



Greater Sudbury Hydro Inc.  
Filed: October 30, 2024  
EB-2024-0026  
Exhibit 7

## **Exhibit 7:**

# **COST ALLOCATION**



Exhibit 7: Cost Allocation

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**Tab 1 (of 1): Cost Allocation Study**

1

## OVERVIEW OF COST ALLOCATION

2

GSHi has prepared and is filing cost allocation evidence consistent with 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 subsequent updates.

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8

GSHi has completed its cost allocation model using the OEB's methodology. A live Excel version of the 2025 cost allocation model has been filed along with this application. GSHi confirms that it has also populated sheet 11 of the RRWF. This sheet is included as Exhibit 7, Tab 1, Schedule 2, Attachment 1. GSHi confirms that the inputs to the model are consistent with the Test Year load forecast, current customer classes, and the derived load profiles.

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GSHi has included hard copies of sheets I-6.1, I-8, O-1 and O-2 from the cost allocation model. See Exhibit 7, Tab 1, Schedule 1, Attachment 1.

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### **Previously Approved Cost Allocation (2020)**

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The previously Board Approved revenue-to-cost ratios are presented as a point of reference to the 2025 proposed ratios. As part of its last Cost of Service Application, GSHi updated the cost allocation revenue to cost ratios with 2020 base revenue requirement information. To mitigate bill impacts the revenue to cost ratios were phased-in from 2020 to 2024. The revenue to cost ratios from the 2020 application are presented below.

24

1 **Table 1 – Previously Approved Revenue to Cost Ratios (2020 COS)**

Rate Class	Settlement Proposal				
	2020	2021	2022	2023	2024
Residential	91.59%	91.95%	92.32%	92.69%	93.06%
GS < 50 kW	118.66%	118.66%	118.66%	118.66%	118.66%
GS > 50 kW	109.46%	109.46%	109.46%	109.46%	109.46%
Street Light	184.47%	168.35%	152.24%	136.12%	120.00%
Sentinel Light	78.69%	82.28%	85.87%	89.47%	93.06%
USL	100.10%	100.10%	100.10%	100.10%	100.10%

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4 **New or Eliminated Customer Classes**

5 GSHi is not requesting the elimination or addition of any customer classes. There have  
6 been no changes in GSHi's class composition since 2020.

7

8 **Proposed Cost Allocation (2025)**

9 The Cost Allocation for 2025 allocates the Test Year costs (i.e., the 2025 forecast  
10 revenue requirement) to the various customer classes using allocators that are based on  
11 the forecast class loads (kW and kWh) by class, customer counts, etc.

12

13 GSHi has used the most up to date 2025 OEB-approved Cost Allocation Model (version  
14 1.0) and followed the instructions and guidelines issued by the OEB to enter the 2025  
15 data into this model. GSHi confirms that there are no new or eliminated customer  
16 classes, and no changes to the definition of existing classes.

17

18 GSHi populated the information on Sheet I3 (included in the live version of the model  
19 that has been filed with the application), Trial Balance Data with the 2025 forecasted  
20 data, Target Net Income, PILs, interest on long term debt, and the targeted Revenue  
21 Requirement and Rate Base.

22

23 On Sheet I4 (included in the live version of the model), Break-out of Assets, GSHI  
24 updated the allocation of the accounts based on 2025 values.

1 In Sheet I5.1 (included in the live version of the model), Miscellaneous data, GSHI  
2 updated the deemed equity component of rate base, kilometer of roads in the service  
3 area, working capital allowance, the proportion of pole rental revenue from secondary  
4 poles, and the monthly service charges.

5  
6 GSHi has updated the weighting factors in Sheet I5.2, applying services and billing &  
7 collecting weightings for each customer classification. These weightings are based on a  
8 review of time and costs incurred in servicing its customer classes; they are presented in  
9 Table 2 and discussed further below:

10  
11

**Table 2 - Weighting Factors**

	1	2	3	7	8	9
	Residential	GS <50	GS >50	Street Light	Sentinel	Unmetered Scattered Load
Insert Weighting Factor for Services Account 1855	1.0					
Insert Weighting Factor for Billing and Collecting	1.0	1.0	1.4	0.8	0.9	0.8

12  
13

14 **Proposed Services Weighting Factors**

- 15 • Residential: the Services weighting factor was set to “1”, per Cost  
16 Allocation instruction sheet.
- 17 • All other Service weighting factors are set to “0” as other rate classes pay  
18 contributions for services. Gross capital contributions, accumulated  
19 amortization of capital contributions, and depreciation expense of capital  
20 contributions are attributed to 1855 Services in tab ‘I4 BO Assets’ in the  
21 cost allocation model so the net amounts remaining in account 1855 are  
22 fully attributable to the Residential class.

23

24 Following the transition to IFRS, the amounts recorded in USoA account 1995  
25 (Contributions and Grants) were reassigned to other distribution plant assets,  
26 and account 1995 was subsequently closed. GSHi did not allocate any

1 contributions to account 1855 (Services), which resulted in an overstatement  
2 of the net plant value for 1855 Services and an understatement for accounts  
3 1835 (Overhead Conductors and Devices) and 1845 (Underground  
4 Conductors and Devices).

5  
6 Without an adjustment, the overstated net plant value and amortization  
7 expense for 1855 Services would be fully allocated to the Residential class,  
8 while the understated amounts in 1835 and 1845 would affect all rate classes.

9  
10 To correct this, an adjustment was made to reassign a portion of the 1995  
11 Contributions & Grants to the appropriate accounts: 1855 Services, 1835  
12 Overhead Conductors and Devices, and 1845 Underground Conductors and  
13 Devices. The adjustment to the gross plant is reflected in the 'Reclassify  
14 accounts' column on the 'I3 TB Data' tab. Adjustments to accumulated  
15 depreciation for accounts 1835, 1845, and 1855 are shown in the  
16 'Accumulated Depreciation – 2105 Fixed Assets Only' column on the 'I4 BO  
17 Assets' tab. Similarly, the adjustment to amortization expense for these  
18 accounts is captured in the 'Amortization Expense – Property, Plant, and  
19 Equipment' column on the same tab.

