0.07	2.00	\$0.14	\$7.01	\$120.48	\$120.00

2

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2021	18&19	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - During Regular Hours	Direct Labour - Clerical	\$82.92	0.43		\$35.66	\$19.82	\$55.48	Small Vehicle Time	\$10.00	0.62	\$6.20					
			Direct Labour - Field Staff (MRDC)	\$61.71	0.62		\$38.26	\$21.27	\$59.53	Meter Seal	\$0.17	1.00	\$0.17					
			Payroll Burden	55.60%							Meter Ring	\$4.95	0.10	\$0.50				
										\$115.01	Sleeves	\$0.07	2.00	\$0.14	\$7.01	\$122.02	\$120.00	
2022	18&19	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - During Regular Hours	Direct Labour - Clerical	\$84.20	0.43		\$36.21	\$20.13	\$56.34	Small Vehicle Time	\$10.00	0.62	\$6.20					
			Direct Labour - Field Staff (MRDC)	\$62.35	0.62		\$38.66	\$21.49	\$60.15	Meter Seal	\$0.17	1.00	\$0.17					
			Payroll Burden	55.60%							Meter Ring	\$4.95	0.10	\$0.50				
										\$116.49	Sleeves	\$0.07	2.00	\$0.14	\$7.01	\$123.49	\$120.00	

1 **1.1.12.3 COLLECTION OF ACCOUNT CHARGE –**
2 **DISCONNECT/RECONNECT AT METER &**
3 **INSTALL/REMOVE LOAD CONTROL DEVICE – AFTER**
4 **REGULAR HOURS (RATE CODES 20 & 21)**

5
6 When a customer has been disconnected or a load control device has been installed, and
7 they later make payment on their current bill and agree to pay the after hours fee to have
8 the meter reconnected or the load control device removed after regular hours, the charges
9 in Table 13 below are incurred.

**Table 13: Collection of Account Charge – Disconnect/Reconnect at Meter & Install/Remove Load Control Device
 – After Regular Hours**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	20& 21	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - After Regular Hours	Direct Labour - Clerical	\$80.08	0.43		\$34.43	\$18.46	\$52.89	Small Vehicle Time	\$10.00	2.02	\$20.20				
			Direct Labour - Field Staff (RLM)	\$79.43	2.02	1.40	\$224.63	\$120.40	\$345.03	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	53.60%							Meter Ring	\$4.95	0.10	\$0.50			
									\$397.93		Sleeves	\$0.07	2.00	\$0.14	\$21.01	\$418.93	\$430.00
2019	20& 21	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - After Regular Hours	Direct Labour - Clerical	\$81.00	0.43		\$34.83	\$18.91	\$53.74	Small Vehicle Time	\$10.00	2.02	\$20.20				
			Direct Labour - Field Staff (RLM)	\$80.35	2.02	1.40	\$227.23	\$123.39	\$350.62	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	54.30%							Meter Ring	\$4.95	0.10	\$0.50			
									\$404.36		Sleeves	\$0.07	2.00	\$0.14	\$21.01	\$425.36	\$430.00
2020	20& 21	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - After Regular Hours	Direct Labour - Clerical	\$81.96	0.43		\$35.24	\$19.35	\$54.59	Small Vehicle Time	\$10.00	2.02	\$20.20				
			Direct Labour - Field Staff (RLM)	\$81.32	2.02	1.40	\$229.97	\$126.26	\$356.23	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	54.90%							Meter Ring	\$4.95	0.10	\$0.50			
									\$410.82		Sleeves	\$0.07	2.00	\$0.14	\$21.01	\$431.82	\$430.00
2021	20&21	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - After Regular Hours	Direct Labour - Clerical	\$82.92	0.43		\$35.66	\$19.82	\$55.48	Small Vehicle Time	\$10.00	2.02	\$20.20				
			Direct Labour - Field Staff (RLM)	\$82.28	2.02	1.40	\$232.69	\$129.37	\$362.06	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	55.60%							Meter Ring	\$4.95	0.10	\$0.50			

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
									\$417.54	Sleeves	\$0.07	2.00	\$0.14	\$21.01	\$438.55	\$430.00	
2022	20&21	Collection - Disconnect/Reconnect at Meter & Install/Remove Load Control Device - After Regular Hours	Direct Labour - Clerical	\$84.20	0.43		\$36.21	\$20.13	\$56.34	Small Vehicle Time	\$10.00	2.02	\$20.20				
			Direct Labour - Field Staff (RLM)	\$83.56	2.02	1.40	\$236.31	\$131.39	\$367.69	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	55.60%							Meter Ring	\$4.95	0.10	\$0.50			
										\$424.03	Sleeves	\$0.07	2.00	\$0.14	\$21.01	\$445.04	\$430.00

1

Table 14 - Collection of Account Charge – Disconnect/Reconnect at Pole – During Regular Hours

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	22	Collection - Disconnect/Reconnect at Pole - During Regular Hours	Direct Labour - Clerical	\$80.08	0.43		\$34.43	\$18.46	\$52.89	Large Vehicle Time	\$57.00	0.86	\$49.02			
			Direct Labour - Field Staff (RLM)	\$79.43	1.72		\$136.62	\$73.23	\$209.85							
			Payroll Burden	53.60%					\$262.74					\$49.02	\$311.76	\$320.00
2019	22	Collection - Disconnect/Reconnect at Pole - During Regular Hours	Direct Labour - Clerical	\$81.00	0.43		\$34.83	\$18.91	\$53.74	Large Vehicle Time	\$57.00	0.86	\$49.02			
			Direct Labour - Field Staff (RLM)	\$80.35	1.72		\$138.20	\$75.04	\$213.25							
			Payroll Burden	54.30%					\$266.99					\$49.02	\$316.01	\$320.00
2020	22	Collection - Disconnect/Reconnect at Pole - During Regular Hours	Direct Labour - Clerical	\$81.96	0.43		\$35.24	\$19.35	\$54.59	Large Vehicle Time	\$57.00	0.86	\$49.02			
			Direct Labour - Field Staff (RLM)	\$81.32	1.72		\$139.87	\$76.79	\$216.66							
			Payroll Burden	54.90%					\$271.25					\$49.02	\$320.27	\$320.00
2021	22	Collection - Disconnect/Reconnect at Pole - During Regular Hours	Direct Labour - Clerical	\$82.92	0.43		\$35.66	\$19.82	\$55.48	Large Vehicle Time	\$57.00	0.86	\$49.02			
			Direct Labour - Field Staff (RLM)	\$82.28	1.72		\$141.52	\$78.69	\$220.21							
			Payroll Burden	55.60%					\$275.69					\$49.02	\$324.71	\$320.00
2022	22	Collection - Disconnect/Reconnect at Pole - During Regular Hours	Direct Labour - Clerical	\$84.20	0.43		\$36.21	\$20.13	\$56.34	Large Vehicle Time	\$57.00	0.86	\$49.02			
			Direct Labour - Field Staff (RLM)	\$83.56	1.72		\$143.72	\$79.91	\$223.63							
			Payroll Burden	55.60%					\$279.97					\$49.02	\$328.99	\$320.00

1 **1.1.12.5 COLLECTION OF ACCOUNT CHARGE –**
2 **DISCONNECT/RECONNECT AT POLE – AFTER**
3 **REGULAR HOURS (RATE CODE 23)**

4
5 When a customer has been disconnected at the pole, and they later make payment on
6 their current bill and agree to pay the after hours fee to have their service
7 reconnected, the charges in Table 15 below are incurred.

1

Table 15: Collection of Account Charge – Disconnect/Reconnect at Pole – After Regular Hours

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	23	Collection - Disconnect/Reconnect at Pole - After Regular Hours	Direct Labour - Clerical	\$80.08	0.43		\$34.43	\$18.46	\$52.89	Large Vehicle Time	\$57.00	1.56	\$88.92				
			Direct Labour - Field Staff (RLM)	\$79.43	4.00	1.40	\$444.82	\$238.42	\$683.24								
			Payroll Burden	53.60%					\$736.13						\$88.92	\$825.05	\$850.00
2019	23	Collection - Disconnect/Reconnect at Pole - After Regular Hours	Direct Labour - Clerical	\$81.00	0.43		\$34.83	\$18.91	\$53.74	Large Vehicle Time	\$57.00	1.56	\$88.92				
			Direct Labour - Field Staff (RLM)	\$80.35	4.00	1.40	\$449.96	\$244.33	\$694.29								
			Payroll Burden	54.30%					\$748.03						\$88.92	\$836.95	\$850.00
2020	23	Collection - Disconnect/Reconnect at Pole - After Regular Hours	Direct Labour - Clerical	\$81.96	0.43		\$35.24	\$19.35	\$54.59	Large Vehicle Time	\$57.00	1.56	\$88.92				
			Direct Labour - Field Staff (RLM)	\$81.32	4.00	1.40	\$455.39	\$250.01	\$705.40								
			Payroll Burden	54.90%					\$759.99						\$88.92	\$848.91	\$850.00
2021	23	Collection - Disconnect/Reconnect at Pole - After Regular Hours	Direct Labour - Clerical	\$82.92	0.43		\$35.66	\$19.82	\$55.48	Large Vehicle Time	\$57.00	1.56	\$88.92				
			Direct Labour - Field Staff (RLM)	\$82.28	4.00	1.40	\$460.77	\$256.19	\$716.96								
			Payroll Burden	55.60%					\$772.44						\$88.92	\$861.36	\$850.00
2022	23	Collection - Disconnect/Reconnect at Pole - After Regular Hours	Direct Labour - Clerical	\$84.20	0.43		\$36.21	\$20.13	\$56.34	Large Vehicle Time	\$57.00	1.56	\$88.92				
			Direct Labour - Field Staff (RLM)	\$83.56	4.00	1.40	\$467.94	\$260.17	\$728.11								
			Payroll Burden	55.60%					\$784.44						\$88.92	\$873.36	\$850.00

1 **1.1.13 METER DISPUTE CHARGE – MEASUREMENT CANADA**
2 **(RATE CODE 24)**

3
4 Meter dispute testing is typically the last step in a multi-stage escalation process between
5 the customer and Hydro One. The process typically begins with a customer high bill
6 inquiry, the object of which is to validate that the bill calculations, charges and bill
7 determinants are accurate.

8
9 If Hydro One is satisfied with meter operation and accuracy of billing, and the customer
10 is not satisfied, the customer will be referred to Measurement Canada. If the services of
11 Measurement Canada are requested by the customer or retailer to resolve the issue, Hydro
12 One may charge the customer for the costs of processing the application to Measurement
13 Canada and removing and transporting the meter to a testing location. If the dispute is
14 substantiated by Measurement Canada and the resolution is in the favour of the customer,
15 Hydro One shall bear such costs.

16
17 The charges in Table 16 below only recover the work performed by Hydro One.
18 Measurement Canada may charge an additional fee.

1

Table 16: Meter Dispute Charge – Measurement Canada

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	24	Meter Dispute Charge - Measurement Canada	Direct Labour - Clerical	\$80.08	0.68		\$54.45	\$29.19	\$83.64	Small Vehicle Time	\$10.00	1.42	\$14.20				
			Direct Labour - Field Staff (MDET)	\$84.64	1.42		\$120.19	\$64.42	\$184.61								
			Payroll Burden	53.60%					\$268.25						\$14.20	\$282.45	\$290.00
2019	24	Meter Dispute Charge - Measurement Canada	Direct Labour - Clerical	\$81.00	0.68		\$55.08	\$29.91	\$84.99	Small Vehicle Time	\$10.00	1.42	\$14.20				
			Direct Labour - Field Staff (MDET)	\$85.54	1.42		\$121.46	\$65.96	\$187.42								
			Payroll Burden	54.30%					\$272.41						\$14.20	\$286.61	\$290.00
2020	24	Meter Dispute Charge - Measurement Canada	Direct Labour - Clerical	\$81.96	0.68		\$55.73	\$30.60	\$86.33	Small Vehicle Time	\$10.00	1.42	\$14.20				
			Direct Labour - Field Staff (MDET)	\$86.48	1.42		\$122.80	\$67.42	\$190.22								
			Payroll Burden	54.90%					\$276.55						\$14.20	\$290.75	\$290.00
2021	24	Meter Dispute Charge - Measurement Canada	Direct Labour - Clerical	\$82.92	0.68		\$56.39	\$31.35	\$87.74	Small Vehicle Time	\$10.00	1.42	\$14.20				
			Direct Labour - Field Staff (MDET)	\$87.42	1.42		\$124.14	\$69.02	\$193.16								
			Payroll Burden	55.60%					\$280.89						\$14.20	\$295.09	\$290.00
2022	24	Meter Dispute Charge - Measurement Canada	Direct Labour - Clerical	\$84.20	0.68		\$57.26	\$31.83	\$89.09	Small Vehicle Time	\$10.00	1.42	\$14.20				
			Direct Labour - Field Staff (MDET)	\$88.70	1.42		\$125.95	\$70.03	\$195.98								
			Payroll Burden	55.60%					\$285.07						\$14.20	\$299.27	\$290.00

1 **1.1.14 SERVICE CALL - CUSTOMER OWNED EQUIPMENT –**
2 **DURING/AFTER REGULAR HOURS (RATE CODE 25 & 26)**

3
4 If Hydro One determines that the cause of a power issue is related to the customer-owned
5 equipment, Hydro One crews may perform corrective service at the customer’s request. The
6 Specific Service Charge for Rate Code 25 covers only the administration and travel costs of
7 this service. It does not cover any work associated with work on the customer-owned
8 equipment, as it applies whether Hydro One crews work on the customer-owned equipment
9 or not. Hydro One will charge the customer additional amounts, at actual costs, for
10 performing any work on their equipment.

1 **Table 17: Service Call - Customer Owned Equipment - During Regular Hours**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	25	Service Call - Customer Owned Equipment - During Regular Hours	Direct Labour - Clerical	\$80.08	0.08		\$6.41	\$3.43	\$9.84	Large Vehicle Time	\$57.00	0.65	\$37.05				
			Direct Labour - Field Staff (RLM)	\$79.43	1.31		\$104.06	\$55.77	\$159.83								
			Payroll Burden	53.60%					\$169.67						\$37.05	\$206.72	\$210.00
2019	25	Service Call - Customer Owned Equipment - During Regular Hours	Direct Labour - Clerical	\$81.00	0.08		\$6.48	\$3.52	\$10.00	Large Vehicle Time	\$57.00	0.65	\$37.05				
			Direct Labour - Field Staff (RLM)	\$80.35	1.31		\$105.26	\$57.16	\$162.41								
			Payroll Burden	54.30%					\$172.41						\$37.05	\$209.46	\$210.00
2020	25	Service Call - Customer Owned Equipment - During Regular Hours	Direct Labour - Clerical	\$81.96	0.08		\$6.56	\$3.60	\$10.16	Large Vehicle Time	\$57.00	0.65	\$37.05				
			Direct Labour - Field Staff (RLM)	\$81.32	1.31		\$106.53	\$58.48	\$165.01								
			Payroll Burden	54.90%					\$175.17						\$37.05	\$212.22	\$210.00
2021	25	Service Call - Customer Owned Equipment - During Regular Hours	Direct Labour - Clerical	\$82.92	0.08		\$6.63	\$3.69	\$10.32	Large Vehicle Time	\$57.00	0.65	\$37.05				
			Direct Labour - Field Staff (RLM)	\$82.28	1.31		\$107.79	\$59.93	\$167.72								
			Payroll Burden	55.60%					\$178.04						\$37.05	\$215.09	\$210.00
2022	25	Service Call - Customer Owned Equipment - During Regular Hours	Direct Labour - Clerical	\$84.20	0.08		\$6.74	\$3.75	\$10.48	Large Vehicle Time	\$57.00	0.65	\$37.05				
			Direct Labour - Field Staff (RLM)	\$83.56	1.31		\$109.46	\$60.86	\$170.33								
			Payroll Burden	55.60%					\$180.81						\$37.05	\$217.86	\$210.00

1

Table 18: Service Call - Customer Owned Equipment - After Regular Hours

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	26	Service Call - Customer Owned Equipment - After Regular Hours	Direct Labour - Clerical	\$80.08	0.08		\$6.41	\$3.43	\$9.84	Large Vehicle Time	\$57.00	1.31	\$74.67				
			Direct Labour - Field Staff (RLM)	\$79.43	4.00	1.40	\$444.82	\$238.42	\$683.24								
			Payroll Burden	53.60%					\$693.08						\$74.67	\$767.75	\$775.00
2019	26	Service Call - Customer Owned Equipment - After Regular Hours	Direct Labour - Clerical	\$81.00	0.08		\$6.48	\$3.52	\$10.00	Large Vehicle Time	\$57.00	1.31	\$74.67				
			Direct Labour - Field Staff (RLM)	\$80.35	4.00	1.40	\$449.96	\$244.33	\$694.29								
			Payroll Burden	54.30%					\$704.29						\$74.67	\$778.96	\$775.00
2020	26	Service Call - Customer Owned Equipment - After Regular Hours	Direct Labour - Clerical	\$81.96	0.08		\$6.56	\$3.60	\$10.16	Large Vehicle Time	\$57.00	1.31	\$74.67				
			Direct Labour - Field Staff (RLM)	\$81.32	4.00	1.40	\$455.39	\$250.01	\$705.40								
			Payroll Burden	54.90%					\$715.56						\$74.67	\$790.23	\$775.00
2021	26	Service Call - Customer Owned Equipment - After Regular Hours	Direct Labour - Clerical	\$82.92	0.08		\$6.63	\$3.69	\$10.32	Large Vehicle Time	\$57.00	1.31	\$74.67				
			Direct Labour - Field Staff (RLM)	\$82.28	4.00	1.40	\$460.77	\$256.19	\$716.96								
			Payroll Burden	55.60%					\$727.28						\$74.67	\$801.95	\$775.00
2022	26	Service Call - Customer Owned Equipment - After Regular Hours	Direct Labour - Clerical	\$84.20	0.08		\$6.74	\$3.75	\$10.48	Large Vehicle Time	\$57.00	1.31	\$74.67				
			Direct Labour - Field Staff (RLM)	\$83.56	4.00	1.40	\$467.94	\$260.17	\$728.11								
			Payroll Burden	55.60%					\$738.59						\$74.67	\$813.26	\$775.00

1 **1.1.15 INSTALL/REMOVE TEMPORARY SERVICES (RATE**
2 **CODES 27-29)**

3
4 Customer requests for the installation and removal of a temporary service can vary
5 greatly in the amount of work required. Each job will have its own unique working
6 conditions. At the customer's request, a temporary service is connected. When the
7 customer is ready to: (a) cancel the temporary service; or (b) transfer to the conductor
8 and meter to the new permanent service, Hydro One will return to perform the relocation.

