

Exhibit 7:

COST ALLOCATION

Exhibit 7: Cost Allocation

Tab 1 (of 1): Cost Allocation Study

OVERVIEW OF COST ALLOCATION

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.

GSHi has completed its cost allocation model using the OEB's methodology. A live Excel version of 2020 cost allocation model has been filed along with this application. GSHi confirms that it has also populated sheets 11 and 12 of the RRWF. These sheets are 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 scaled versions of the HONI CAIF load profiles.

GSHi has included hard copies of sheets I-6, I-8, O-1 and O-2 from the cost allocation model. See Exhibit 7, Tab 1, Schedule 1, Attachment 1.

Previously Approved Cost Allocation (2013)

The previously Board Approved revenue-to-cost ratios are presented as a point of reference to the 2020 proposed ratios. As part of its last Cost of Service Rate Application, GSHi updated the cost allocation revenue to cost ratios with 2013 base revenue requirement information. The revenue to cost ratios from the 2013 application are presented below.

New or Eliminated Customer Classes

GSHi is not requesting the elimination or addition of any customer classes. There have been no changes in GSHi's class composition since 2013.

1 **Table 1 - Previously Approved Revenue to Cost Ratios (2013 COS)**

Customer Class Name	2013 Approved Revenue to Cost Ratio
<i>Residential</i>	92.42
<i>General Service < 50 kW</i>	117.97
<i>General Service > 50 to 4999 kW</i>	114.08
<i>USL</i>	120.00
<i>Sentinel Lights</i>	90.57
<i>Street Lighting</i>	90.57

2

3 **Proposed Cost Allocation (2020)**

4 The Cost Allocation for 2020 allocates the Test Year costs (i.e., the 2020 forecast
 5 revenue requirement) to the various customer classes using allocators that are based on
 6 the forecast class loads (kW and kWh) by class, customer counts, etc.

7

8 GSHi has used the most up to date 2020 OEB-approved Cost Allocation Model (version
 9 3.7) and followed the instructions and guidelines issued by the OEB to enter the 2020
 10 data into this model. GSHi confirms that there are no new or eliminated customer
 11 classes, and no changes to the definition of existing classes.

12

13 GSHi populated the information on Sheet I3 (included in the live version of the model
 14 that has been filed with the application), Trial Balance Data with the 2020 forecasted
 15 data, Target Net Income, PILs, interest on long term debt, and the targeted Revenue
 16 Requirement and Rate Base.

17

18 On Sheet I4 (included in the live version of the model), Break-out of Assets, GSHi
 19 updated the allocation of the accounts based on 2020 values.

20

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

As instructed by the Board, in Sheet I5.2 (included in the live version of the model), Weighting Factors, GSHI has used LDC specific factors rather than continue to use OEB approved default factors. The utility has applied service and billing & collecting weightings for each customer classification.

These weightings are based on a review of time and costs incurred in servicing its customer classes; they are presented in Table 2 and discussed further below:

Table 2 - Weighting Factors

	1	2	3	7	8	9
	Residential	GS <50	GS > 50 to 4999 kW	Streetlight	Sentinel	Unmetered Scattered Load
Weighting Factor for Services Account 1855	1.0	0	0	0	0	0
Weighting Factor for Billing and Collecting	1.0	1.0	1.6	1.0	1.0	1.0

Proposed Services Weighting Factors

- Residential: the Services weighting factor was set to “1”, per Cost Allocation instruction sheet.
- GSHI’s policy regarding the allocation of services across its classes had remained the same since approved in its 2013 Cost of Service. The analysis for the Services weighting factor included a review of the internal policy regarding the installation and cost recovery for services. The policy for GSHI is to charge customers other than residential customers for the cost of their service such that there are no service costs being booked to account 1855 for non-residential customers. As such the weighting factor for residential customers is 1 and for all other classes it is nil.

Proposed Billing and Collecting Weighting Factor

- Residential: weighted for services and for billing and collecting was set as “1” per Cost Allocation instruction sheet
- General Service less than 50 kW: weighted “1” for billing & collecting. GSHi’s experience is that no more time, attention and costs are spent on these customers than for the residential class.
- The Weighted factor for the General Service greater than 50 kW is proposed as 1.6 for billing and collecting: The breakdown of the weighting factor is shown in Table 3 below. The additional cost for this class is as a result of the meter reading costs incurred only for this class.
- A Weighting factor of 1.00 is used for the billing and collecting of the Sentinel, Streetlights and Unmetered Scattered Load class as it requires no more and no less resources to bill these classes than for the residential class.