20

#### 21 Proposed Billing and Collecting Weighting Factor

- 22 • Residential: weighted for services and for billing and collecting was set as  
23 “1” per Cost Allocation instruction sheet
- 24 • General Service less than 50 kW: weighted “1” for billing & collecting.  
25 GSHi’s experience is that no more time, attention and costs are spent on  
26 these customers than for the residential class.
- 27 • The Weighted factor for the General Service greater than 50 kW is  
28 proposed as 1.4 for billing and collecting: The breakdown of the weighting

1 factor is shown in Table 3 below. The additional cost for this class is as a  
2 result of the meter reading costs incurred only for this class.

- 3 • Weighting factors slightly below 1.00 are used for the Sentinel, Streetlights  
4 and Unmetered Scattered Load rate classes as costs related to collections  
5 and miscellaneous customer accounts do not apply to these classes.

6 A derivation of the billing and collecting weighting factors are shown in Table 3  
7 below.

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9

**Table 3 – Billing & Collecting Weighting Factors**

		Customers, 2025 Forecast						
		Residential	General Service < 50 kW	General Service > 50 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	
		43,422	4,404	435	2	336	141	
2024 Budget		Relative Cost (weight) Per Customer						Total Weighted Customers
Billing Department	1,072,299	1.0	1.0	1.5	1.0	1.1	1.0	48,991
Collections Department	233,153	1.0	1.0	1.0				48,261
Miscellaneous Customer Accounts	70,161	1.0	1.0	1.0				48,261
<b>Totals</b>	<b>1,375,613</b>							
		Allocated Cost						
Billing Department		21.89	21.89	32.83	21.89	24.08	21.89	
Collections Department		4.83	4.83	4.83	-	-	-	
Miscellaneous Customer Accounts		1.45	1.45	1.45	-	-	-	
<b>Identified Cost per Customer</b>		<b>28.17</b>	<b>28.17</b>	<b>39.12</b>	<b>21.89</b>	<b>24.08</b>	<b>21.89</b>	
<b>WEIGHTING FACTORS for Cost Allocation Model</b>		<b>1.00</b>	<b>1.00</b>	<b>1.39</b>	<b>0.78</b>	<b>0.85</b>	<b>0.78</b>	

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Sheet I6.2 (included in the live version and also in Exhibit 7, Tab 1, Schedule 1, Attachment 1) has been updated with the required Bad Debt and Late Payment revenue data as well as the forecast number of customer/connections.

GSHi updated the capital cost per meter information on Sheet I7.1 (included in the live model). Meter reading costs are allocated only to the General Service > 50 kW rate class in Sheet 7.2 as the only cost allocated using this weighting (5310 Meter Reading Expense) is Sensus costs related to General Service > 50 kW billing.

1 **Load Profiles**

2 GSHi's load profiles have been updated for all rate classes. Load profiles were derived  
3 by Elenchus using weather-normalized June 2022 to May 2024 hourly load data  
4 provided by GSHi. Adjustments were then made to align the June 2022 to May 2023 and  
5 June 2023 to May 2024 load profiles with the proposed 2025 Load Forecast (i.e.  
6 consumption forecast). The weather-normalization process involves three steps:

- 7 a) Derive weather profile of a typical year;  
8 b) Derive the impact of heating degree days ("HDD") and cooling degree days  
9 ("CDD") on hourly load; and  
10 c) Adjust actual load to typical load with the degree day impacts.

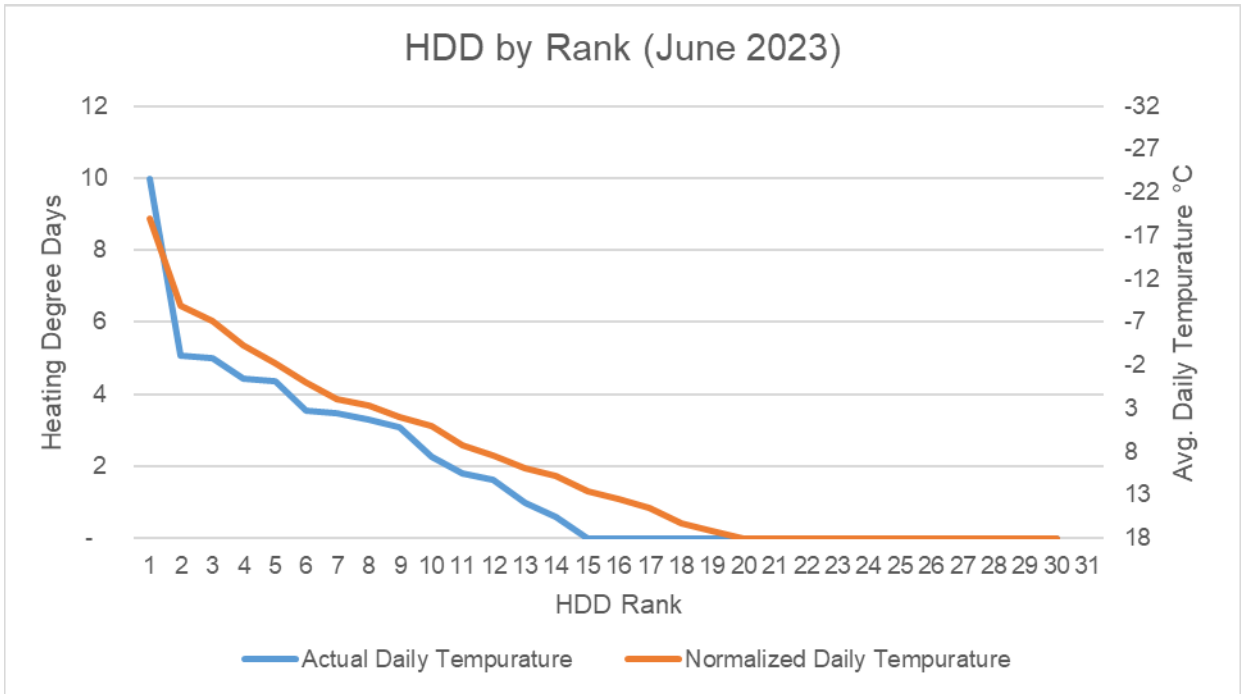
11  
12 The weather profile of a typical year in GSHi's service territory is calculated using  
13 average daily temperatures from June 2014 to May 2023. Average daily temperatures  
14 are defined as the average highest to lowest daily temperatures within a month (i.e.  
15 average of the coldest January day in each January from 2015 to 2024), rather than  
16 average temperatures on a specific calendar date (i.e. the average temperature on each  
17 January 1st). This process maintains the shape of the load profiles by determining  
18 typical monthly peaks and lows without smoothing those peaks.

