



Exhibit 7

Cost Allocation

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2.7.1 Cost Allocation Study Requirements

2.7.1.1 Overview of Cost Allocation

In 2013, NOTL Hydro prepared and filed its cost allocation study consistent with its understanding of the Directions and Policies in the Board's 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) (the "Cost Allocation Reports") and all subsequent updates.

As part of its 2014 Cost of Service Rate Application, NOTL Hydro updated the cost allocation revenue to cost ratios with 2014 base revenue requirement information. The revenue to cost ratios from NOTL Hydro's 2014 Cost of Service application (EB-2013-0155) are presented in the table below:

Table 7.1: Previously Approved Ratios (2014 COS)

Customer Class Name	2014 Approved Revenue to Cost Ratio
Residential	90.14%
General Service < 50 kW	120.00%
General Service > 50 kW	120.00%
Street Lighting	90.14%
Unmetered Scattered Load	120.00%

The Cost Allocation Study for the 2019 Test Year allocates the 2019 Test Year costs (i.e. the 2019 Test Year forecasted revenue requirement) to the LDC's customer classes using allocators that are based on the forecasted class loads (kW and kWh) by customer class, customer counts and weighting factors (such as billing, collecting and metering costs).

NOTL Hydro utilized the updated OEB-approved Cost Allocation Model (version 3.6 – issued July 12th, 2018) and adhered to the instructions and guidelines issued by the OEB to enter the 2019 Test Year data into this model. NOTL Hydro has filed a copy of the Cost Allocation Model (version 3.6) as part of its filing submission.

1 Below is a summary of the process that NOTL Hydro applied in completing the 2019 Cost
 2 Allocation Model:

3 NOTL Hydro populated the information on worksheet “I3 - Trial Balance Data” with the
 4 2019 Test Year forecast data, Target Net Income, PILs, Deemed interest on long term
 5 debt and the targeted Revenue Requirement and Rate Base.

6 In worksheet “I4 -Break-out of Assets”, NOTL Hydro updated the asset values and
 7 allocation of the accounts based on 2019 Test Year values.

8 In worksheet “I5.1 - Miscellaneous data”, NOTL Hydro updated the deemed equity
 9 component of rate base, kilometer of roads in the service area, working capital allowance
 10 and the proportion of pole rental revenue from secondary poles.

11 As instructed by the Board, in worksheet “I5.2 - Weighting Factors”, NOTL Hydro has used
 12 LDC specific factors rather than continuing to use OEB approved default factors. The utility
 13 has applied service and billing & collecting weightings for each customer classification.
 14 These weightings are based on a review of time and costs incurred in servicing its
 15 customer classes; they are discussed further below:

Table 7.2: Weighting Factors

EB-2018-0056

Sheet I5.2 Weighting Factors Worksheet - Initial Submission

	1	2	3	6	7	9
	Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load
Insert Weighting Factor for Services Account 1855	1.0	0.8	0.1	0.0	0.0	0.0
Insert Weighting Factor for Billing and Collecting	1.0	1.0	0.9	0.9	0.9	0.8

18 Proposed Services Weighting Factors

19 Account 1855 includes the cost installed of overhead and underground conductors leading from
 20 a point where wires leave the last pole of the overhead system or the transformers or manhole,
 21 or the top of the pole of the distribution line, to the point of connection with the customer's electrical

1 panel. NOTL Hydro services all Residential accounts as well as GS<50kW and GS 50kW -
2 4,999kW accounts with a 200 amp or less service.

3

4 **Residential:**

5 The weighting factor is set to “1” as per the instructions contained within the Cost Allocation
6 model.

7 **General Service less than 50 kW:**

8 The weighting factor “0.8” is proposed on the basis of the ratio of customers in this class with
9 a 200 amp or less service.

10

11 **General Service 50kW – 4,999kW:**

12 The weighting factor “0.1” is proposed on the basis of the ratio of customers in this class with
13 a 200 amp or less service.

14 **Large User:**

15 The weighting factor of “0” is proposed because the customer is responsible for the cost of
16 services.

17 **Street Lighting:**

18 A weighting factor of “0” is proposed for this customer class as the services are privately
19 owned by the customers.

20 **Unmetered Scattered Load:**

21 A weighting factor of “0” is proposed for this customer class as the services are privately
22 owned by the customers.

23 **Proposed Billing and Collecting Weighting Factors**

24 NOTL Hydro undertook a detailed review of expenses in accounts 5315, 5320 and 5340 to
25 determine the costs associated with customers in each rate class.

26

27 **Residential:**

28 The weighting factor is set at “1” as per Cost Allocation instruction sheet.

1 **General Service less than 50 kW:**

2 The weighting factor “1” is proposed because costs associated with billing this class are similar
3 to the Residential class.

4 **General Service 50kW – 4,999kW:**

5 The weighting factor “0.9” is proposed because of lower collections efforts and lower activity
6 in account changes.

7 **Large User:**

8 The weighting factor of “0.9” is proposed to be equivalent to the weighting factor used for
9 GS>50 kW.

10 **Street Lighting:**

11 The proposed weighting factor is “0.9”. This customer class does not give rise to collection
12 activity and so no collection costs have been allocated. The weighting factor also reflects the
13 extremely low volume of bills issued.

14 **Unmetered Scattered Load:**

15 The “0.8” is proposed for this customer class. This customer class does not give rise to
16 collection activity and so no collection costs have been allocated. The weighting factor also
17 reflects the extremely low volume of bills issued.

