# EXHIBIT 7:
# COST ALLOCATION

**Table of Contents**

Page

1  **2.7.    EXHIBIT 7: COST ALLOCATION**

2  **2.7.1   COST ALLOCATION STUDY REQUIREMENTS**

3  **2.7.1.1    Introduction**

4  The OEB outlined its cost allocation policies in its reports of November 28, 2007 Application of Cost

5  Allocation for Electricity Distributors, and March 31, 2011 Review of Electricity Distribution Cost Allocation

6  Policy (EB-2010-0219).

7  In this application, NBDHL has used the 2021 version of the cost allocation model released by the OEB on

8  May 14, 2020 to conduct a 2021 test year cost allocation study consistent with the OEB's cost allocation

9  policies.  The model has been loaded with 2021 test year costs, customer numbers and demand values for

10  NBDHL.  The 2021 demand values were determined based on the description provided under the Load

11  Profiles section of this Exhibit. The various weighting factors used in the 2021 study have also been

12  explained below.

13  **2.7.1.2    Load Profiles**

14  In a letter dated June 12, 2015, the OEB requested distributors to be mindful of material changes to load

15  profiles and propose updates, as appropriate, in COS rate applications.  NBDHL proposes to use the same

16  method as was used in the 2015 COS application to determine the demand data for the 2021 Model.  This

17  method involves applying a scaling factor to the 2004 weather normalized volumes supporting the 2004

18  load profiles to determine an estimate of the 2021 weather normalized load profiles. The 2021 scaling

19  factors are provided in Table 7-1 below.  The same method applied by Hydro One to the 2004 load profiles

20  to determine the demand data for the original cost allocation study, is then applied to the 2021 load profiles

21  to determine the 2021 demand data.  NBDHL has provided an Excel spreadsheet named "NBHDL_2021

22  Load Profile Data for Cost Allocation_20210105" as part of this Application to show how the 2021 demand

23  data is determined. .

24  NBHDL is unable to update the load profiles at this time, because not all meters have been converted to

25  interval meters with hourly reading capability.  NBHDL expects that the remaining legacy meters will be

26  replaced prior to the next COS application. For the next COS application, NBDHL will review other load

27  profiling methodologies that are brought forward to the OEB. NBDHL anticipates that by the time the next

28  COS application is prepared, the OEB may prescribe a method to weather normalize actual hourly data

29  which NBDHL will be in a position to follow.

1 **Table 7 - 1: Load Profile Scaling Percentages**

| Rate Class | 2004 Weather Normal Values used Information Filing (kWh) | 2021 Weather Normal Values (kWh) | Scaling Factor |
|---|---|---|---|
| Residential | 227,257,278 | 201,705,111 | 88.8% |
| General Service < 50 kW | 99,816,012 | 79,035,853 | 79.2% |
| General Service 50 to 2999 kW | 209,153,421 | 193,697,533 | 92.6% |
| General Service 3000 to 4999 kW | 58,495,456 | 14,455,054 | 24.7% |
| Street Lighting | 3,648,460 | 2,036,369 | 55.8% |
| Sentinel Lighting | 702,562 | 117,429 | 16.7% |
| Unmetered Scattered Load | 411,548 | 39,490 | 9.6% |
| **Total** | **599,484,738** | **491,086,840** | **81.9%** |

2

3 **2.7.1.3    Cost Allocation Model Inputs/Weighting Factors**

4 In the March 31, 2011 Cost Allocation Report, the OEB stated that "default weighting factors should now

5 be utilized only in exceptional circumstances". Distributors are expected to develop their own weighting

6 factors as part of their cost allocation study.  NBDHL has developed its own weighting factors as outlined

7 below; these primarily follow the same methodology utilized in the 2015 COS application, updated for

8 current costs.

9 **2.7.1.4    Services (Account 1855)**

10 The analysis for the Services weighting factor included a review of NBDHL's internal policy in regards to

11 the installation and cost recovery for Services. NBDHL charges customers for all new or upgraded services

12 unless the change to the servicing falls under an internal capital project and involves correcting non-

13 standard or outdated servicing.  As per the suggested methodology on the Cost Allocation instruction sheet

14 the Residential class was given a weighting factor of 1.0. General Service < 50 kW servicing is typically

15 more complex than Residential servicing as it may include the creation of a unique work order, a dedicated

16 construction crew to install and may require after hour attendance to mitigate against interruptions during

17 normal business hours.  Additional time may also be required to ensure demand data is programmed and

18 monitored appropriately. Due to these varying considerations, the weighting factor for General Service <

19 50 kW was set slightly higher at 2.0. General Service 50 to 2999 kW and General Service 3000 to 4999 kW

20 involves significantly more work than Residential and GS < 50 kW servicing both from a design and

21 construction perspective, but due to the ownership rules for these services, NBDHL does not own the assets

22 that would be charged against the Services account and therefore these customer categories have been

23 assigned a weighting factor of 0.0. Sentinel lights were given a factor of 0.1 as these service connections

24 are infrequent and less complex in nature. Street Lighting assets do not fall under NBDHL ownership,

1 however, the street lights are connected to NBDHL's secondary buss and as such costs are captured

2 outside of Account 1855. A weighting factor of 0.0 has been set for this class. The weighting factors in Table

3 7-2 below, remain unchanged from 2015, and NBHDL submits that these factors are still appropriate.