19  
20 Average daily temperatures are derived by first ranking each day in each month from  
21 June 2014 to May 2024 from highest to lowest by HDD as measured at Environment  
22 Canada's Sudbury A Weather Station. HDD and CDD base values other than relative to  
23 18°C are considered, which is discussed in further detail in Exhibit 3. The average HDDs  
24 among equivalently ranked days within a given month are then used as the average  
25 HDD for that ranked day in that month. For example, the days in June 2014 are ranked  
26 from 1 to 30 by HDD and this is repeated for each year from 2015 to 2023. The average  
27 HDD of the June days ranked 1 is calculated to provide the typical highest HDD day in  
28 June. All days in June ranked 1 are assigned this calculated average HDD. This process  
29 is repeated for the June days ranked 2 to 30. An example of average daily temperatures  
30 from June 2014 to June 2023 and actual temperatures in June 2023 ranked from 1 to 30  
31 is provided in Figure 1 below.



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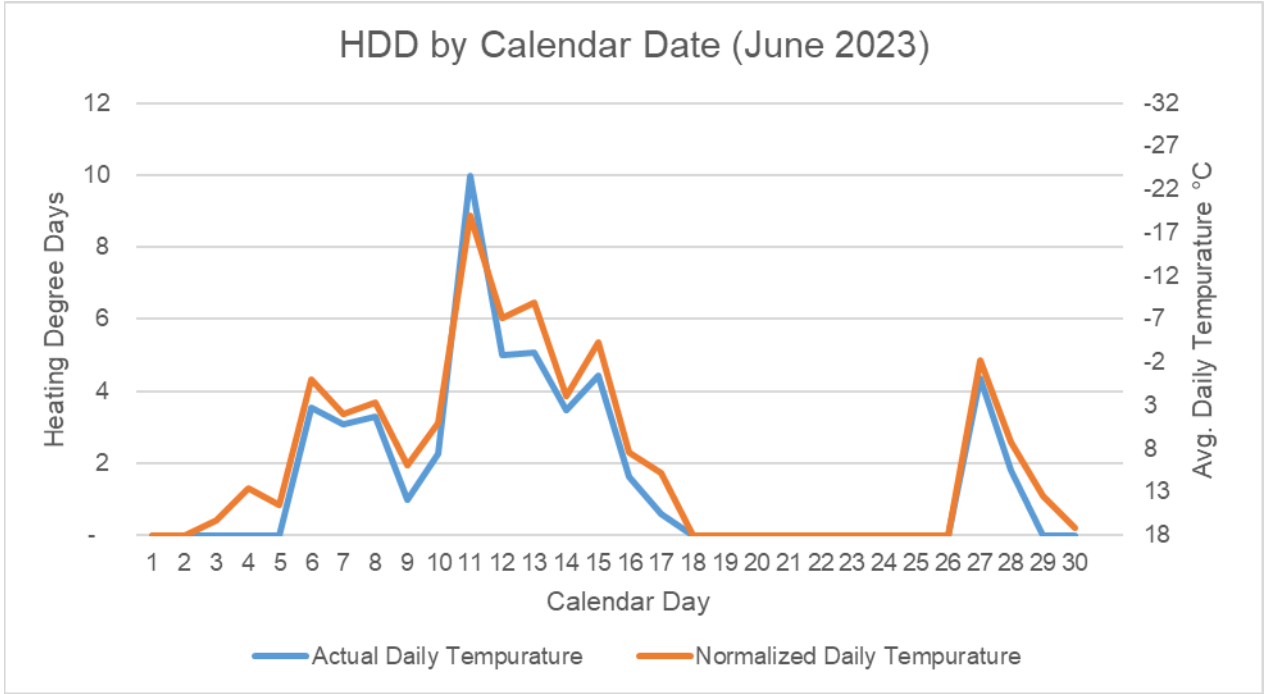
**Figure 1 - 10-Year Avg. Daily HDD and Actual June 2023 HDD by Rank**



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Average daily temperatures reflect the June normal-weather profile in GSHi's service area. Figure 2 below displays the same information by calendar date using the average and actual temperatures associated with each ranked day.

1 **Figure 2 - 10-Year Avg. Daily HDD and Actual June 2023 HDD by Calendar Date**