18 In worksheet “I6.1 – Revenue”, NOTL Hydro has populated the 2019 Test Year load forecast data
19 (kWh and kW), the proposed revenue deficiency and miscellaneous revenue as well as existing
20 rates. The Existing Distribution kWh Rates and the Existing Distribution kW Rates include the rate
21 riders for the 2015 ICM. As the transformer purchased with the ICM is included in rate base in
22 2019 and as this rate rider will no longer be in effect it is appropriate that the rate rider be included
23 in the deficiency/sufficiency calculation.

24

25

1 This is illustrated in the table below:

2 **Table 7.3: Worksheet I6 – Revenue**
 3 **2019 Load Forecast Data and Revenue at Existing Rates**



EB-2018-0056
Sheet I6.1 Revenue Worksheet - Initial Submission

Total kWhs from Load Forecast	223,029,214
Total kW from Load Forecast	275,370
Deficiency/sufficiency (RRWF 8. cell F51)	- 50,401
Miscellaneous Revenue (RRWF 5. cell F48)	502,939

ID	Total	1	2	3	6	7	9	
		Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load	
Billing Data								
Forecast kWh	CEN	223,029,214	73,998,981	41,877,513	82,705,771	23,308,825	886,616	251,508
Forecast kW	CDEM	275,370	-	-	212,896	60,000	2,475	-
Forecast kW, included in CDEM, of customers receiving line transformer allowance		79,797			19,797	60,000		
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	223,029,214	73,998,981	41,877,513	82,705,771	23,308,825	886,616	251,508
Existing Monthly Charge			\$26.86	\$39.41	\$281.65	\$281.65	\$7.85	\$21.20
Existing Distribution kWh Rate			\$0.0040	\$0.0130	\$0.0000	\$0.0000	\$0.0000	\$0.0069
Existing Distribution kW Rate			\$0.0000	\$0.0000	\$2.5709	\$2.5709	\$30.6934	\$0.0000
Existing TOA Rate					\$0.56	\$0.56		
Additional Charges								
Distribution Revenue from Rates		\$5,538,709	\$2,923,669	\$1,177,017	\$990,087	\$157,634	\$281,952	\$8,350
Transformer Ownership Allowance		\$44,686	\$0	\$0	\$11,086	\$33,600	\$0	\$0
Net Class Revenue	CREV	\$5,494,023	\$2,923,669	\$1,177,017	\$979,001	\$124,034	\$281,952	\$8,350

4
5

1 Worksheet "I6.2 – Customer Data" has been updated with the required Bad Debt and Late
 2 Payment revenue data as well as customer/connection number information devices. Below is a
 3 summary of worksheet "I6.2 – Customer Data":
 4

5 **Table 7.4: Worksheet I6.2 – Customer Data**
 6 **2019 Billing & Bad Debt Data and Street Light Adjustment Factor**



EB-2018-0056
Sheet I6.2 Customer Data Worksheet - Initial Submission

		1	2	3	6	7	9	
	ID	Total	Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load
Billing Data								
Bad Debt 3 Year Historical Average	BDHA	\$36,754	\$13,848	\$22,898	\$8	\$0	\$0	\$0
Late Payment 3 Year Historical Average	LPHA	\$41,605	18,943.10	9,306.19	13,294.17	\$0	28.59	33.06
Number of Bills	CNB	115,837	97,829	16,052	1,572	12	60	312
Number of Devices	CDEV		8,152	1,338	131	1	2,187	26
Number of Connections (Unmetered)	CCON	11,835	8,152	1,338	131	1	2,187	26
Total Number of Customers	CCA	9,653	8,152	1,338	131	1	5	26
Bulk Customer Base	CCB	-						
Primary Customer Base	CCP	9,760	8,152	1,338	131	1	112	26
Line Transformer Customer Base	CCLT	9,741	8,152	1,338	112	1	112	26
Secondary Customer Base	CCS	9,653	8,152	1,338	131	1	5	26
Weighted - Services	CWCS	9,223	8,152	1,060	10	-	-	-
Weighted Meter -Capital	CWMC	4,986,263	3,286,777	950,151	743,226	6,108	-	-
Weighted Meter Reading	CWMR	17,495	8,152	1,338	7,674	59	272	-
Weighted Bills	CWNB	115,665	97,829	16,052	1,473	11	56	245

Bad Debt Data

Historic Year:	2015	27,718	19,575	8,127	16			
Historic Year:	2016	64,754	8,893	55,861	-			
Historic Year:	2017	17,789	13,075	4,705	9			
Three-year average		36,754	13,848	22,898	8	-	-	-

Street Lighting Adjustment Factors

NCP Test Results	4 NCP
------------------	-------

Class	Primary Asset Data		Line Transformer Asset Data	
	Customers/ Devices	4 NCP	Customers/ Devices	4 NCP
Residential	8,152	59,754	8,152	59,754
Street Light	2,187	820	2,187	820

Street Lighting Adjustment Factors	
Primary	19.5442
Line Transformer	19.5442

7
8

1 NOTL Hydro updated the capital cost meter information in worksheet “I7.1 – Meter Capital” based
 2 upon current meter costs as well as the meter reading information in worksheet “I7.2 – Meter
 3 Reading”. The higher allocation percentage for GS>50 and Street lights reflect the incremental
 4 costs associated with reading interval meters.

