# EXHIBIT 7: COST ALLOCATION

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

#### 2 2.7.1 COST ALLOCATION STUDY REQUIREMENTS

#### 3 **2.7.1.1** Introduction

The OEB outlined its cost allocation policies in its reports of November 28, 2007 Application of Cost
Allocation for Electricity Distributors, and March 31, 2011 Review of Electricity Distribution Cost Allocation
Policy (EB-2010-0219).

In this application, NBDHL has used the 2021 version of the cost allocation model released by the OEB on May 14, 2020 to conduct a 2021 test year cost allocation study consistent with the OEB's cost allocation policies. The model has been loaded with 2021 test year costs, customer numbers and demand values for NBDHL. The 2021 demand values were determined based on the description provided under the Load Profiles section of this Exhibit. The various weighting factors used in the 2021 study have also been 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. .

NBHDL is unable to update the load profiles at this time, because not all meters have been converted to interval meters with hourly reading capability. NBHDL expects that the remaining legacy meters will be replaced prior to the next COS application. For the next COS application, NBDHL will review other load profiling methodologies that are brought forward to the OEB. NBDHL anticipates that by the time the next COS application is prepared, the OEB may prescribe a method to weather normalize actual hourly data which NBDHL will be in a position to follow.

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%

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

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

In the March 31, 2011 Cost Allocation Report, the OEB stated that "default weighting factors should now be utilized only in exceptional circumstances". Distributors are expected to develop their own weighting factors as part of their cost allocation study. NBDHL has developed its own weighting factors as outlined below; these primarily follow the same methodology utilized in the 2015 COS application, updated for 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.

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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

## Table 7 - 2: Weighting Factors for Services

5

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

In determining the weighting factors for Billing and Collecting, an analysis of Accounts 5315 and 5320, was conducted and costs were assigned to each class based on the specific nature of the costs. For example, postage costs were assigned to each class based on the # of bills issued. Internal labour costs, as another example, were assigned to the relevant accounts by time spent, and then allocated by class based on customers. Through this analysis, NBDHL was able to more closely assign a total cost per class from which 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 spent on collections activities is related to the residential class and NBHDL submits that utilizing a per 21 22 customer allocation method is appropriate. Table 7-3 below, outlines the billing and collection weighting 23 factors for all rate classes.

#### 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

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#### 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.

	Installation Cost
Meter Type	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

Table 7 - 4: Meter Capital Installation Costs

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 below, outlines the meter reading weighting factors. 16

<sup>6</sup> 

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

#### Table 7 - 5: Weighting Factors for Meter Reading

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

For the purposes of completing Appendix 2-Q, NBHDL followed the same methodology utilized in the 2015 COS, and attempted to estimate costs specifically related to HONI for the two separate connections. As explained further below, due to the particular facts associated with Hydro One's embedded connections in NBHDL's service territory, Appendix 2-Q fails to properly account for the costs required to service the embedded Hydro One assets. The completed Appendix 2-Q is provided in Appendix 7-A.

In connection with preparing its rate application, NBHDL has consulted with HONI and advised HONI that it is NBHDL's intent to continue to bill HONI as a GS>50 customer, NBHDL provided HONI with the necessary supporting evidence and responded to HONI's follow-up questions. HONI concluded that:

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

It is NBHDL's view that neither of the embedded HONI connections have any distinguishing factors that should result in treatment any different than other NBHDL GS>50 customers that are similarly connected at the end of the line. Due to the particular facts associated with HONI's embedded connections in NBHDL's service territory, NBHDL believes Appendix 2-Q fails to properly account for the costs required to service the embedded HONI assets. In addition, the difference in costs as between approaches is not substantial. NBHDL proposes that based on the information provided, it is reasonable for HONI to stay in the GS >50 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 the street lights throughout North Bay, NBHDL worked closely with the City of North Bay on all aspects of 16 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