9
10 To avoid cross-subsidization or over collection, Hydro One proposes that the fee for these
11 specific services be derived on the actual costs of each individual job.

12
13 **1.1.16 SPECIFIC CHARGE FOR ACCESS TO POWER POLES -**
14 **\$/POLE/YEAR (RATE CODE 30)**

15
16 This charge is described and calculated in Appendix C.

APPENDIX B

The charges described in this Appendix are Hydro One specific charges, calculated based on the labour hours and material used to perform the work. The required labour hours were studied as part of the Time Study. The proposed charges recover the cost of performing the work.

1. HYDRO ONE SPECIFIC SERVICE CHARGES: STANDARD FORMULA, UPDATED AMOUNTS

1.1 HYDRO ONE SPECIFIC CHARGES DESCRIPTION

Hydro One has determined that customers should be charged the following fees for services that are beyond a distributor's normal business, and are not covered by rates. The labour hours and attributes were investigated as part of the Time Study, and the proposed charges recover the cost of performing the work and the associated material.

The following charges have previously been charged by Hydro One, but have been deemed to no longer apply.

1. Tingle/Stray Voltage Test – excess of 4 hours, if customer equipment is defective (Rate Code 43) - From the normal delivery and use of electricity, a small voltage may exist between two conductive surfaces that can be simultaneously contacted by an animal. Examples of the conductive surfaces include concrete floors, metal stabling, milk pipelines, and water bowls. This voltage is commonly referred to as, “animal contact voltage”, “stray voltage”, or “tingle voltage”. This voltage usually presents no harm. However, if the voltage level is high enough, it may affect livestock behaviour and health. Since 2009, the Distribution System Code (“DSC”) (Section 4.7 & Appendix H)

1 requires all Ontario Distribution Utilities to complete Stray Voltage Investigations on
2 livestock farm customers by a competent person. Hydro One considers this service as part
3 of the standard level of service in accordance with the DSC. Therefore, it is
4 recommended that the current approved charge for Tingle/Stray Voltage Investigation be
5 removed from the list of Hydro One Specific Services Charges.

- 6
7 2. A Stand-By Administration Charge (Rate Code 44) only covers the administration-related
8 costs and not the costs of having distribution facilities in place to deliver stand-by power.
9 Hydro One has no record of this charge ever being applied to Hydro One customers.

10
11 **1.1.2 VACANT PREMISE – MOVE IN WITH RECONNECT OF**
12 **ELECTRICAL SERVICE – AT METER OR AT POLE (RATE CODE 31A**
13 **& 31B)**

14
15 A Vacant Premise occurs when an existing customer cancels their account with Hydro One
16 and the meter is left active when the existing customer's contract ends. When this occurs, if
17 the new home owner, or landlord, does not call Hydro One to have the account for that
18 premise moved into their name, Hydro One attempts to contact the premise owner by mail or
19 letter delivered to the premise. If the owner of the premise does not contact Hydro One after
20 the notices are given, Hydro One disconnects the service at the meter or pole, as the service
21 is no longer associated with a customer.

22
23 When the new premise address owner or landlord contacts Hydro One to have an account set
24 up in their name for the now disconnected service, Hydro One goes to the premise to perform
25 a reconnect at the meter or pole. The reconnect service fee is recovered from the new
26 premise address owner.

1 **Table 1: Vacant Premise – Move In with Reconnect of Electrical Service at Meter**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	31a	Vacant Premise - Move In with Reconnect of Electrical Service at Meter	Direct Labour - Clerical	\$80.08	0.29		\$23.22	\$12.45	\$35.67	Small Vehicle Time	\$10.00	0.57	\$5.70				
			Direct Labour - Field Staff (MRDC)	\$60.55	0.57		\$34.51	\$18.50	\$53.01	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	\$0.54					\$88.68	Meter Ring	\$4.95	0.10	\$0.50	\$6.37	\$95.05	\$95.00	
2019	31a	Vacant Premise - Move In with Reconnect of Electrical Service at Meter	Direct Labour - Clerical	\$81.00	0.29		\$23.49	\$12.76	\$36.25	Small Vehicle Time	\$10.00	0.57	\$5.70				
			Direct Labour - Field Staff (MRDC)	\$60.91	0.57		\$34.72	\$18.85	\$53.57	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	\$0.54					\$89.82	Meter Ring	\$4.95	0.10	\$0.50	\$6.37	\$96.18	\$95.00	
2020	31a	Vacant Premise - Move In with Reconnect of Electrical Service at Meter	Direct Labour - Clerical	\$81.96	0.29		\$23.77	\$13.05	\$36.82	Small Vehicle Time	\$10.00	0.57	\$5.70				
			Direct Labour - Field Staff (MRDC)	\$61.31	0.57		\$34.95	\$19.19	\$54.13	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	\$0.55					\$90.95	Meter Ring	\$4.95	0.10	\$0.50	\$6.37	\$97.31	\$95.00	
2021	31a	Vacant Premise - Move In with Reconnect of Electrical Service at Meter	Direct Labour - Clerical	\$82.92	0.29		\$24.05	\$13.37	\$37.42	Small Vehicle Time	\$10.00	0.57	\$5.70				
			Direct Labour - Field Staff (MRDC)	\$61.71	0.57		\$35.17	\$19.56	\$54.73	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	\$0.56					\$92.15	Meter Ring	\$4.95	0.10	\$0.50	\$6.37	\$98.51	\$95.00	
2022	31a	Vacant Premise - Move In with Reconnect of Electrical Service at Meter	Direct Labour - Clerical	\$84.20	0.29		\$24.42	\$13.58	\$37.99	Small Vehicle Time	\$10.00	0.57	\$5.70				
			Direct Labour - Field Staff (MRDC)	\$62.35	0.57		\$35.54	\$19.76	\$55.30	Meter Seal	\$0.17	1.00	\$0.17				
			Payroll Burden	\$0.56					\$93.29	Meter Ring	\$4.95	0.10	\$0.50	\$6.37	\$99.66	\$95.00	

1

Table 2: Vacant Premise – Move In with Reconnect of Electrical Service at Pole

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/ Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/ Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	31b	Vacant Premise - Move In with Reconnect of Electrical Service at Pole	Direct Labour - Clerical	\$80.08	0.29		\$23.22	\$12.45	\$35.67	Large Vehicle Time	\$57.00	0.86	\$49.02				
			Direct Labour - Field Staff (RLM)	\$79.43	1.72		\$136.62	\$73.23	\$209.85								
			Payroll Burden	53.60%						\$245.52					\$49.02	\$294.54	\$300.00
2019	31b	Vacant Premise - Move In with Reconnect of Electrical Service at Pole	Direct Labour - Clerical	\$81.00	0.29		\$23.49	\$12.76	\$36.25	Large Vehicle Time	\$57.00	0.86	\$49.02				
			Direct Labour - Field Staff (RLM)	\$80.35	1.72		\$138.20	\$75.04	\$213.25								
			Payroll Burden	54.30%						\$249.49					\$49.02	\$298.51	\$300.00
2020	31b	Vacant Premise - Move In with Reconnect of Electrical Service at Pole	Direct Labour - Clerical	\$81.96	0.29		\$23.77	\$13.05	\$36.82	Large Vehicle Time	\$57.00	0.86	\$49.02				
			Direct Labour - Field Staff (RLM)	\$81.32	1.72		\$139.87	\$76.79	\$216.66								
			Payroll Burden	54.90%						\$253.48					\$49.02	\$302.50	\$300.00

2

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/ Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/ Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2021	31b	Vacant Premise - Move In with Reconnect of Electrical Service at Pole	Direct Labour - Clerical	\$82.92	0.29		\$24.05	\$13.37	\$37.42	Large Vehicle Time	\$57.00	0.86	\$49.02				
			Direct Labour - Field Staff (RLM)	\$82.28	1.72		\$141.52	\$78.69	\$220.21								
			Payroll Burden	55.60%					\$257.62						\$49.02	\$306.64	\$300.00
2022	31b	Vacant Premise - Move In with Reconnect of Electrical Service at Pole	Direct Labour - Clerical	\$84.20	0.29		\$24.42	\$13.58	\$37.99	Large Vehicle Time	\$57.00	0.86	\$49.02				
			Direct Labour - Field Staff (RLM)	\$83.56	1.72		\$143.72	\$79.91	\$223.63								
			Payroll Burden	55.60%					\$261.63						\$49.02	\$310.65	\$300.00

1 **1.1.3 RECONNECT COMPLETED AFTER HOURS (CUSTOMER/CONTRACT**
2 **DRIVEN) – AT METER OR AT POLE (RATE CODE 32 & 33)**

3
4 All customers are responsible for maintaining their own equipment; therefore, Hydro One
5 provides one yearly (calendar year January to December) Service Disconnection and Re-
6 Connection (isolation and restoration) during regular business hours for customer
7 maintenance purposes. There is a charge for a reconnection at the meter or pole performed
8 after hours when the service is not ready to reconnect during regular hours due to the
9 customer or contractor. The charge is only the difference between the charge for the service
10 performed during regular hours and the charge for the service performed after regular hours.

Table 3: Reconnect Completed After Hours (Customer/Contract Driven) – At Meter

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	32	Reconnect Completed After Hours (Customer/Contract Driven) - At Meter	Direct Labour - Clerical	\$80.08	0.58		\$46.45	\$24.90	\$71.34	Small Vehicle Time	\$10.00	1.83	\$18.30				
			Direct Labour - Field Staff (RLM)	\$79.43	1.83	1.20	\$174.43	\$93.50	\$267.93	Credit (Rate Code 18&19)				-\$117.56			
			Payroll Burden	53.60%						\$339.27						-\$99.26	\$240.01
2019	32	Reconnect Completed After Hours (Customer/Contract Driven) - At Meter	Direct Labour - Clerical	\$81.00	0.58		\$46.98	\$25.51	\$72.49	Small Vehicle Time	\$10.00	1.83	\$18.30				
			Direct Labour - Field Staff (RLM)	\$80.35	1.83	1.20	\$176.45	\$95.81	\$272.26	Credit (Rate Code 18&19)				-\$119.02			
			Payroll Burden	54.30%						\$344.75						-\$100.72	\$244.03
2020	32	Reconnect Completed After Hours (Customer/Contract Driven) - At Meter	Direct Labour - Clerical	\$81.96	0.58		\$47.54	\$26.10	\$73.63	Small Vehicle Time	\$10.00	1.83	\$18.30				
			Direct Labour - Field Staff (RLM)	\$81.32	1.83	1.20	\$178.58	\$98.04	\$276.62	Credit (Rate Code 18&19)				-\$120.48			
			Payroll Burden	54.90%						\$350.25						-\$102.18	\$248.08
2021	32	Reconnect Completed After Hours (Customer/Contract Driven) - At Meter	Direct Labour - Clerical	\$82.92	0.58		\$48.09	\$26.74	\$74.83	Small Vehicle Time	\$10.00	1.83	\$18.30				
			Direct Labour - Field Staff (RLM)	\$82.28	1.83	1.20	\$180.69	\$100.46	\$281.15	Credit (Rate Code 18&19)				-\$122.02			
			Payroll Burden	55.60%						\$355.98						-\$103.72	\$252.26
2022	32	Reconnect Completed After Hours (Customer/Contract Driven) - At Meter	Direct Labour - Clerical	\$84.20	0.58		\$48.84	\$27.15	\$75.99	Small Vehicle Time	\$10.00	1.83	\$18.30				
			Direct Labour - Field Staff (RLM)	\$83.56	1.83	1.20	\$183.50	\$102.02	\$285.52	Credit (Rate Code 18&19)				-\$123.49			
			Payroll Burden	55.60%						\$361.51						-\$105.19	\$256.32

Table 4: Reconnect Completed After Hours (Customer/Contract Driven) – At Pole

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	33	Reconnect Completed After Hours (Customer/Contract Driven) - At Pole	Direct Labour - Clerical	\$80.08	0.58		\$46.45	\$24.90	\$71.34	Large Vehicle Time	\$57.00	2.02	\$115.14				
			Direct Labour - Field Staff (RLM)	\$79.43	4.04	1.20	\$385.08	\$206.40	\$591.49	Credit (Rate Code 22)				-\$311.76			
			Payroll Burden	53.60%					\$662.83							-\$196.62	\$466.21
2019	33	Reconnect Completed After Hours (Customer/Contract Driven) - At Pole	Direct Labour - Clerical	\$81.00	0.58		\$46.98	\$25.51	\$72.49	Large Vehicle Time	\$57.00	2.02	\$115.14				
			Direct Labour - Field Staff (RLM)	\$80.35	4.04	1.20	\$389.54	\$211.52	\$601.06	Credit (Rate Code 22)				-\$316.01			
			Payroll Burden	54.30%					\$673.55							-\$200.87	\$472.68
2020	33	Reconnect Completed After Hours (Customer/Contract Driven) - At Pole	Direct Labour - Clerical	\$81.96	0.58		\$47.54	\$26.10	\$73.63	Large Vehicle Time	\$57.00	2.02	\$115.14				
			Direct Labour - Field Staff (RLM)	\$81.32	4.04	1.20	\$394.24	\$216.44	\$610.68	Credit (Rate Code 22)				-\$320.27			
			Payroll Burden	54.90%					\$684.31							-\$205.13	\$479.18
2021	33	Reconnect Completed After Hours (Customer/Contract Driven) - At Pole	Direct Labour - Clerical	\$82.92	0.58		\$48.09	\$26.74	\$74.83	Large Vehicle Time	\$57.00	2.02	\$115.14				
			Direct Labour - Field Staff (RLM)	\$82.28	4.04	1.20	\$398.89	\$221.78	\$620.68	Credit (Rate Code 22)				-\$324.71			
			Payroll Burden	55.60%					\$695.51							-\$209.57	\$485.94
2022	33	Reconnect Completed After Hours (Customer/Contract Driven) - At Pole	Direct Labour - Clerical	\$84.20	0.58		\$48.84	\$27.15	\$75.99	Large Vehicle Time	\$57.00	2.02	\$115.14				
			Direct Labour - Field Staff (RLM)	\$83.56	4.04	1.20	\$405.10	\$225.23	\$630.33	Credit (Rate Code 22)				-\$328.99			
			Payroll Burden	55.60%					\$706.32							-\$213.85	\$492.47

1 **1.1.4 ADDITIONAL SERVICE LAYOUT FEE – BASIC/COMPLEX – MORE**
2 **THAN ONE HOUR (RATE CODE 34 & 35)**

3

4 When a customer determines that their distribution service requirement has changed from
5 what was originally submitted and planned, Hydro One will determine the work required
6 to modify the existing service layout to meet the customer’s new needs. If work is
7 required in excess of one hour, the fee in Table 5 below will be charged. In previous
8 definitions, a basic service layout has involved a new single-phase service, while a
9 complex additional service layout was for a three-phase service. The Study demonstrated
10 that there was not a substantial difference between the work required to make changes to
11 a three-phase service compared to a single-phase service. Hydro One is therefore
12 proposing to charge the same rate, regardless of whether the changes required to the
13 layout are basic or complex.

1

Table 5: Additional Service Layout Fee – Basic/Complex – More Than One Hour

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	34&35	Additional Service Layout Fee - Basic/Complex (more than one hour)	Direct Labour - Clerical	\$80.08	0.64		\$51.25	\$27.47	\$78.72	Small Vehicle Time	\$10.00	1.73	\$11.73				
			Direct Labour - ADET	\$84.64	3.62		\$306.40	\$164.23	\$470.63								
			Payroll Burden	53.60%					\$549.35						\$11.73	\$561.08	\$561.08
2019	34&35	Additional Service Layout Fee - Basic/Complex (more than one hour)	Direct Labour - Clerical	\$81.00	0.64		\$51.84	\$28.15	\$79.99	Small Vehicle Time	\$10.00	1.73	\$11.73				
			Direct Labour - ADET	\$85.54	3.62		\$309.65	\$168.14	\$477.79								
			Payroll Burden	54.30%					\$557.78						\$11.73	\$569.51	\$569.51
2020	34&35	Additional Service Layout Fee - Basic/Complex (more than one hour)	Direct Labour - Clerical	\$81.96	0.64		\$52.45	\$28.80	\$81.25	Small Vehicle Time	\$10.00	1.73	\$11.73				
			Direct Labour - ADET	\$86.48	3.62		\$313.06	\$171.87	\$484.93								
			Payroll Burden	54.90%					\$566.18						\$11.73	\$577.91	\$577.91
2021	34&35	Additional Service Layout Fee - Basic/Complex (more than one hour)	Direct Labour - Clerical	\$82.92	0.64		\$53.07	\$29.51	\$82.58	Small Vehicle Time	\$10.00	1.73	\$11.73				
			Direct Labour - ADET	\$87.42	3.62		\$316.46	\$175.95	\$492.41								
			Payroll Burden	55.60%					\$574.99						\$11.73	\$586.72	\$586.72
2022	34&35	Additional Service Layout Fee - Basic/Complex (more than one hour)	Direct Labour - Clerical	\$84.20	0.64		\$53.89	\$29.96	\$83.85	Small Vehicle Time	\$10.00	1.73	\$11.73				
			Direct Labour - ADET	\$88.70	3.62		\$321.09	\$178.53	\$499.62								
			Payroll Burden	55.60%					\$583.47						\$11.73	\$595.20	\$595.20

1 **1.1.5 PIPELINE CROSSINGS (RATE CODE 36)**

2 Permission is required from the pipeline company before installing new wires (overhead
3 or underground) crossing a pipeline Right of Way (“ROW”), or installing poles, anchors,
4 or other equipment on a pipeline ROW. To generate the drawings, a great deal of
5 information such as pipe depth, diameter, ROW width, and position of the line within the
6 ROW must be collected at the site with a pipeline representative. The pipeline
7 representative will determine what steps need to be taken and make suggestions for the
8 best possible design. Hydro One charges the customer a fee that includes creation of the
9 drawing, signing of the agreement, review of standards, obligations and conditions.