5 The data entered in worksheet “I8 – Demand Data” reflects the findings of the 2004 hour by hour
 6 load data being scaled to be consistent with NOTL Hydro’s 2019 load forecast. No historical
 7 information was available for the new Large User rate class and therefore NOTL Hydro utilized
 8 load profile estimates provided by this customer to estimate the demand data at 5,000kW. NOTL
 9 Hydro was not able to update its load profiles at this time due to metering and system restrictions
 10 primarily related to consumption data for some meter types that still require manual reads. NOTL
 11 Hydro is in the process of updating these meters and working with 3rd party meter readers to
 12 ensure the required data is available. NOTL Hydro confirms that it intends to put plans in place to
 13 update its load profiles the next time a cost allocation model is filed. The scaling factor used for
 14 each rate class is summarized in the table below:

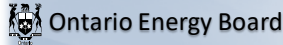
15 **Table 7.5: Summary of Scaling Factors 2004 to 2019.**

Rate Class	2019 Forecast (kWh) a	2004 Actual (kWh) b	Scaling Factor c = a / b
Residential	73,998,981	60,076,821	1.23
General Service <50 kW	41,877,513	35,538,971	1.18
General Service >50kW	82,705,771	84,045,518	0.98
Street Lighting	886,616	971,353	0.91
Sentinel Lighting	0	163,176	-1.00
Unmetered Scattered Load	251,508	358,487	0.70
Large User	23,308,825	0	1.00
	223,029,214	181,154,325	

16
 17 The table on the following page shows the Demand Data for 2019 Test Year (adjusted for 2019
 18 Load Forecast) as reflected in the worksheet “I8 – Demand Data” of the Cost Allocation model.

19

Table 7.6: Worksheet I8 – Demand Data
Demand Data for 2019 Test Year (adjusted for 2019 Load Forecast)



2019 Cost Allocation Model

EB-2018-0056

Sheet I8 Demand Data Worksheet - Initial Submission

This is an input sheet for demand allocators.

CP TEST RESULTS	12 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

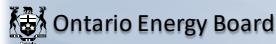
Customer Classes	Total	1	2	3	6	7	9
		Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load
CP Sanity Check		Pass	Check 4CP	Pass	Check 4CP and 12CP	Check 12CP	Check 12CP
CO-INCIDENT PEAK							
1 CP							
Transformation CP	TCP1	41,778	13,833	11,810	15,338	769	27
Bulk Delivery CP	BCP1	41,778	13,833	11,810	15,338	769	27
Total Sytem CP	DCP1	41,778	13,833	11,810	15,338	769	27
4 CP							
Transformation CP	TCP4	163,108	47,985	50,468	56,216	8,333	106
Bulk Delivery CP	BCP4	163,108	47,985	50,468	56,216	8,333	106
Total Sytem CP	DCP4	163,108	47,985	50,468	56,216	8,333	106
12 CP							
Transformation CP	TCP12	420,616	132,805	113,209	135,028	38,333	337
Bulk Delivery CP	BCP12	420,616	132,805	113,209	135,028	38,333	337
Total Sytem CP	DCP12	420,616	132,805	113,209	135,028	38,333	337
NON CO INCIDENT PEAK							
NCP Sanity Check		Pass	Pass	Pass	Pass	Pass	Pass
1 NCP							
Classification NCP from							
Load Data Provider	DNCP1	53,528	15,899	14,878	16,103	6,410	31
Primary NCP	PNCP1	53,528	15,899	14,878	16,103	6,410	31
Line Transformer NCP	LTNCP1	53,528	15,899	14,878	16,103	6,410	31
Secondary NCP	SNCP1	53,528	15,899	14,878	16,103	6,410	31
4 NCP							
Classification NCP from							
Load Data Provider	DNCP4	190,284	59,754	55,447	59,781	14,359	123
Primary NCP	PNCP4	190,284	59,754	55,447	59,781	14,359	123
Line Transformer NCP	LTNCP4	190,284	59,754	55,447	59,781	14,359	123
Secondary NCP	SNCP4	190,284	59,754	55,447	59,781	14,359	123
12 NCP							
Classification NCP from							
Load Data Provider	DNCP12	493,194	161,381	124,161	144,840	60,000	369
Primary NCP	PNCP12	493,194	161,381	124,161	144,840	60,000	369
Line Transformer NCP	LTNCP12	493,194	161,381	124,161	144,840	60,000	369
Secondary NCP	SNCP12	493,194	161,381	124,161	144,840	60,000	369

1 NOTL Hydro determined that there were no direct allocations necessary in “I9. - Direct Allocations”
2 as all assets and operating expenses are attributable to all rate classes. Consequently, this
3 worksheet has no data beneath the rate classes.