NBHDL is not proposing to include microFIT as a separate class in the cost allocation model in 2021 and has adopted the generic rate provided by the OEB. On February 24, 2020, the OEB issued the *Review of Fixed Monthly Charge for microFIT Generator Service Classification (EB-2009-0326 and EB-2010-0219).* It was stated that distributors that have been approved for a rate that is a calculated value based on the previous approved \$5.40 province-wide rate should include a proposal to update the calculated charge based on the updated province-wide rate of \$4.55 at the time of their next rate application. NBHDL has 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."
- As such, NBDHL is proposing to amend the name and description of its current customer class of "General
   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:
- "This classification includes non residential accounts where monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than 3,000 kW. Class A and Class B consumers are defined in accordance with O. Reg. 429/04. Further servicing details are available in the distributor's 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
- of this change is in case any GS>4,999 kW customers appear, although NBHDL is not anticipating any
  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

The data used in the updated cost allocation study is consistent with NBDHL's cost data that supports the proposed NBDHL revenue requirement outlined in this application. The breakout of assets, capital contributions, depreciation, accumulated depreciation, customer data and load data by primary, line transformer and secondary categories were developed from the best data available to NBDHL, its 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.

Table 7-6 below provides the allocated cost by rate class from the approved 2015 cost allocation study and
the updated 2021 study.

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%

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

10

The following Table 7-7 provides information on the calculated class revenue. The resulting NBDHL proposed base revenue will be the amount used in Exhibit 8 to design the proposed distribution charges in this application. NBDHL submits that this is a fair and reasonable approach to define the revenue requirement by rate class. 1 2

#### <u>Table 7 - 7: Calculated Class Revenue – (Consistent with RRWF, Tab 11 Cost Allocation,</u> <u>Calculated Class Revenues)</u>

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 2

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

Rate Class	2015 Board Approved	2021 Updated Cost Allocation Study	2021 Proposed Ratios	2022 to 2026 Proposed Ratios	Bo Tar Min t	oard rgets o 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%.

#### 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)	(2)	(3)	(3) (4) (5)		(6) = '(3) + (4)
Asset Class	Total OM&A costs asociated with asset class	Original cost of asset class	Accumulated amortization of asset class	Annual amortization of asset class	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)					s -
TS (owned by host)					s -
Meterina	s -	\$ 59,699	-\$ 27,462	-\$ 5.300	\$ 32,237,49
					s -
					\$ -
(1)	(7)	(8)	(9)	(10)	(11)
Asset Class	Total line length o sset Class station capacity in asset class		Annual total demand on station/line providing LV services (sum of 12 monthly peaks)	Annual billed Embedded Distributor demand on station/line providing LV services	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)	(12)	(12a)	(13)	(14)	(15)	(16)
Asset Class	Return on Assets used to Provide LV services	Taxes/PILs	Annual amortization on assets used to provide LV services	OM&A costs with burden associated with assets used to provide LV services	Total annual cost associated with assets used to provide LV services	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	) <b>-</b> (	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 Short-term Debt	56.00% 4.00%	2.48% 1.75%	Weighted Average Cost of Capital	4.80%	
Common Equity Preferred Shares	40.00%	8.34%	Tax/PILs Rate	0%	Pils Model No Taxes
Total	100.00%		Working Capital Allowance Factor	7.5%	

- 2 Appendix 7-B: Cost Allocation Model Input Sheets I-6 & I-8 and Output Sheets O-1 & O-2 (first
- 3 page only)