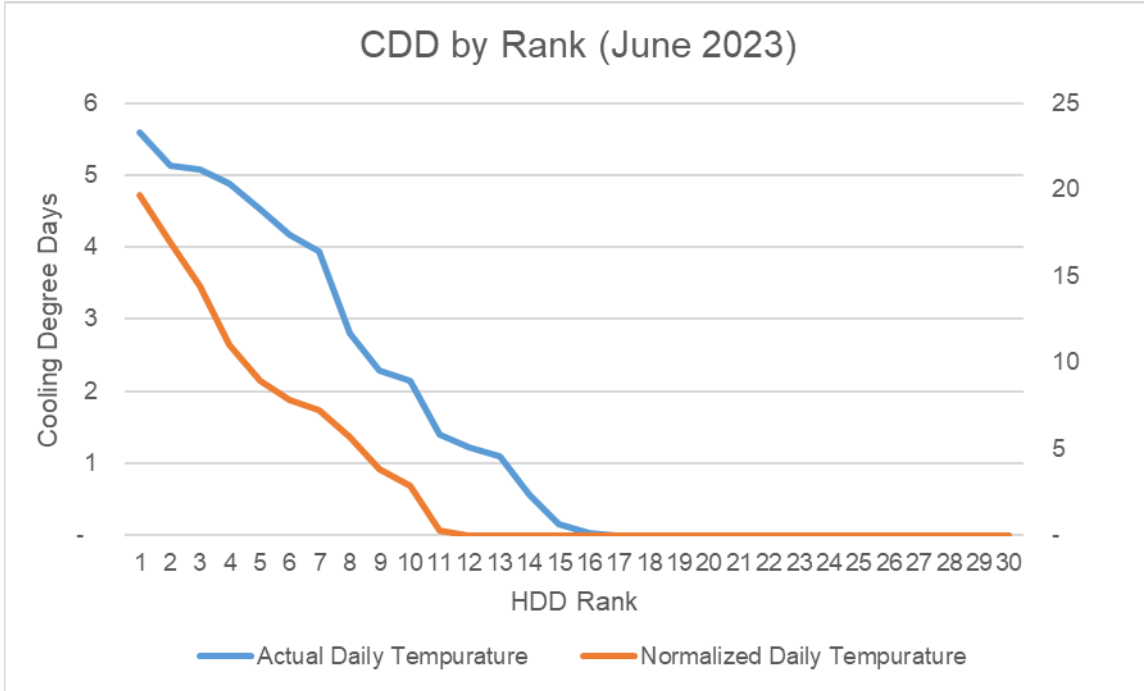


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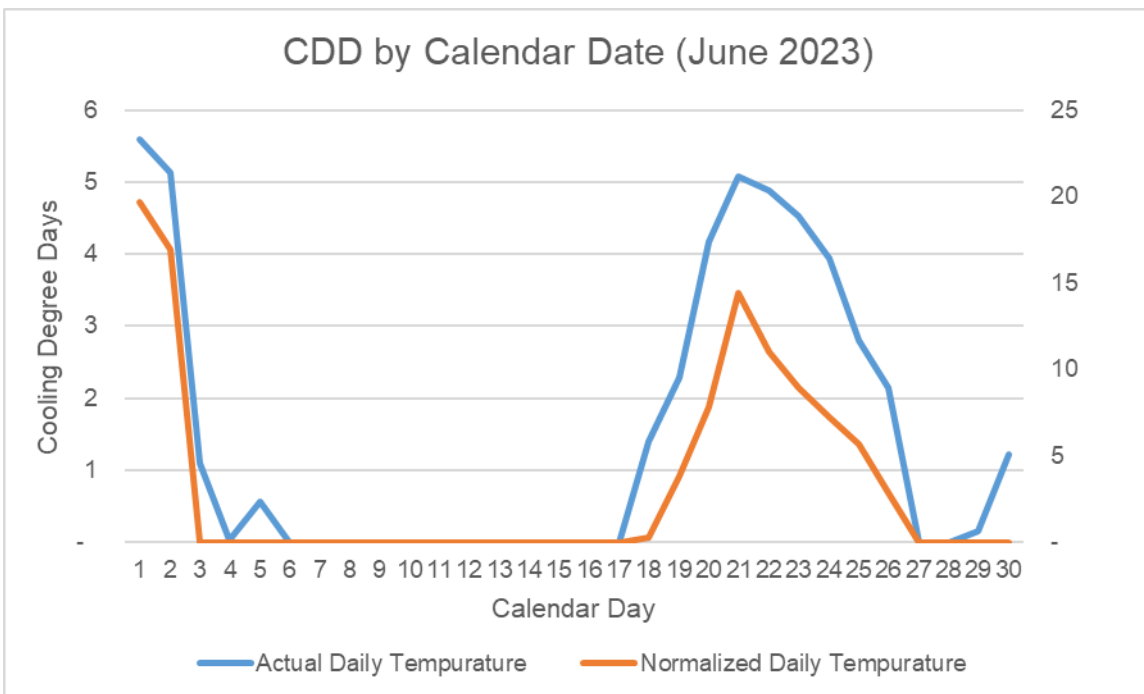
4 Typical daily CDDs are determined by the same ranking and averaging methodology  
5 described above, using average daily CDD data from June 2014 to May 2024.

1 **Figure 3 - 10-Year Avg. Daily CDD and Actual June 2023 CDD by Rank**



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4 **Figure 4 - 10-Year Avg. Daily CDD and Actual June 2023 CDD by Calendar Date**



5

1 The impact of HDDs and CDDs on hourly load is calculated with a regression of two  
2 years of actual hourly loads (June 2022 to May 2024) on daily HDDs and CDDs. The  
3 regression results provide the estimated impact of a change in degree days on load.  
4 Temperatures impact load differently depending on the time of the day. Consequently,  
5 HDD and CDD variables are converted to interaction variables between degree days,  
6 the hour of the day, and whether the day is a weekday or a weekend/holiday. There are  
7 24 variables for each weekday HDD, weekday CDD, weekend/holiday HDD, and  
8 weekend/holiday CDD equal to the actual degree days in the corresponding hour and 0  
9 in all other hours. A set of 24 binary variables, equal to 1 in the corresponding hour and  
10 0 in all other hours is also included. The resulting coefficients reflect the impact of one  
11 HDD or CDD that considers different impacts depending on the hour of the day and type  
12 of day.

13

14 Actual June 2022 to May 2024 hourly load is adjusted by calculating the difference  
15 between actual hourly temperatures and the corresponding ranked typical hourly  
16 temperature (as identified in Figure 2) and applying the regression coefficient to the  
17 difference. After June 2022 to May 2024 weather normalized demand is derived for each  
18 hour, the load in each hour is adjusted by the same factor such that the sum of hourly  
19 loads is equal to the proposed 2025 Load Forecast (i.e. consumption forecast) excluding  
20 incremental EV and heating loads. Incremental EV and heating loads were then added  
21 based on an average hourly use profile for EVs and a weather-normal HDD profile for  
22 heating loads.

23

24 Table 1 below provides the calculations used to adjust actual June 1, 2023 weather  
25 variables to typical weather for the Residential class.