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

Table 3 – Breakdown of Weighting Factors

2020

Accounts 5305 - 5340	Residential	GS < 50	GS > 50	Unmetered Scattered Load	Sentinel	Street Lighting
<i># of Bills</i>	520,132	50,703	5,913	1,999	1,860	24
<i>Contract labour related to meter reading</i>			\$13,736			
<i>5315 - Customer Billing</i>	\$2,106,222	\$205,315	\$23,945	\$8,093	\$7,532	\$97
<i>Total</i>	\$2,106,222	\$205,315	\$37,681	\$8,093	\$7,532	\$97
<i>Cost Per Bill</i>	\$4.05	\$4.05	\$6.37	\$4.05	\$4.05	\$4.05
<i>Weighting (Residential set as standard)</i>	1.00	1.00	1.57	1.00	1.00	1.00

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 number of customer/connections.

GSHI updated the capital cost per meter information on Sheet I7.1 (included in the live model) and the meter reading information on I7.2 (included in the live model) to reflect its completed deployment of smart meters.

For the Sudbury CAIF, HONI provided data files with three worksheets that were to be used as input to the 2006 CAIF, these were:

- Data Summary: actual and weather normalized monthly kWh by class, disaggregated by weather sensitive and non-weather sensitive load for relevant classes.
- Hourly Load Shape by Class: GWh by class for each hour in 2004.
- Input to Cost Allocation Model: The 1CP, 4CP, 12CP, 1NCP, 4NCP and 12NCP allocators are derived from the hourly load profiles.

The Sudbury hourly load shapes derived by Hydro One for the 2006 CAIF were not updated. However, the demand allocators derived by Hydro One for the 2006 CAIF were revised to reflect changes in the relative loads.

This was done by scaling the hourly load profiles of each class on the Hourly Load Shape by Class worksheet of the HONI file to levels consistent with the 2013 load forecast while maintaining the hourly load shapes.

The demand allocators used in determining the proposed profiles were derived using the same methodology Hydro One used for the 2006 file; however, they were determined using the forecast 2020 hourly load profiles resulting from the preceding step. The live excel models of the update of the demand data has been filed with this application. The demand data used for the 2013 Cost Allocation Model and the 2020 Cost Allocation Model are included in Tables 4 and 5 below.

Table 4 – Demand Data from 2013 CoS

Customer Classes	Total	1	2	3	7	8	9	
		Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load	
CO-INCIDENT PEAK								
1 CP								
Transformation CP	TCP1	184,090	90,314	27,782	63,863	1,862	107	162
Bulk Delivery CP	BCP1	184,090	90,314	27,782	63,863	1,862	107	162
Total Sytem CP	DCP1	184,090	90,314	27,782	63,863	1,862	107	162
4 CP								
Transformation CP	TCP4	687,447	350,704	99,858	228,564	7,235	417	669
Bulk Delivery CP	BCP4	687,447	350,704	99,858	228,564	7,235	417	669
Total Sytem CP	DCP4	687,447	350,704	99,858	228,564	7,235	417	669
12 CP								
Transformation CP	TCP12	1,738,204	791,939	298,040	635,595	10,061	580	1,989
Bulk Delivery CP	BCP12	1,738,204	791,939	298,040	635,595	10,061	580	1,989
Total Sytem CP	DCP12	1,738,204	791,939	298,040	635,595	10,061	580	1,989
NON CO-INCIDENT PEAK								
1 NCP								
Classification NCP from								
Load Data Provider	DNCP1	202,351	100,841	32,938	66,423	1,868	108	173
Primary NCP	PNCP1	202,351	100,841	32,938	66,423	1,868	108	173
Line Transformer NCP	LTNCP1	195,952	100,289	32,102	61,413	1,868	108	173
Secondary NCP	SNCP1	118,614	94,926	21,539	-	1,868	108	173
4 NCP								
Classification NCP from								
Load Data Provider	DNCP4	754,635	370,936	124,587	250,547	7,455	430	680
Primary NCP	PNCP4	754,635	370,936	124,587	250,547	7,455	430	680
Line Transformer NCP	LTNCP4	730,540	368,904	121,423	231,648	7,455	430	680
Secondary NCP	SNCP4	439,214	349,179	81,470	-	7,455	430	680
12 NCP								
Classification NCP from								
Load Data Provider	DNCP12	1,925,420	863,295	334,308	702,182	22,341	1,289	2,005
Primary NCP	PNCP12	1,925,420	863,295	334,308	702,182	22,341	1,289	2,005
Line Transformer NCP	LTNCP12	1,859,236	858,566	325,819	649,216	22,341	1,289	2,005
Secondary NCP	SNCP12	1,056,905	812,659	218,611	-	22,341	1,289	2,005