4 The revenue to cost ratios calculated in worksheet “O1 – Revenue to Cost” of the Cost Allocation
5 model updated for the 2019 Test Year is shown below:

6 **Table 7.7: Worksheet O1 – Revenue to Cost of the Cost Allocation Model**

7 *(on following page)*



2019 Cost Allocation Model

EB-2018-0056

Sheet 01 Revenue to Cost Summary Worksheet - Initial Submission

Instructions:

Please see the first tab in this workbook for detailed instructions

Class Revenue, Cost Analysis, and Return on Rate Base

Rate Base		1	2	3	6	7	9	
Assets		Total	Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load
crev	Distribution Revenue at Existing Rates	\$5,494,023	\$2,923,669	\$1,177,017	\$979,001	\$124,034	\$281,952	\$8,350
mi	Miscellaneous Revenue (mi)	\$502,939	\$318,103	\$90,078	\$67,283	\$9,026	\$17,664	\$785
Total Revenue at Existing Rates		\$5,996,962	\$3,241,772	\$1,267,095	\$1,046,284	\$133,060	\$299,615	\$9,135
Factor required to recover deficiency (1 + D)		1.0092						
	Distribution Revenue at Status Quo Rates	\$5,544,424	\$2,950,491	\$1,187,815	\$987,982	\$125,172	\$284,538	\$8,426
	Miscellaneous Revenue (mi)	\$502,939	\$318,103	\$90,078	\$67,283	\$9,026	\$17,664	\$785
Total Revenue at Status Quo Rates		\$6,047,363	\$3,268,594	\$1,277,893	\$1,055,266	\$134,198	\$302,202	\$9,211
Expenses								
di	Distribution Costs (di)	\$935,999	\$561,549	\$180,126	\$128,011	\$30,513	\$34,451	\$1,350
cu	Customer Related Costs (cu)	\$862,631	\$630,325	\$122,774	\$81,048	\$627	\$26,556	\$1,302
ad	General and Administration (ad)	\$1,210,510	\$794,899	\$206,244	\$144,323	\$22,509	\$40,763	\$1,771
dep	Depreciation and Amortization (dep)	\$1,157,365	\$643,378	\$238,851	\$198,481	\$44,739	\$30,607	\$1,309
INP	PILs - (INP)	\$109,828	\$57,240	\$23,516	\$20,651	\$5,156	\$3,131	\$135
INT	Interest	\$665,901	\$347,053	\$142,580	\$125,209	\$31,260	\$18,981	\$819
Total Expenses		\$4,942,235	\$3,034,444	\$914,091	\$697,723	\$134,804	\$154,488	\$6,686
Direct Allocation		\$0	\$0	\$0	\$0	\$0	\$0	\$0
NI	Allocated Net Income (NI)	\$1,105,128	\$575,968	\$236,626	\$207,797	\$51,878	\$31,500	\$1,358
Revenue Requirement (includes NI)		\$6,047,363	\$3,610,412	\$1,150,717	\$905,520	\$186,682	\$185,989	\$8,044
Rate Base Calculation								
Net Assets								
dp	Distribution Plant - Gross	\$61,405,288	\$34,625,432	\$12,463,801	\$9,896,411	\$2,348,648	\$1,990,688	\$80,308
gp	General Plant - Gross	\$7,546,093	\$4,190,537	\$1,547,862	\$1,268,074	\$311,827	\$218,498	\$9,296
accum dep	Accumulated Depreciation	(\$27,607,193)	(\$15,554,895)	(\$5,609,513)	(\$4,394,826)	(\$1,002,178)	(\$1,007,263)	(\$38,519)
co	Capital Contribution	(\$12,818,539)	(\$8,330,651)	(\$2,311,071)	(\$1,443,146)	(\$329,660)	(\$387,996)	(\$16,015)
Total Net Plant		\$28,525,655	\$14,930,423	\$6,091,079	\$5,326,514	\$1,328,638	\$813,926	\$35,070
Directly Allocated Net Fixed Assets		\$0	\$0	\$0	\$0	\$0	\$0	\$0
COP	Cost of Power (COP)	\$25,955,675	\$8,646,549	\$4,870,537	\$9,600,719	\$2,705,754	\$102,921	\$29,196
	OM&A Expenses	\$3,009,141	\$1,986,773	\$509,144	\$353,382	\$53,649	\$101,770	\$4,423
	Directly Allocated Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$28,964,816	\$10,633,322	\$5,379,680	\$9,954,101	\$2,759,403	\$204,691	\$33,619
Working Capital		\$2,172,361	\$797,499	\$403,476	\$746,558	\$206,955	\$15,352	\$2,521
Total Rate Base		\$30,698,011	\$15,727,922	\$6,494,555	\$6,073,071	\$1,535,593	\$829,278	\$37,591
Rate Base Input equals Output								
Equity Component of Rate Base		\$12,279,204	\$6,291,169	\$2,597,822	\$2,429,229	\$614,237	\$331,711	\$15,036
Net Income on Allocated Assets		\$1,105,128	\$234,150	\$363,802	\$357,543	(\$606)	\$147,714	\$2,526
Net Income on Direct Allocation Assets		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Income		\$1,105,128	\$234,150	\$363,802	\$357,543	(\$606)	\$147,714	\$2,526
RATIOS ANALYSIS								
REVENUE TO EXPENSES STATUS QUO%		100.00%	90.53%	111.05%	116.54%	71.89%	162.48%	114.51%
EXISTING REVENUE MINUS ALLOCATED COSTS		(\$50,401)	(\$368,639)	\$116,378	\$140,764	(\$53,622)	\$113,627	\$1,091
Deficiency Input equals Output								
STATUS QUO REVENUE MINUS ALLOCATED COSTS		\$0	(\$341,818)	\$127,176	\$149,746	(\$52,484)	\$116,213	\$1,167
RETURN ON EQUITY COMPONENT OF RATE BASE		9.00%	3.72%	14.00%	14.72%	-0.10%	44.53%	16.80%

1 The table below is taken from the OEB Cost Allocation model worksheet “O-2 – Fixed Charge
 2 |Floor |Ceiling” and illustrates the minimum and maximum level for the Monthly Fixed Charge for
 3 each rate class.