4 **Table 7 - 2: Weighting Factors for Services**

| Rate Class | Weighting Factors for Services |
|---|---|
| Residential | 1.0 |
| General Service < 50 kW | 2.0 |
| General Service 50 to 2999 kW | 0.0 |
| General Service 3000 to 4999 kW | 0.0 |
| Street Lighting | 0.0 |
| Sentinel Lighting | 0.1 |
| Unmetered Scattered Load | 0.0 |

5

6 **2.7.1.5    Billing and Collection (Accounts 5315 – 5340, except 5335) (Sheet I5.2)**

7 In determining the weighting factors for Billing and Collecting, an analysis of Accounts 5315 and 5320, was

8 conducted and costs were assigned to each class based on the specific nature of the costs. For example,

9 postage costs were assigned to each class based on the # of bills issued. Internal labour costs, as another

10 example, were assigned to the relevant accounts by time spent, and then allocated by class based on

11 customers. Through this analysis, NBDHL was able to more closely assign a total cost per class from which

12 weighting factors were then determined relative to the Residential factor of 1.

13 These factors remain the same for the Residential and General Service <50 classes as the 2015 COS,

14 however, are notably reduced for the General Service >50kW classes. The proposed weighting factors

15 reflect a shift in the cost allocation process based on the time allocated from internal resources towards the

16 billing processes for this the class. In addition, NBHDL has allocated collections costs on a customer basis

17 as opposed to a proportional allocation based on late payment revenues used in 2015. Late payment

18 revenue allocation results in a disproportionately higher value being assigned to the General Service >50

19 class as this class has higher balances attracting larger late payment fees. The time spent on handling

20 collections for this class is similar to the residential and General Service <50 class. The majority of time

21 spent on collections activities is related to the residential class and NBHDL submits that utilizing a per

22 customer allocation method is appropriate. Table 7-3 below, outlines the billing and collection weighting

23 factors for all rate classes.

1 **Table 7 - 3: Weighting Factors for Billing and Collection**

| Meter Type | Weighting Factors for Billing and Collection |
|---|---|
| Smart Meter - Residential | 1.0 |
| General Service < 50 kW | 1.3 |
| General Service 50 to 2999 kW | 2.2 |
| General Service 3000 to 4999 kW | 1.8 |
| Street Lighting | 1.8 |
| Sentinel Lighting | 0.6 |
| Unmetered Scattered Load | 0.6 |

2

3 **2.7.1.6    Meter Capital (Sheet I7.1)**

4 NBHDL used costs of installing meters consistent with the its 2015 Cost of Service Application (EB-2014-

5 0099). These costs are outlined in Table 7-4 below.

6 **Table 7 - 4: Meter Capital Installation Costs**

| Meter Type | Installation Cost per Meter |
|---|---|
| Smart Meters:  Residential | 96.90 |
| Smart Meters: General Service < 50 | 226.01 |
| Smart Meter - A3RAL | 1,394.96 |
| Demand with IT | 2,100 |
| Demand with IT and Interval Capability - Secondary | 2,300 |
| Demand with IT and Interval Capability - Primary | 10,000 |

7

8 **2.7.1.7    Meter Reading (Sheet I7.2)**

9 NBDHL completed an analysis of the costs included in meter reading and assigned the costs to the

10 appropriate class based on the nature of the cost. Based on this activity analysis, NBDHL calculated the

11 overall cost per class by customer and assigned a weighting of 1 for the meter reading costs related to

12 smart meters for the Residential class. The weighting factors for the remaining classes were then

13 determined as a factor of the Residential class. This is the same methodology used in the 2015 COS,

14 however, similar to the Billing and Collecting weighting factors, the General Service >50 classes are notably

15 reduced as a result of reduced internal resources required for meter reading of these classes. Table 7-5

16 below, outlines the meter reading weighting factors.

1                                                **Table 7 - 5: Weighting Factors for Meter Reading**

| Meter Type | Weighting Factors for Meter Reading |
|---|---|
| Smart Meter - Res | 1.00 |
| Smart Meter - GS < 50 | 1.19 |
| GS > 50 Meter | 12.20 |
| Intermediate Meter | 39.50 |

2

3    **2.7.1.8    Embedded Distributor Classes**

4    NBHDL proposes to continue to bill the embedded distributor (i.e., Hydro One Networks Inc. "HONI") as a

5    General Service 50 to 2,999 kW customer. The cost and revenue have been included with that class in the

6    cost allocation study and Appendix 2-P.

7    NBHDL is bounded by HONI on all service territory boundaries, and in two instances HONI is embedded in

8    NBHDL's system. The first involves direct connection to a NBHDL owned 44kV sub transmission circuit,

9    15M1, out of the HONI owned transfer station, North Bay Transformer Station (NBTS).   The actual

10   connection is made at the end of Bond St., close to the western city limits of North Bay and is also known

11   as Wood's Junction. The second involves a direct connection to a NBHDL owned 12.47kV circuit, 14F3,

12   out of a NBHDL owned substation, MS14. The actual connection is made at the northern city limits of North

13   Bay on Highway 11 North. In both cases the HONI connection is made at the limit of the NBHDL service

14   boundary, where NBHDL assets end and HONI assets start. NBHDL has customer connections in both

15   cases right up to the demarcation point, and that is why the HONI connections have been deemed no

16   different than those of the nearby customers and due to size of the HONI load have been classified in the

17   GS>50 category.

18   For the purposes of completing Appendix 2-Q, NBHDL followed the same methodology utilized in the 2015

19   COS, and attempted to estimate costs specifically related to HONI for the two separate connections. As

20   explained further below, due to the particular facts associated with Hydro One's embedded connections in

21   NBHDL's service territory, Appendix 2-Q fails to properly account for the costs required to service the

22   embedded Hydro One assets. The completed Appendix 2-Q is provided in Appendix 7-A.