Table 6: Pipeline Crossings

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/ Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/ Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	36	Pipeline Crossings	Direct Labour - Clerical	\$80.08	1.00		\$80.08	\$42.92	\$123.00	Small Vehicle Time	\$10.00	16.00	\$160.00				
			Direct Labour - ADET	\$84.64	16.00		\$1,354.24	\$725.87	\$2,080.11								
			Payroll Burden	53.60%					\$2,203.12						\$160.00	\$2,363.12	\$2,363.12
2019	36	Pipeline Crossings	Direct Labour - Clerical	\$81.00	1.00		\$81.00	\$43.98	\$124.98	Small Vehicle Time	\$10.00	16.00	\$160.00				
			Direct Labour - ADET	\$85.54	16.00		\$1,368.61	\$743.16	\$2,111.77								
			Payroll Burden	54.30%					\$2,236.75						\$160.00	\$2,396.75	\$2,396.75
2020	36	Pipeline Crossings	Direct Labour - Clerical	\$81.96	1.00		\$81.96	\$45.00	\$126.96	Small Vehicle Time	\$10.00	16.00	\$160.00				
			Direct Labour - ADET	\$86.48	16.00		\$1,383.68	\$759.64	\$2,143.32								
			Payroll Burden	54.90%					\$2,270.28						\$160.00	\$2,430.28	\$2,430.28
2021	36	Pipeline Crossings	Direct Labour - Clerical	\$82.92	1.00		\$82.92	\$46.10	\$129.02	Small Vehicle Time	\$10.00	16.00	\$160.00				
			Direct Labour - ADET	\$87.42	16.00		\$1,398.72	\$777.69	\$2,176.41								
			Payroll Burden	55.60%					\$2,305.43						\$160.00	\$2,465.43	\$2,465.43
2022	36	Pipeline Crossings	Direct Labour - Clerical	\$84.20	1.00		\$84.20	\$46.82	\$131.02	Small Vehicle Time	\$10.00	16.00	\$160.00				
			Direct Labour - ADET	\$88.70	16.00		\$1,419.20	\$789.08	\$2,208.28								
			Payroll Burden	55.60%					\$2,339.29						\$160.00	\$2,499.29	\$2,499.29

1 **1.1.6 WATER CROSSINGS (RATE CODE 37)**

2

3 Water Crossing fees are only charged when approval is being requested to cross the Rideau
4 Canal and Trent Severn Waterway. Under emergency conditions, work may proceed but due
5 diligence is required to prevent damage to fish habitats resulting in fines. Under normal
6 circumstances, Hydro One staff will perform a self-assessment for Transport Canada (“TC”) and
7 the Department of Fisheries and Oceans (“DFO”). The results of the self-assessment will dictate
8 further interactions between Hydro One, the DFO, and TC in regards to new applications, special
9 permits and guidance to prevent damage to fish habitat. The results of the self-assessment will
10 also outline any concerns with the proposed work and if any timing restrictions apply (e.g., fish
11 spawning season).

1

Table 7: Water Crossings

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	37	Water Crossings	Direct Labour - Clerical	\$80.08	1.55		\$124.12	\$66.53	\$190.65	Small Vehicle Time	\$10.00	22.75	\$227.50			
			Direct Labour - ADET	\$84.64	22.75		\$1,925.56	\$1,032.10	\$2,957.66	Utility Boat	\$25.00	5.87	\$146.75			
			Payroll Burden	53.60%					\$3,148.31						\$374.25	\$3,522.56
2019	37	Water Crossings	Direct Labour - Clerical	\$81.00	1.55		\$125.55	\$68.17	\$193.72	Small Vehicle Time	\$10.00	22.75	\$227.50			
			Direct Labour - ADET	\$85.54	22.75		\$1,946.00	\$1,056.68	\$3,002.67	Utility Boat	\$25.00	5.87	\$146.75			
			Payroll Burden	54.30%					\$3,196.40						\$374.25	\$3,570.65
2020	37	Water Crossings	Direct Labour - Clerical	\$81.96	1.55		\$127.04	\$69.74	\$196.78	Small Vehicle Time	\$10.00	22.75	\$227.50			
			Direct Labour - ADET	\$86.48	22.75		\$1,967.42	\$1,080.11	\$3,047.53	Utility Boat	\$25.00	5.87	\$146.75			
			Payroll Burden	54.90%					\$3,244.32						\$374.25	\$3,618.57
2021	37	Water Crossings	Direct Labour - Clerical	\$82.92	1.55		\$128.53	\$71.46	\$199.99	Small Vehicle Time	\$10.00	22.75	\$227.50			
			Direct Labour - ADET	\$87.42	22.75		\$1,988.81	\$1,105.78	\$3,094.58	Utility Boat	\$25.00	5.87	\$146.75			
			Payroll Burden	55.60%					\$3,294.57						\$374.25	\$3,668.82
2022	37	Water Crossings	Direct Labour - Clerical	\$84.20	1.55		\$130.51	\$72.56	\$203.07	Small Vehicle Time	\$10.00	22.75	\$227.50			
			Direct Labour - ADET	\$88.70	22.75		\$2,017.93	\$1,121.97	\$3,139.89	Utility Boat	\$25.00	5.87	\$146.75			
			Payroll Burden	55.60%					\$3,342.96						\$374.25	\$3,717.21

1 **1.1.7 RAILWAY CROSSINGS (RATE CODE 38)**

2

3 A new agreement is required from a railway authority before installing new wire across railway
4 tracks or rights-of-way, or reconfiguring or modifying existing crossings of railway tracks or
5 rights-of-way. Additional fees incurred from the railway authority application, the actual railway
6 agreement, and flagging fees will be collected from the customer.

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Table 8: Railway Crossings

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	38	Railway Crossings (Plus Feed Through Charges from Railway Company)	Direct Labour - Clerical	\$80.08	1.55		\$124.12	\$66.53	\$190.65	Small Vehicle Time	\$10.00	15.77	\$157.70				
			Direct Labour - ADET	\$84.64	15.77		\$1,334.77	\$715.44	\$2,050.21								
			Direct Labour - MP2	\$105.47	4.00		\$421.88	\$226.13	\$648.01								
			Direct Labour - CADD (GR64)	\$89.20	12.00		\$1,070.40	\$573.73	\$1,644.13								
			Payroll Burden	53.60%						\$4,533.01						\$157.70	\$4,690.71
2019	38	Railway Crossings (Plus Feed Through Charges from Railway Company)	Direct Labour - Clerical	\$81.00	1.55		\$125.55	\$68.17	\$193.72	Small Vehicle Time	\$10.00	15.77	\$157.70				
			Direct Labour - ADET	\$85.54	15.77		\$1,348.94	\$732.47	\$2,081.41								
			Direct Labour - MP2	\$106.92	4.00		\$427.68	\$232.23	\$659.91								
			Direct Labour - CADD (GR64)	\$90.07	12.00		\$1,080.84	\$586.90	\$1,667.74								
			Payroll Burden	54.30%						\$4,602.78						\$157.70	\$4,760.48
2020	38	Railway Crossings (Plus Feed Through Charges from Railway Company)	Direct Labour - Clerical	\$81.96	1.55		\$127.04	\$69.74	\$196.78	Small Vehicle Time	\$10.00	15.77	\$157.70				
			Direct Labour - ADET	\$86.48	15.77		\$1,363.79	\$748.72	\$2,112.51								
			Direct Labour - MP2	\$108.43	4.00		\$433.72	\$238.11	\$671.83								
			Direct Labour - CADD (GR64)	\$91.00	12.00		\$1,092.00	\$599.51	\$1,691.51								
			Payroll Burden	54.90%						\$4,672.63						\$157.70	\$4,830.33

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Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2021	38	Railway Crossings (Plus Feed Through Charges from Railway Company)	Direct Labour - Clerical	\$82.92	1.55		\$128.53	\$71.46	\$199.99	Small Vehicle Time	\$10.00	15.77	\$157.70					
			Direct Labour - ADET	\$87.42	15.77		\$1,378.61	\$766.51	\$2,145.12									
			Direct Labour - MP2	\$109.27	4.00		\$437.08	\$243.02	\$680.10									
			Direct Labour - CADD (GR64)	\$91.92	12.00		\$1,103.04	\$613.29	\$1,716.33									
			Payroll Burden	55.60%						\$4,741.54						\$157.70	\$4,899.24	\$4,899.24
2022	38	Railway Crossings (Plus Feed Through Charges from Railway Company)	Direct Labour - Clerical	\$84.20	1.55		\$130.51	\$72.56	\$203.07	Small Vehicle Time	\$10.00	15.77	\$157.70					
			Direct Labour - ADET	\$88.70	15.77		\$1,398.80	\$777.73	\$2,176.53									
			Direct Labour - MP2	\$110.56	4.00		\$442.24	\$245.89	\$688.13									
			Direct Labour - CADD (GR64)	\$93.20	12.00		\$1,118.40	\$621.83	\$1,740.23									
			Payroll Burden	55.60%						\$4,807.96						\$157.70	\$4,965.66	\$4,965.66

1 **1.1.8 LINE STAKING PER METER (RATE CODE 39A, B, C)**

2

3 For Hydro One to bring electrical service to a customer’s property, an expansion from the
4 existing distribution line to the customer’s property may have to be designed and built.
5 Hydro One will perform the staking of the line route according to the type of line to be built:
6 overhead, underground or submarine cable. Based on the 2006 Rate Handbook, all line
7 staking was charged at a common fee. The results of the Time Study have identified that
8 the underlying cost varies by the the type of line needing to be built. Hydro One therefore
9 proposes that the line staking per meter service be divided into three categories: overhead
10 line, underground line and submarine cable.

1

Table 9: Overhead Line Staking Per Meter

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	39a	Overhead Line Staking per Meter	Direct Labour - Clerical	\$80.08	0.0010		\$0.08	\$0.04	\$0.12	Small Vehicle Time	\$10.00	0.0108	\$0.11			
			Direct Labour - ADET	\$84.64	0.0301		\$2.55	\$1.37	\$3.91	Material - Stake	\$0.03	1.0000	\$0.03			
			Payroll Burden	53.60%					\$4.04						\$0.14	\$4.17
2019	39a	Overhead Line Staking per Meter	Direct Labour - Clerical	\$81.00	0.0010		\$0.08	\$0.04	\$0.12	Small Vehicle Time	\$10.00	0.0108	\$0.11			
			Direct Labour - ADET	\$85.54	0.0301		\$2.57	\$1.40	\$3.97	Material - Stake	\$0.03	1.0000	\$0.03			
			Payroll Burden	54.30%					\$4.10						\$0.14	\$4.24
2020	39a	Overhead Line Staking per Meter	Direct Labour - Clerical	\$81.96	0.0010		\$0.08	\$0.04	\$0.13	Small Vehicle Time	\$10.00	0.0108	\$0.11			
			Direct Labour - ADET	\$86.48	0.0301		\$2.60	\$1.43	\$4.03	Material - Stake	\$0.03	1.0000	\$0.03			
			Payroll Burden	54.90%					\$4.16						\$0.14	\$4.30
2021	39a	Overhead Line Staking per Meter	Direct Labour - Clerical	\$82.92	0.0010		\$0.08	\$0.05	\$0.13	Small Vehicle Time	\$10.00	0.0108	\$0.11			
			Direct Labour - ADET	\$87.42	0.0301		\$2.63	\$1.46	\$4.09	Material - Stake	\$0.03	1.0000	\$0.03			
			Payroll Burden	55.60%					\$4.22						\$0.14	\$4.36
2022	39a	Overhead Line Staking per Meter	Direct Labour - Clerical	\$84.20	0.0010		\$0.08	\$0.05	\$0.13	Small Vehicle Time	\$10.00	0.0108	\$0.11			
			Direct Labour - ADET	\$88.70	0.0301		\$2.67	\$1.48	\$4.15	Material - Stake	\$0.03	1.0000	\$0.03			
			Payroll Burden	55.60%					\$4.29						\$0.14	\$4.42

2

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Table 10: Underground Line Staking Per Meter

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	39b	Underground Line Staking per Meter	Direct Labour - Clerical	\$80.08	0.0012		\$0.10	\$0.05	\$0.15	Small Vehicle Time	\$10.00	0.0100	\$0.10				
			Direct Labour - ADET	\$84.64	0.0212		\$1.79	\$0.96	\$2.76								
			Payroll Burden	53.60%					\$2.90						\$0.10	\$3.00	\$3.00
2019	39b	Underground Line Staking per Meter	Direct Labour - Clerical	\$81.00	0.0012		\$0.10	\$0.05	\$0.15	Small Vehicle Time	\$10.00	0.0100	\$0.10				
			Direct Labour - ADET	\$85.54	0.0212		\$1.81	\$0.98	\$2.80								
			Payroll Burden	54.30%					\$2.95						\$0.10	\$3.05	\$3.05
2020	39b	Underground Line Staking per Meter	Direct Labour - Clerical	\$81.96	0.0012		\$0.10	\$0.05	\$0.15	Small Vehicle Time	\$10.00	0.0100	\$0.10				
			Direct Labour - ADET	\$86.48	0.0212		\$1.83	\$1.01	\$2.84								
			Payroll Burden	54.90%					\$2.99						\$0.10	\$3.09	\$3.09
2021	39b	Underground Line Staking per Meter	Direct Labour - Clerical	\$82.92	0.0012		\$0.10	\$0.06	\$0.15	Small Vehicle Time	\$10.00	0.0100	\$0.10				
			Direct Labour - ADET	\$87.42	0.0212		\$1.85	\$1.03	\$2.88								
			Payroll Burden	55.60%					\$3.04						\$0.10	\$3.14	\$3.14
2022	39b	Underground Line Staking per Meter	Direct Labour - Clerical	\$84.20	0.0012		\$0.10	\$0.06	\$0.16	Small Vehicle Time	\$10.00	0.0100	\$0.10				
			Direct Labour - ADET	\$88.70	0.0212		\$1.88	\$1.05	\$2.93								
			Payroll Burden	55.60%					\$3.08						\$0.10	\$3.18	\$3.18

2

1 **Table 11: Submarine Cable Line Staking Per Meter**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	39c	Submarine Cable Line Staking per Meter	Direct Labour - Clerical	\$80.08	0.0007		\$0.06	\$0.03	\$0.09	Small Vehicle Time	\$10.00	0.0042	\$0.04				
			Direct Labour - ADET	\$84.64	0.0192		\$1.63	\$0.87	\$2.50								
			Payroll Burden	53.60%					\$2.58						\$0.04	\$2.62	\$2.62
2019	39c	Submarine Cable Line Staking per Meter	Direct Labour - Clerical	\$81.00	0.0007		\$0.06	\$0.03	\$0.09	Small Vehicle Time	\$10.00	0.0042	\$0.04				
			Direct Labour - ADET	\$85.54	0.0192		\$1.64	\$0.89	\$2.53								
			Payroll Burden	54.30%					\$2.62						\$0.04	\$2.66	\$2.66
2020	39c	Submarine Cable Line Staking per Meter	Direct Labour - Clerical	\$81.96	0.0007		\$0.06	\$0.03	\$0.09	Small Vehicle Time	\$10.00	0.0042	\$0.04				
			Direct Labour - ADET	\$86.48	0.0192		\$1.66	\$0.91	\$2.57								
			Payroll Burden	54.90%					\$2.66						\$0.04	\$2.70	\$2.70
2021	39c	Submarine Cable Line Staking per Meter	Direct Labour - Clerical	\$82.92	0.0007		\$0.06	\$0.03	\$0.09	Small Vehicle Time	\$10.00	0.0042	\$0.04				
			Direct Labour - ADET	\$87.42	0.0192		\$1.68	\$0.93	\$2.61								
			Payroll Burden	55.60%					\$2.70						\$0.04	\$2.74	\$2.74
2022	39c	Submarine Cable Line Staking per Meter	Direct Labour - Clerical	\$84.20	0.0007		\$0.06	\$0.03	\$0.09	Small Vehicle Time	\$10.00	0.0042	\$0.04				
			Direct Labour - ADET	\$88.70	0.0192		\$1.70	\$0.95	\$2.65								
			Payroll Burden	55.60%					\$2.74						\$0.04	\$2.78	\$2.78

1 **1.1.9 CENTRAL METERING**

2
3 Customers may opt for central metering (“CM”) to avoid having to pay for a large and expensive
4 service located in one building to supply several separate buildings on one property, or to reduce
5 having a meter on each building. If the customer requests, Hydro One Networks will install a
6 CM service on a customer-owned pole. A maximum of four service connections can be
7 connected at the CM location. If this is for a new service, where the load is greater than or equal
8 to 45 kW, the CM service will be installed free of charge.

9
10 **1.1.9.1 CENTRAL METERING – NEW SERVICE < 45 KW (RATE CODE**
11 **40)**

12
13 When the load supplied by the central metering service is less than 45 kW, the load does not
14 justify the higher metering costs resulting from the use of instrument transformers, therefore the
15 customer must pay to cover the instrument transformer costs.

1

Table 12: Central Metering – New Service < 45 kW

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	40	Central Metering - New Service < 45 kW							\$0.00	Material	\$100.00	1.00	\$100.00	\$100.00	\$100.00	\$100.00
2019	40	Central Metering - New Service < 45 kW							\$0.00	Material	\$100.00	1.00	\$100.00	\$100.00	\$100.00	\$100.00
2020	40	Central Metering - New Service < 45 kW							\$0.00	Material	\$100.00	1.00	\$100.00	\$100.00	\$100.00	\$100.00
Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total ther	Calculated Total Charge	Proposed Charge
2021	40	Central Metering - New Service < 45 kW							\$0.00	Material	\$100.00	1.00	\$100.00	\$100.00	\$100.00	\$100.00
2022	40	Central Metering - New Service < 45 kW							\$0.00	Material	\$100.00	1.00	\$100.00	\$100.00	\$100.00	\$100.00

1 **1.1.9.2 CONVERSION TO CENTRAL METERING < 45 KW (RATE**
2 **CODE 41)**

3
4 Customers who request a conversion from conventional metering to CM require a new service
5 layout, a change in their account, the removal of existing meters and equipment and installation
6 of new equipment. This involves site visits for the layout, equipment modifications and
7 administrative work. If the installation is to supply a load of less than 45 kW, the customer is
8 charged for the associated labour plus the incremental cost of the instrument transformers.