Table 7.8: Worksheet O2 – Fixed Charge | Floor| Ceiling of the Cost Allocation Model



EB-2018-0056

Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet - Initial Submission

Output sheet showing minimum and maximum level for Monthly Fixed Charge

Summary

	1	2	3	6	7	9
	Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load
Customer Unit Cost per month - Avoided Cost	\$7.02	\$8.15	\$60.74	\$64.05	\$1.00	\$3.57
Customer Unit Cost per month - Directly Related	\$10.99	\$12.60	\$97.02	\$102.57	\$1.68	\$6.07
Customer Unit Cost per month - Minimum System with PLCC Adjustment	\$29.20	\$31.42	\$111.93	\$117.33	\$6.87	\$20.15
Existing Approved Fixed Charge	\$26.86	\$39.41	\$281.65	\$281.65	\$7.85	\$21.20

Information to be Used to Allocate PILs, ROD, ROE and A&G

	1	2	3	6	7	9
Total	Residential	GS <50	GS >50kW	Large User	Street Light	Unmetered Scattered Load
General Plant - Gross Assets	\$7,546,093	\$4,190,537	\$1,547,862	\$1,268,074	\$311,827	\$9,296
General Plant - Accumulated Depreciation	(\$5,686,702)	(\$3,157,970)	(\$1,166,462)	(\$955,615)	(\$234,992)	(\$7,005)
General Plant - Net Fixed Assets	\$1,859,391	\$1,032,567	\$381,400	\$312,459	\$76,836	\$2,291
General Plant - Depreciation	\$165,886	\$92,121	\$34,027	\$27,876	\$6,855	\$204
Total Net Fixed Assets Excluding General Plant	\$26,666,258	\$13,897,856	\$5,709,679	\$5,014,055	\$1,251,802	\$32,779
Total Administration and General Expense	\$1,210,510	\$794,899	\$206,244	\$144,323	\$22,509	\$1,771
Total O&M	\$1,798,631	\$1,191,874	\$302,900	\$209,058	\$31,140	\$2,652

4
5

2.7.1.1 Specific Customer Classes

2.7.1.1.1 Large General Service and Large Use Classes

8 NOTL Hydro acknowledges that the treatment of the Transformer Ownership Allowance has been
 9 revised in the current version of the cost allocation model.

2.7.1.1.2 Embedded Distributor Class

11 NOTL Hydro does not host any embedded distributors.

1 **2.7.1.1.3 Unmetered Loads (including Street Lighting)**

2 NOTL Hydro acknowledges the change in the “street light allocation factor” to allocate cost to the
3 street lighting rate class.

4 NOTL Hydro has documented communications with unmetered customers and has assisted them
5 in understanding the regulatory context in which distributors operate and how it affects unmetered
6 load customers when changes to rates or charges are made or when new charges are introduced.

7 **2.7.1.1.4 MicroFIT Class**

8 NOTL Hydro is proposing to increase the current MicroFIT rate from \$5.40 to \$10.00 per month.
9 The increase is due to the increase in costs related to meter reading and billing for MicroFIT
10 customers, including the implementation of Utilismart Settlement manager to allow for automated
11 billing and improved 1598 reporting with regards to embedded generation. The proposed costs of
12 these services is \$8.00 per meter per month. The additional \$2.00 is deemed to cover labour and
13 other costs associated with MicroFIT customers.

14 **2.7.1.1.5 Standby Rates**

15 NOTL Hydro is aware of a customer that is planning to install a 2.5 MW Combined Heat and
16 Power Generator. As a result, NOTL Hydro is requesting a stand-by rate for Large Use Customers.

17 This classification refers to an account that has Load Displacement Generation and requires
18 NOTL Hydro to provide back-up service. Standby Charges are to be applied to behind-the-meter
19 generators that are not IESO market participants, FIT program participants, net-metered
20 generators or retail generators, which have their own metering and settlement conventions as per
21 regulation and legislation.

22 NOTL Hydro intends to update the Conditions of Service if the standby rate is approved in this
23 application.

24 Standby Charge will be based on applicable monthly Large Use Volumetric Charges. In the case
25 where utility grade metering is not installed on the generator, Distribution Charges on the
26 generator host facility’s load account will be determined by multiplying the peak hourly delivered
27 load as measured by the load account meter in kW by applicable variable charges for the rate
28 class. Standby Charges are determined by multiplying the nameplate capacity of the behind the

1 meter generator in KW by applicable Standby Power charges in each month. This type of scenario
2 is preferable for NOTL Hydro customers if the generator is a “baseload” or “24-7-365” generator
3 such as a fuel cell CHP unit or pressure-drop turbine unit. It may also be preferable to the
4 customer where the cost of utility grade metering is high or the size of the generator is very small
5 relative to the demand of the host load customer. In the case where utility grade metering is
6 installed on the generator, Distribution Charges on the generator host facility’s load account will
7 be determined by multiplying the peak hourly delivered load as measured by the load account
8 meter in kW by applicable variable charges for the rate class. Standby Charges will be determined
9 by multiplying the peak coincident combined kW delivered by both the distribution system and the
10 generator, less the peak hourly delivered load in kW of the host customer facility as measured by
11 the generator host load account meter. This type of scenario is preferable for customers who wish
12 to use generators or electricity storage facilities to participate in provincial conservation initiatives
13 such as the IESO’s Demand Response or Industrial Conservation Initiatives, or reduce kWh
14 consumption to contribute towards NOTL Hydro’s 2020 Conservation Targets, but are not able to
15 operate their generators “24-7-365”.