2021	Cost A	llocat	ion M	ndel					
EB-2020-XXX Sheet 16.1	XX Revenue W	orksheet	• Applicat	tion					
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 Loa
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	39,4
Forecast kW	CDEM	547 277			514 190	27 098	5 690	298	
Forecast kW, included in CDEM, of customers receiving line transformer		180,172			153,073	27,098			
allowance		and the second se							
allowance 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.									
allowance Optional - Forecast KWh, included in CEN, from customers that receive a line transformation allowance on a KVh basis. In most cases this will not be applicable and will be left blank. KVh excluding KVh 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	39,4
allowance 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	39,4
allowance 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 \$25.00	193,697,533 \$315.75	14,455,054 \$6,734.18	2,036,369	117,429 \$5.10	39,4
allowance 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 Existing Monthly Charge Existing Distribution kWh Rate	CEN EWMP	491.086,840	201,705,111	79,035,853 \$25.00 \$0.0192	193,697,533 \$315.75 \$2,650	14,455,054 \$6,734,18 \$1,2378	2,036,369 \$5.06 \$27,1545	117,429 \$5.10 \$17,7881	39,49 \$5.5 \$0.012
allowance 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 Existing Monthly Charge Existing Distribution kWh Rate Existing Distribution kWh Rate Existing Distribution kW Rate	CEN EWMP	491,086,840	201,705,111	79,035,853 \$25.00 \$0.0192	193,697,533 \$315,75 \$2,6359 \$0,60	14,455,054 \$6,734.18 \$1,2378 \$0,60	2,036,369 \$5.06 \$27.1545	117,429 \$5.10 \$17,7881	39,4 \$5,5 \$0,012
allowance 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 Existing Monthly Charge Existing Distribution kWh Rate Existing Distribution kW Rate Existing Distribution kW Rate Existing Charges	CEN EWMP	491,086,840	201,705,111 \$29.19	79,035,853 \$25.00 \$0.0192	193,697,533 \$315.75 \$2.6359 \$0.60	14,455,054 \$6,734,18 \$1,2378 \$0,60	2,036,369 \$5.06 \$27.1545	117,429 \$5.10 \$17,7881	39,4 \$5.5 \$0.012
allowance 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 Existing Monthly Charge Existing Distribution kWh Rate Existing Distribution kWh Rate Existing DA Rate Additional Charges Distribution Revenue from Rates	CEN EWMP	491,086,840	201.705.111 \$29.19 \$7.479.179	79,035,853 \$25.00 \$0.0192 \$2,312,188	193,697,533 \$315,75 \$2,6359 \$0,60 \$2,374,596	14,455,054 \$6,734,18 \$1,2378 \$0,60 \$114,352	2,036,369 \$5.06 \$27.1545 \$483,854	117,429 \$5.10 \$17,7881 \$29,781	39,4 \$5.1 \$0.012 \$1.05
allowance 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. Sisting Monthly Charge Existing Distribution KWh Rate Existing Distribution KWh Rate Existing TOA Rate Asiting TOA Rate Sisting TOA Rate Sisting TOA Rate Sisting TOA Rate At Chese Berges	CEN EWMP	491,086,840 \$12,795,049 \$188,103 \$13,656,045	201,705,111 \$29.19 \$7,479,179 \$0 \$7,479,179	79,035,853 \$25.00 \$0.0192 \$2,312,188 \$0 \$2,312,187	193,697,533 \$315,75 \$2,6359 \$0,60 \$2,374,696 \$91,844 \$2,309,750	14,455,054 \$6,734,18 \$1,2378 \$0,60 \$114,352 \$16,259 \$506,000	2,036,369 \$5.06 \$27,1545 \$483,854 \$483,854 \$0 \$483,854	117,429 \$5.10 \$17.7881 \$29,781 \$00 \$09,794	39.4 \$5.1 \$0.012 \$1.00 \$3

## 2021 Cost Allocation Model

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#### Sheet 16.2 Customer Data Worksheet - Application

			1	2	3	5	7	8	9
	ID	Total	Residential	GS <50	G\$ > 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	50
Late Payment 3 Year Historical	LPHA	\$149,680	\$98,676	\$17,891	\$31,575	\$1,538			
Number of Bills	CNB	12	-	-	-		12		
Number of Devices	CDEV						-	14	+
Number of Connections (Unmetered	CCON		(				-	-	
Total Number of Customers	CCA								
Bulk Customer Base	CCB	1							
Primary Customer Base	CCP						-		
ine Transformer Customer Base	CCLT	- 27	-		27	1 3			
Secondary Customer Base	CCS	- 4	*		- 4				
Veighted - Services	CWCS	-		-	-	-	-		
Weighted Meter -Capital	CWMC	137,403	-	240,805	- 113,401	10,000	-	1.5	-
Veighted Meter Reading	CWMR	-	÷.	-	-	-	-	+	-
Veighted 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	27,045	-		
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	+						
	Primary Asse	t Data	Line Transformer Asset Data				
Class	Customers/ Devices		Customers/ Devices				
Residential	-						
Street Light	-		-				