1 **Table 1 - June 1 Noon Residential Example**

Date	Hour	Temp °C	HDD (18)	HDD Rank	Average HDD at Rank	CDD (12)	CDD Rank	Average CDD at Rank
		A	B = 18 – A	C	D	E = A - 12	F	G
1-Jun	12	28.5	0	30	0	16.5	1	15.1

Date	Hour	2023 Load (kW)	HDD Diff.	HDD18 Coef.	CDD Diff.	CDD12 Coef.	2023 Normal Load (kW)
		H	I = D - B	J	K = G - E	L	M = H + (I * J) + (K * L)
1-Jun	12	45,848	0	878	-1.4	1,062	44,330

Date	Hour	2023 Normal Load (kW)	Sum of 2023/24 Normal Loads	2025 Forecast Consumption Excluding EVs & Heating	2023 to 2025 Load Adjustment	2025 Normal Load (kW) Excluding EV & Heating
		M	N	O	P = O / N	Q = M * P
1-Jun	12	44,330	380,604,216	364,243,284	0.957	42,425

Date	Hour	2025 Normal Load (kW) Excl. EV&H	2025 EV Load (kWh)	Hourly EV Load	2025 Heating Load	HDD in Hour	Hourly Heating Load (kWh)	Total 2025 Normal Load (kW)
		Q	R	S = R / 8760	T	U	V = T * U	W = Q + S + V
1-Jun	12	42,425	6,628,636	757	831,937	0.0%	0	43,181

2

3 The CDD at noon on June 1<sup>st</sup>, 2023 was 16.5 HDD, which was the highest CDD in the  
4 month. The highest June CDD in each year from 2014 to 2023 was, on average, 15.1  
5 CDD. The difference, -1.4 CDD, is multiplied by the weekday CDD Hour 12 coefficient of  
6 1,062 kW/CDD from the load profile regression to produce the -1,518 kW adjustment.  
7 This adjustment is applied to actual load in the noon hour of June 1, 2023 (45,848 kW)  
8 to reach the weather-normalized load (44,333 kW). The 2025 Residential load forecast,  
9 excluding additional EV and heating loads, is 4.3% lower than the sum of June 2023 to  
10 May 2024 weather-normalized hourly loads and as such, the initial June 1, 2025  
11 weather-normalized demand decreases to 42,425 kW. Incremental EV load of 757 kW is

1 added using a simplified assumption that demand will be equal in each hour.  
2 Incremental hourly heating load is added by multiplying the total annual incremental  
3 heating load by the share of total weather-normal HDD in each hour, though there was  
4 no heating load in this hour.

5  
6 General Service < 50 kW, and General Service > 50 kW load profiles are derived by the  
7 same methodology. The Street Light and Sentinel Light classes are not weather  
8 sensitive and as such their loads are not weather-normalized. The USL class was  
9 assumed to have a constant load in each month. After load profiles are derived for all  
10 classes, total system and class-specific peaks within each month are compiled to  
11 produce Coincident Peak (“CP”) and Non-Coincident Peak (“NCP”) figures. Load profiles  
12 are derived separately based on weather normalization applied to the June 2022 to May  
13 2023 and June 2023 to May 2024 load profiles. The average of the resulting CP and  
14 NCP figures based on both profiles are used in Tab “I8 Demand Data” of the OEB’s Cost  
15 Allocation Model. A live excel model illustrating how demand data was derived has been  
16 filed with this application.

17

18 **Table 2 – CP and NCP Results**

	<b>Residential</b>	<b>GS &lt;50</b>	<b>GS&gt;50</b>	<b>Street Light</b>	<b>Sentinel Light</b>	<b>USL</b>
1CP	83,758	22,983	46,939	569	48	96
4CP	301,175	90,299	193,098	2,746	232	385
12CP	754,972	264,199	543,017	3,825	324	1,166
1NCP	86,881	26,779	56,095	855	75	99
4NCP	316,796	104,326	214,088	3,417	299	395
12NCP	812,035	292,641	592,382	10,221	875	1,167

19

20 **Direct Allocation**

21 GSHi confirms that no Direct Allocations were entered on Sheet I9 (included in the live  
22 model).

23

24



1 **MicroFIT**

2 GSHi applies the generic rate of \$4.55 per month (adjusted as per Exhibit 8, Tab 2,  
3 Schedule 1) and has not included MicroFIT in the cost allocation model.

4

5 **Standby Rates**

6 GSHi does not currently have a standby rate and is not seeking approval of a standby  
7 rate in this application.

8

9 **Host Distributor**

10 GSHi is not a Host Distributor therefore evidence of consultation with embedded  
11 distributors is not applicable.

12

13 **Unmetered Loads**

14 For further details about the class specific bill impacts, please refer to Exhibit 8. At the  
15 conclusion of the proceedings, GSHI will provide communication to its Street Lighting  
16 and USL customers on their class specific results and will provide opportunity for those  
17 customers to seek clarification or education as to the regulatory context in which  
18 distributors operate and how it affects them.

19

20



Greater Sudbury Hydro Inc.  
Filed: October 30, 2024  
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Exhibit 7  
Tab 1  
Schedule 1  
Attachment 1  
Page 1 of 1

***Attachment 1 (of 1):***

***Cost Allocation Model Sheets***





# 2025 Cost Allocation Model

**EB-2024-0026**

**Sheet I6.1 Revenue Worksheet -**

Total kWhs from Load Forecast	835,057,022
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Total kWhs from Load Forecast	804,194
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Deficiency/sufficiency ( RRWF 8. cell F51)	- 4,412,805
--	-------------

Miscellaneous Revenue (RRWF 5. cell F48)	2,069,704
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			1	2	3	7	8	9
ID	Total	Residential	GS <50	GS >50	Street Light	Sentinel	Unmetered Scattered Load	
<b>Billing Data</b>								
Forecast kWh	<b>CEN</b>	835,057,022	371,703,857	138,839,523	319,690,359	3,659,039	312,757	851,487
Forecast kW	<b>CDEM</b>	804,194			793,079	10,255	860	
Forecast kW, included in CDEM, of customers receiving line transformer allowance		190,356			190,356			
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	<b>CEN EWMP</b>	766,907,708	371,703,857	138,839,523	251,541,045	3,659,039	312,757	851,487