16 NOTL Hydro has discussed this standby charge with the customer that will be affected. The
17 representative of the customer had previously worked at an LDC that had applied the standby
18 charge in the above manner using utility grade metering and requested that NOTL Hydro adapt
19 the same methodology. The benefit of the metering approach described above is the customer is
20 only charged if the customer is generating at the peak time and then only by the generation at
21 that time. This will usually be lower than using the nameplate rating of the generator. It also
22 benefits the customer if they are using their generator for heating as they are then unlikely to be
23 generating at peak times.

24 **2.7.1.2 New Customer Class**

25 NOTL Hydro is proposing to add a Large User class. This new class is required as one of NOTL
26 Hydro’s customers is planning to increase to demand over 5,000 kW. NOTL Hydro does not
27 currently have a rate class for demand above 4,999 kW. This customer did not exist in Niagara-
28 on-the-Lake at the time of the last cost of service application.

29

30 NOTL Hydro is also requesting the establishment of a variance account for the revenue
31 implications of any demand over and below 5,000 kW from this customer. This variance account

1 is required as NOTL Hydro does not have any reasonable way of estimating demand from this
2 customer for 2019 or any time thereafter:

- 3 • The full feeder line to the customer is scheduled to be completed in July 2018. NOTL
4 Hydro therefore does not have any usage history with the customer having full access of
5 up to 20 MW of capacity.
- 6 • The customer is still working on their premises so will not be in a position to determine
7 peak demand for at least a year.
- 8 • The customer operates in an industry for which the legal framework is changing
9 substantially but is still subject to considerable uncertainty in terms of both legality and
10 market demand. This will affect the customers' production requirements.
- 11 • The customer has plants across Canada so can shift projection between plants at its
12 discretion.

13 The variance account provides value by both protecting the financial sufficiency of NOTL Hydro
14 and ensuring any benefits from higher demand by this customer are passed on to other NOTL
15 Hydro customers.

16

17 **2.7.1.3 Eliminated Customer Class(es)**

18 NOTL Hydro is not proposing to eliminate any customer class.

19

2.7.2 Class Revenue Requirements

2.7.2.1 Class Revenue Analysis

The table below shows the results of the cost allocation from the 2014 Test Year as approved in NOTL Hydro's 2014 Cost of Service rate application (EB-2013-00155). These results are used to compare and analyze the allocation under each option and help the utility determine its 2019 proposed ratios:

Table 7.9: Previously Approved Ratios (2014 COS)

Class	Service Revenue Requirement		Miscellaneous Revenue		Base Revenue		Approved Revenue to Cost
Residential	\$2,381,452	53.4%	\$182,278	64.4%	\$2,199,174	52.6%	90.1%
GS < 50 kW	\$994,528	22.3%	\$48,468	17.1%	\$946,060	22.6%	120.0%
GS > 50 kW	\$800,431	17.9%	\$29,920	10.6%	\$770,511	18.4%	120.0%
Street Lights	\$278,919	6.3%	\$21,792	7.7%	\$257,128	6.2%	90.1%
Unmetered Scattered Load	\$6,670	0.1%	\$419	0.1%	\$6,251	0.1%	120.0%
	\$4,462,000	100.0%	\$282,877	100.0%	\$4,179,122	100.0%	

The table below summarizes the revenue allocation for 2019 the Test Year as derived from the Cost Allocation model:

Table 7.10: Revenue Allocation from the Cost Allocation Model for 2019 Test Year

Cost Allocation Results	Revenue Allocation (sheet O1)						
Class	Service Revenue Requirement		Miscellaneous Revenue		Base Revenue		Revenue to Cost Expenses %
Residential	\$3,610,412	59.7%	\$318,103	63.2%	\$3,292,309	59.4%	90.5%
GS < 50 kW	\$1,150,717	19.0%	\$90,078	17.9%	\$1,060,639	19.1%	111.1%
GS > 50 kW	\$905,520	15.0%	\$67,283	13.4%	\$838,237	15.1%	116.5%
Street Lights	\$185,989	3.1%	\$17,664	3.5%	\$168,325	3.0%	162.5%
Unmetered Scattered Load	\$8,044	0.1%	\$785	0.2%	\$7,259	0.1%	114.5%
Large User	\$186,682	3.1%	\$9,026	1.8%	\$177,656	3.2%	71.9%
	\$6,047,363	100.0%	\$502,939	100.0%	\$5,544,424	100.0%	

The table below summarizes the proposed cost allocations for the 2019 Test Year.