Table 13: Conversion to Central Metering < 45 kW

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	41	Conversion to Central Metering < 45 kW	Direct Labour - Clerical	\$80.08	0.26		\$20.82	\$11.16	\$31.98	Small Vehicle Time	\$10.00	3.50	\$35.00			
			Direct Labour - Field Staff (RLM)	\$79.43	6.06		\$481.35	\$258.01	\$739.36	Large Vehicle Time	\$57.00	3.03	\$172.71			
			Direct Labour - Field Staff (ADET)	\$84.64	3.50		\$296.24	\$158.78	\$455.02	Material	\$100.00	1.00	\$100.00			
			Payroll Burden	53.60%					\$1,226.36						\$307.71	\$1,534.07
2019	41	Conversion to Central Metering < 45 kW	Direct Labour - Clerical	\$81.00	0.26		\$21.06	\$11.44	\$32.50	Small Vehicle Time	\$10.00	3.50	\$35.00			
			Direct Labour - Field Staff (RLM)	\$80.35	6.06		\$486.92	\$264.40	\$751.32	Large Vehicle Time	\$57.00	3.03	\$172.71			
			Direct Labour - Field Staff (ADET)	\$85.54	3.50		\$299.38	\$162.57	\$461.95	Material	\$100.00	1.00	\$100.00			
			Payroll Burden	54.30%					\$1,245.76						\$307.71	\$1,553.47
2020	41	Conversion to Central Metering < 45 kW	Direct Labour - Clerical	\$81.96	0.26		\$21.31	\$11.70	\$33.01	Small Vehicle Time	\$10.00	3.50	\$35.00			
			Direct Labour - Field Staff (RLM)	\$81.32	6.06		\$492.80	\$270.55	\$763.35	Large Vehicle Time	\$57.00	3.03	\$172.71			
			Direct Labour - Field Staff (ADET)	\$86.48	3.50		\$302.68	\$166.17	\$468.85	Material	\$100.00	1.00	\$100.00			
			Payroll Burden	54.90%					\$1,265.21						\$307.71	\$1,572.92
2021	41	Conversion to Central Metering < 45	Direct Labour - Clerical	\$82.92	0.26		\$21.56	\$11.99	\$33.55	Small Vehicle Time	\$10.00	3.50	\$35.00			

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
		kW	Direct Labour - Field Staff (RLM)	\$82.28	6.06		\$498.62	\$277.23	\$775.85	Large Vehicle Time	\$57.00	3.03	\$172.71					
			Direct Labour - Field Staff (ADET)	\$87.42	3.50		\$305.97	\$170.12	\$476.09	Material	\$100.00	1.00	\$100.00					
			Payroll Burden	55.60%						\$1,285.48						\$307.71	\$1,593.19	\$1,593.19
2022	41	Conversion to Central Metering < 45 kW	Direct Labour - Clerical	\$84.20	0.26		\$21.89	\$12.17	\$34.06	Small Vehicle Time	\$10.00	3.50	\$35.00					
			Direct Labour - Field Staff (RLM)	\$83.56	6.06		\$506.37	\$281.54	\$787.92	Large Vehicle Time	\$57.00	3.03	\$172.71					
			Direct Labour - Field Staff (ADET)	\$88.70	3.50		\$310.45	\$172.61	\$483.06	Material	\$100.00	1.00	\$100.00					
			Payroll Burden	55.60%						\$1,305.04						\$307.71	\$1,612.75	\$1,612.75

1 **1.1.9.3 CONVERSION TO CENTRAL METERING >= 45**
2 **KW (RATE CODE 42)**

3
4 Customers who request a conversion from conventional metering to central
5 metering require a new service layout, a change in their account, the removal of
6 existing meters and equipment, and installation of new equipment. This involves
7 site visits for the layout, equipment modifications, and administrative work.
8 Loads greater than or equal to 45 kW justify the costs for the required instrument
9 transformer. Therefore, only the labour costs associated with performing this
10 service are charged to the customer.

1

Table 14: Conversion to Central Metering > 45 kW

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge
2018	42	Conversion to Central Metering >= 45 kW	Direct Labour - Clerical	\$80.08	0.26		\$20.82	\$11.16	\$31.98	Small Vehicle Time	\$10.00	3.50	\$35.00			
			Direct Labour - Field Staff (RLM)	\$79.43	6.06		\$481.35	\$258.01	\$739.36	Large Vehicle Time	\$57.00	3.03	\$172.71			
			Direct Labour - Field Staff (ADET)	\$84.64	3.50		\$296.24	\$158.78	\$455.02							
			Payroll Burden	53.60%			\$427.95		\$1,226.36						\$207.71	\$1,434.07
2019	42	Conversion to Central Metering >= 45 kW	Direct Labour - Clerical	\$81.00	0.26		\$21.06	\$11.44	\$32.50	Small Vehicle Time	\$10.00	3.50	\$35.00			
			Direct Labour - Field Staff (RLM)	\$80.35	6.06		\$486.92	\$264.40	\$751.32	Large Vehicle Time	\$57.00	3.03	\$172.71			
			Direct Labour - Field Staff (ADET)	\$85.54	3.50		\$299.38	\$162.57	\$461.95							
			Payroll Burden	54.30%			\$438.40		\$1,245.76						\$207.71	\$1,453.47
2020	42	Conversion to Central Metering >= 45 kW	Direct Labour - Clerical	\$81.96	0.26		\$21.31	\$11.70	\$33.01	Small Vehicle Time	\$10.00	3.50	\$35.00			
			Direct Labour - Field Staff (RLM)	\$81.32	6.06		\$492.80	\$270.55	\$763.35	Large Vehicle Time	\$57.00	3.03	\$172.71			
			Direct Labour - Field Staff (ADET)	\$86.48	3.50		\$302.68	\$166.17	\$468.85							
			Payroll Burden	54.90%			\$448.42		\$1,265.21						\$207.71	\$1,472.92
2021	42	Conversion to Central	Direct Labour - Clerical	\$82.92	0.26		\$21.56	\$11.99	\$33.55	Small Vehicle	\$10.00	3.50	\$35.00			

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
		Metering >= 45 kW								Time							
			Direct Labour - Field Staff (RLM)	\$82.28	6.06		\$498.62	\$277.23	\$775.85	Large Vehicle Time	\$57.00	3.03	\$172.71				
			Direct Labour - Field Staff (ADET)	\$87.42	3.50		\$305.97	\$170.12	\$476.09								
			Payroll Burden	55.60%			\$459.34		\$1,285.48						\$207.71	\$1,493.19	\$1,493.19
2022	42	Conversion to Central Metering >= 45 kW	Direct Labour - Clerical	\$84.20	0.26		\$21.89	\$12.17	\$34.06	Small Vehicle Time	\$10.00	3.50	\$35.00				
			Direct Labour - Field Staff (RLM)	\$83.56	6.06		\$506.37	\$281.54	\$787.92	Large Vehicle Time	\$57.00	3.03	\$172.71				
			Direct Labour - Field Staff (ADET)	\$88.70	3.50		\$310.45	\$172.61	\$483.06								
			Payroll Burden	55.60%			\$466.33		\$1,305.04						\$207.71	\$1,512.75	\$1,512.75

1 **1.1.10 CONNECTION IMPACT ASSESSMENTS**

2
3 Renewable generation development and the subsequent connection process involve a number of
4 stages, including technical assessments. Hydro One assesses the technical impact of the
5 renewable generation connection to its distribution system through a Connection Impact
6 Assessment (“CIA”). A CIA is a more detailed assessment of a project's impact on the
7 distribution system. The results include a technical report outlining project feasibility, technical
8 specifications needed for the project and the impact the project would have on the distribution
9 grid and any of its customers, in accordance with Section 6.2.14 of the DSC.

10
11 **1.1.10.1 CONNECTION IMPACT ASSESSMENTS – NET**
12 **METERING (RATE CODE 45A)**

13
14 A net metering generator, as defined in section 7(1) of the Net Metering Regulation (O. Reg. 541
15 / 05), generates electricity primarily for its own use from a renewable generation facility. Net
16 metering involves the measurement of the quantity of electricity a generator uses against the
17 quantity of electricity it generates resulting in a net total. Net metering projects include those
18 which have a capacity greater than 10 kW but less than or equal to 500 kW that wish to connect
19 to Hydro One’s distribution system.

1

Table 15: Connection Impact Assessments – Net Metering

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	45a	Connection Impact Assessments - Net Metering	Direct Labour - Clerical	\$80.08	0.87		\$69.67	\$37.34	\$107.01	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$117.84	2.83		\$333.49	\$178.75	\$512.24								
			Direct Labour - Technician (GR64)	\$89.20	14.25		\$1,271.10	\$681.31	\$1,952.41								
			Direct Labour - Field Staff (ADET)	\$84.64	4.08		\$345.33	\$185.10	\$530.43								
			Direct Labour - MP2	\$105.47	0.16		\$16.88	\$9.05	\$25.92								
			Payroll Burden	53.60%							\$3,128.01					\$18.10	\$3,146.11

2

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2019	45a	Connection Impact Assessments - Net Metering	Direct Labour - Clerical	\$81.00	0.87		\$70.47	\$38.27	\$108.74	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$119.24	2.83		\$337.45	\$183.23	\$520.68								
			Direct Labour - Technician (GR64)	\$90.07	14.25		\$1,283.50	\$696.94	\$1,980.44								
			Direct Labour - Field Staff (ADET)	\$85.54	4.08		\$349.00	\$189.51	\$538.50								
			Direct Labour - MP2	\$106.92	0.16		\$17.11	\$9.29	\$26.40								
			Payroll Burden	54.30%							\$3,174.75					\$18.10	\$3,192.85

3

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2020	45a	Connection Impact Assessments - Net Metering	Direct Labour - Clerical	\$81.96	0.87		\$71.31	\$39.15	\$110.45	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$120.69	2.83		\$341.55	\$187.51	\$529.07								
			Direct Labour - Technician (GR64)	\$91.00	14.25		\$1,296.75	\$711.92	\$2,008.67								
			Direct Labour - Field Staff (ADET)	\$86.48	4.08		\$352.84	\$193.71	\$546.55								
			Direct Labour - MP2	\$108.43	0.16		\$17.35	\$9.52	\$26.87								
			Payroll Burden	54.90%						\$3,221.60						\$18.10	\$3,239.70
2021	45a	Connection Impact Assessments - Net Metering	Direct Labour - Clerical	\$82.92	0.87		\$72.14	\$40.11	\$112.25	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$121.49	2.83		\$343.82	\$191.16	\$534.98								
			Direct Labour - Technician (GR64)	\$91.92	14.25		\$1,309.86	\$728.28	\$2,038.14								
			Direct Labour - Field Staff (ADET)	\$87.42	4.08		\$356.67	\$198.31	\$554.98								
			Direct Labour - MP2	\$109.27	0.16		\$17.48	\$9.72	\$27.20								
			Payroll Burden	55.60%						\$3,267.56						\$18.10	\$3,285.66
2022	45a	Connection Impact Assessments - Net Metering	Direct Labour - Clerical	\$84.20	0.87		\$73.25	\$40.73	\$113.98	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$122.77	2.83		\$347.44	\$193.18	\$540.62								
			Direct Labour - Technician (GR64)	\$93.20	14.25		\$1,328.10	\$738.42	\$2,066.52								
			Direct Labour - Field Staff (ADET)	\$88.70	4.08		\$361.90	\$201.21	\$563.11								
			Direct Labour - MP2	\$110.56	0.16		\$17.69	\$9.84	\$27.53								
			Payroll Burden	55.60%						\$3,311.76						\$18.10	\$3,329.86

1 **1.1.10.2 CONNECTION IMPACT ASSESSMENTS – EMBEDDED**
2 **LDC GENERATORS (RATE CODE 45B)**

3
4 This category covers CIAs for Capacity Allocation Exempt (“CAE”) sized Distributed
5 Generation (“DG”) projects, including load displacement and energy storage facilities, proposed
6 for connection to the distribution system of an embedded LDC. This type of CIA is completed
7 by Hydro One at the request of a downstream LDC for the connection of a CAE-sized project to
8 a Hydro One shared feeder.

9
10 As per the DSC, a “CAE small embedded generation facility” is an embedded generation facility
11 that has a name-plate rated capacity of 250 kW or less in the case of a facility connected to a less
12 than 15 kV line, or 500 kW or less in the case of a facility connected to a 15 kV or greater line,
13 and is not a micro-embedded generation facility.

1

Table 16: Connection Impact Assessments – Embedded LDC Generators

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	45b	Connections - Embedded LDC Generators	Direct Labour - Clerical	\$80.08	0.87		\$69.67	\$37.34	\$107.01	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$117.84	1.25		\$147.30	\$78.95	\$226.25								
			Direct Labour - Technician (GR64)	\$89.20	1.58		\$140.94	\$75.54	\$216.48								
			Direct Labour - Field Staff (ADET)	\$84.64	4.08		\$345.33	\$185.10	\$530.43								
			Direct Labour - MP2	\$105.47	10.66		\$1,124.31	\$602.63	\$1,726.94								
			Payroll Burden	53.60%						\$2,807.11						\$18.10	\$2,825.21
2019	45b	Connections - Embedded LDC Generators	Direct Labour - Clerical	\$81.00	0.87		\$70.47	\$38.27	\$108.74	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$119.24	1.25		\$149.05	\$80.93	\$229.98								
			Direct Labour - Technician (GR64)	\$90.07	1.58		\$142.31	\$77.27	\$219.59								
			Direct Labour - Field Staff (ADET)	\$85.54	4.08		\$349.00	\$189.51	\$538.50								
			Direct Labour - MP2	\$106.92	10.66		\$1,139.77	\$618.89	\$1,758.66								
			Payroll Burden	54.30%						\$2,855.47						\$18.10	\$2,873.57

2

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2020	45b	Connection Impact Assessments - Embedded LDC Generators	Direct Labour - Clerical	\$81.96	0.87		\$71.31	\$39.15	\$110.45	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$120.69	1.25		\$150.86	\$82.82	\$233.69								
			Direct Labour - Technician (GR64)	\$91.00	1.58		\$143.78	\$78.94	\$222.72								
			Direct Labour - Field Staff (ADET)	\$86.48	4.08		\$352.84	\$193.71	\$546.55								
			Direct Labour - MP2	\$108.43	10.66		\$1,155.86	\$634.57	\$1,790.43								
			Payroll Burden	54.90%							\$2,903.83					\$18.10	\$2,921.93

1

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2021	45b	Connection Impact Assessments - Embedded LDC Generators	Direct Labour - Clerical	\$82.92	0.87		\$72.14	\$40.11	\$112.25	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$121.49	1.25		\$151.86	\$84.44	\$236.30								
			Direct Labour - Technician (GR64)	\$91.92	1.58		\$145.23	\$80.75	\$225.98								
			Direct Labour - Field Staff (ADET)	\$87.42	4.08		\$356.67	\$198.31	\$554.98								
			Direct Labour - MP2	\$109.27	10.66		\$1,164.82	\$647.64	\$1,812.46								
			Payroll Burden	55.60%						\$2,941.97						\$18.10	\$2,960.07
2022	45b	Connection Impact Assessments - Embedded LDC Generators	Direct Labour - Clerical	\$84.20	0.87		\$73.25	\$40.73	\$113.98	Small Vehicle Time	\$10.00	1.81	\$18.10				
			Direct Labour - MP4	\$122.77	1.25		\$153.46	\$85.33	\$238.79								
			Direct Labour - Technician (GR64)	\$93.20	1.58		\$147.26	\$81.87	\$229.13								
			Direct Labour - Field Staff (ADET)	\$88.70	4.08		\$361.90	\$201.21	\$563.11								
			Direct Labour - MP2	\$110.56	10.66		\$1,178.57	\$655.28	\$1,833.85								
			Payroll Burden	55.60%						\$2,978.87						\$18.10	\$2,996.97

1 **1.1.10.3 CONNECTION IMPACT ASSESSMENTS – SMALL**
2 **PROJECTS < =500 KW (RATE CODE 45C)**

3
4 This category covers CIA completed for CAE-sized DG projects, including load
5 displacement and energy storage facilities, proposed for connection to Hydro One
6 distribution system. When no LDC is involved, this type of CIA is completed by Hydro
7 One at the request of an applicant.