Table 5 - Demand Data for 2020 Test Year (adjusted for 2020 Load Forecast)

Customer Classes	Total	1	2	3	7	8	9
		Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
	CP Sanity Check	Pass	Pass	Pass	Pass	Pass	Check 4CP and 12CP
CO-INCIDENT PEAK							
1 CP							
Transformation CP TCP1	163,748	86,546	23,687	51,598	1,705	90	121
Bulk Delivery CP BCP1	163,748	86,546	23,687	51,598	1,705	90	121
Total Sytem CP DCP1	163,748	86,546	23,687	51,598	1,705	90	121
4 CP							
Transformation CP TCP4	623,494	324,206	93,488	198,145	6,798	360	497
Bulk Delivery CP BCP4	623,494	324,206	93,488	198,145	6,798	360	497
Total Sytem CP DCP4	623,494	324,206	93,488	198,145	6,798	360	497
12 CP							
Transformation CP TCP12	1,573,632	726,469	273,087	562,715	9,385	497	1,478
Bulk Delivery CP BCP12	1,573,632	726,469	273,087	562,715	9,385	497	1,478
Total Sytem CP DCP12	1,573,632	726,469	273,087	562,715	9,385	497	1,478
NON CO-INCIDENT PEAK							
1 NCP	NCP Sanity Check	Pass	Pass	Pass	Pass	Pass	Pass
Classification NCP from Load Data Provider DNCP1	182,885	90,550	30,768	59,636	1,711	91	129
Primary NCP PNCP1	182,885	90,550	30,768	59,636	1,711	91	129
Line Transformer NCP LTNCP1	169,229	90,550	30,768	45,980	1,711	91	129
Secondary NCP SNCP1	169,229	90,550	30,768	45,980	1,711	91	129
4 NCP							
Classification NCP from Load Data Provider DNCP4	680,589	332,355	115,875	224,664	6,828	362	505
Primary NCP PNCP4	680,589	332,355	115,875	224,664	6,828	362	505
Line Transformer NCP LTNCP4	629,144	332,355	115,875	173,218	6,828	362	505
Secondary NCP SNCP4	629,144	332,355	115,875	173,218	6,828	362	505
12 NCP							
Classification NCP from Load Data Provider DNCP12	1,728,113	768,328	311,053	625,709	20,460	1,084	1,478
Primary NCP PNCP12	1,728,113	768,328	311,053	625,709	20,460	1,084	1,478
Line Transformer NCP LTNCP12	1,584,831	768,328	311,053	482,428	20,460	1,084	1,478
Secondary NCP SNCP12	1,584,831	768,328	311,053	482,428	20,460	1,084	1,478

While GSHi did not update its load profiles for this cost allocation exercise, GSHi commits to undertaking a review for its next cost of service application, once its remaining GS>50 meters are replaced with MIST meters by the end of 2020. All data will then be available for a number of years, allowing GSHi to prepare a consistent analysis across all customers and rate classes.

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

1 **MicroFIT**

2 GSHi applies the generic rate of \$5.40 per month and has not included MicroFIT in the
3 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.

Attachment 1 (of 1):

Cost Allocation Study - I-6, I-8, O-1 & O-2

2020 Cost Allocation Model

EB-2019-0037

Sheet I6.1 Revenue Worksheet - Initial Application

Total kWhs from Load Forecast	847,465,518
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Total kWhs from Load Forecast	878,077
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Deficiency/sufficiency (RRWF 8. cell F51)	- 4,270,527
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Miscellaneous Revenue (RRWF 5. cell F48)	1,558,372
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			1	2	3	7	8	9
	ID	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
	Billing Data							
Forecast kWh	CEN	847,465,518	361,088,385	134,331,187	343,232,749	7,342,584	389,166	1,081,447
Forecast kW	CDEM	878,077			856,504	20,511	1,062	
Forecast kW, included in CDEM, of customers receiving line transformer allowance		196,131			196,131			
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	-						

Existing Monthly Charge			\$26.91	\$22.42	\$171.02	\$5.58	\$4.07	\$7.33
Existing Distribution kWh Rate				\$0.0193	\$4.4434	\$2.7376	\$13.0694	\$0.0111
Existing Distribution kW Rate								
Existing TOA Rate					\$0.60			
Additional Charges								
Distribution Revenue from Rates		\$23,243,432	\$13,920,112	\$3,717,717	\$4,815,492	\$721,800	\$31,413	\$36,897
Transformer Ownership Allowance		\$117,679	\$0	\$0	\$117,679	\$0	\$0	\$0
Net Class Revenue	CREV	\$23,125,753	\$13,920,112	\$3,717,717	\$4,697,813	\$721,800	\$31,413	\$36,897

2020 Cost Allocation Model

EB-2019-0037

Sheet 18 Demand Data Worksheet - Initial Application

This is an input sheet for demand allocators.