# 2025 Cost Allocation Model

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Sheet 18 Demand Data Worksheet -

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	7	8	9		
		Residential	GS <50	GS >50	Street Light	Sentinel	Unmetered Scattered Load		
<b>CO-INCIDENT PEAK</b>									
<b>1 CP</b>									
Transformation CP	TCP1	149,438	78,357	23,448	46,734	740	62	96	
Bulk Delivery CP	BCP1	149,438	78,357	23,448	46,734	740	62	96	
Total Sytem CP	DCP1	149,438	78,357	23,448	46,734	740	62	96	
<b>4 CP</b>									
Transformation CP	TCP4	587,505	298,306	91,402	193,969	3,174	269	385	
Bulk Delivery CP	BCP4	587,505	298,306	91,402	193,969	3,174	269	385	
Total Sytem CP	DCP4	587,505	298,306	91,402	193,969	3,174	269	385	
<b>12 CP</b>									
Transformation CP	TCP12	1,569,236	728,810	276,985	557,904	4,027	342	1,167	
Bulk Delivery CP	BCP12	1,569,236	728,810	276,985	557,904	4,027	342	1,167	
Total Sytem CP	DCP12	1,569,236	728,810	276,985	557,904	4,027	342	1,167	
<b>NON CO-INCIDENT PEAK</b>									
<b>1 NCP</b>									
Classification NCP from Load Data Provider		DNCP1	169,790	84,604	26,723	57,437	854	74	99
Primary NCP		PNCP1	169,790	84,604	26,723	57,437	854	74	99
Line Transformer NCP		LTNCP1	156,637	84,604	26,723	44,284	854	74	99
Secondary NCP		SNCP1	156,637	84,604	26,723	44,284	854	74	99
<b>4 NCP</b>									
Classification NCP from Load Data Provider		DNCP4	639,747	312,353	104,493	218,798	3,416	294	394
Primary NCP		PNCP4	639,747	312,353	104,493	218,798	3,416	294	394
Line Transformer NCP		LTNCP4	589,645	312,353	104,493	168,695	3,416	294	394
Secondary NCP		SNCP4	589,645	312,353	104,493	168,695	3,416	294	394
<b>12 NCP</b>									
Classification NCP from Load Data Provider		DNCP12	1,708,233	802,936	296,368	596,668	10,220	874	1,167
Primary NCP		PNCP12	1,708,233	802,936	296,368	596,668	10,220	874	1,167
Line Transformer NCP		LTNCP12	1,571,602	802,936	296,368	460,037	10,220	874	1,167
Secondary NCP		SNCP12	1,571,602	802,936	296,368	460,037	10,220	874	1,167



# 2025 Cost Allocation Model

**EB-2024-0026**

**Sheet O1 Revenue to Cost Summary Worksheet -**

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

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

Rate Base Assets	Total	1 Residential	2 GS <50	3 GS >50	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
	Net Income	\$4,686,435	\$2,993,165	\$1,428,180	\$95,431	\$167,274	(\$6,008)
RATIOS ANALYSIS							
REVENUE TO EXPENSES STATUS QUO%	100.00%	101.57%	113.99%	85.14%	120.82%	79.53%	105.64%
EXISTING REVENUE MINUS ALLOCATED COSTS	(\$4,412,805)	(\$2,410,804)	(\$33,758)	(\$1,974,387)	\$30,004	(\$20,459)	(\$3,402)
Deficiency Input equals Output							
STATUS QUO REVENUE MINUS ALLOCATED COSTS	(\$0)	\$335,403	\$709,129	(\$1,145,474)	\$112,296	(\$13,901)	\$2,548
RETURN ON EQUITY COMPONENT OF RATE BASE	9.21%	10.44%	18.14%	0.70%	28.98%	-7.35%	13.33%



# 2025 Cost Allocation Model

**EB-2024-0026**

**Sheet 02 Monthly Fixed Charge Min. & Max. Worksheet -**

Output sheet showing minimum and maximum level for Monthly Fixed Charge

### Summary

Customer Unit Cost per month - Avoided Cost

Customer Unit Cost per month - Directly Related

Customer Unit Cost per month - Minimum System with PLCC Adjustment

Existing Approved Fixed Charge

	1	2	3	7	8	9
	Residential	GS <50	GS >50	Street Light	Sentinel	Unmetered Scattered Load
Customer Unit Cost per month - Avoided Cost	\$4.76	\$8.65	\$13.68	\$1.11	\$2.81	\$2.00
Customer Unit Cost per month - Directly Related	\$7.88	\$13.71	\$24.56	\$1.88	\$4.80	\$3.42
Customer Unit Cost per month - Minimum System with PLCC Adjustment	\$21.04	\$26.67	\$59.58	\$3.57	\$16.75	-\$96.24
Existing Approved Fixed Charge	\$33.77	\$25.44	\$193.95	\$4.10	\$6.18	\$9.00



1

## COST ALLOCATION RESULTS

2 The specific results of GSHi's updated cost allocation model are provided in Table 1  
 3 below.

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**Table 1 - Results of the Cost Allocation Model**

Rate Class	Revenue Allocation							Maximum Fixed Charge	
	Service Revenue Requirement		Misc. Revenues		Base Revenue Requirement		Revenue to Cost Ratio	Existing Charge	Minimum System with PLCC
Residential	\$21,566,101	62.0%	\$1,321,172	63.8%	\$20,244,930	61.9%	100.5%	\$ 33.77	\$ 21.56
GS <50	\$4,872,491	14.0%	\$273,031	13.2%	\$4,599,460	14.1%	118.5%	\$ 25.44	\$ 23.22
GS >50	\$7,669,335	22.1%	\$424,292	20.5%	\$7,245,043	22.2%	85.6%	\$ 193.95	\$ 56.31
Street Light	\$536,810	1.5%	\$42,162	2.0%	\$494,649	1.5%	121.4%	\$ 4.10	\$ 3.55
Sentinel	\$67,681	0.2%	\$5,421	0.3%	\$62,259	0.2%	79.8%	\$ 6.18	\$ 16.69
USL	\$44,985	0.1%	\$3,627	0.2%	\$41,358	0.1%	106.0%	\$ 9.00	-\$ 105.20
<b>Total</b>	<b>\$34,757,403</b>	<b>100.0%</b>	<b>\$2,069,704</b>	<b>100.0%</b>	<b>\$32,687,699</b>	<b>100.0%</b>	<b>100.0%</b>		

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### Class Revenue Requirements

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9 By way of comparison, GSHi has included Table 2 below which includes the Cost  
 10 Allocated from its previous model included with its 2020 Cost of Service Application (EB-  
 11 2019-0037) and the results of the current Cost Allocation model.