23   In connection with preparing its rate application, NBHDL has consulted with HONI and advised HONI that

24   it is NBHDL's intent to continue to bill HONI as a GS>50 customer, NBHDL provided HONI with the

25   necessary supporting evidence and responded to HONI's follow-up questions. HONI concluded that:

26   "Based on the draft version of Appendix 2-Q we received on November 2, 2020, the difference in the current

27   total charge being levied to HONI as a GS>50 customer as compared to the charge calculated in Appendix

1 2-Q is not significant.  As such, HONI believes the classification of both HONI connections as a General

2 Service 50 to 2,999 kW customer in NBHDL's 2021 cost of service rate application is reasonable."

3 It is NBHDL's view that neither of the embedded HONI connections have any distinguishing factors that

4 should result in treatment any different than other NBHDL GS>50 customers that are similarly connected

5 at the end of the line. Due to the particular facts associated with HONI's embedded connections in NBHDL's

6 service territory, NBHDL believes Appendix 2-Q fails to properly account for the costs required to service

7 the embedded HONI assets. In addition, the difference in costs as between approaches is not substantial.

8 NBHDL proposes that based on the information provided, it is reasonable for HONI to stay in the GS >50

9 kW class.

10 **2.7.1.9    Unmetered Loads**

11 NBHDL communicates with unmetered load customers, including the street lighting customer (City of North

12 Bay), to assist them in understanding the regulatory context in which distributors operate and how it affects

13 unmetered load customers. This communication takes place on an on-going basis and is not driven by the

14 rate application process, but regular business practice. NBHDL has undertaken a review of its Unmetered

15 Scattered Load class and a nominal number of connections remain in the class. Through a project to retrofit

16 the street lights throughout North Bay, NBHDL worked closely with the City of North Bay on all aspects of

17 the project including the connection count and rate implications. NBHDL communicates regularly with its

18 shareholder and will address the cost allocation shift in the street light class as the application process

19 moves forward.

20 **2.7.1.10    microFIT Class**

21 NBHDL is not proposing to include microFIT as a separate class in the cost allocation model in 2021 and

22 has adopted the generic rate provided by the OEB. On February 24, 2020, the OEB issued the *Review of*

23 *Fixed Monthly Charge for microFIT Generator Service Classification (EB-2009-0326 and EB-2010-0219)*.

24 It was stated that distributors that have been approved for a rate that is a calculated value based on the

25 previous approved $5.40 province-wide rate should include a proposal to update the calculated charge

26 based on the updated province-wide rate of $4.55 at the time of their next rate application. NBHDL has

27 integrated the new rate of $4.55 in this Application.

28 **2.7.1.11    Standby Rates**

29 NBDHL is not seeking approval for standby rates in this application.

30

31

1    **2.7.1.12    New Customer Class**

2    Currently, NBHDL does not have a customer class that encompasses large use customers (i.e. GS>5,000

3    kW).  In the event that NBHDL obtains a new large use customer, there will not be an OEB-approved charge

4    applicable based on the current rate classes and Tariff of Rates and Charges.  This is because the current

5    General Service 3,000 to 4,999 kW Service Classification has the requirement that: "This classification

6    includes non residential accounts where monthly average peak demand is equal to or greater than, or is

7    forecast to be equal to or greater than 3,000 kW but less than 5,000 kW. Class A and Class B consumers

8    are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's

9    Conditions of Service."

10   As such, NBDHL is proposing to amend the name and description of its current customer class of "General

11   Service 3,000 to 4,999 kW Service Classification" to "General Service Greater Than 3,000 kW" in order to

12   allow NBHDL to charge any new customers that are GS>3,000 kW. The description on the Tariff of Rates

13   and Charges will also be amended to reflect this change as follows:

14   "This classification includes non residential accounts where monthly average peak demand is equal to or

15   greater than, or is forecast to be equal to or greater than 3,000 kW. Class A and Class B consumers are

16   defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's

17   Conditions of Service."

18   A copy of the proposed Tariff of Rates and Charges Appendix 8-C in Exhibit 8.

19   This proposed change does not affect the class revenue requirements or cost allocation.  The main purpose

20   of this change is in case any GS>4,999 kW customers appear, although NBHDL is not anticipating any

21   such customers.

22   **2.7.1.13    Eliminated Customer Class**

23   NBDHL is not proposing to eliminate a rate class.

24   **2.7.2    CLASS REVENUE REQUIREMENTS**

25   **2.7.2.1    Class Revenue Requirements**

26   The data used in the updated cost allocation study is consistent with NBDHL's cost data that supports the

27   proposed NBDHL revenue requirement outlined in this application.  The breakout of assets, capital

28   contributions, depreciation, accumulated depreciation, customer data and load data by primary, line

29   transformer and secondary categories were developed from the best data available to NBDHL, its

30   engineering records, and its customer and financial information systems.  An Excel version of the updated

1   cost allocation study has been included with the filed application material. In addition, Appendix 7-B outlines

2   Input Sheets I-6 & I-8 and Output Sheets O-1 & O-2 (first page only).

3   Capital contributions, depreciation and accumulated depreciation by USoA are consistent with the

4   information provided in the NBDHL continuity statement shown in Exhibit 2. The rate class customer data

5   used in the updated cost allocation study is consistent with the NBDHL customer forecast outlined in Exhibit

6   3.

7   Table 7-6 below provides the allocated cost by rate class from the approved 2015 cost allocation study and

8   the updated 2021 study.