CP TEST RESULTS	4 CP
NCP TEST RESULTS	4 NCP

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

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

Customer Classes	Total	1	2	3	7	8	9	
		Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load	
		CP						
Sanity Check	Pass	Pass	Pass	Pass	Pass	Check 4CP and 12CP		
CO-INCIDENT PEAK								
1 CP								
Transformation CP	TCP1	163,748	86,546	23,687	51,598	1,705	90	121
Bulk Delivery CP	BCP1	163,748	86,546	23,687	51,598	1,705	90	121
Total Sytem CP	DCP1	163,748	86,546	23,687	51,598	1,705	90	121
4 CP								
Transformation CP	TCP4	623,494	324,206	93,488	198,145	6,798	360	497
Bulk Delivery CP	BCP4	623,494	324,206	93,488	198,145	6,798	360	497
Total Sytem CP	DCP4	623,494	324,206	93,488	198,145	6,798	360	497
12 CP								
Transformation CP	TCP12	1,573,632	726,469	273,087	562,715	9,385	497	1,478
Bulk Delivery CP	BCP12	1,573,632	726,469	273,087	562,715	9,385	497	1,478
Total Sytem CP	DCP12	1,573,632	726,469	273,087	562,715	9,385	497	1,478
NON CO. INCIDENT PEAK								
NCP								
Sanity Check	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
1 NCP								
Classification NCP from Load Data Provider	DNCP1	182,885	90,550	30,768	59,636	1,711	91	129
Primary NCP	PNCP1	182,885	90,550	30,768	59,636	1,711	91	129
Line Transformer NCP	LTNCP1	169,229	90,550	30,768	45,980	1,711	91	129
Secondary NCP	SNCP1	169,229	90,550	30,768	45,980	1,711	91	129
4 NCP								
Classification NCP from Load Data Provider	DNCP4	680,589	332,355	115,875	224,664	6,828	362	505
Primary NCP	PNCP4	680,589	332,355	115,875	224,664	6,828	362	505
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Secondary NCP	SNCP4	629,144	332,355	115,875	173,218	6,828	362	505
12 NCP								
Classification NCP from Load Data Provider	DNCP12	1,728,113	768,328	311,053	625,709	20,460	1,084	1,478
Primary NCP	PNCP12	1,728,113	768,328	311,053	625,709	20,460	1,084	1,478
Line Transformer NCP	LTNCP12	1,584,831	768,328	311,053	482,428	20,460	1,084	1,478
Secondary NCP	SNCP12	1,584,831	768,328	311,053	482,428	20,460	1,084	1,478