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**Table 2 - Results of the Cost Allocation Model**

Rate Class	Costs		Allocated Class	
	Allocated from Previous	%	Revenue Requirement	%
Residential	\$ 17,622,635	65.99%	\$ 21,566,101	62.05%
GS < 50	\$ 3,615,404	13.54%	\$ 4,872,491	14.02%
GS > 50	\$ 4,959,799	18.57%	\$ 7,669,335	22.07%
Street Lighting	\$ 413,801	1.55%	\$ 536,810	1.54%
Sentinel Lighting	\$ 49,490	0.19%	\$ 67,681	0.19%
USL	\$ 44,183	0.17%	\$ 44,985	0.13%

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16 Table 3 below shows the allocation percentage and base revenue requirement allocation  
 17 as a result of the cost allocation results, existing rates with a uniform rate increase, and  
 18 proposed 2025 proposed allocation resulting from the adjustment of revenue-to-cost  
 ratios, as further described below.

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**Table 3 - Base Revenue Requirement**

Rate Class	Base Revenue Requirement %					
	Cost Allocation Results		Existing Rates		Proposed Allocation	
Residential	\$20,244,930	61.9%	\$20,342,426	62.2%	\$20,342,426	62.2%
GS < 50	\$4,599,460	14.1%	\$5,502,909	16.8%	\$5,502,909	16.8%
GS > 50	\$7,245,043	22.2%	\$6,140,146	18.8%	\$6,143,745	18.8%
Street Lighting	\$494,649	1.5%	\$609,571	1.9%	\$602,011	1.8%
Sentinel Lighting	\$62,259	0.2%	\$48,580	0.1%	\$52,540	0.2%
USL	\$41,358	0.1%	\$44,068	0.1%	\$44,068	0.1%
<b>Total</b>	<b>\$32,687,699</b>	<b>100.0%</b>	<b>\$32,687,699</b>	<b>100.0%</b>	<b>\$32,687,699</b>	<b>100.0%</b>

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4 Table 4 below shows the revenue offset allocation which resulted from the Cost  
5 Allocation Model (Sheet O1).

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**Table 4 - Revenue Offset Allocation as per Cost Allocation Model**

Rate Class	Revenue Offsets	
	\$	%
Residential	\$1,321,172	63.8%
GS < 50	\$273,031	13.2%
GS > 50	\$424,292	20.5%
Street Lighting	\$42,162	2.0%
Sentinel Lighting	\$5,421	0.3%
USL	\$3,627	0.2%
<b>Total</b>	<b>\$2,069,704</b>	<b>100.0%</b>

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10 Table 5 shows the allocation of the service revenue requirement as a result of the cost  
11 allocation results, existing rates and proposed 2020 proposed allocation.

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**Table 5 - Service Revenue Requirement**

Rate Class	Service Revenue Requirement %					
	Cost Allocation Results		Existing Rates		Proposed Allocation	
Residential	\$21,566,101	62.0%	\$21,663,598	62.3%	\$21,663,598	62.3%
GS < 50	\$4,872,491	14.0%	\$5,775,940	16.6%	\$5,775,940	16.6%
GS > 50	\$7,669,335	22.1%	\$6,564,437	18.9%	\$6,568,036	18.9%
Street Lighting	\$536,810	1.5%	\$651,732	1.9%	\$644,173	1.9%
Sentinel Lighting	\$67,681	0.2%	\$54,001	0.2%	\$57,962	0.2%
USL	\$44,985	0.1%	\$47,695	0.1%	\$47,695	0.1%
<b>Total</b>	<b>\$34,757,403</b>	<b>100.0%</b>	<b>\$34,757,403</b>	<b>100.0%</b>	<b>\$34,757,403</b>	<b>100.0%</b>

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**Revenue to Cost Ratios**

Table 6 below includes the following:

- Previously approved ratios from GSHi’s 2020 Cost of Service Application (EB- 2019-0037).
- Ratios derived from current approved rates and the test year projected billing quantities
- Proposed test year ratios

**Table 6 – Revenue to Cost Ratios**

Rate Class	Approved Ratios for 2024	Status Quo Ratios	Proposed Ratios	Policy Range
Residential	93.06%	100.45%	100.45%	85% - 115%
GS < 50	118.66%	118.54%	118.54%	80% - 120%
GS > 50	109.46%	85.59%	85.64%	80% - 120%
Street Lighting	120.00%	121.41%	120.00%	80% - 120%
Sentinel Lighting	93.06%	79.79%	85.64%	80% - 120%
USL	100.10%	106.02%	106.02%	80% - 120%

GSHi notes that the revenue to cost ratio for the Street Lighting class is above the maximum of the policy range and Sentinel Lighting is below the policy range floor. GSHi is proposing to reduce the Street Lighting ratio and increase the Sentinel Lighting ratios in the test year. In order to maintain revenue neutrality, GSHi is proposing to rebalance General Service > 50 kW and Sentinel classes upwards as they are the only classes below 100%.

For further details about the class specific bill impacts please refer to Exhibit 8.



Greater Sudbury Hydro Inc.  
Filed: October 30, 2024  
EB-2024-0026  
Exhibit 7  
Tab 1  
Schedule 2  
Attachment 1  
Page 1 of 1

***Attachment 1 (of 1):***

***Revenue Requirement Workform Sheet 11***



# Revenue Requirement Workform (RRWF) for 2025 Filers

## Cost Allocation and Rate Design

This spreadsheet replaces **Appendix 2-P** and provides a summary of the results from the Cost Allocation spreadsheet, and is used in the determination of the class revenue requirement and, hence, ultimately, the determination of rates from customers in all classes to recover the revenue requirement.