Table 7.11: Revenue Allocation from the Cost Allocation Model for 2019 Test Year

Class	Service Revenue Requirement		Miscellaneous Revenue		Base Revenue		Proposed Revenue to Cost Expenses %
Residential	\$3,276,521	54.2%	\$318,103	63.2%	\$2,958,418	53.4%	90.8%
GS < 50 kW	\$1,277,871	21.1%	\$90,078	17.9%	\$1,187,793	21.4%	111.1%
GS > 50 kW	\$1,055,293	17.5%	\$67,283	13.4%	\$988,010	17.8%	116.5%
Street Lights	\$241,785	4.0%	\$17,664	3.5%	\$224,121	4.0%	114.5%
Unmetered Scattered Load	\$9,211	0.2%	\$785	0.2%	\$8,426	0.2%	129.5%
Large User	\$186,682	3.1%	\$9,026	1.8%	\$177,656	3.2%	100.4%
	\$6,047,363	100.0%	\$502,939	100.0%	\$5,544,424	100.0%	

The table below shows the allocation percentage and base revenue requirement allocation under the three scenarios of (a) cost allocation results, (b) existing rates and (c) 2019 Test Year proposed allocation:

Table 7.12: Base Revenue Requirement Under 3 Scenarios

Class	Base Revenue Requirement %					
	Cost Allocation Results		Existing Rates		Proposed Allocation	
Residential	\$3,292,309	59.4%	\$3,006,132	54.2%	\$2,958,418	53.4%
GS < 50 kW	\$1,060,639	19.1%	\$1,179,441	21.3%	\$1,187,793	21.4%
GS > 50 kW	\$838,237	15.1%	\$947,152	17.1%	\$988,010	17.8%
Street Lights	\$168,325	3.0%	\$295,133	5.3%	\$224,121	4.0%
Unmetered Scattered Load	\$7,259	0.1%	\$8,609	0.2%	\$8,426	0.2%
Large User	\$177,656	3.2%	\$107,957	1.9%	\$177,656	3.2%
	\$5,544,424	100.0%	\$5,544,424	100.0%	\$5,544,424	100.0%

The table below illustrates the revenue offset allocation which resulted from the 2019 Cost Allocation Study (worksheet O1– Revenue to Cost):

Table 7.13: Revenue Offset Allocation as per Cost Allocation Study

Class	Revenue Offsets	
	%	\$
Residential	63.2%	\$318,103
GS < 50 kW	17.9%	\$90,078
GS > 50 kW	13.4%	\$67,283
Street Lights	3.5%	\$17,664
Unmetered Scattered Load	0.2%	\$785
Large User	1.8%	\$9,026
	100.0%	\$502,939

1 The table below demonstrates the allocation of NOTL Hydro's 2019 Test Year Service Revenue
 2 requirement under the same three scenarios, (a) cost allocation results, (b) existing rates and (c)
 3 2019 Test Year proposed allocation:

4 **Table 7.14: Service Revenue Requirement Under 3 Scenarios**

Class	Service Revenue Requirement		
	Cost Allocation	Existing Rates	Proposed Allocation
Residential	\$3,610,412	\$3,324,235	\$3,276,521
GS < 50 kW	\$1,150,717	\$1,269,519	\$1,277,871
GS > 50 kW	\$905,520	\$1,014,435	\$1,055,293
Street Lights	\$185,989	\$9,394	\$241,785
Unmetered Scattered Load	\$8,044	\$312,797	\$9,211
Large User	\$186,682	\$116,983	\$186,682
	\$6,047,363	\$6,047,363	\$6,047,363

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1 **2.7.3 Revenue-to-Cost Ratios**

2 **2.7.2.2 Cost Allocation Results and Analysis**

3 The tables below show results taken from the Board’s Revenue Requirement Work Form (RRWF)
 4 tab 11 Cost Allocation. This tab provides information on previously approved ratios and proposed
 5 ratios:

6 **Table 7.15: RRWF Tab 11: Cost Allocation – Allocated Costs**

A) *Allocated Costs*

Name of Customer Class ⁽³⁾	Costs Allocated from Previous Study ⁽¹⁾	%	Allocated Class Revenue Requirement ⁽¹⁾ <i>(7A)</i>	%
<i>From Sheet 10. Load Forecast</i>				
1 Residential	\$ 2,844,235	59.94%	\$ 3,610,412	59.70%
2 GS<50	\$ 869,164	18.32%	\$ 1,150,717	19.03%
3 GS>50	\$ 691,959	14.58%	\$ 905,520	14.97%
4 Unmetered	\$ 5,907	0.12%	\$ 8,044	0.13%
5 Streetlights	\$ 333,612	7.03%	\$ 186,682	3.09%
6 Large User	\$ -		\$ 185,989	3.08%
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Total	\$ 4,744,877	100.00%	\$ 6,047,363	100.00%
		Service Revenue Requirement (from Sheet 9)	\$ 6,047,363.02	

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Table 7.16: RRWF Tab 11: Cost Allocation – Calculated Class Revenues

B) *Calculated Class Revenues*

Name of Customer Class	Load Forecast (LF) X current approved rates (7B)	LF X current approved rates X (1+d) (7C)	LF X Proposed Rates (7D)	Miscellaneous Revenues (7E)
1 Residential	\$ 2,923,669	\$ 2,950,491	\$ 2,958,418	\$ 318,103
2 GS<50	\$ 1,177,017	\$ 1,187,815	\$ 1,187,793	\$ 90,078
3 GS>50	\$ 979,001	\$ 987,982	\$ 988,010	\$ 67,283
4 Unmetered	\$ 8,350	\$ 8,426	\$ 8,426	\$ 785
5 Streetlights	\$ 281,952	\$ 284,538	\$ 224,121	\$ 17,664
6 Large User	\$ 124,034	\$ 125,172	\$ 177,656	\$ 9,026
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Total	\$ 5,494,023	\$ 5,544,424	\$ 5,544,424	\$ 502,939

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4 The table below, “Rebalancing Revenue to Cost (R/C) Ratios” demonstrates the Proposed Ratios
 5 put forward by NOTL Hydro. All rates with the exception of Street lights class are within the
 6 Board's policy range. NOTL Hydro is proposing the rebalancing of the R/C ratios for Street lights
 7 take place over 2 years.