 Ontario Energy Board

2020 Cost Allocation Model

Sheet 01 Revenue to Cost Summary Worksheet - Initial Application

Please see the first tab in this workbook for detailed instructions

Class Revenue, Cost Analysis, and Return on Rate Base

			1	2	3	7	8	9
Rate Base Assets		Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
crev mi	Distribution Revenue at Existing Rates	\$23,125,753	\$13,920,112	\$3,717,717	\$4,697,813	\$721,800	\$31,413	\$36,897
	Miscellaneous Revenue (mi)	\$1,558,372	\$945,214	\$223,571	\$338,915	\$43,988	\$3,696	\$2,988
	Miscellaneous Revenue Input equals Output							
	Total Revenue at Existing Rates	\$24,684,125	\$14,865,326	\$3,941,288	\$5,036,729	\$765,788	\$35,109	\$39,885
	Factor required to recover deficiency (1 + D)	1.1847						
di cu ad dep INPUT INT	Distribution Revenue at Status Quo Rates	\$27,396,127	\$16,490,583	\$4,404,226	\$5,565,306	\$855,087	\$37,214	\$43,710
	Miscellaneous Revenue (mi)	\$1,558,372	\$945,214	\$223,571	\$338,915	\$43,988	\$3,696	\$2,988
	Total Revenue at Status Quo Rates	\$28,954,499	\$17,435,797	\$4,627,797	\$5,904,221	\$899,075	\$40,910	\$46,698
	Expenses							
	Distribution Costs (di)	\$7,830,789	\$4,584,430	\$1,139,532	\$1,985,120	\$100,994	\$11,220	\$9,493
NI	Customer Related Costs (cu)	\$3,925,191	\$3,326,618	\$411,495	\$74,277	\$91,476	\$10,610	\$10,715
	General and Administration (ad)	\$5,901,780	\$3,943,602	\$783,698	\$1,058,342	\$95,348	\$10,824	\$9,966
	Depreciation and Amortization (dep)	\$4,404,632	\$2,707,249	\$656,233	\$973,308	\$56,713	\$6,024	\$5,105
	PILs (INPUT)	\$409,974	\$248,209	\$59,014	\$96,260	\$5,351	\$619	\$521
	Interest	\$2,616,443	\$1,584,062	\$376,626	\$614,326	\$34,151	\$3,952	\$3,325
Total Expenses		\$25,088,810	\$16,394,169	\$3,426,599	\$4,801,633	\$384,033	\$43,249	\$39,126
COP	Direct Allocation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Allocated Net Income (NI)	\$3,865,689	\$2,340,388	\$556,450	\$907,642	\$50,457	\$5,839	\$4,913
	Revenue Requirement (includes NI)	\$28,954,499	\$18,734,558	\$3,983,049	\$5,709,275	\$434,489	\$49,088	\$44,039
	Revenue Requirement Input equals Output							
	Rate Base Calculation							
dp gp accum dep co	Net Assets							
	Distribution Plant - Gross	\$211,629,240	\$127,256,724	\$31,035,335	\$49,715,047	\$3,007,596	\$334,501	\$280,036
	General Plant - Gross	\$19,662,293	\$11,871,721	\$2,846,757	\$4,619,035	\$268,474	\$30,617	\$25,690
	Accumulated Depreciation	(\$125,914,514)	(\$75,503,793)	(\$18,625,339)	(\$29,579,080)	(\$1,837,226)	(\$201,032)	(\$168,044)
	Capital Contribution	(\$6,698,761)	(\$3,891,432)	(\$1,047,764)	(\$1,585,216)	(\$14,774)	(\$14,774)	(\$12,069)
Total Net Plant		\$98,678,258	\$59,733,220	\$14,208,989	\$23,169,786	\$1,291,338	\$149,312	\$125,613
COP	Directly Allocated Net Fixed Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Cost of Power (COP)	\$101,557,555	\$43,500,332	\$16,064,815	\$40,941,160	\$875,831	\$46,420	\$128,996
	OM&A Expenses	\$17,657,760	\$11,854,649	\$2,334,725	\$3,117,739	\$287,818	\$32,654	\$30,174
	Directly Allocated Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal	\$119,215,315	\$55,354,982	\$18,399,541	\$44,058,899	\$1,163,649	\$79,074	\$159,171
Working Capital		\$8,941,149	\$4,151,624	\$1,379,966	\$3,304,417	\$87,274	\$5,931	\$11,938
Total Rate Base		\$107,619,406	\$63,884,843	\$15,588,954	\$26,474,204	\$1,378,612	\$155,243	\$137,551
		Rate Base Input equals Output						
Equity Component of Rate Base		\$43,047,763	\$25,553,937	\$6,235,582	\$10,589,682	\$551,445	\$62,097	\$55,020
Net Income on Allocated Assets		\$3,865,689	\$1,041,628	\$1,201,198	\$1,102,588	\$515,042	(\$2,339)	\$7,572
Net Income on Direct Allocation Assets		\$0	\$0	\$0	\$0	\$0	\$0	\$0

2020 Cost Allocation Model

EB-2019-0037

Sheet O1 Revenue to Cost Summary Worksheet - Initial Application

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-Regular	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
Net Income	\$3,865,689	\$1,041,628	\$1,201,198	\$1,102,588	\$515,042	(\$2,339)	\$7,572
RATIOS ANALYSIS							
REVENUE TO EXPENSES STATUS QUO%	100.00%	93.07%	116.19%	103.41%	206.93%	83.34%	106.04%
EXISTING REVENUE MINUS ALLOCATED COSTS	(\$4,270,373)	(\$3,869,232)	(\$41,761)	(\$672,546)	\$331,299	(\$13,979)	(\$4,154)
	Deficiency Input Does Not Equal Output						
STATUS QUO REVENUE MINUS ALLOCATED COSTS	(\$0)	(\$1,298,761)	\$644,748	\$194,946	\$464,586	(\$8,178)	\$2,659
RETURN ON EQUITY COMPONENT OF RATE BASE	8.98%	4.08%	19.26%	10.41%	93.40%	-3.77%	13.76%