9   **Table 7 - 6: Allocated Cost – (Consistent with RRWF, Tab 11 Cost Allocation, Allocated Costs)**

| Rate Class | 2015 Board Approved Cost Allocation Study | % | Cost Allocated in the 2021 Study | % |
|---|---|---|---|---|
| Residential | $7,551,988 | 58.2% | $9,707,908 | 61.9% |
| General Service < 50 kW | $2,223,515 | 17.1% | $2,716,667 | 17.3% |
| General Service 50 to 2999 kW | $2,623,792 | 20.2% | $2,947,558 | 18.8% |
| General Service 3000 to 4999 kW | $108,091 | 0.8% | $121,265 | 0.8% |
| Street Lighting | $415,843 | 3.2% | $147,193 | 0.9% |
| Sentinel Lighting | $43,097 | 0.3% | $43,983 | 0.3% |
| Unmetered Scattered Load | $751 | 0.0% | $1,013 | 0.0% |
| **Total** | **$12,967,077** | **100.0%** | **$15,685,587** | **100.0%** |

11   The following Table 7-7 provides information on the calculated class revenue. The resulting NBDHL

12   proposed base revenue will be the amount used in Exhibit 8 to design the proposed distribution charges in

13   this application. NBDHL submits that this is a fair and reasonable approach to define the revenue

14   requirement by rate class.

1    **Table 7 - 7: Calculated Class Revenue – (Consistent with RRWF, Tab 11 Cost Allocation,**
2                          **Calculated Class Revenues)**

| Rate Class | 2021 Base Revenue at Existing Rates | 2021 Proposed Base Revenue Allocated at Existing Rates Proportion | 2021 Proposed Base Revenue | Miscellaneous Revenue |
|---|---|---|---|---|
| Residential | $7,479,179 | $8,522,728 | $8,839,633 | $763,862 |
| General Service < 50 kW | $2,312,188 | $2,634,802 | $2,634,802 | $187,925 |
| General Service 50 to 2999 kW | $2,282,752 | $2,601,258 | $2,683,554 | $232,301 |
| General Service 3000 to 4999 kW | $98,093 | $111,780 | $111,780 | $10,372 |
| Street Lighting | $483,854 | $551,365 | $147,909 | $28,722 |
| Sentinel Lighting | $29,781 | $33,936 | $38,348 | $5,162 |
| Unmetered Scattered Load | $1,099 | $1,252 | $1,095 | $121 |
| **Total** | **$12,686,946** | **$14,457,121** | **$14,457,121** | **$1,228,466** |

3

4    **2.7.3   REVENUE-TO-COST RATIOS**

5    **2.7.3.1    Revenue to Cost Ratios**

6    The results of a cost allocation study are typically presented in the form of revenue to cost ratios.  The ratio
7    is shown by rate classification and is the percentage of distribution revenue collected by rate classification
8    compared to the costs allocated to the classification. The percentage identifies the rate classifications that
9    are being subsidized and those that are over-contributing.  A percentage of less than 100% means the rate
10   classification is under-contributing and is being subsidized by other classes of customers.  A percentage of
11   greater than 100% indicates the rate classification is over-contributing and is subsidizing other classes of
12   customers.

13   In the March Board Report, the Board established what it considered to be the appropriate ranges of
14   revenue to cost ratios which are summarized in Table 7-8 below. In addition, Table 7-8 provides NBDHL's
15   approved revenue to cost ratios from the approved 2015 COS application, the updated 2021 cost allocation
16   study, and the proposed 2021 to 2026 ratios.

1    **Table 7 - 8: Revenue to Cost Ratios (Consistent with RRWF, Tab 11 Cost Allocation, Proposed &**
2                               **Rebalancing Revenue to Cost Ratios**

| Rate Class | 2015 Board Approved | 2021 Updated Cost Allocation Study | 2021 Proposed Ratios | 2022 to 2026 Proposed Ratios | Board Targets Min to Max | |
|---|---|---|---|---|---|---|
| Residential | 100.4% | 95.7% | 98.9% | 98.9% | 85.0% | 115.0% |
| General Service < 50 kW | 110.2% | 103.9% | 103.9% | 103.9% | 80.0% | 120.0% |
| General Service 50 to 2999 kW | 87.0% | 96.1% | 98.9% | 98.9% | 80.0% | 120.0% |
| General Service 3000 to 4999 kW | 98.1% | 100.7% | 100.7% | 100.7% | 80.0% | 120.0% |
| Street Lighting | 120.0% | 394.1% | 120.0% | 120.0% | 80.0% | 120.0% |
| Sentinel Lighting | 111.8% | 88.9% | 98.9% | 98.9% | 80.0% | 120.0% |
| Unmetered Scattered Load | 120.0% | 135.5% | 120.0% | 120.0% | 80.0% | 120.0% |

3

4    The NBDHL cost allocation study indicates the revenue to cost ratio for the Street Lighting and Unmetered

5    Scattered Load classes were outside the OEB's range. NBHDL adjusted these down to be within the OEB's

6    range.    In order to maintain revenue neutrality, the Residential, General Service 50 to 2,999 kW and

7    Sentinel Lighting were then moved upward to a common revenue to cost ratio of 98.9%.

8

1 **Appendix 7-A: APPENDIX 2-Q Cost of Serving Embedded Distributors**

## Appendix 2-Q
## Cost of Serving Embedded Distributor(s)

### To be completed by Host Distributors ONLY
### (Not required if Host Distributor has an Embedded Distributor rate class, i.e. a separate row on Sheet 11 of the RRWF.)