1 **Table 17: Connection Impact Assessments – Small Projects ≤500 kW**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2018	45c	Connection Impact Assessments - Small Projects ≤500 kW	Direct Labour - Clerical	\$80.08	0.87		\$69.67	\$37.34	\$107.01	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$117.84	3.42		\$403.01	\$216.01	\$619.03									
			Direct Labour - Technician (GR64)	\$89.20	10.85		\$967.82	\$518.75	\$1,486.57									
			Direct Labour - Field Staff (ADET)	\$84.64	4.08		\$345.33	\$185.10	\$530.43									
			Direct Labour - MP2	\$105.47	2.81		\$296.37	\$158.85	\$455.23									
			Payroll Burden	53.60%					\$3,198.27					\$18.10	\$3,216.37	\$3,216.37		

2

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2019	45c	Connection Impact Assessments - Small Projects ≤500 kW	Direct Labour - Clerical	\$81.00	0.87		\$70.47	\$38.27	\$108.74	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$119.24	3.42		\$407.80	\$221.44	\$629.24									
			Direct Labour - Technician (GR64)	\$90.07	10.85		\$977.26	\$530.65	\$1,507.91									
			Direct Labour - Field Staff (ADET)	\$85.54	4.08		\$349.00	\$189.51	\$538.50									
			Direct Labour - MP2	\$106.92	2.81		\$300.45	\$163.14	\$463.59									
			Payroll Burden	54.30%					\$3,247.97					\$18.10	\$3,266.07	\$3,266.07		

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2020	45c	Connection Impact Assessments - Small Projects <=500 kW	Direct Labour - Clerical	\$81.96	0.87		\$71.31	\$39.15	\$110.45	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$120.69	3.42		\$412.76	\$226.61	\$639.36									
			Direct Labour - Technician (GR64)	\$91.00	10.85		\$987.35	\$542.06	\$1,529.41									
			Direct Labour - Field Staff (ADET)	\$86.48	4.08		\$352.84	\$193.71	\$546.55									
			Direct Labour - MP2	\$108.43	2.81		\$304.69	\$167.27	\$471.96									
			Payroll Burden	54.90%						\$3,297.73						\$18.10	\$3,315.83	\$3,315.83
2021	45c	Connection Impact Assessments - Small Projects <=500 kW	Direct Labour - Clerical	\$82.92	0.87		\$72.14	\$40.11	\$112.25	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$121.49	3.42		\$415.50	\$231.02	\$646.51									
			Direct Labour - Technician (GR64)	\$91.92	10.85		\$997.33	\$554.52	\$1,551.85									
			Direct Labour - Field Staff (ADET)	\$87.42	4.08		\$356.67	\$198.31	\$554.98									
			Direct Labour - MP2	\$109.27	2.81		\$307.05	\$170.72	\$477.77									
			Payroll Burden	55.60%						\$3,343.36						\$18.10	\$3,361.46	\$3,361.46

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2022	45c	Connection Impact Assessments - Small Projects <=500 kW	Direct Labour - Clerical	\$84.20	0.87		\$73.25	\$40.73	\$113.98	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$122.77	3.42		\$419.87	\$233.45	\$653.32									
			Direct Labour - Technician (GR64)	\$93.20	10.85		\$1,011.22	\$562.24	\$1,573.46									
			Direct Labour - Field Staff (ADET)	\$88.70	4.08		\$361.90	\$201.21	\$563.11									
			Direct Labour - MP2	\$110.56	2.81		\$310.67	\$172.73	\$483.41									
			Payroll Burden	55.60%							\$3,387.28					\$18.10	\$3,405.38	\$3,405.38

1 **1.1.10.4 CONNECTION IMPACT ASSESSMENTS – SMALL**
2 **PROJECTS <= 500 KW, SIMPLIFIED (RATE CODE 45D)**

3
4 The following CAE-sized, three-phase projects are eligible for a simplified CIA based on
5 size of the generator and its connecting voltage:

- 6 • 10 kW < DG project ≤ 30 kW if connecting to < 15 kV
7 • 10 kW < DG project ≤ 100 kW if connecting to ≥ 15 kV

8
9 The size of the three-phase project under each category is small enough that the impact
10 on the system is not significant. Hence, the DG applicant receives a simplified CIA
11 along with the class-C estimate. Single-phase projects are not eligible for the simplified
12 CIA.

1

Table 18: Connection Impact Assessments – Small Projects <500 kW, Simplified

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2018	45d	Connection Impact Assessments - Small Projects <=500 kW, Simplified	Direct Labour - Clerical	\$80.08	0.87		\$69.67	\$37.34	\$107.01	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$117.84	3.54		\$417.15	\$223.59	\$640.75									
			Direct Labour - Technician (GR64)	\$89.20	3.63		\$323.80	\$173.55	\$497.35									
			Direct Labour - Field Staff (ADET)	\$84.64	4.08		\$345.33	\$185.10	\$530.43									
			Direct Labour - MP2	\$105.47	0.91		\$95.98	\$51.44	\$147.42									
			Payroll Burden	53.60%							\$1,922.96					\$18.10	\$1,941.06	\$1,941.06
2019	45d	Connection Impact Assessments - Small Projects <=500 kW, Simplified	Direct Labour - Clerical	\$81.00	0.87		\$70.47	\$38.27	\$108.74	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$119.24	3.54		\$422.11	\$229.21	\$651.32									
			Direct Labour - Technician (GR64)	\$90.07	3.63		\$326.95	\$177.54	\$504.49									
			Direct Labour - Field Staff (ADET)	\$85.54	4.08		\$349.00	\$189.51	\$538.50									
			Direct Labour - MP2	\$106.92	0.91		\$97.30	\$52.83	\$150.13									
			Payroll Burden	54.30%							\$1,953.17					\$18.10	\$1,971.27	\$1,971.27

2

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge		
2020	45d	Connection Impact Assessments - Small Projects <=500 kW, Simplified	Direct Labour - Clerical	\$81.96	0.87		\$71.31	\$39.15	\$110.45	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$120.69	3.54		\$427.24	\$234.56	\$661.80									
			Direct Labour - Technician (GR64)	\$91.00	3.63		\$330.33	\$181.35	\$511.68									
			Direct Labour - Field Staff (ADET)	\$86.48	4.08		\$352.84	\$193.71	\$546.55									
			Direct Labour - MP2	\$108.43	0.91		\$98.67	\$54.17	\$152.84									
			Payroll Burden	54.90%						\$1,983.32						\$18.10	\$2,001.42	\$2,001.42
2021	45d	Connection Impact Assessments - Small Projects <=500 kW, Simplified	Direct Labour - Clerical	\$82.92	0.87		\$72.14	\$40.11	\$112.25	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$121.49	3.54		\$430.07	\$239.12	\$669.20									
			Direct Labour - Technician (GR64)	\$91.92	3.63		\$333.67	\$185.52	\$519.19									
			Direct Labour - Field Staff (ADET)	\$87.42	4.08		\$356.67	\$198.31	\$554.98									
			Direct Labour - MP2	\$109.27	0.91		\$99.44	\$55.29	\$154.72									
			Payroll Burden	55.60%						\$2,010.34						\$18.10	\$2,028.44	\$2,028.44
2022	45d	Connection Impact Assessments - Small Projects <=500 kW, Simplified	Direct Labour - Clerical	\$84.20	0.87		\$73.25	\$40.73	\$113.98	Small Vehicle Time	\$10.00	1.81	\$18.10					
			Direct Labour - MP4	\$122.77	3.54		\$434.61	\$241.64	\$676.25									
			Direct Labour - Technician (GR64)	\$93.20	3.63		\$338.32	\$188.10	\$526.42									
			Direct Labour - Field Staff (ADET)	\$88.70	4.08		\$361.90	\$201.21	\$563.11									
			Direct Labour - MP2	\$110.56	0.91		\$100.61	\$55.94	\$156.55									
			Payroll Burden	55.60%						\$2,036.31						\$18.10	\$2,054.41	\$2,054.41

1 **1.1.10.5 CONNECTION IMPACT ASSESSMENTS – GREATER THAN**
2 **CAPACITY ALLOCATION EXEMPT PROJECTS –**
3 **CAPACITY ALLOCATION REQUIRED PROJECTS (RATE**
4 **CODE 45E)**

5
6 The category covers the Capacity Allocation Required (“CAR”) CIAs for all DG projects,
7 including net metering, load displacement and energy storage facilities, greater than
8 Capacity Allocation Exempt (“CAE”) size. CAR projects have a capacity greater than 250
9 kW if connecting to less than 15 kV line, and greater than 500 kW if connecting to a line
10 greater than or equal to 15 kV.

1 **Table 19: Connection Impact Assessments – Greater than Capacity Allocation Exempt Projects**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	45e	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - Capacity Allocation Required Projects	Direct Labour - Clerical	\$80.08	0.62		\$49.65	\$26.61	\$76.26								
			Direct Labour - MP2	\$105.47	11.10		\$1,170.72	\$627.50	\$1,798.22								
			Direct Labour - Intern	\$67.06	28.71		\$1,925.29	\$1,031.96	\$2,957.25								
			Direct Labour - MP4	\$117.84	20.37		\$2,400.40	\$1,286.61	\$3,687.02								
			Payroll Burden	53.60%						\$8,518.75					\$0.00	\$8,518.75	\$8,518.75
2019	45e	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - Capacity Allocation Required Projects	Direct Labour - Clerical	\$81.00	0.62		\$50.22	\$27.27	\$77.49								
			Direct Labour - MP2	\$106.92	11.10		\$1,186.81	\$644.44	\$1,831.25								
			Direct Labour - Intern	\$67.39	28.71		\$1,934.77	\$1,050.58	\$2,985.35								
			Direct Labour - MP4	\$119.24	20.37		\$2,428.92	\$1,318.90	\$3,747.82								
			Payroll Burden	54.30%						\$8,641.91					\$0.00	\$8,641.91	\$8,641.91

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2020	45e	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - Capacity Allocation Required Projects	Direct Labour - Clerical	\$81.96	0.62		\$50.82	\$27.90	\$78.71								
			Direct Labour - MP2	\$108.43	11.10		\$1,203.57	\$660.76	\$1,864.33								
			Direct Labour - Intern	\$67.77	28.71		\$1,945.68	\$1,068.18	\$3,013.85								
			Direct Labour - MP4	\$120.69	20.37		\$2,458.46	\$1,349.69	\$3,808.15								
			Payroll Burden	54.90%						\$8,765.05					\$0.00	\$8,765.05	\$8,765.05
2021	45e	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - Capacity Allocation Required Projects	Direct Labour - Clerical	\$82.92	0.62		\$51.41	\$28.58	\$79.99								
			Direct Labour - MP2	\$109.27	11.10		\$1,212.90	\$674.37	\$1,887.27								
			Direct Labour - Intern	\$68.78	28.71		\$1,974.67	\$1,097.92	\$3,072.59								
			Direct Labour - MP4	\$121.49	20.37		\$2,474.75	\$1,375.96	\$3,850.71								
			Payroll Burden	55.60%						\$8,890.57					\$0.00	\$8,890.57	\$8,890.57
2022	45e	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - Capacity Allocation Required Projects	Direct Labour - Clerical	\$84.20	0.62		\$52.20	\$29.03	\$81.23								
			Direct Labour - MP2	\$110.56	11.10		\$1,227.22	\$682.33	\$1,909.55								
			Direct Labour - Intern	\$70.06	28.71		\$2,011.42	\$1,118.35	\$3,129.77								
			Direct Labour - MP4	\$122.77	20.37		\$2,500.82	\$1,390.46	\$3,891.28								
			Payroll Burden	55.60%						\$9,011.83					\$0.00	\$9,011.83	\$9,011.83

1 **1.1.10.6 CONNECTION IMPACT ASSESSMENTS –**
2 **GREATER THAN CAPACITY ALLOCATION**
3 **EXEMPT PROJECTS – TS REVIEW FOR LDC**
4 **CAPACITY ALLOCATION REQUIRED PROJECTS**
5 **(RATE CODE 45F)**
6

7 The Transformer Station (“TS”) review CIAs are completed for all DG projects
8 greater than 500 kW, including load displacement and energy storage facilities,
9 connecting to LDC dedicated feeders. TS review CIAs are performed to determine
10 if any upgrades are required at an upstream TS in order to facilitate connection of the
11 DG projects to the distribution system. Changes in the feeder protection schemes
12 such as transfer trip, low set block signal, and distributed generator end open signal
13 are evaluated to ensure adequate protection of the equipment in the event of a
14 contingency on the system.

**Table 20: Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - TS Review for LDC
 Capacity Allocation Required Projects**

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2018	45f	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - TS Review for LDC Capacity Allocation Required Projects	Direct Labour - Clerical	\$80.08	0.62		\$49.65	\$26.61	\$76.26								
			Direct Labour - MP2	\$105.47	14.90		\$1,571.50	\$842.33	\$2,413.83								
			Direct Labour - Intern	\$67.06	10.44		\$700.11	\$375.26	\$1,075.36								
			Direct Labour - MP4	\$117.84	11.45		\$1,349.27	\$723.21	\$2,072.48								
			Payroll Burden	53.60%							\$5,637.93					\$0.00	\$5,637.93
2019	45f	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - TS Review for LDC Capacity Allocation Required Projects	Direct Labour - Clerical	\$81.00	0.62		\$50.22	\$27.27	\$77.49								
			Direct Labour - MP2	\$106.92	14.90		\$1,593.11	\$865.06	\$2,458.17								
			Direct Labour - Intern	\$67.39	10.44		\$703.55	\$382.03	\$1,085.58								
			Direct Labour - MP4	\$119.24	11.45		\$1,365.30	\$741.36	\$2,106.65								
			Payroll Burden	54.30%							\$5,727.89					\$0.00	\$5,727.89
2020	45f	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - TS Review for LDC Capacity Allocation Required Projects	Direct Labour - Clerical	\$81.96	0.62		\$50.82	\$27.90	\$78.71								
			Direct Labour - MP2	\$108.43	14.90		\$1,615.61	\$886.97	\$2,502.58								
			Direct Labour - Intern	\$67.77	10.44		\$707.52	\$388.43	\$1,095.95								
			Direct Labour - MP4	\$120.69	11.45		\$1,381.90	\$758.66	\$2,140.56								
			Payroll Burden	54.90%							\$5,817.80					\$0.00	\$5,817.80

Year	Rate Code	Specific Service Charge Description	Labour Description	Rate Amount	Hours/Units	Overtime Factor	Calculated Total	Payroll Burdens	Total Labour	Other Description	Rate Amount	Hours/Units	Calculated Total	Total Other	Calculated Total Charge	Proposed Charge	
2021	45f	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - TS Review for LDC Capacity Allocation Required Projects	Direct Labour - Clerical	\$82.92	0.62		\$51.41	\$28.58	\$79.99								
			Direct Labour - MP2	\$109.27	14.90		\$1,628.12	\$905.24	\$2,533.36								
			Direct Labour - Intern	\$68.78	10.44		\$718.06	\$399.24	\$1,117.31								
			Direct Labour - MP4	\$121.49	11.45		\$1,391.06	\$773.43	\$2,164.49								
			Payroll Burden	55.60%					\$5,895.15						\$0.00	\$5,895.15	\$5,895.15
2022	45f	Connection Impact Assessments - Greater than Capacity Allocation Exempt Projects - TS Review for LDC Capacity Allocation Required Projects	Direct Labour - Clerical	\$84.20	0.62		\$52.20	\$29.03	\$81.23								
			Direct Labour - MP2	\$110.56	14.90		\$1,647.34	\$915.92	\$2,563.27								
			Direct Labour - Intern	\$70.06	10.44		\$731.43	\$406.67	\$1,138.10								
			Direct Labour - MP4	\$122.77	11.45		\$1,405.72	\$781.58	\$2,187.29								
			Payroll Burden	55.60%					\$5,969.89						\$0.00	\$5,969.89	\$5,969.89

1 **APPENDIX C**

2
3 **1. SPECIFIC SERVICE CHARGES: OTHER FORMULAE, AMOUNTS**

4
5 **1.1 SPECIFIC CHARGES DESCRIPTION**

6
7 The charges in this section are determined by formulae that have been previously
8 approved by the OEB.

9
10 **1.1.1 SENTINEL LIGHTS & POLES**

11
12 **1.1.1.1 SENTINEL LIGHTS (RATE CODE 50)**

13
14 The sentinel light rental program is designed to provide rural customers with low-cost
15 security lighting. The service is provided primarily to rural residential, farm, and cottage
16 customers, for whom street lighting is not available.

17
18 Based on Hydro One’s recent Time Study, the customer charge is expected to increase
19 slightly on an annual basis. Hydro One is proposing to charge a flat fee for these services
20 over the entire planning period in order to avoid customer confusion and costly updates to
21 its Customer Information System (“CIS”), customer correspondence, and internal work
22 instructions.

23
24 The proposed rate for sentinel lights has been developed as follows:

1

Table 1: Specific Service Charges: Sentinel Lights

Specific Service Charges - Sentinel Lights							
Line No.	Particulars	Calculation of Revenue Requirement for Sentinel Lights					
		2017 (Current Rate)	2018	2019	2020	2021	2022
1	Mid-Year Rate Base	\$6.46	\$6.03	\$5.61	\$5.19	\$4.76	\$4.34
	Cost of Service						
2	Operating, maintenance & administrative	\$1.33	\$1.24	\$1.26	\$1.28	\$1.30	\$1.32
3	Depreciation & amortization	\$1.45	\$1.46	\$1.48	\$1.50	\$1.52	\$1.55
4	Income taxes	\$0.20	\$0.19	\$0.19	\$0.19	\$0.19	\$0.19
5	Cost of service excluding return	\$2.98	\$2.89	\$2.94	\$2.98	\$3.02	\$3.06
6	Return on capital	\$0.46	\$0.36	\$0.34	\$0.31	\$0.29	\$0.26
7	Total revenue requirement (\$M)	\$3.44	\$3.25	\$3.27	\$3.29	\$3.31	\$3.32
8	Mid- Year Number of Sentinel Lights	30,100	27,169	26,866	26,550	26,274	26,035
9	Annual Revenue Requirement per Light,\$	\$114.17	\$119.62	\$121.78	\$123.86	\$125.80	\$127.61
10	Calculated Monthly Charge Per Light	\$9.51	\$9.97	\$10.15	\$10.32	\$10.48	\$10.63
11	Proposed Monthly Charge Per Light		\$10.00	\$10.00	\$10.00	\$10.00	\$10.00

1.1.1.2 SENTINEL LIGHT POLES (RATE CODE 51)

The sentinel light pole rental program is designed to provide rural customers with a pole to attach a light. The service is provided primarily to rural residential, farm, and cottage customers.