Ontario Energy Board

2020 Cost Allocation Model

EB-2019-0037

Sheet 02 Monthly Fixed Charge Min. & Max. Worksheet - Initial Application

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-Regular	Street Light	Sentinel	Unmetered Scattered Load
\$6.31	\$9.50	\$9.96	\$0.80	\$2.18	\$2.72
\$9.05	\$13.23	\$15.51	\$1.18	\$3.27	\$4.08
\$19.98	\$20.06	\$18.62	\$2.34	\$11.09	\$8.91
\$26.91	\$22.42	\$171.02	\$5.58	\$4.07	\$7.33

COST ALLOCATION RESULTS

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

Table 1 - Results of the Cost Allocation Model

Cost Allocation Results		REVENUE ALLOCATION (sheet O1)					CUSTOMER UNIT COST PER MONTH (sheet O2)		
Customer Class Name	Service Rev Req (row40)	Misc. Revenue (mi) (row19)	Base Rev Req	Rev2Cost Expenses %	Avoided Costs (Minimum Charge)	Directly Related	Minimum System with PLCC * adjustment		
Residential	18,734,558 64.70%	945,214 60.65%	17,789,344 64.93%	93.07%	\$6.31	\$9.05	\$19.98		
General Service < 50 kW	3,983,049 13.76%	223,571 14.35%	3,759,478 13.72%	116.19%	\$9.50	\$13.23	\$20.06		
General Service > 50 to 4999 kW	5,709,275 19.72%	338,915 21.75%	5,370,360 19.60%	103.41%	\$9.96	\$15.51	\$18.62		
Unmetered Scattered Load	44,039 0.15%	2,988 0.19%	41,051 0.15%	106.04%	\$2.72	\$4.08	\$8.91		
Sentinel	49,088 0.17%	3,696 0.24%	45,392 0.17%	83.34%	\$2.18	\$3.27	\$11.09		
Street Lighting	434,489 1.50%	43,988 2.82%	390,501 1.43%	206.93%	\$0.80	\$1.18	\$2.34		
TOTAL	28,954,499 100.00%	1,558,372 100.00%	27,396,127 100.00%						

Class Revenue Requirements

By way of comparison, GSHi has included Table 2 below which includes the Cost Allocated from its previous model included with its 2013 Cost of Service Application (EB-2012-0126) and the results of the current Cost Allocation model.

Table 2 – Cost Allocation Study Result Comparison

Name of Customer Class	Costs Allocated from Previous Study	%	Allocated Class Revenue Requirement	%
Residential	\$ 15,252,549	63.68%	\$ 18,734,558	64.70%
GS < 50 kW	\$ 3,258,128	13.60%	\$ 3,983,049	13.76%
GS > 50 kW	\$ 4,557,185	19.03%	\$ 5,709,275	19.72%
Street Lighting	\$ 799,299	3.34%	\$ 434,489	1.50%
Sentinel Lighting	\$ 44,183	0.18%	\$ 49,088	0.17%
USL	\$ 39,536	0.17%	\$ 44,039	0.15%
	\$ 23,950,879	100.00%	\$ 28,954,499	100.00%

Table 3 below shows the allocation percentage and base revenue requirement allocation as a result of the cost allocation results, existing rates and proposed 2020 proposed

allocation resulting from the adjustment of revenue-to-cost ratios, as further described below.

Table 3 - Base Revenue Requirement Under 3 Scenarios

Customer Class Name	Proposed Base Revenue Requirement %					
	Cost Allocation Results		Existing Rates		Proposed Allocation	
Residential	64.93%	17,789,344	60.19%	16,490,583	60.64%	16,613,711
General Service < 50 kW	13.72%	3,759,478	16.08%	4,404,226	16.08%	4,404,267
General Service > 50 to 4999 kW	19.60%	5,370,360	20.31%	5,565,306	20.31%	5,565,046
Unmetered Scattered Load	0.15%	41,051	0.16%	43,710	0.16%	43,707
Sentinel	0.17%	45,392	0.14%	37,214	0.15%	39,993
Street Lighting	1.43%	390,501	3.12%	855,087	2.66%	729,403
TOTAL	100.00%	27,396,127	100.00%	27,396,127	100.00%	27,396,127