**Proposed Rate Class for Billing Embedded Distributor(s):** Hydro One Networks Inc

**Host's Distribution Facilities used by Embedded Distributor(s)**

| (1) Asset Class | (2) Total OM&A costs asociated with asset class | (3) Original cost of asset class | (4) Accumulated amortization of asset class | (5) Annual amortization of asset class | (6) = '(3) + (4) Net Book Value of asset class |
|---|---|---|---|---|---|
| | ($) | ($) | ($) | ($) | |
| **Totals for Host Distributor:** | | | | | |
| Distribution Stations | $ 47,605 | $ 1,224,302 | -$ 314,451 | -$ 43,800 | $ 909,850.96 |
| Low Voltage Line | $ 945,410 | $ 52,449,925 | -$ 23,437,396 | -$ 754,744 | $ 29,012,529.78 |
| LV Line category # 2 (if applcable) | | | | | $ - |
| TS (owned by host) | | | | | $ - |
| Metering | $ - | $ 59,699 | -$ 27,462 | -$ 5,300 | $ 32,237.49 |
| | | | | | $ - |
| | | | | | $ - |

| (1) Asset Class | (7) Total line length or station capacity in asset class | (8) Line length or capacity required to provide LV service to Embedded Distributor(s) | (9) Annual total demand on station/line providing LV services (sum of 12 monthly peaks) | (10) Annual billed Embedded Distributor demand on station/line providing LV services | (11) Embedded Distributor(s)' Responsibility Share |
|---|---|---|---|---|---|
| **Embedded Distributor's share:** | kW or kVa; km | kW or kVA; km | kW or kVA | kW or kVA | percent |
| Distribution Stations | 10,000 | 2,500 | 61,158 | 5,611 | 2.29% |
| Low Voltage Line | 494.00 | 15.02 | 61,158 | 15,744 | 0.78% |
| LV Line # 2 (if applicable) | | | | | 0.00% |
| TS (owned by host) | | | | | 0.00% |
| Metering | 1 | 1 | 1 | 1 | 100.00% |

2

| (1) Asset Class | (12) Return on Assets used to Provide LV services | (12a) Taxes/PILs | (13) Annual amortization on assets used to provide LV services | (14) OM&A costs with burden associated with assets used to provide LV services | (15) Total annual cost associated with assets used to provide LV services | (16) Monthly cost associated with the delivery of LV services |
|---|---|---|---|---|---|---|
| | ($) | ($) | ($) | ($) | ($) | $/kW or $/kVA |
| Distribution Stations | 1,004.74 | - | 1,004.60 | 1,091.87 | 3,101.21 | 0.18 |
| Low Voltage Line | 10,917.68 | - | 5,907.68 | 7,400.10 | 24,225.46 | 0.38 |
| LV Line # 2 (if applicable) | - | - | - | - | - | 0.00 |
| TS (owned by host) | - | - | - | - | - | 0.00 |
| Metering | 1,546.07 | - | 5,299.53 | - | 6,845.60 | 0.34 |
| **Total** | | | | | 34,172.27 | 0.89 |

| (17) | (18) Capital Structure (%) | (19) Cost Rate (%) | (20) | (21) (%) |
|---|---|---|---|---|
| Long-Term Debt | 56.00% | 2.48% | Weighted Average Cost of Capital | 4.80% |
| Short-term Debt | 4.00% | 1.75% | | |
| Common Equity | 40.00% | 8.34% | Tax/PILs Rate | 0% Pils Model No Taxes |
| Preferred Shares | | | | |
| **Total** | 100.00% | | Working Capital Allowance Factor | 7.5% |

3

1

2    **Appendix 7-B: Cost Allocation Model – Input Sheets I-6 & I-8 and Output Sheets O-1 & O-2 (first**

3    **page only)**

4

### Ontario Energy Board

## 2021 Cost Allocation Model

**EB-2020-XXXX**
**Sheet I6.1 Revenue Worksheet · Application**

| Total kWhs from Load Forecast | 491,086,840 |
|---|---|

| Total kWs from Load Forecast | 547,277 |
|---|---|

| Deficiency/sufficiency ( RRWF 8. cell F51) | - 1,770,175 |
|---|---|

| Miscellaneous Revenue (RRWF 5. cell F48) | 1,228,466 |
|---|---|

| | | | 1 | 2 | 3 | 5 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| | ID | Total | Residential | GS <50 | GS > 50 to 2,999 kW | GS >3,000 to 4,999 kW | Street Light | Sentinel Lighting | Unmetered Scattered Load |
| **Billing Data** | | | | | | | | | |
| Forecast kWh | CEN | 491,086,840 | 201,705,111 | 79,035,853 | 193,697,533 | 14,455,054 | 2,036,369 | 117,429 | 39,490 |
| Forecast kW | CDEM | 547,277 | | | 514,190 | 27,098 | 5,690 | 298 | |
| Forecast kW, included in CDEM, of customers receiving line transformer allowance | | 180,172 | | | 153,073 | 27,098 | | | |
| Optional - Forecast kWh, included in CEN, from customers that receive a line transformation allowance on a kWh basis. In most cases this will not be applicable and will be left blank. | | - | | | | | | | |
| KWh excluding KWh from Wholesale Market Participants | CEN EWMP | 491,086,840 | 201,705,111 | 79,035,853 | 193,697,533 | 14,455,054 | 2,036,369 | 117,429 | 39,490 |
| | | | | | | | | | |
| Existing Monthly Charge | | | $29.19 | $25.00 | $315.75 | $6,734.18 | $5.06 | $5.10 | $5.53 |
| Existing Distribution kWh Rate | | | | $0.0192 | | | | | $0.0127 |
| Existing Distribution kW Rate | | | | | $2.6359 | $1.2378 | $27.1545 | $17.7881 | |
| Existing TOA Rate | | | | | $0.60 | $0.60 | | | |
| Additional Charges | | | | | | | | | |
| Distribution Revenue from Rates | | $12,795,049 | $7,479,179 | $2,312,188 | $2,374,596 | $114,352 | $483,854 | $29,781 | $1,099 |
| Transformer Ownership Allowance | | $108,103 | $0 | $0 | $91,844 | $16,259 | $0 | $0 | $0 |
| Net Class Revenue | CREV | $12,686,946 | $7,479,179 | $2,312,188 | $2,282,752 | $98,093 | $483,854 | $29,781 | $1,099 |