The proposed rate for sentinel light poles has been developed as follows:

Table 2: Specific Service Charges: Sentinel Light Poles

Specific Service Charges - Sentinel Light Poles							
Line No.	Particulars	Calculation of Revenue Requirement for Sentinel Light Poles					
		2017 (Current Rate)	2018	2019	2020	2021	2022
1	Mid-Year Rate Base		\$1.20	\$1.16	\$1.13	\$1.09	\$1.06
	Cost of Service						
2	Operating, maintenance & administrative						
3	Depreciation & amortization		\$0.04	\$0.04	\$0.04	\$0.04	\$0.04
4	Income taxes		\$0.02	\$0.01	\$0.01	\$0.01	\$0.01
5	Cost of service excluding return		\$0.05	\$0.05	\$0.05	\$0.05	\$0.05
6	Return on capital		\$0.07	\$0.07	\$0.07	\$0.07	\$0.06
7	Total revenue requirement		\$0.12	\$0.12	\$0.12	\$0.12	\$0.11
8	Mid- Year Number of Sentinel Light Poles		1,428	1,418	1,407	1,399	1,392
9	Annual Revenue Requirement per Pole,\$		\$86.06	\$84.83	\$83.65	\$82.28	\$80.82
10	Calculated Monthly Charge Per Pole	\$4.15	\$7.17	\$7.07	\$6.97	\$6.86	\$6.74
11	Proposed Monthly Charge Per Pole		\$7.00	\$7.00	\$7.00	\$7.00	\$7.00

1 **1.1.2 JOINT USE CHARGES**

2

3 **1.1.2.1 JOINT USE – TELECOMMUNICATIONS (RATE CODE 30)**

4

5 In EB-2015-0141, the OEB accepted the methodology and determined a per attacher, per
6 pole rate of \$41.28 for telecommunication companies that attach wireline attachments to
7 Hydro One’s poles. In November 2015, the OEB initiated a comprehensive policy
8 review of miscellaneous rates and charges applied by electricity distributors, prioritizing
9 the review of wireline pole attachments (EB-2015-0304). As a result of the consultation
10 process, Hydro One expects the OEB will decide on an updated methodology for
11 determining wireline charges for pole attachments.

12

13 For this Application, as seen in Table 3 below, Hydro One has calculated Joint Use
14 Telecom charges from 2018 to 2022, using the methodology approved in EB-2015-0141.
15 Hydro One proposes adopting these charges until the OEB issues its decision in EB-
16 2015-0304. Once the Decision is issued, Hydro One will revise its charges to comply
17 with it prospectively.

18

19 Using the methodology approved in EB-2015-0141, Table 3 shows how Hydro One
20 updated the calculation using 2016 audited actual numbers as a basis to determine the
21 2017 rate. Hydro One proposes that the 2017 rate is escalated at a rate of CPI, less the
22 currently applicable Hydro One productivity factor, to determine the rates from 2018 to
23 2022. Hydro One used the OEB inflation rates for 2017 and used projected CPI for the
24 test years because the OEB inflation rates are not available during the test years period.

1

Table 3: Specific Service Charges - Joint Use Telecom

Calculation of Telecom Joint Use Costs	Rate based on EB-2015-0141		2017 (Based on Actual 2016 Data)	2018	2019	2020	2021	2022
Net Embedded Cost	\$944.49		\$1,178.33					
Depreciation per Pole	\$23.83		\$28.47					
Capital Carrying Cost	\$80.19		\$91.79					
Maintenance (Lines Only)	\$4.69		\$4.08					
Total Capital Related Costs	\$108.71		\$124.34					
Allocated Capital Cost	\$37.29		\$42.65					
Loss of Productivity	\$3.09		\$3.18					
Administration	\$0.90		\$0.93					
Vegetation Mgmt	\$0.00		\$0.00					
Total Licensee Cost	\$41.28		\$46.75	\$47.43	\$48.16	\$48.90	\$49.65	\$50.40

2

3 **Explanation of Underlying Pole Attachment Rate Calculations as seen in Table 3**
 4 **above**

5

6 1. **2016 Net Embedded Cost (NEC) of \$1,178.33** = {[2016 Year End Acquisition
 7 Value (\$3,079,485,436) - 2016 Accumulated Depreciation (\$912,770,751) =
 8 \$2,166,714,685]/Qty. of Poles on December 31, 2016 (1,562,984)}*85%

9 *Note: For clarity, the pole number above does not include poles from the Acquired
 10 Utilities. **2016 Depreciation Cost of \$28.47** = [2016 Year End Acquisition Value
 11 (\$3,079,485,436) * HONI Depreciation Rate (1.7%) * 85% allocation factor to
 12 remove any pole-associated assets] / Qty. of Poles (1,562,984)

1 2. **2016 Capital Carrying Cost of \$91.79** = 2016 NEC of \$1,178.33 * 2016 Pre-Tax
2 Weighted Average Cost of Capital (7.79%)

3 3. **2016 Pole Maintenance Costs of \$4.08** =

4 **Lines Maintenance**

5 • USofA 5120: Maintenance of Poles, Towers and Fixtures
6 • Sub Account 1464 - Trouble Calls (\$14.14M) + Subaccount 1467 -
7 OM&A Cost Storm Response (\$1.56M) + Subaccount 1469 -
8 Defect Corrections (\$1.34M) = \$17.04M

9 • \$17.04M x 5% (5% of the time work is pole related) = \$0.85M

10 • USofA 5125: Maintenance of Overhead Conductors and Devices

11 • Subaccount 1464 - Trouble Calls (\$36.43M) + Subaccount 1467 -
12 OM&A Cost Storm Response (\$4.03M) + Subaccount 1469 -
13 Defect Corrections (\$6.81M) = \$47.27M

14 • \$47.27M x 5% (5% of the time work is primary neutral conductor
15 related) = \$2.36M

16 • USofA 5020: Maintenance Line Patrols

17 • (\$8.16M)*77.5% (77.5% of the time, work is attributable to
18 Overhead Distribution Lines and Feeders) = \$6.32M

19 • \$6.32M x 50% (50% of the time, work is related to the pole) =
20 \$3.16M

21 • **Total Lines Maintenance** = \$0.85M+\$2.36M+\$6.32M

22 • = \$6.37M

23 • = \$6.37M/1,562,984 poles

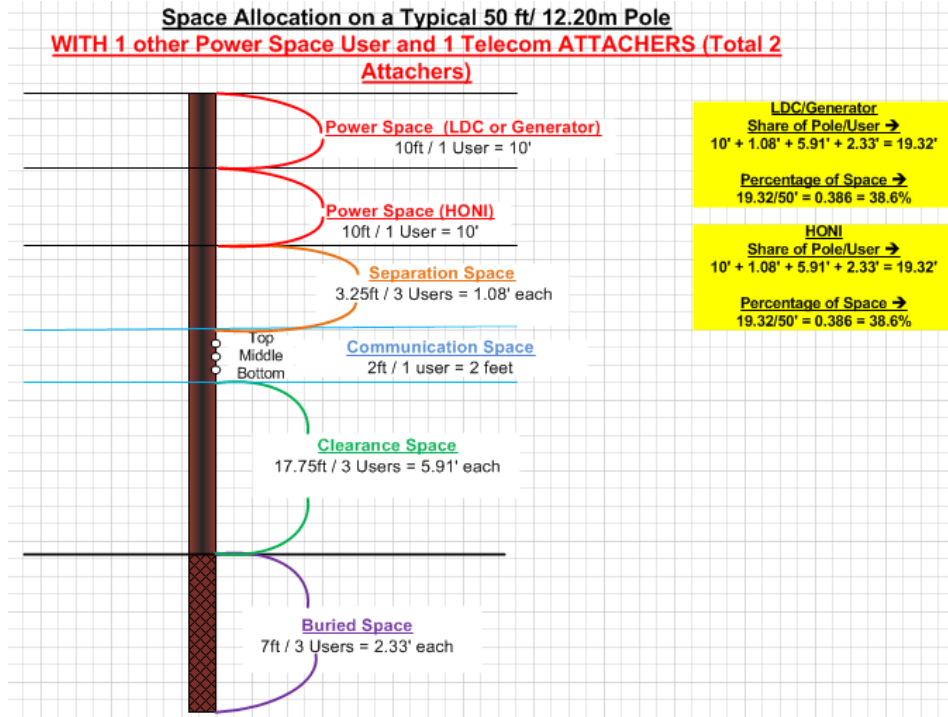
24 • = **\$4.08/pole**

25 4. **Loss of Productivity of \$3.18** = Loss of Productivity approved in EB-2015-0141,
26 escalated for two years by OEB-approved Inflation Rate (1.9%), minus Hydro One
27 Productivity Factor (0.45%): $3.09 * [1 + (0.019 - 0.0045)]^2 = 3.18$

1 5. **Administration Costs of \$0.93** = Admin. Costs approved in EB-2015-0141,
2 escalated for two years by OEB-approved Inflation Rate (1.9%), minus Hydro One
3 Productivity Factor (0.45%): $\$0.90 * [1 + (0.019 - 0.0045)]^2 = \0.93

4
5 **1.1.2.2 JOINT USE – LOCAL DISTRIBUTION COMPANIES (LDCS)**
6 **AND GENERATORS (RATE CODE 47 & 48)**

7
8 As referenced in EB-2013-0416, LDCs and generators both use power space, and require
9 the same space allocation. Using the OEB-approved methodology, as shown in Tables 4
10 and 5, Hydro One calculated the proposed charges using 2016 audited actual numbers as
11 a basis to determine the 2017 rate, with the modification of the space allocation factor
12 from 28.1% to 38.6% on a 50-foot pole, as seen in Figure 1 below. Hydro One proposes
13 escalating the 2017 rate at a rate of CPI, less the currently applicable Hydro One
14 productivity factor, to determine the rates from 2018 to 2022. Hydro One used the OEB
15 inflation rates for 2017 and used projected CPI for the test years as the OEB inflation
16 rates are not available during the forecast period.



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Figure 1

Table 4: Specific Service Charge: LDC Joint Use

Calculation of LDC Joint Use Costs	2015 (from EB-2013-0416)	2017 (from EB-2013-0416)	2017	2018	2019	2020	2021	2022
Net Embedded Cost	\$745.86	\$760.85	\$1,178.33	-	-	-	-	-
Depreciation per Pole	\$12.68	\$12.93	\$28.47	-	-	-	-	-
Capital Carrying Cost	\$63.32	\$64.60	\$91.79	-	-	-	-	-
Maintenance (L&F)	\$82.41	\$84.07	\$86.81	-	-	-	-	-
Total Capital Related Costs	\$158.41	\$161.60	\$207.07	-	-	-	-	-
Allocated Capital Cost	\$44.51	\$45.41	\$79.93	-	-	-	-	-
Loss of Productivity	\$1.51	\$1.54	\$3.18	-	-	-	-	-
Administration	\$0.85	\$0.87	\$0.93	-	-	-	-	-

Calculation of LDC Joint Use Costs	2015 (from EB-2013-0416)	2017 (from EB-2013-0416)		2017	2018	2019	2020	2021	2022
Vegetation Mgmt	\$0.00	\$0.00		\$0.00	-	-	-	-	-
Licensee Cost (10' of power space)	\$46.88	\$47.82		\$84.03	\$85.25	\$86.56	\$87.90	\$89.24	\$90.60
Licensee Cost (15' of power space)	\$56.25	\$57.38		\$100.84	\$102.30	\$103.88	\$105.48	\$107.09	\$108.72
Licensee Cost (20' of power space)	\$62.81	\$64.08		\$112.04	\$113.67	\$115.42	\$117.20	\$118.99	\$120.80
Licensee Cost (25' of power space)	\$66.56	\$67.90		\$120.05	\$121.79	\$123.66	\$125.57	\$127.49	\$129.43
Licensee Cost (30' of power space)	\$70.31	\$71.73		\$126.05	\$127.88	\$129.85	\$131.85	\$133.86	\$135.90
Licensee Cost (35' of power space)	\$73.13	\$74.60		\$130.72	\$132.61	\$134.66	\$136.73	\$138.82	\$140.93
Licensee Cost (40' of power space)	\$75.00	\$76.51		\$134.45	\$136.40	\$138.50	\$140.64	\$142.79	\$144.96
Licensee Cost (45' of power space)	\$76.88	\$78.42		\$137.51	\$139.50	\$141.65	\$143.83	\$146.03	\$148.25
Licensee Cost (50' of power space)	\$77.81	\$79.38		\$140.05	\$142.09	\$144.27	\$146.50	\$148.74	\$151.00
Licensee Cost (55' of power space)	\$79.69	\$81.29		\$142.21	\$144.27	\$146.49	\$148.75	\$151.03	\$153.32
Licensee Cost (60' of power space)	\$80.63	\$82.25		\$144.06	\$146.15	\$148.40	\$150.68	\$152.99	\$155.31

1 **Explanation of Underlying Pole Attachment Rate Calculations as seen in Table 4**
2 **above**

3
4 1. **2016 Net Embedded Cost (NEC) of \$1,178.33** = {[2016 Year End Acquisition
5 Value (\$3,079,485,436) - 2016 Accumulated Depreciation (\$912,770,751) =
6 [\$2,166,714,685]/Qty. of Poles on December 31, 2016 (1,562,984)}*85%

7 2. **2016 Depreciation Cost of \$28.47** = [2016 Year End Acquisition Value
8 (\$3,079,485,436) * HONI Depreciation Rate (1.7%) * 85% allocation factor to
9 remove any pole-associated assets] / Qty. of Poles (1,562,984)

10 3. **2016 Capital Carrying Cost of \$91.79** = 2016 NEC of \$1,178.33 * 2016 Pre-Tax
11 Weighted Average Cost of Capital (7.79%)

12 4. **2016 Pole Maintenance Costs of \$86.81** =

13 **Lines Maintenance**

- 14 • USofA 5120: Maintenance of Poles, Towers and Fixtures

15 • Sub Account 1464 - Trouble Calls (\$14.14M) + Subaccount 1467 -
16 OM&A Cost Storm Response (\$1.56M) + Subaccount 1469 -
17 Defect Corrections (\$1.34M) = \$17.04M

18 • \$17.04M x 5% (5% of the time work is pole related) = \$0.85M

- 19 • USofA 5125: Maintenance of Overhead Conductors and Devices

20 • Subaccount 1464 - Trouble Calls (\$36.43M) + Subaccount 1467 -
21 OM&A Cost Storm Response (\$4.03M) + Subaccount 1469 -
22 Defect Corrections (\$6.81M) = \$47.27M

23 • \$47.27M x 5% (5% of the time work is primary neutral conductor
24 related) = \$2.36M

- 25 • USofA 5020: Maintenance Line Patrols

26 • (\$8.16M)*77.5% (77.5% of the time, work is attributable to
27 Overhead Distribution Lines and Feeders) = \$6.32M

1 • \$6.32M x 50% (50% of the time, work is related to the pole) =
2 \$3.16M

- 3 • **Total Lines Maintenance** = \$0.85M + \$2.36M + \$3.16M
4 • = \$6.37M
5 • = \$6.37M / 1,562,984 poles
6 • = **\$4.08/pole**

7 **Forestry Maintenance**

- 8 • Line Clearing = \$87.4M
9 • Brush Control = \$35M
10 • Customer Notification = \$6.9M
11 • **Total Forestry Maintenance** = \$87.4M + \$35M + \$6.9M
12 ▪ = \$129.3M / 1,562,984 poles
13 ▪ = **\$82.73/pole**

14
15 **Total Lines & Forestry Maintenance** = **\$4.08/pole + \$82.73/pole**

- 16 ▪ **\$86.81 per pole**

17
18 5. **Loss of Productivity of \$3.18** = In determining the Loss of Productivity for this
19 current filing, HONI accepted the Loss of Productivity approved in EB-2015-0141,
20 and it was escalated for two years by OEB-approved Inflation Rate (1.9%), minus
21 Hydro One Productivity Factor (0.45%): $\$3.09 * [1 + (0.019 - 0.0045)]^2 = \3.18

22 6. **Administration Costs of \$0.93** = In determining the Administration Costs for this
23 current filing, HONI accepted the Administration Costs approved in EB-2015-0141,
24 and it was escalated for two years by OEB-approved Inflation Rate (1.9%),
25 minus Hydro One Productivity Factor (0.45%): $\$0.90 * [1 + (0.019 - 0.0045)] = \0.93

1 **Table 5: Specific Service Charge: Generator Joint Use**

Calculation of Generator Joint Use Costs	2015 (from EB-2013-0416)	2017 (from EB-2013-0416)	2017 rate (based on 2016 Year-End Actual Data)	2018	2019	2020	2021	2022
Net Embedded Cost	\$745.86	\$760.85	\$1,178.33	-	-	-	-	-
Depreciation per Pole	\$12.68	\$12.93	\$28.47	-	-	-	-	-
Capital Carrying Cost	\$63.32	\$64.60	\$91.79	-	-	-	-	-
Maintenance (L&F)	\$82.41	\$84.07	\$86.81	-	-	-	-	-
Total Capital Related Costs	\$158.41	\$161.60	\$207.07	-	-	-	-	-
Allocated Capital Cost	\$44.51	\$45.41	\$79.93	-	-	-	-	-
Loss of Productivity	\$1.51	\$1.54	\$3.18	-	-	-	-	-
Administration	\$0.85	\$0.87	\$0.93	-	-	-	-	-
Vegetation Mgmt	\$0.00	\$0.00	\$0.00	-	-	-	-	-
Licensee Cost (10' of power space)	\$46.88	\$47.82	\$84.03	\$85.25	\$86.56	\$87.90	\$89.24	\$90.60
Licensee Cost (15' of power space)	\$56.25	\$57.38	\$100.84	\$102.30	\$103.88	\$105.48	\$107.09	\$108.72
Licensee Cost (20' of power space)	\$62.81	\$64.08	\$112.04	\$113.67	\$115.42	\$117.20	\$118.99	\$120.80
Licensee Cost (25' of power space)	\$66.56	\$67.90	\$120.05	\$121.79	\$123.66	\$125.57	\$127.49	\$129.43
Licensee Cost (30' of power space)	\$70.31	\$71.73	\$126.05	\$127.88	\$129.85	\$131.85	\$133.86	\$135.90
Licensee Cost (35' of power space)	\$73.13	\$74.60	\$130.72	\$132.61	\$134.66	\$136.73	\$138.82	\$140.93
Licensee Cost (40' of power space)	\$75.00	\$76.51	\$134.45	\$136.40	\$138.50	\$140.64	\$142.79	\$144.96
Licensee Cost (45' of power space)	\$76.88	\$78.42	\$137.51	\$139.50	\$141.65	\$143.83	\$146.03	\$148.25
Licensee Cost (50' of power space)	\$77.81	\$79.38	\$140.05	\$142.09	\$144.27	\$146.50	\$148.74	\$151.00
Licensee Cost (55' of power space)	\$79.69	\$81.29	\$142.21	\$144.27	\$146.49	\$148.75	\$151.03	\$153.32
Licensee Cost (60' of power space)	\$80.63	\$82.25	\$144.06	\$146.15	\$148.40	\$150.68	\$152.99	\$155.31

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1 **Explanation of Underlying Pole Attachment Rate Calculations as seen in Table 5**
2 **above**