Stage in Application Process: *Initial Application*

### A) Allocated Costs

Name of Customer Class <sup>(3)</sup>	Costs Allocated from Previous Study <sup>(1)</sup>	%	Allocated Class Revenue Requirement <sup>(1)</sup> <i>(7A)</i>	%
<i>From Sheet 10. Load Forecast</i>				
1 Residential	\$ 17,622,635	65.99%	\$ 21,566,101	62.05%
2 General Service < 50 kW	\$ 3,615,404	13.54%	\$ 4,872,491	14.02%
3 General Service >= 50 kW	\$ 4,959,799	18.57%	\$ 7,669,335	22.07%
4 Street Lighting	\$ 413,801	1.55%	\$ 536,810	1.54%
5 Sentinel Lighting	\$ 49,490	0.19%	\$ 67,681	0.19%
6 USL	\$ 44,183	0.17%	\$ 44,985	0.13%
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<b>Total</b>	<b>\$ 26,705,312</b>	<b>100.00%</b>	<b>\$ 34,757,403</b>	<b>100.00%</b>
<b>Service Revenue Requirement (from Sheet 9)</b>			<b>\$ 34,757,403.14</b>	

- (1) Class Allocated Revenue Requirement, from Sheet O-1, Revenue to Cost || RR, row 40, from the Cost Allocation Study in this application. This excludes costs in deferral and variance accounts. For Embedded Distributors, Account 4750 - Low Voltage (LV) Costs are also excluded.
- (2) Host Distributors - Provide information on any embedded distributor(s) as a separate class, if applicable. If embedded distributors are billed in a General Service class, include the allocated costs and revenues of the embedded distributor(s) in the applicable class, and also complete Appendix 2-Q.
- (3) Customer Classes - If these differ from those in place in the previous cost allocation study, modify the customer classes to match the proposal in the current application as closely as possible.

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	\$ 17,596,220	\$ 20,342,426	\$ 20,342,426	\$ 1,321,172
2 General Service < 50 kW	\$ 4,760,022	\$ 5,502,909	\$ 5,502,909	\$ 273,031
3 General Service >= 50 kW	\$ 5,311,232	\$ 6,140,146	\$ 6,143,745	\$ 424,292
4 Street Lighting	\$ 527,279	\$ 609,571	\$ 602,011	\$ 42,162
5 Sentinel Lighting	\$ 42,022	\$ 48,580	\$ 52,540	\$ 5,421
6 USL	\$ 38,119	\$ 44,068	\$ 44,068	\$ 3,627
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<b>Total</b>	\$ 28,274,894	\$ 32,687,699	\$ 32,687,699	\$ 2,069,704

- (4) In columns 7B to 7D, LF means Load Forecast of Annual Billing Quantities (i.e., customers or connections, as applicable X 12 months, and kWh, kW or kVA as applicable. Revenue quantities should be net of the Transformer Ownership Allowance for applicable customer classes. Exclude revenues from rate adders and rate riders.
- (5) Columns 7C and 7D - Column Total should equal the Base Revenue Requirement for each.  
Column 7C - The OEB-issued cost allocation model calculates "1+d" on worksheet O-1, cell C22. "d" is defined as Revenue Deficiency/Revenue at Current Rates.
- (6)
- (7) Column 7E - If using the OEB-issued cost allocation model, enter Miscellaneous Revenues as it appears on worksheet O-1, row 19.

C) Rebalancing Revenue-to-Cost Ratios

	Name of Customer Class	Previously Approved Ratios	Status Quo Ratios	Proposed Ratios	Policy Range
		Most Recent Year:	(7C + 7E) / (7A)	(7D + 7E) / (7A)	
		2020			
		%	%	%	%
1	Residential	93.06%	100.45%	100.45%	85 - 115
2	General Service < 50 kW	118.66%	118.54%	118.54%	80 - 120
3	General Service >= 50 kW	109.46%	85.59%	85.64%	80 - 120
4	Street Lighting	120.00%	121.41%	120.00%	80 - 120
5	Sentinel Lighting	93.06%	79.79%	85.64%	80 - 120
6	USL	100.10%	106.02%	106.02%	80 - 120
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- (8) Previously Approved Revenue-to-Cost (R/C) Ratios - For most applicants, the most recent year would be the third year (at the latest) of the Price Cap IR period. For example, if the applicant, rebased in 2020 with further adjustments to move within the range over two years, the Most Recent Year would be 2023. However, the ratios in 2023 would be equal to those after the adjustment in 2022.
- (9) Status Quo Ratios - The OEB-issued cost allocation model provides the Status Quo Ratios on Worksheet O-1. The Status Quo means "Before Rebalancing".
- (10) Ratios shown in red are outside of the allowed range. Applies to both Tables C and D.

(D) Proposed Revenue-to-Cost Ratios <sup>(11)</sup>

	Name of Customer Class	Proposed Revenue-to-Cost Ratio			Policy Range
		Test Year	Price Cap IR Period		
		2025	2026	2027	
1	Residential	100.45%	100.45%	100.45%	85 - 115
2	General Service < 50 kW	118.54%	118.54%	118.54%	80 - 120
3	General Service >= 50 kW	85.64%	85.64%	85.64%	80 - 120
4	Street Lighting	120.00%	120.00%	120.00%	80 - 120
5	Sentinel Lighting	85.64%	85.64%	85.64%	80 - 120
6	USL	106.02%	106.02%	106.02%	80 - 120
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(11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2025 that is outside of the OEB's policy range for any customer class. Table D will show that the distributor is likely to enter into the 2026 and 2027 Price Cap IR models, as necessary. For 2026 and 2027, enter the planned revenue-to-cost ratios that will be "Change" or "No Change" in 2026 (in the current Revenue/Cost Ratio Adjustment Workform, Worksheet C1.1 'Decision - Cost Revenue Adjustment, column d), and enter TBD for class(es) that will be entered as 'Rebalance'.