Street Lighting Adjustment Factors	5
Primary	
Line Transformer	

## 2021 Cost Allocation Model

#### EB-2020-XXXX Sheet IS Demand Data Worksheet · Application

is is an input sheet for dem	and 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		1 1							
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 Bulk Delivery CP	TCP12 BCP12 DCP12	900,780 900,780	386,901 386,901	166,965 166,965	324,969 324,969	19,892 19,892	1,893 1,893	107 107	54 54
Total Sytem CP	DGP12	900,760	300,301	100,905	324,303	19,092	1,893	107	04
NON CO_INCIDE	NT PEAK								
		NCP Sanity Check	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1 NCP Classification NCP from	DNCP1	105 174	48 746	20.042	34 889	1 959	101	1 415	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	1,505	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

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## 2021 Cost Allocation Model

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Sheet 01 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 mi	Distribution Revenue at Existing Rates Miscellaneous Revenue (mi)	\$12,686,946 \$1,228,466	\$7,479,179 \$763,862	\$2,312,188 \$187,925	\$2,282,752 \$232,301	\$98,093 \$10,372	\$483,854 \$28,722	\$29,781 \$5,162	\$1,099 \$121
		Misc	ellaneous Revenu	e Input equals O	atput				
	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
	Pactor required to recover deficiency (1 + D)	1,1395	50 500 700	E0 534 800	80 504 050	5444 780	8554 205	522.025	E4 050
	Distribution Revenue at Status Quo Rates	\$1 228 466	\$0,522,720	\$2,034,002	\$2,001,250	\$10,700	\$25 1,300	\$53,930	\$1,252
	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
INDUT	Depreciation and Amontization (dep)	\$3,340,110	51,933,404	3034,330	\$/10,213	\$30,294	330,469	39,103	5210
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	50	\$0	\$0	50	\$0	\$0	\$0	\$0
NI	Allocated Net Income (NII)	\$2 542 949	\$1.438.847	5460 348	\$581 155	\$25 774	\$28 372	\$8.269	\$193
	Devenue Development (Includes ND	ter cor roz	CO 707 000	£0,000	80.047.550	5404.005	6447.403	643.003	61.012
	Revenue Requirement (includes NI)	Revenue Re	quirement Input e	quals Output	\$2,347,556	\$121,205	\$147,193	\$43,963	\$1,013
						, i I I			
	Rate Base Calculation								
100	Net Assets		1001/0000/750	100000000000	VENDURANT		1000000000000	101100-000	10 10 10 20
dp	Distribution Plant - Gross	\$138,922,188	\$80,625,100	\$25,178,596	\$29,827,236	\$1,210,772	\$1,691,246	\$478,268	\$10,970
gp accum den	Accumulated Derreciation	\$16,481,914	1541 221 373V	52,978,039	(\$15 141 475)	\$155,963	(\$819,260)	(5249 411)	51,203
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	50	\$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
	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	50	\$0	50	\$0	\$0	\$0	\$0	50
	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\$1 770 1751	151 454 959	(\$216 553)	(5432 505)	(\$12 800)	\$365,284	(\$9.040)	\$206
	ELECTION REPORTED GUDIN	Defici	ency Input equals	Output	10102,000)	(012.000)	9303,304	(40,040)	\$200
	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%

## 2021 Cost Allocation Model

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#### Sheet 02 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	o	0	0
Existing Approved Fixed Charge		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ROD, ROE and A&G	lotal	Residential	GS <50	2,999 kW	4,999 kW	Street Light	Lighting	Scattered Load
ROD, ROE and A&G	Total	Residential	03 430	2,999 kW	4,999 kW	Suber Light	Lighting	Scattered Load
General Plant - Gross Assets General Plant - Accumulated Depreciation	\$16,481,914 (\$11,814,914)	\$1,193,286 (\$855,397)	\$4,293,407 (\$3,077,691)	\$10,816,926 (\$7,754,018)	\$178,294 (\$127,809)	\$0 \$0	\$0 \$0	\$0 \$0
General Plant - Net Fixed Assets	\$4,667,000	\$337,890	\$1,215,716	\$3,062,908	\$50,486	50	\$0	\$0
General Plant - Depreciation	\$583,247	\$42,227	\$151,931	\$382,780	\$6,309	50	\$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	50	50