5

Ontario Energy Board
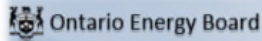
# 2021 Cost Allocation Model

**EB-2020-XXXX**

**Sheet I6.2 Customer Data Worksheet - Application**

| | | | 1 | 2 | 3 | 5 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| | ID | Total | Residential | GS <50 | GS > 50 to 2,999 kW | GS >3,000 to 4,999 kW | Street Light | Sentinel Lighting | Unmetered Scattered Load |
| **Billing Data** | | | | | | | | | |
| Bad Debt 3 Year Historical Average | BDHA | $125,984 | $111,517 | $11,865 | $2,602 | $0 | $0 | $0 | $0 |
| Late Payment 3 Year Historical Average | LPHA | $149,680 | $98,676 | $17,891 | $31,575 | $1,538 | | | |
| Number of Bills | CNB | 12 | - | - | - | - | 12 | - | - |
| Number of Devices | CDEV | | | | | | - | - | - |
| Number of Connections (Unmetered | CCON | - | | | | | - | - | - |
| Total Number of Customers | CCA | - | - | - | - | - | | | |
| Bulk Customer Base | CCB | - | | | | | | | |
| Primary Customer Base | CCP | - | - | - | - | - | - | | |
| Line Transformer Customer Base | CCLT | - 27 | - | - | - 27 | | - | | |
| Secondary Customer Base | CCS | - 4 | - | - | - 4 | | | | |
| Weighted - Services | CWCS | - | - | - | - | - | - | - | - |
| Weighted Meter -Capital | CWMC | 137,403 | - | 240,805 | - 113,401 | 10,000 | - | - | - |
| Weighted Meter Reading | CWMR | - | - | - | - | - | - | - | - |
| Weighted Bills | CWNB | 22 | - | - | - | - | 22 | - | - |

**Bad Debt Data**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Historic Year: | 2017 | 81,208 | 68,427 | 8,172 | 4,609 | | | | |
| Historic Year: | 2018 | 149,013 | 121,967 | 27,046 | - | | | | |
| Historic Year: | 2019 | 147,732 | 144,159 | 376 | 3,197 | | | | |
| Three-year average | | 125,984 | 111,517 | 11,865 | 2,602 | - | - | - | - |

**Street Lighting Adjustment Factors**

**NCP Test Results** | . |

| Class | Primary Asset Data | | | Line Transformer Asset Data | | |
|---|---|---|---|---|---|---|
| | Customers/ Devices | | - | Customers/ Devices | | - |
| Residential | | - | | | - | |
| Street Light | | - | | | - | |

| Street Lighting Adjustment Factors | |
|---|---|
| Primary | |
| Line Transformer | |

1

2

3

Ontario Energy Board

# 2021 Cost Allocation Model

**EB-2020-XXXX**
**Sheet I8 Demand Data Worksheet - Application**

This is an input sheet for demand allocators.

| CP TEST RESULTS | 4 CP |
|---|---|
| NCP TEST RESULTS | 4 NCP |

| Co-incident Peak | Indicator |
|---|---|
| 1 CP | CP 1 |
| 4 CP | CP 4 |
| 12 CP | CP 12 |

| Non-co-incident Peak | Indicator |
|---|---|
| 1 NCP | NCP 1 |
| 4 NCP | NCP 4 |
| 12 NCP | NCP 12 |

| | | | 1 | 2 | 3 | 5 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| **Customer Classes** | | Total | Residential | GS <50 | GS > 50 to 2,999 kW | GS >3,000 to 4,999 kW | Street Light | Sentinel Lighting | Unmetered Scattered Load |
| | | CP Sanity Check | Pass | Pass | Pass | Pass | Pass | Pass | Pass |
| **CO-INCIDENT PEAK** | | | | | | | | | |
| **1 CP** | | | | | | | | | |
| Transformation CP | TCP1 | 98,777 | 46,582 | 19,685 | 30,215 | 1,778 | 483 | 28 | 4 |
| Bulk Delivery CP | BCP1 | 98,777 | 46,582 | 19,685 | 30,215 | 1,778 | 483 | 28 | 4 |
| Total Sytem CP | DCP1 | 98,777 | 46,582 | 19,685 | 30,215 | 1,778 | 483 | 28 | 4 |
| **4 CP** | | | | | | | | | |
| Transformation CP | TCP4 | 358,212 | 169,274 | 65,609 | 115,099 | 6,687 | 1,445 | 81 | 18 |
| Bulk Delivery CP | BCP4 | 358,212 | 169,274 | 65,609 | 115,099 | 6,687 | 1,445 | 81 | 18 |
| Total Sytem CP | DCP4 | 358,212 | 169,274 | 65,609 | 115,099 | 6,687 | 1,445 | 81 | 18 |
| **12 CP** | | | | | | | | | |
| Transformation CP | TCP12 | 900,780 | 386,901 | 166,965 | 324,969 | 19,892 | 1,893 | 107 | 54 |
| Bulk Delivery CP | BCP12 | 900,780 | 386,901 | 166,965 | 324,969 | 19,892 | 1,893 | 107 | 54 |
| Total Sytem CP | DCP12 | 900,780 | 386,901 | 166,965 | 324,969 | 19,892 | 1,893 | 107 | 54 |
| **NON CO INCIDENT PEAK** | | NCP Sanity Check | Pass | Pass | Pass | Pass | Pass | Pass | Pass |
| **1 NCP** | | | | | | | | | |
| Classification NCP from Load Data Provider | DNCP1 | 106,174 | 48,746 | 20,042 | 34,889 | 1,969 | 493 | 31 | 5 |
| Primary NCP | PNCP1 | 106,174 | 48,746 | 20,042 | 34,889 | 1,969 | 493 | 31 | 5 |
| Line Transformer NCP | LTNCP1 | 100,703 | 48,746 | 20,042 | 31,387 | | 493 | 31 | 5 |
| Secondary NCP | SNCP1 | 103,686 | 48,746 | 20,042 | 34,371 | - | 493 | 31 | 5 |
| **4 NCP** | | | | | | | | | |
| Classification NCP from Load Data Provider | DNCP4 | 391,222 | 179,578 | 73,086 | 128,660 | 7,822 | 1,940 | 117 | 19 |
| Primary NCP | PNCP4 | 391,222 | 179,578 | 73,086 | 128,660 | 7,822 | 1,940 | 117 | 19 |
| Line Transformer NCP | LTNCP4 | 370,486 | 179,578 | 73,086 | 115,746 | - | 1,940 | 117 | 19 |
| Secondary NCP | SNCP4 | 381,487 | 179,578 | 73,086 | 126,747 | - | 1,940 | 117 | 19 |
| **12 NCP** | | | | | | | | | |
| Classification NCP from Load Data Provider | DNCP12 | 978,638 | 411,126 | 185,054 | 353,597 | 22,808 | 5,671 | 328 | 54 |
| Primary NCP | PNCP12 | 978,638 | 411,126 | 185,054 | 353,597 | 22,808 | 5,671 | 328 | 54 |
| Line Transformer NCP | LTNCP12 | 920,338 | 411,126 | 185,054 | 318,105 | - | 5,671 | 328 | 54 |
| Secondary NCP | SNCP12 | 950,572 | 411,126 | 185,054 | 348,339 | - | 5,671 | 328 | 54 |