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

Table 4 - Revenue Offset Allocation as per Cost Allocation Model

Customer Class Name	Revenue Offsets	
	%	\$
Residential	60.65%	945,214
General Service < 50 kW	14.35%	223,571
General Service > 50 to 4999 kW	21.75%	338,915
Unmetered Scattered Load	0.19%	2,988
Sentinel	0.24%	3,696
Street Lighting	2.82%	43,988
TOTAL	100.00%	1,558,372

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

Table 5 - Service Revenue Requirement Under 3 Scenarios

Customer Class Name	Service Revenue Requirement \$		
	Existing Rates	Cost Allocation	Rate Application
Residential	17,435,797	18,734,558	17,558,925
General Service < 50 kW	4,627,797	3,983,049	4,627,838
General Service > 50 to 4999 kW	5,904,221	5,709,275	5,903,961
Unmetered Scattered Load	46,698	44,039	46,695
Sentinel	40,910	49,088	43,689
Street Lighting	899,075	434,489	773,391
TOTAL	28,954,499	28,954,499	28,954,499

Revenue to Cost Ratios

Table 6 below includes the following:

- Previously approved ratios from GSHi's 2013 Cost of Service Application (EB-2016-0126).
- Ratios derived from current approved rates and the test year projected billing quantities
- Proposed test year ratios

Table 6 –Revenue to Cost Ratios

Name of Customer Class	Previously Approved Ratios	Status Quo Ratios	Proposed Ratios	Policy Range
Residential	92.42%	93.07%	93.72%	85 - 115
GS < 50 kW	117.97%	116.19%	116.19%	80 - 120
GS > 50 kW	114.08%	103.41%	103.41%	80 - 120
Street Lighting	90.57%	206.93%	178.00%	80 - 120
Sentinel Lighting	90.57%	83.34%	89.00%	80 - 120
USL	120.00%	106.04%	106.03%	80 - 120

GSHi notes that the revenue to cost ratio for the Street Lighting class is above the maximum of the policy range. GSHi is proposing to reduce this ratio over a period of three years. In order to achieve this, GSHi is proposing to rebalance Residential and Sentinel classes upwards as they are the only other classes below 100%. GSHi notes that applying the revenue change to classes above 100% would result in them moving further away from 100%. Table 6 below provides GSHi's proposed rebalancing over three years.

Table 6 – Proposed Revenue to Cost Ratio Rebalancing

	2020		2021		2022	
Customer Class Name	Proposed R/C ratio	Revenue Reallocation	Proposed R/C ratio	Revenue Reallocation	Proposed R/C ratio	Revenue Reallocation
Residential	0.9372	-122,672.1	0.9438	-246,219.7	0.9504	-369,276.3
General Service < 50 kW	1.1619	67.3	1.1619	67.3	1.1619	67.3
General Service > 50 to 4999 kW	1.0341	0.0	1.0341	0.0	1.0341	0.0
Unmetered Scattered Load	1.0603	4.0	1.0603	4.0	1.0603	4.0
Sentinel	0.8900	-2,778.4	0.9400	-5,232.8	1.0000	-8,178.1
Street Lighting	1.7800	125,698	1.4900	251,700	1.2000	377,702
		319		-0		-0

For further details about the class specific bill impacts and mitigation measures, please refer to Exhibit 8.

Attachment 1 (of 1):

RRWF - Sheet 11 and 12



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2020 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 ⁽³⁾	Costs Allocated from Previous Study ⁽¹⁾	%	Allocated Class Revenue Requirement ⁽¹⁾	%
From Sheet 10. Load Forecast				
(7A)				
1 Residential	\$ 15,252,549	63.68%	\$ 18,734,558	64.70%
2 GS < 50 kW	\$ 3,258,128	13.60%	\$ 3,983,049	13.76%
3 GS > 50 kW	\$ 4,557,185	19.03%	\$ 5,709,275	19.72%
4 Street Lighting	\$ 799,299	3.34%	\$ 434,489	1.50%
5 Sentinel Lighting	\$ 44,183	0.18%	\$ 49,088	0.17%
6 USL	\$ 39,536	0.17%	\$ 44,039	0.15%
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Total	\$ 23,950,879	100.00%	\$ 28,954,499	100.00%
Service Revenue Requirement (from Sheet 9)			\$ 28,954,499.14	