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Table 7.17: RRWF Tab 11: Cost Allocation – Rebalancing Revenue to Cost Ratios

Name of Customer Class	Previously Approved Ratios	Status Quo Ratios	Proposed Ratios	Policy Range
	Most Recent Year: 2014 %	(7C + 7E) / (7A) %	(7D + 7E) / (7A) %	
1 Residential	90.14%	90.53%	90.75%	85 - 115
2 GS<50	120.00%	111.05%	111.05%	80 - 120
3 GS>50	120.00%	116.54%	116.54%	80 - 120
4 Unmetered	90.14%	114.51%	114.51%	80 - 120
5 Streetlights	120.00%	161.88%	129.52%	80 - 120
6 Large User	0.00%	72.15%	100.37%	85 - 115
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4 NOTL Hydro proposes to adjust the Street light revenue to cost ratio over the period of the 2019
 5 Test Year and 2020 and will be making the updated revenue to cost ratio request in its 2020 IRM
 6 Application to bring the ratio within the Board's range. The proposal to rebalance the Street light
 7 revenue to cost ratio over two years is to lessen the impact of the Residential customer class.

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Table 7.18: RRWF Tab 11: Cost Allocation – Calculated Class Revenues

(D) Proposed Revenue-to-Cost Ratios ⁽¹⁾

Name of Customer Class	Proposed Revenue-to-Cost Ratio			Policy Range
	Test Year	Price Cap IR Period		
	2019	2020	2021	
1 Residential	90.75%	91.27%	91.27%	85 - 115
2 GS<50	111.05%	111.05%	111.05%	80 - 120
3 GS>50	116.54%	116.54%	116.54%	80 - 120
4 Unmetered	114.51%	114.51%	114.51%	80 - 120
5 Streetlights	129.52%	120.00%	120.00%	80 - 120
6 Large User	100.37%	100.37%	100.37%	85 - 115
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1 The table below shows the NOTL Hydro’s proposed Revenue to Cost reallocation based on an
 2 analysis of the proposed results from the Cost Allocation Study versus the Board imposed floor
 3 and ceiling ranges:

4 **Table 7.19: Proposed Revenue to Cost Ratio Allocation**

Class	Revenue to Cost Ratio Allocation				
	Calculated R/C Ratio	Proposed R/C Ratio	Variance	Target Range	
				Floor	Ceiling
Residential	90.5%	90.8%	0.2%	85.0%	115.0%
GS < 50 kW	111.1%	111.1%	(0.0%)	80.0%	120.0%
GS > 50 kW	116.5%	116.5%	0.0%	80.0%	120.0%
Street Lights	162.5%	129.5%	(33.0%)	80.0%	120.0%
Unmetered Scattered Load	114.5%	114.5%	0.0%	80.0%	120.0%
Large User	71.9%	100.4%	28.5%	85.0%	115.0%

5
 6 * Ratios highlighted in yellow fell outside of the Board’s floor to ceiling range.

7 In reviewing the calculated revenue to cost results from the Cost Allocation study, there were two
 8 customer classes that are outside of the Board’s floor/ceiling parameters:

- 9 a) NOTL Hydro adjusted the revenue to cost ratio for Street Lights to 129.5% in 2019 and to
 10 120% in 2020 (the ceiling limit set by the Board);
- 11 b) The offset to the Street light adjustment is an increase to Residential class to 90.8% in the
 12 2019 Test Year and to 91.3% in 2020;
- 13 c) NOTL Hydro adjusted the revenue to cost ratio for the new Large User class to 100% in
 14 2019.

15
 16 It should be recognized that NOTL Hydro has not adjusted the revenue to cost ratio for any
 17 customer classes in its annual IRM rate applications. Each IRM application has applied the cost-
 18 to-revenue ratios that were approved in NOTL Hydro’s 2014 Cost of Service application.

19
 20 NOTL Hydro proposes to adjust the Street light revenue to cost ratio over the period of the 2019
 21 Test Year and 2020 and will be making the updated revenue to cost ratio request in its 2020 IRM
 22 Application to bring the ratio within the Board’s range. The proposal to rebalance the Street light
 23 revenue to cost ratio over two years is to lessen the impact of the Residential customer class.

24 As stated above, NOTL Hydro notes that in determining the proposed cost-to-revenue ratio
 25 adjustments, the LDC has considered the bill impact for each rate class. These ratios do not result
 26 in a bill impact change of more than 5% for each rate class (with the exception of Street Light

1 customers that have a bill impact of approximately 14%.) For further details about the class
2 specific bill impacts, please refer to Exhibit 8.

3 As per the Filing Requirements for Electricity Distribution Rate Applications dated July 12, 2018,
4 NOTL Hydro has completed OEB RRWF Tab 11 with the results the 2019 Test Year cost
5 allocation study. The Allocated cost table (Table A), calculated class revenues (Table B) and
6 Rebalancing Revenue-to-Cost (Revenue to Cost) Ratios (Table C) are included as Tables 7.15
7 to 7.19 of this Exhibit.

1 **Appendix**

2 List of Appendices

none	3
	4