1

2
3
4

Ontario Energy Board

# 2021 Cost Allocation Model

**EB-2020-XXXX**
**Sheet O1 Revenue to Cost Summary Worksheet · Application**

**Instructions:**
Please see the first tab in this workbook for detailed instructions

**Class Revenue, Cost Analysis, and Return on Rate Base**

| | | | 1 | 2 | 3 | 5 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| **Rate Base Assets** | | Total | Residential | GS <50 | GS > 50 to 2,999 kW | GS >3,000 to 4,999 kW | Street Light | Sentinel Lighting | Unmetered Scattered Load |
| crev | Distribution Revenue at Existing Rates | $12,686,946 | $7,479,179 | $2,312,188 | $2,282,752 | $98,093 | $483,854 | $29,781 | $1,099 |
| mi | Miscellaneous Revenue (mi) | $1,228,466 | $763,862 | $187,925 | $232,301 | $10,372 | $28,722 | $5,162 | $121 |
| | | | | Miscellaneous Revenue Input equals Output | | | | | |
| | **Total Revenue at Existing Rates** | **$13,915,412** | **$8,243,040** | **$2,500,114** | **$2,515,053** | **$108,465** | **$512,577** | **$34,943** | **$1,220** |
| | Factor required to recover deficiency (1 + D) | 1.1395 | | | | | | | |
| | Distribution Revenue at Status Quo Rates | $14,457,121 | $8,522,728 | $2,634,802 | $2,601,258 | $111,780 | $551,365 | $33,936 | $1,252 |
| | Miscellaneous Revenue (mi) | $1,228,466 | $763,862 | $187,925 | $232,301 | $10,372 | $28,722 | $5,162 | $121 |
| | **Total Revenue at Status Quo Rates** | **$15,685,587** | **$9,286,590** | **$2,822,727** | **$2,833,559** | **$122,152** | **$580,088** | **$39,098** | **$1,373** |
| | **Expenses** | | | | | | | | |
| di | Distribution Costs (di) | $3,276,919 | $1,928,491 | $578,075 | $685,927 | $28,828 | $43,083 | $12,233 | $281 |
| cu | Customer Related Costs (cu) | $1,693,344 | $1,349,493 | $232,903 | $108,492 | $1,572 | $60 | $806 | $18 |
| ad | General and Administration (ad) | $3,711,441 | $2,428,017 | $609,550 | $607,450 | $23,518 | $32,792 | $9,888 | $227 |
| dep | Depreciation and Amortization (dep) | $3,348,110 | $1,933,404 | $634,338 | $710,213 | $30,294 | $30,469 | $9,183 | $210 |
| INPUT | PILs (INPUT) | ($0) | ($0) | ($0) | ($0) | ($0) | ($0) | ($0) | ($0) |
| INT | Interest | $1,112,823 | $629,656 | $201,454 | $254,320 | $11,279 | $12,416 | $3,614 | $84 |
| | **Total Expenses** | **$13,142,638** | **$8,269,061** | **$2,256,318** | **$2,366,402** | **$95,491** | **$118,821** | **$35,724** | **$820** |
| | **Direct Allocation** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** |
| NI | Allocated Net Income (NI) | $2,542,949 | $1,438,847 | $460,348 | $581,156 | $25,774 | $28,372 | $8,259 | $193 |
| | **Revenue Requirement (includes NI)** | **$15,685,587** | **$9,707,908** | **$2,716,667** | **$2,947,558** | **$121,265** | **$147,193** | **$43,983** | **$1,013** |
| | | | | Revenue Requirement Input equals Output | | | | | |
| | **Rate Base Calculation** | | | | | | | | |
| | **Net Assets** | | | | | | | | |
| dp | Distribution Plant - Gross | $138,922,188 | $80,625,100 | $25,178,596 | $29,827,236 | $1,210,772 | $1,591,246 | $478,268 | $10,970 |
| gp | General Plant - Gross | $16,481,914 | $9,493,524 | $2,978,039 | $3,611,853 | $155,963 | $186,294 | $54,978 | $1,263 |
| accum dep | Accumulated Depreciation | ($70,919,471) | ($41,221,373) | ($12,899,433) | ($15,141,475) | ($582,776) | ($819,260) | ($249,411) | ($5,742) |
| co | Capital Contribution | ($13,862,159) | ($8,890,265) | ($2,474,069) | ($2,201,674) | ($71,317) | ($169,652) | ($54,051) | ($1,131) |
| | **Total Net Plant** | **$70,622,473** | **$40,006,986** | **$12,783,133** | **$16,095,940** | **$712,642** | **$788,627** | **$229,784** | **$5,360** |
| | **Directly Allocated Net Fixed Assets** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** |
| COP | Cost of Power (COP) | $66,051,805 | $27,208,213 | $10,622,121 | $25,987,813 | $1,939,391 | $273,213 | $15,755 | $5,298 |
