Exhibit 3:

OPERATING REVENUE

Exhibit 3: Operating Revenue

Tab 1 (of 3): Load and Revenue Forecast

LOAD FORECAST AND CDM ADJUSTMENT

Load and Revenue Forecasts

GSHi engaged Elenchus Research Associates Inc. ("Elenchus") to complete a 2020 weather normalized and CDM adjusted load forecast. A report detailing the approach and load forecast results is included as Attachment 1 to this Exhibit. This section of the evidence provides a summary of the methodology and results of the load forecast.

Methodology

The methodology underpinning GSHi's load forecast has not materially changed from the load forecast approved in its last cost of service application (EB-2012-0126). The forecast is based on a multivariate regression methodology that forecasts monthly consumption by class. The methodology has evolved to consider the impacts of persisting CDM and consumption trends that are not explained by CDM. Variables used include economic variables from Statistics Canada, calendar variables such as month days and binary month variables, and weather data as described below. A full description of the variables used in each model are provided in the report included as Attachment 1 to this Exhibit.

Heating degree days (HDD) and cooling degree days (CDD) at the Greater Sudbury Airport weather station are used to weather-normalize historic consumption. This is the closest weather station to GSHi's service territory with sufficient weather data. A range of degree day bases beyond the default 18°C were considered in each class model and were typically found to be stronger variables than HDD or CDD at 18°C. In particular, residential consumption does not increase as average temperatures decline from 18°C to 16°C, which suggests there is not a material heating load when temperatures are in that range, so the HDD variable with a base of 16°C is used. Heating loads for the GS classes appear to begin at lower temperatures.

Forecast Result

Table 3.1 summarizes the historic and forecast kWh loads by class from 2014 actuals to the 2020 weather normal forecast, not including the CDM adjustment in forecast years.

Normal Forecast

kWh	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Normaliz	2019 Forecast	2020 Forecast
Residential	401,059,652	378,767,131	363,718,803	354,425,141	375,861,349	358,897,806	364,724,418	361,941,743
GS < 50	144,307,855	138,792,580	135,472,797	132,427,313	138,106,022	134,390,668	135,483,244	136,355,273
GS > 50	378,009,413	362,799,633	350,224,516	352,367,387	360,554,580	349,067,251	347,514,904	347,108,530
Street Light	7,654,363	7,541,644	7,520,842	7,471,833	7,471,085	7,471,085	7,391,715	7,342,584
Sentinel Light	438,854	428,604	426,193	412,948	403,671	403,671	396,354	389,166
USL	1,346,883	1,276,038	1,219,818	1,179,515	1,134,622	1,134,622	1,106,746	1,081,447
Total	932,817,019	889,605,630	858,582,969	848,284,136	883,531,330	851,365,104	856,617,383	854,218,743

Table 3.1 kWh Forecast by Class

The load forecast is adjusted to account for 50% of 2018 CDM activities based on the assumption that only half CDM savings are realized in the year they are implemented, full forecast 2019 savings, and 50% of forecast 2020 savings. As per the addendum to the filing requirements, only savings for projects that are subject to a contractual agreement between GSHi and customers as of April 30, 2019 are included in 2019 and 2020 forecast savings. GSHi contacted customers with contractual agreements and removed savings for projects deemed unlikely to be completed.

The CDM adjustment and resulting 2020 load forecast is summarized in the following table.

CDM Adjusted

kWh	2020 Weather Normal Forecast	CDM Adjustment	2020 CDM Adjusted Forecast
Residential	361,941,743	853,358	361,088,385
GS < 50	136,355,273	2,024,086	134,331,187
GS > 50	347,108,530	3,875,781	343,232,749
Street Light	7,342,584	0	7,342,584
Sentinel Light	389,166	0	389,166
USL	1,081,447	0	1,081,447
Total	854,218,743	6,753,225	847,465,518

Table 3.2 CDM Adjusted kWh Forecast

Demand is forecasted for demand-billed customers by applying the average historic kW to kWh ratio from 2009 to 2018 to forecast 2020 consumption. The kW to kWh ratio of the Street Light class changed materially between 2010 and 2011 and has been fairly consistent since then, so the 2011-2018 average is used for that class. Applying a kW to kWh ratio trend was considered for each class but was not used because there are no clear trends in the ratios over the 2009 to 2018 time period.