- (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	\$ 13,920,083	\$ 16,490,583	\$ 16,613,711	\$ 945,214
2	GS < 50 kW	\$ 3,717,845	\$ 4,404,226	\$ 4,404,267	\$ 223,571
3	GS > 50 kW	\$ 4,697,620	\$ 5,565,306	\$ 5,565,046	\$ 338,915
4	Street Lighting	\$ 721,797	\$ 855,087	\$ 729,403	\$ 43,988
5	Sentinel Lighting	\$ 31,389	\$ 37,214	\$ 39,993	\$ 3,696
6	USL	\$ 36,867	\$ 43,710	\$ 43,707	\$ 2,988
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Total		\$ 23,125,601	\$ 27,396,127	\$ 27,396,127	\$ 1,558,372

- (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.
- (6) 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.
- (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)	
		2013 %	%	%	%
1	Residential	92.42%	93.07%	93.72%	85 - 115
2	GS < 50 kW	117.97%	116.19%	116.19%	80 - 120
3	GS > 50 kW	114.08%	103.41%	103.41%	80 - 120
4	Street Lighting	90.57%	206.93%	178.00%	80 - 120
5	Sentinel Lighting	90.57%	83.34%	89.00%	80 - 120
6	USL	120.00%	106.04%	106.03%	80 - 120
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

- (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 2012 with further adjustments to move within the range over two years, the Most Recent Year would be 2015. However, the ratios in 2015 would be equal to those after the adjustment in 2014.
- (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 ⁽¹¹⁾

	Name of Customer Class	Test Year	Proposed Revenue-to-Cost Ratio			Policy Range
		2020	2021	Price Cap IR Period	2022	
1	Residential	93.72%	93.72%		93.72%	85 - 115
2	GS < 50 kW	116.19%	116.19%		116.19%	80 - 120
3	GS > 50 kW	103.41%	103.41%		103.41%	80 - 120
4	Street Lighting	178.00%	149.00%		120.00%	80 - 120
5	Sentinel Lighting	89.00%	94.00%		100.00%	80 - 120
6	USL	106.03%	106.03%		106.03%	80 - 120
7						
8						
9						
10						
11						
12						
13						
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15						
16						
17						
18						
19						
20						

(11) The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2020 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 2021 and 2022 Price Cap IR models, as necessary. For 2021 and 2022, enter the planned revenue-to-cost ratios that will be "Change" or "No Change" in 2019 (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'.



Ontario Energy Board

Revenue Requirement Workform (RRWF) for 2020 Filers

New Rate Design Policy For Residential Customers

Please complete the following tables.

A Data Inputs (from Sheet 10. Load Forecast)

Test Year Billing Determinants for Residential Class	
Customers	43,107
kWh	361,088,385
Proposed Residential Class Specific Revenue Requirement ¹	\$ 16,613,711.22
Residential Base Rates on Current Tariff	
Monthly Fixed Charge (\$)	\$ 26.91
Distribution Volumetric Rate (\$/kWh)	

B Current Fixed/Variable Split

	Base Rates	Billing Determinants	Revenue	% of Total Revenue
Fixed	26.91	43,107	\$ 13,920,112.44	
Variable		361,088,385		
TOTAL	-	-		-

C Calculating Test Year Base Rates

Number of Remaining Rate Design Policy Transition Years ²	0
--	---

	Test Year Revenue @ Current F/V Split	Test Year Base Rates @ Current F/V Split	Reconciliation - Test Year Base Rates @ Current F/V Split
Fixed			
Variable			
TOTAL		-	

	New F/V Split	Revenue @ new F/V Split	Final Adjusted Base Rates	Revenue Reconciliation @ Adjusted Rates
Fixed				
Variable				
TOTAL	-	\$ -	-	

Checks ³	
Change in Fixed Rate	
Difference Between Revenues @ Proposed Rates and Class Specific Revenue Requirement	

Notes:

- ¹ The final residential class specific revenue requirement, excluding allocated Miscellaneous Revenues, as shown on Sheet 11. Cost Allocation, should be used (i.e. the revenue requirement after any proposed adjustments to R/C ratios).
- ² The distributor should enter the number of years remaining before the transition to fully fixed rates is completed. The change in residential rate design is almost complete and distributors should have either 0 or 1 year remaining. If the distributor has fully transitioned to fixed rates put "0" in cell D40. If the distributor has proposed an additional transition year because the change in the residential rate design will result in the fixed charge increasing by more than \$4/year, put "1" in cell D40.
- ³ Change in fixed rate due to rate design policy should be less than \$4. The difference between the proposed class revenue requirement and the revenue at calculated base rates should be minimal (i.e. should be reasonably considered as a rounding error)