| | OM&A Expenses | $8,681,704 | $5,706,001 | $1,420,527 | $1,401,869 | $53,918 | $75,936 | $22,927 | $526 |
| | Directly Allocated Expenses | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| | *Subtotal* | *$74,733,509* | *$32,914,215* | *$12,042,648* | *$27,389,682* | *$1,993,309* | *$349,149* | *$38,682* | *$5,825* |
| | **Working Capital** | **$5,605,013** | **$2,468,566** | **$903,199** | **$2,054,226** | **$149,498** | **$26,186** | **$2,901** | **$437** |
| | **Total Rate Base** | **$76,227,486** | **$42,475,552** | **$13,686,331** | **$18,150,166** | **$862,140** | **$814,814** | **$232,685** | **$5,797** |
| | | | | Rate Base Input equals Output | | | | | |
| | **Equity Component of Rate Base** | **$30,490,994** | **$16,990,221** | **$5,474,533** | **$7,260,066** | **$344,856** | **$325,925** | **$93,074** | **$2,319** |
| | **Net Income on Allocated Assets** | **$2,542,949** | **$1,017,529** | **$566,409** | **$467,157** | **$26,661** | **$461,267** | **$3,374** | **$552** |
| | **Net Income on Direct Allocation Assets** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** |
| | **Net Income** | **$2,542,949** | **$1,017,529** | **$566,409** | **$467,157** | **$26,661** | **$461,267** | **$3,374** | **$552** |
| | **RATIOS ANALYSIS** | | | | | | | | |
| | **REVENUE TO EXPENSES STATUS QUO%** | **100.00%** | **95.66%** | **103.90%** | **96.13%** | **100.73%** | **394.10%** | **88.89%** | **135.49%** |
| | EXISTING REVENUE MINUS ALLOCATED COSTS | ($1,770,175) | ($1,464,868) | ($216,553) | ($432,505) | ($12,800) | $365,384 | ($9,040) | $206 |
| | | | | Deficiency Input equals Output | | | | | |
| | STATUS QUO REVENUE MINUS ALLOCATED COSTS | ($0) | ($421,318) | $106,060 | ($113,999) | $887 | $432,895 | ($4,885) | $360 |
| | RETURN ON EQUITY COMPONENT OF RATE BASE | 8.34% | 5.99% | 10.35% | 6.43% | 7.73% | 141.53% | 3.63% | 23.83% |

1

2

3

Ontario Energy Board

# 2021 Cost Allocation Model

**EB-2020-XXXX**
**Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet · Application**

Output sheet showing minimum and maximum level for Monthly Fixed Charge

| | 1 | 2 | 3 | 5 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|
| **Summary** | Residential | GS <50 | GS > 50 to 2,999 kW | GS >3,000 to 4,999 kW | Street Light | Sentinel Lighting | Unmetered Scattered Load |
| Customer Unit Cost per month - Avoided Cost | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Customer Unit Cost per month - Directly Related | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Customer Unit Cost per month - Minimum System with PLCC Adjustment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Approved Fixed Charge | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |

| | | 1 | 2 | 3 | 5 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| **Information to be Used to Allocate PILs, ROD, ROE and A&G** | Total | Residential | GS <50 | GS > 50 to 2,999 kW | GS >3,000 to 4,999 kW | Street Light | Sentinel Lighting | Unmetered Scattered Load |
| General Plant - Gross Assets | $16,481,914 | $1,193,286 | $4,293,407 | $10,816,926 | $178,294 | $0 | $0 | $0 |
| General Plant - Accumulated Depreciation | ($11,814,914) | ($855,397) | ($3,077,691) | ($7,754,018) | ($127,809) | $0 | $0 | $0 |
| General Plant - Net Fixed Assets | $4,667,000 | $337,890 | $1,215,716 | $3,062,908 | $50,486 | $0 | $0 | $0 |
| General Plant - Depreciation | $583,247 | $42,227 | $151,931 | $382,780 | $6,309 | $0 | $0 | $0 |
| Total Net Fixed Assets Excluding General Plant | $12,481,847 | $1,042,259 | $3,583,189 | $7,707,599 | $148,801 | $0 | $0 | $0 |
| Total Administration and General Expense | $3,711,441 | $409,200 | $849,542 | $1,429,107 | $34,343 | $989,249 | $0 | $0 |
| Total O&M | $2,913,491 | $327,429 | $658,809 | $1,074,082 | $26,576 | $826,594 | $0 | $0 |

1
2
3
4
5
6
7
8
9