3
4 1. **2016 Net Embedded Cost (NEC) of \$1,178.33** = {[2016 Year End Acquisition
5 Value (\$3,079,485,436) - 2016 Accumulated Depreciation (\$912,770,751) =
6 \$2,166,714,685]/Qty. of Poles on December 31, 2016 (1,562,984)}*85%

7 2. **2016 Depreciation Cost of \$28.47** = [2016 Year End Acquisition Value
8 (\$3,079,485,436) * HONI Depreciation Rate (1.7%) * 85% allocation factor to
9 remove any pole-associated assets] / Qty. of Poles (1,562,984)

10 3. **2016 Capital Carrying Cost of \$91.79** = 2016 NEC of \$1,178.33 * 2016 Pre-Tax
11 Weighted Average Cost of Capital (7.79%)

12 4. **2016 Pole Maintenance Costs of \$86.81** =

13 **Lines Maintenance**

- 14 • USofA 5120: Maintenance of Poles, Towers and Fixtures

15 • Sub Account 1464 - Trouble Calls (\$14.14M) + Subaccount 1467 -
16 OM&A Cost Storm Response (\$1.56M) + Subaccount 1469 - Defect
17 Corrections (\$1.34M) = \$17.04M

18 • \$17.04M x 5% (5% of the time work is pole related) = \$0.85M

- 19 • USofA 5125: Maintenance of Overhead Conductors and Devices

20 • Subaccount 1464 - Trouble Calls (\$36.43M) + Subaccount 1467 -
21 OM&A Cost Storm Response (\$4.03M) + Subaccount 1469 -
22 Defect Corrections (\$6.81M) = \$47.27M

23 • \$47.27M x 5% (5% of the time work is primary neutral conductor
24 related) = \$2.36M

- 1 • USofA 5020: Maintenance Line Patrols
- 2 • $(\$8.16M) \times 77.5\%$ (77.5% of the time, work is attributable to
- 3 Overhead Distribution Lines and Feeders) = \$6.32M
- 4 • $\$6.32M \times 50\%$ (50% of the time, work is related to the pole) =
- 5 \$3.16M
- 6 • **Total Lines Maintenance** = $\$0.85M + \$2.36M + \$3.16M$
- 7 • = \$6.37M
- 8 • = $\$6.37M / 1,562,984$ poles
- 9 • = **\$4.08/pole**

10 **Forestry Maintenance**

- 11 • Line Clearing = \$87.4M
- 12 • Brush Control = \$35M
- 13 • Customer Notification = \$6.9M
- 14 • **Total Forestry Maintenance** = $\$87.4M + \$35M + \$6.9M$
- 15 • = $\$129.3M / 1,562,984$ poles
- 16 • = **\$82.73/pole**

17

18 **Total Lines & Forestry Maintenance** = **\$4.08/pole + \$82.73/pole**

- 19 • **\$86.81 per pole**

20

- 21 5. **Loss of Productivity of \$3.18** = In determining the Loss of Productivity for this
- 22 current filing, HONI accepted the Loss of Productivity approved in EB-2015-0141,
- 23 and it was escalated for two years by OEB-approved Inflation Rate (1.9%), minus
- 24 Hydro One Productivity Factor (0.45%): $\$3.09 * [1 + (0.019 - 0.0045)]^2 = \3.18
- 25 6. **Administration Costs of \$0.93** = In determining the Administration Costs for this
- 26 current filing, HONI accepted the Administration Costs approved in EB-2015-0141,
- 27 and it was escalated for two years by OEB-approved Inflation Rate (1.9%), minus
- 28 Hydro One Productivity Factor (0.45%): $\$0.90 * [1 + (0.019 - 0.0045)]^2 = \0.93

Canadian Manufacturers & Exporters Interrogatory # 67

Issue:

Issue 45: Are the proposed other revenues for 2018 – 2022 appropriate?

Reference:

E1-01-02 Updated

Interrogatory:

- a) Please update the 2017 bridge year column in Table 3 to reflect actual year-to-date information for the latest period available in 2017 and the forecast for the remainder of the year.
- b) Based on the year-to-date information provided for 2017 in part (a) above, please provide the year-to-date figures in the same level of detail as shown in Table 3 for the corresponding period in 2016.

Response:

- a) Table 3 has been updated with 2017 actual revenue.

Table 3: Regulated Revenues (\$ Millions)

Description	Historical capital years			Bridge Year	Test Years				
	2014	2015	2016		2017	2018	2019	2020	2021
Retail Service capital revenues*	9.5	22.3	24.5	17.7	21.2	21.3	21.4	21.6	21.7
Sentinel Lights	2.8	3.0	3.2	3.1	2.9	2.7	2.5	2.3	2.0
Joint Use	8.0	8.2	19.5	13.0	14.9	16.1	16.4	17.3	17.6
er External Work*	4.1	2.8	3.1	2.0	2.3	2.3	2.4	2.4	2.4
Generator Studies	1.0	1.4	1.3	1.7	1.7	1.5	1.6	1.6	1.7
Total	25.4	37.7	51.6	37.5	42.9	43.9	44.2	45.1	45.4

- b) The 2017 data in part a) shows the full year's revenue, as does the 2016 data in the table.

1 **OEB Staff Interrogatory # 219**

2
3 **Issue:**

4 Issue 46: Is the load forecast methodology including the forecast of CDM savings appropriate?

5
6 **Reference:**

7 E1-02-01 Page: 7

8
9 **Interrogatory:**

10 The load forecast was last updated June 7, 2017 using data available in January 2017. Since then,
11 Hydro One prepared a partial update of the application in December 2017.

12
13 Please file an update of the load forecast using 2017 actual consumption information, or as much
14 of 2017 as possible. Please also update for updates to explanatory variables including actual and
15 normal weather, as well as historic and forecast economic data.

16
17 **Response:**

18 The following material is provided based on an update to the load forecast using 2017 actual
19 information:

- 20
- 21 • Updated Forecast and CDM Tables 3, 4, 7, and 8 originally provided in Exhibit E1, Tab
22 2, Schedule 1;
 - 23 • Updated Tables E2, E3, E4, E5, E6, E7, E8a, E8b, and E9 originally provided in
24 Appendix E to that Exhibit; and
 - 25 • Updated regression results for models in Appendix A and Appendix B to that Exhibit.

26 Updated explanatory variables including actual and normal weather, as well as historic and
27 forecast economic data are provided in the MS Excel attachment to this response.

1 **Table 3 (Updated) - Hydro One Distribution Load and Number of Customers**

Year	GWh Delivery Forecast	Distribution Customer Count
2018	35,055	1,297,878
2019	34,619	1,305,398
2020	34,543	1,312,936
2021	35,381	1,380,394
2022	35,357	1,388,694

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Table 4 (Updated) - CDM Impact on Hydro One Distribution Load (GWh)

Year	Retail Customers	ST Customers		Total
		Direct	LDC	
2015	1,619	169	856	2,644
2016	1,810	195	929	2,935
2017	1,982	209	957	3,149
2018	2,171	229	1,056	3,456
2019	2,377	252	1,153	3,782
2020	2,504	267	1,219	3,990
2021*	2,639	283	1,208	4,130
2022*	2,695	289	1,225	4,210

Note. All figures are weather-normal.

* Includes the impact of integrating Acquired Utilities into Hydro One Distribution.

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**Table 7 (Updated) - Hydro One Distribution Load Forecast Before and After
 Deducting CDM Impact (GWh)**

Year	Retail Customers	Embedded Customers	Total
<u>Load Forecast Before Deducting Impact of CDM</u>			
2015	21,822	17,241	39,063
2016	21,896	17,178	39,074
2017	21,646	16,928	38,574
2018	21,552	16,959	38,511
2019	21,483	16,918	38,401
2020	21,510	17,023	38,533
2021*	22,573	16,937	39,511
2022*	22,646	16,921	39,567
<u>Load Impact of CDM</u>			
2015	1,619	1,025	2,644
2016	1,810	1,124	2,935
2017	1,982	1,166	3,149
2018	2,171	1,286	3,456
2019	2,377	1,406	3,782
2020	2,504	1,486	3,990
2021*	2,639	1,491	4,130
2022*	2,695	1,514	4,210
<u>Load Forecast After Deducting Impact of CDM</u>			
2015	20,203	16,216	36,419
2016	20,085	16,054	36,139
2017	19,664	15,761	35,426
2018	19,382	15,673	35,055
2019	19,106	15,513	34,619
2020	19,006	15,537	34,543
2021*	19,934	15,446	35,381
2022*	19,951	15,406	35,357

Note. All figures are weather-normal.

* Includes Acquired Utilities.

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**Table 8 (Updated) - One Standard Deviation Uncertainty Bands for
Hydro One Distribution Load (GWh)**

Year	Lower Bound	Forecast	Upper Bound
2016	36,139	36,139	36,139
2017	35,426	35,426	35,426
2018	34,447	35,055	35,646
2019	33,801	34,619	35,450
2020	33,578	34,543	35,512
2021*	34,149	35,381	36,600
2022*	33,892	35,357	36,874

3

* Includes the impact of integrating Acquired Utilities into Hydro One Distribution.

APPENDIX E

Table E.2 (Updated) - Consensus Forecast for Ontario GDP and Housing Starts

Survey of Ontario GDP Forecast (annual growth rate in %)

	2017	2018	2019	2020	2021	2022
Global Insight (Nov 2017)	3.0	2.3	2.3	2.1	2.0	2.0
Conference Board (Nov 2017)	3.0	1.9	1.7	1.9	1.9	1.9
U of T (Oct 2017)	2.8	2.2	2.2	2.3	2.3	2.3
C4SE (Aug 2017)	2.8	2.0	2.5	2.2	1.7	2.0
CIBC (Dec 2017)	3.0	2.3	1.7			
BMO (Jan 2018)	2.8	2.4	2.0			
RBC (Sep 2017)	2.9	2.1	1.8			
Scotia (Jan 2018)	2.9	2.3	1.8			
TD (Dec 2017)	2.9	2.3	1.9			
Desjardins (Dec 2017)	3.0	2.3	1.8			
Central 1 (Dec 2017)	2.8	2.5	2.3			
National Bank (Jan 2018)	3.0	2.6	1.5			
Laurentian Bank (Aug 2017)	2.2	2.0				
Average	2.9	2.2	2.0	2.1	2.0	2.1

Survey of Ontario Housing Starts Forecast (in 000's)

	2017	2018	2019	2020	2021	2022
Global Insight (Nov 2017)	81.0	71.2	63.5	62.9	61.3	59.8
Conference Board (Nov 2017)	81.7	74.7	69.3	70.4	71.3	70.8
U of T (Aug 2017)	80.6	68.1	69.3	71.2	72.4	73.3
C4SE (Jan 2017)	72.8	81.0	79.8	78.9	78.7	75.8
CIBC (Dec 2017)	78.0	70.0	63.0			
BMO (Jan 2018)	80.2	76.0	70.0			
RBC (Sep 2017)	80.1	68.8	70.0			
Scotia (Jan 2018)	79.0	75.0	71.0			
TD (Dec 2017)	81.1	73.1	69.4			
Desjardins (Dec 2017)	82.6	68.9	67.7			
Central 1 (Dec 2017)	80.7	76.6	78.4			
National Bank (Jan 2018)	80.4	69.0	65.0			
Laurentian Bank (Aug 2017)	72.0	71.0				
Average	79.2	72.6	69.7	70.9	70.9	69.9

Forecast updated on January 20, 2018

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Table E.3 (Updated) - Economic Variables for Ontario

Year	GDP (2007 M\$)	% change	Population (1,000's)	% change	Housing (1,000's)	% change
2005	586,000	3.2	12,528	1.1	77.8	-7.9
2006	596,942	1.9	12,662	1.1	74.4	-4.4
2007	601,735	0.8	12,764	0.8	68.0	-8.6
2008	601,717	0.0	12,883	0.9	75.6	11.2
2009	582,941	-3.1	12,998	0.9	49.5	-34.5
2010	600,135	2.9	13,135	1.1	61.2	23.7
2011	614,590	2.4	13,264	1.0	68.5	11.9
2012	622,725	1.3	13,414	1.1	63.2	-7.8
2013	631,882	1.5	13,556	1.1	59.3	-6.3
2014	648,763	2.7	13,680	0.9	58.3	-1.7
2015	667,659	2.9	13,790	0.8	69.9	20.0
2016	685,008	2.6	13,976	1.4	75.3	7.7
2017	704,570	2.9	14,193	1.6	79.2	5.2
2018	720,361	2.2	14,375	1.3	72.6	-8.4
2019	734,437	2.0	14,553	1.2	69.7	-4.0
2020	750,103	2.1	14,720	1.1	70.9	1.6
2021	764,857	2.0	14,879	1.1	70.9	0.1
2022	780,618	2.1	15,034	1.0	69.9	-1.4

3

Table E.4 (Updated) - Number of Customers History and Forecast

Rate Class	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Generator	106	248	477	633	893	907	1,004	1,119	1,236	1,356	1,465	1,562
General Service - Demand Billed	7,183	6,550	6,669	6,504	6,098	5,323	5,231	5,239	5,276	5,320	5,365	5,412
General Service - Energy Billed	98,095	98,513	98,568	95,503	87,686	88,878	88,523	87,902	87,625	87,464	87,424	87,505
Residential - Medium Density	402,173	403,304	409,901	416,493	432,519	441,836	447,647	447,029	450,545	454,013	457,450	460,812
Residential - Low Density	368,479	370,995	373,980	373,551	328,170	328,766	330,514	328,159	329,568	330,939	332,412	333,941
Seasonal	157,017	153,653	153,253	153,957	153,498	148,991	147,253	147,537	147,748	147,946	148,130	148,287
Sub-transmission *	794	795	800	882	838	804	805	807	810	813	824	827
Urban General Service - Demand Billed	1,272	1,185	1,184	1,167	1,893	1,715	1,711	1,735	1,739	1,746	1,755	1,766
Urban General Service - Energy Billed	11,650	12,308	12,307	10,807	17,703	17,780	17,747	18,000	18,050	18,123	18,220	18,342
Urban Residential	159,086	167,672	169,795	170,796	208,639	213,199	215,844	226,816	229,377	231,914	234,449	236,957
Street Light *	4,771	4,724	4,804	5,104	5,118	5,251	5,428	5,462	5,495	5,528	5,568	5,602
Sentinel Light *	31,447	30,504	30,380	26,670	25,689	24,364	22,761	22,582	22,407	22,220	22,270	22,150
Unmetered Scattered Load *	5,504	5,512	5,562	5,104	5,624	5,537	5,455	5,490	5,522	5,555	5,799	5,830
Acquired Residential	35,434	35,562	35,892	36,212	36,382	36,487	36,664	37,000	37,257	37,509	37,763	38,015
Acquired General Service - Energy Billed	4,361	4,357	4,340	4,349	4,350	4,348	4,282	4,280	4,278	4,276	4,274	4,272
Acquired General Service - Demand Billed	307	309	322	321	330	336	292	298	303	309	315	321
Acquired Urban Residential	13,709	13,862	14,020	14,175	14,353	14,515	14,703	14,887	15,058	15,227	15,397	15,565
Acquired Urban General Service - Energy Billed	1,180	1,207	1,222	1,243	1,246	1,263	1,257	1,271	1,284	1,297	1,310	1,323
Acquired Urban General Service - Demand Billed	193	185	182	189	193	193	201	205	205	205	205	205
Sum: Includes Newly Acquired for 2021-2022 only	1,247,577	1,255,963	1,267,680	1,267,171	1,274,369	1,283,351	1,289,922	1,297,878	1,305,398	1,312,936	1,380,394	1,388,694

* Includes Acquired Utilities corresponding figures in 2021 and 2022 only.

Table E.5 (Updated) - Hydro One Distribution Load History and Forecast in GWh

Year	Actual/Forecast GWh	Growth	Normalized Weather GWh	Growth
2011	37,641	-0.8	38,062	3.2
2012	37,627	0.0	37,419	-1.7
2013	37,621	0.0	37,418	0.0
2014	37,798	0.5	37,091	-0.9
2015	36,686	-2.9	36,419	-1.8
2016	35,856	-2.3	36,139	-0.8
2017	35,101	-2.1	35,426	-2.0
2018	35,055	-0.1	35,055	-1.0
2019	34,619	-1.2	34,619	-1.2
2020	34,543	-0.2	34,543	-0.2
2021*	35,381	2.4	35,381	2.4
2022*	35,357	-0.1	35,357	-0.1

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Table E.6 (Updated) - Actual Sales and Forecast in GWh

Rate Class	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Generator	8	11	14	16	16	17	26	27	28	29	30	31
General Service - Demand Billed	3,100	2,888	2,825	2,928	2,394	2,343	2,482	2,458	2,418	2,401	2,392	2,391
General Service - Energy Billed	2,306	2,518	2,398	2,358	2,189	2,132	2,239	2,207	2,154	2,120	2,096	2,081
Residential - Medium Density	4,402	4,396	4,553	4,499	4,930	4,851	4,596	4,592	4,560	4,569	4,589	4,620
Residential - Low Density	5,491	5,515	5,563	5,541	4,767	4,614	4,418	4,331	4,249	4,207	4,181	4,171
Seasonal	701	666	699	682	671	641	594	585	571	562	555	551
Sub-transmission *	16,787	17,082	16,395	16,599	15,806	15,468	15,143	15,158	15,003	15,026	14,918	14,878
Urban General Service - Demand Billed	686	677	607	628	1,064	1,036	1,020	1,037	1,022	1,016	1,014	1,016
Urban General Service - Energy Billed	397	415	400	382	600	589	597	604	595	591	589	589
Urban Residential	1,541	1,563	1,564	1,528	1,983	1,947	1,833	1,910	1,900	1,908	1,920	1,937
Street Light *	125	127	125	122	122	122	100	99	99	99	109	109
Sentinel Light *	19	19	20	20	21	21	14	14	13	13	14	14
Unmetered Scattered Load *	23	23	23	23	24	24	29	29	29	30	31	31
Acquired Residential	308	302	305	303	301	300	297	298	295	293	290	287
Acquired General Service - Energy Billed	114	111	110	111	110	109	111	111	109	108	107	106
Acquired General Service - Demand Billed	270	233	232	241	235	237	237	239	237	236	236	236
Acquired Urban Residential	105	106	107	106	102	100	100	99	98	97	95	94
Acquired Urban General Service - Energy Billed	41	43	44	43	43	43	41	42	41	41	41	42
Acquired Urban General Service - Demand Billed	164	128	129	136	136	138	143	147	145	145	146	146
Sum: Includes Acquired Utilities for 2021-2022 only	35,587	35,901	35,186	35,327	34,586	33,804	33,093	33,051	32,641	32,572	33,354	33,330

3 * Includes Acquired Utilities corresponding figures in 2021 and 2022 only.

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Table E.7 (Updated) - Weather Corrected Sales and Forecast in GWh

Rate Class	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Generator	8	11	14	16	16	17	26	27	28	29	30	31
General Service - Demand Billed	3,150	2,959	2,803	2,769	2,373	2,368	2,515	2,458	2,418	2,401	2,392	2,391
General Service - Energy Billed	2,343	2,580	2,380	2,229	2,169	2,155	2,269	2,207	2,154	2,120	2,096	2,081
Residential - Medium Density	4,466	4,495	4,528	4,453	4,901	4,907	4,645	4,592	4,560	4,569	4,589	4,620
Residential - Low Density	5,571	5,640	5,532	5,485	4,738	4,668	4,464	4,331	4,249	4,207	4,181	4,171
Seasonal	711	681	695	675	667	648	600	585	571	562	555	551
Sub-transmission *	16,901	16,427	16,421	16,271	15,683	15,526	15,243	15,158	15,003	15,026	14,918	14,878
Urban General Service - Demand Billed	697	694	602	594	1,054	1,047	1,034	1,037	1,022	1,016	1,014	1,016
Urban General Service - Energy Billed	404	425	397	362	595	595	605	604	595	591	589	589
Urban Residential	1,563	1,599	1,555	1,513	1,971	1,969	1,852	1,910	1,900	1,908	1,920	1,937
Street Light *	125	127	125	122	122	122	100	99	99	99	109	109
Sentinel Light *	19	19	20	20	21	21	14	14	13	13	14	14
Unmetered Scattered Load *	23	23	23	23	24	24	29	29	29	30	31	31
Acquired Residential	312	309	303	300	299	300	300	298	295	293	290	287
Acquired General Service - Energy Billed	115	114	109	105	109	109	112	111	109	108	107	106
Acquired General Service - Demand Billed	274	239	230	228	233	237	240	239	237	236	236	236
Acquired Urban Residential	107	108	107	105	101	100	101	99	98	97	95	94
Acquired Urban General Service - Energy Billed	42	44	43	40	42	43	42	42	41	41	41	42
Acquired Urban General Service - Demand Billed	167	132	128	128	135	138	145	147	145	145	146	146
Sum: Includes Acquired Utilities for 2021-2022 only	35,982	35,680	35,094	34,531	34,334	34,068	33,397	33,051	32,641	32,572	33,354	33,330

6 * Includes Acquired Utilities corresponding figures in 2021 and 2022 only.

Table E.8a (Updated) - Actual and Forecast for Billing Peak in kW

Rate Class	DGEN	GSd	UGd	ST *	Acquired GSd	Acquired UGD	Total *
2011	66,297	10,331,311	1,964,583	35,730,299	671,097	458,532	48,092,490
2012	80,371	10,060,780	1,914,575	36,409,471	587,036	374,718	48,465,197
2013	127,613	9,893,511	1,878,538	35,537,470	669,854	390,595	47,437,132
2014	161,733	9,883,885	1,872,751	35,781,683	675,645	395,502	47,700,052
2015	165,405	8,536,187	3,076,837	35,473,518	662,107	393,100	47,251,947
2016	171,973	8,118,010	2,846,792	33,699,203	665,454	397,953	44,835,978
2017	188,672	7,848,256	2,745,769	30,285,554	663,744	403,987	41,068,251
2018	197,039	7,860,142	2,698,633	30,587,100	670,226	415,528	41,342,914
2019	202,720	7,748,892	2,639,651	30,273,707	664,657	411,015	40,864,970
2020	209,833	7,709,334	2,605,735	30,321,166	662,985	410,313	40,846,068
2021	216,001	7,694,461	2,581,634	30,540,679	662,217	412,725	42,107,717
2022	222,751	7,704,261	2,567,244	30,461,169	662,705	414,543	42,032,673

* The total and ST include corresponding Acquired Utilities figures and for only 2021 and 2022.

Table E.8b (Updated) - Weather Corrected Actual and Forecast for Billing Peak in kW

Rate Class	DGEN	GSd	UGd	ST *	Acquired GSd	Acquired UGD	Total *
2011	66,297	10,030,850	1,907,448	34,691,170	651,580	445,197	46,695,764
2012	80,371	9,909,510	1,885,788	35,862,030	578,209	369,084	47,737,698
2013	127,613	9,807,861	1,862,275	35,229,815	664,055	387,214	47,027,563
2014	161,733	9,849,440	1,866,224	35,656,983	673,290	394,123	47,534,380
2015	165,405	8,484,670	3,058,267	35,259,430	658,111	390,728	46,967,772
2016	171,973	8,116,669	2,846,321	33,693,637	665,344	397,887	44,828,600
2017	191,621	7,970,925	2,788,685	30,758,917	674,118	410,301	41,710,148
2018	197,039	7,860,142	2,698,633	30,587,100	670,226	415,528	41,342,914
2019	202,720	7,748,892	2,639,651	30,273,707	664,657	411,015	40,864,970
2020	209,833	7,709,334	2,605,735	30,321,166	662,985	410,313	40,846,068
2021	216,001	7,694,461	2,581,634	30,540,679	662,217	412,725	42,107,717
2022	222,751	7,704,261	2,567,244	30,461,169	662,705	414,543	42,032,673

* The total and ST include corresponding Acquired Utilities figures and for only 2021 and 2022.

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Table E.9 (Updated): Hydro One Distribution CDM Impacts (GWh) by Rate Class

Rate Class	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
General Service - Demand Billed	191.0	225.3	271.8	329.5	295.3	328.5	368.1	405.4	445.9	472.0	479.3	491.1
General Service - Energy Billed	193.8	270.1	317.3	367.1	373.6	418.1	461.6	503.4	549.0	575.9	582.3	592.1
Residential - Medium Density	116.6	115.2	114.2	176.6	238.6	269.9	294.3	324.6	358.1	380.0	388.2	398.3
Residential - Low Density	145.4	144.5	139.6	217.5	230.7	256.7	282.9	307.8	334.9	350.6	353.9	359.2
Seasonal	18.6	17.5	17.5	26.8	32.5	35.7	38.0	41.1	44.5	46.3	46.5	46.9
Sub-transmission *	551.2	667.1	731.7	922.0	991.8	1,087.5	1,128.1	1,243.5	1,359.4	1,436.9	1,442.0	1,464.6
Urban General Service - Demand Billed	42.2	52.8	58.3	70.6	131.2	145.2	151.3	165.9	181.6	191.2	193.3	197.3
Urban General Service - Energy Billed	33.4	44.5	52.9	59.5	102.4	115.5	123.1	134.7	147.4	155.1	157.4	160.4
Urban Residential	40.8	41.0	39.2	60.0	96.0	108.3	117.4	128.9	141.6	149.6	152.2	155.7
Acquired Residential	0.9	1.6	2.5	4.2	5.7	6.5	9.1	12.0	14.2	16.6	19.5	20.4
Acquired General Service - Energy Billed	0.7	1.7	2.6	3.9	4.8	5.9	8.5	11.2	13.2	15.6	18.2	19.2
Acquired General Service - Demand Billed	1.0	2.1	3.7	4.8	5.6	7.6	10.6	13.9	16.5	19.3	22.7	23.8
Acquired Urban Residential	0.4	0.7	1.0	1.6	2.1	1.8	2.3	2.8	3.3	3.7	4.2	4.4
Acquired Urban General Service - Energy Billed	0.5	1.0	1.4	2.3	2.9	2.5	3.0	3.6	4.2	4.7	5.4	5.6
Acquired Urban General Service - Demand Billed	4.0	4.3	5.8	7.6	10.9	10.8	10.7	17.0	19.4	22.1	25.2	26.2
Sum: Includes Acquired Utilities for 2021-2022 only	1,333	1,578	1,743	2,230	2,492	2,765	2,965	3,255	3,562	3,758	3,890	3,965

3

* Includes Acquired Utilities corresponding figure in 2021 and 2022 only.

<u>Non-Seasonal</u>	
<u>Factors</u>	<u>SS parameters:</u>
A[1]	0.480758
K[1]	-0.39066
GDPONT[-4]	0.0570301
BPONT[-8]	0.0064509
D98JAN	-0.0152325

9

10 R-squared = 0.987, R-squared corrected for mean = 0.987, Durbin-Watson Statistics = 2.24.

11

12 The goodness of fit, or the extent to which variability in the energy estimates is captured in the
13 forecast, is measured in terms of R-squared (adjusted for mean), which in this case is close to 1.
14 This result reflects statistical significance of the explanatory variables that are used to explain for
15 the variations in load. In fact, the results show that in this case the fit is very good, and therefore
16 there is confidence that the forecast will produce outcomes that are within the expected range of
17 variability.

18

19 Using the forecast values for GDP, building permits and dummy variables, the above parameters
20 are used in the monthly regression equation described on the previous page to generate the
21 forecast for Hydro One Distribution load.

22

APPENDIX B
ANNUAL ECONOMETRIC MODELS

Retail Load

Annual econometric model for retail load uses personal disposable income per household, relative energy price, and heating degree-days to prepare the forecast. The annual model is expressed in the following regression equation:

$$\begin{aligned} \text{LRTL T} = & C(1) + C(2) * \text{LYPDPHH} + C(3) * (\text{LPELRES}(-4) - \text{LPGASRES}(-4)) + C(4) \\ & * \text{LHDD} + C(5) * \text{LRTL T}(-1) - C(4) * C(5) * \text{LHDD}(-1) + C(6) * \text{D99A} + C(7) * \text{TR} \\ & + C(8) * \text{TR2} + C(9) * \text{D08ON} \end{aligned}$$

where:

LRTL T = logarithm of retail load,

LYPDPHH = logarithm of Ontario personal disposable income per household / house in constant dollar,

- History is based on disposable income in Ontario Economic Accounts published by Ontario Ministry of Finance, deflated by CPI from Statistics Canada and divided by the number of households / houses based on IHS Global Insight housing starts
- Forecast is based on forecasts of disposable income from C4SE, University of Toronto (PEAP) and Conference Board of Canada deflated by CPI from IHS Global Insight and divided by the number of household / houses based on consensus forecast of housing starts as presented in Appendix E

LPELRES = logarithm of electricity price for Ontario residential sector

- History, for different time periods, from Ontario Hydro, IHS GI, 2013 LTEP and National Energy Board (NEB) 2016
- Forecast is from NEB 2016 Outlook further adjusted for cuts to residential hydro bills introduced by the provincial government

LPGASRES = logarithm of natural gas price for Ontario residential sector,

- History, for different time periods, from Ontario Hydro, IHS GI, 2013 LTEP and NEB 2016 Outlook
- Forecast is from NEB 2016 Outlook accounting for carbon tax

LHDD = logarithm of heating degree days for Pearson International Airport,

D99A = dummy variable to account for annexation of retail customers by municipal utilities equals 1 after 1999 and zero elsewhere,

1 TR = a dummy variable to account for a shift in growth pattern of Distribution load, increases
2 by 1 per year prior to 1989 and no increase afterwards,
3 TR2 = TR to power 2,
4 D08ON = a dummy variable to account for economic changes, equals zero prior to 2008 and 1
5 elsewhere.
6 C(1) – C(9) = variable coefficients.

7
8 The estimated coefficients and associated statistics are presented below:

	Estimated	Standard	
	Coefficient	Error	t-ratio
12	C(1) 5.455606	1.417433	3.848934
13	C(2) 0.501070	0.117024	4.281767
14	C(3) -0.018521	0.011507	-1.609597
15	C(4) 0.059849	0.039567	1.512599
16	C(5) 0.286743	0.125373	2.287128
17	C(6) -0.024341	0.009153	-2.659188
18	C(7) -0.095632	0.030017	-3.185970
19	C(8) 0.002488	0.000682	3.649962
20	C(9) -0.013932	0.008698	-1.601852

21
22 R-squared = 0.989, Adjusted R-squared = 0.976, Durbin-Watson Statistic = 1.56.

23
24 Similar to the regression analysis in the case of the Monthly Econometric model above, the
25 goodness of fit, measured by (Adjusted) R-square for the Annual Econometric Model for retail
26 load, is also found to be close to 1. Therefore the assessment on an annual basis also leads to a
27 forecast outcome which provides consistent results, thus giving confidence to the econometric
28 method.

29
30 The t-ratios show most of the factors used to explain the variations in load are statistically
31 significant.

32
33 Using the forecast values for personal disposable income per household / house, energy prices,
34 and heating degree days and dummy variables, the above parameters are used in the annual
35 regression equation described above to generate the forecast for Hydro One Distribution load.

1 Embedded LDC Load

2 Annual econometric model for embedded LDC load uses number of houses / households, relative
 3 energy price, and heating and cooling degree-days to prepare the forecast. The annual model is
 4 expressed in the following regression equation:

5
 6 $LEMBLDCS=C(1)+C(2)*D(LHHOLD)+C(3)*(LPELRES(-1)-LPGASRES(-1))$
 7 $+C(4)*LCDD+C(5)*LHDD+C(6)*LEMBLDCS(-1)-C(4)*C(6)$
 8 $*LCDD(-1)-C(5)*C(6)*LHDD(-1)+C(7)*TR$

9
 10 where:

11 LEMBLDCS = logarithm of Embedded LDC load,

12 LHHOLD = logarithm of Ontario number of households / houses,

- 13 - History from IHS Global Insight housing starts
- 14 - Forecast is based on consensus forecast of housing starts as presented in Appendix E

15 LPELRES = logarithm of electricity price for Ontario residential sector

- 16 - History, for different time periods, from Ontario Hydro, IHS GI, 2013 LTEP and
 17 National Energy Board (NEB) 2016 Outlook
- 18 - Forecast is from NEB 2016 Outlook further adjusted for cuts to residential hydro bills
 19 introduced by the provincial government

20 LPGASRES = logarithm of natural gas price for Ontario residential sector,

- 21 - History, for different time periods, from Ontario Hydro, IHS GI, 2013 LTEP and
 22 NEB 2016
- 23 - Forecast is from NEB 2016 Outlook accounting for carbon tax

24 LHDD = logarithm of heating degree days for Pearson International Airport,

25 D99A = dummy variable to account for annexation of retail customers by municipal utilities
 26 equals 1 after 1999 and zero elsewhere,

27 TR = a dummy variable to account for a shift in growth pattern of distribution load,
 28 increases by 1 per year prior to 1989 and no increase afterwards,

29 C(1) – C(7) = variable coefficients.

30
 31 The estimated coefficients and associated statistics are presented below:

	Estimated	Standard	
	Coefficient	Error	t-ratio
35	C(1) 1.688480	0.599547	2.816260
36	C(2) 1.658200	0.898035	1.846476
37	C(3) -0.049467	0.016226	-3.048694

Witness: ALAGHEBAND Bijan

1	C(4)	0.008636	0.009463	0.912634
2	C(5)	0.013980	0.057537	0.242965
3	C(6)	0.790897	0.073593	10.74685
4	C(7)	0.010313	0.004125	2.499980

5

6 R-squared = 0.981, Adjusted R-squared = 0.977, Durbin-Watson Statistic = 1.85.

7

8 Similar to the regression analysis in the case of the other econometric models noted above, the
9 goodness of fit, measured by (Adjusted) R-square for the Embedded LDC Model, is also found
10 to be close to 1 leading to a forecast outcome which provides consistent results, thus giving
11 confidence to the econometric method. The t-ratios show most of the factors used to explain the
12 variations in load are statistically significant.

13

14 Using the forecast values for Ontario number of households / houses, energy prices, and cooling
15 and heating degree days and dummy variable, the above parameters are used in the annual
16 regression equation described above to generate the forecast for Hydro One Embedded LDC
17 load.

Rate Code	Description	Historical Years			Bridge Year		Test Years									
		2014	2015	2016	2017		2018*		2019		2020		2021		2022	
		Volume / Revenue	Volume / Revenue	Volume / Revenue	Volume Forecast	Revenue Forecast	Volume Forecast	Revenue Forecast	Volume Forecast	Revenue Forecast	Volume Forecast	Revenue Forecast	Volume Forecast	Revenue Forecast	Volume Forecast	Revenue Forecast
32	Reconnect completed after regular hours (customer/contract driven) - at Meter	N/A	N/A	0	90	\$0	90	\$21,601	90	\$21,963	90	\$22,327	90	\$22,703	90	\$23,069
33	Reconnect completed after regular hours (customer/contract driven) - at Pole	N/A	N/A	0	60	\$0	60	\$27,973	60	\$28,360	60	\$28,751	60	\$29,156	60	\$29,548
46a	Retailer Services – Establishing Service Agreements (rates as per the Handbook)	\$521,796	\$469,861	\$413,105		\$376,638		\$340,638		\$304,638		\$268,638		\$232,638		\$196,638
46b	Retailer Services – Other (includes Bill Ready for Retailers and Service Transaction Requests) as per the Handbook	\$260,898	\$234,930	\$206,553		\$188,319		\$170,319		\$152,319		\$134,319		\$116,319		\$98,319
52	Late Payment Charge	\$782,693	\$15,492,798	\$17,003,866		\$12,776,871		\$10,860,340		\$11,023,245		\$11,188,594		\$11,356,423		\$11,526,769
	Total					\$18,743,372		\$19,110,991*		\$19,179,676		\$19,255,287		\$19,355,051		\$19,446,372

1 *2018 Retail Service Charges are based on forecast volumes and charges. 2018 External Revenue will be updated when the Draft Rate Order is filed to reflect the forecast External
 2 Revenue based on applying the 2017 approved Specific Service Charges until the effective date that new charges are approved.

Witness: Imran Merali/John Boldt