The following table summarizes historic and forecast demand for kW demand-billed classes from 2014 to 2020.savings

Normal Forecast

kW	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Normaliz	2019 Forecast	2020 Forecast
GS > 50	936,619	910,216	894,192	882,488	887,145	871,063	867,190	866,176
Street Light	21,396	21,075	20,946	20,884	20,878	20,870	20,648	20,511
Sentinel Light	1,212	1,182	1,078	1,137	1,111	1,102	1,082	1,062
Total	959,227	932,473	916,216	904,510	909,134	893,035	888,919	887,748

Table 3.3 kW Forecast

The following table summarizes the 2020 CDM Adjusted kW Load Forecast. The GS > 50 kW class' energy CDM as a percentage of 2020 consumption is applied to forecast 2020 kW demand to derive the kW CDM adjustment.

CDM Adjusted

kW	2020 Weather Normal Forecast	CDM Adjustment	2020 CDM Adjusted Forecast
GS > 50	866,176	9,672	856,504
Street Light	20,511	0	20,511
Sentinel Light	1,062	0	1,062
Total	887,748	9,672	878,077

Table 3.4 CDM Adjusted kW Forecast

Customers and connections are forecast by applying the geometric mean growth rate from 2009 to 2018 to 2018 customer and connection counts. The following table summarizes the historic and forecast customer/connections for 2014 to 2020:

Customers / Connections

Customers	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast
Residential	42,636	42,712	42,797	42,818	42,890	42,998	43,107
GS < 50	3,989	4,015	4,051	4,071	4,132	4,157	4,182
GS > 50	508	517	508	508	496	494	492
Street Light	9,736	9,753	9,748	9,786	9,862	9,901	9,941
Sentinel Light	410	398	392	378	372	365	359
USL	332	322	311	303	292	287	283
Total	57,611	57,716	57,806	57,863	58,042	58,202	58,363

Table 3.5 Customer / Connection Forecast for 2014-2020

Attachment 1 (of 2):

Load Forecast Report

34 King Street East, Suite 600
Toronto, Ontario, M5C 2X8
elenchus.ca

Weather Normalized Distribution System Load Forecast: 2020 Cost of Service

Report prepared by
Andrew Blair
Elenchus Research Associates Inc.

Prepared for:
Greater Sudbury Hydro

07 August 2019

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1 INTRODUCTION

This report outlines the results of, and methodology used to derive, the weather normal load forecast prepared for Greater Sudbury Hydro Inc. ("Greater Sudbury") for its Cost of Service application for 2020 rates.

The regression equations used to normalize and forecast Greater Sudbury's weather sensitive load use monthly heating degree days and cooling degree days as measured at Environment Canada's Sudbury Airport weather station to take into account temperature sensitivity. Sudbury Airport is 23km from central Sudbury and has strong historical weather data. Greater Sudbury experiences a significant heating load in the winter and relatively small cooling loads in the summer so its peak load is in the winter. Environment Canada defines heating degree days and cooling degree days as the difference between the average daily temperature and 18°C for each day (below for heating, above for cooling). Heating and cooling degree days with base temperatures other than 18°C have also been considered.

To isolate the impact of CDM, persisting CDM as measured by the IESO is added back to rate class consumption to simulate the rate class consumption had there been no CDM program delivery. This is labelled as "Actual No CDM" throughout the model. The effect is to remove the impact of CDM from any explanatory variables, which may capture a trend, and focus on the external factors. A weather normalized forecast is produced first based on no CDM delivery, and then persisting CDM savings of historic programs are subtracted off to reflect the actual normal forecast.

CDM data for 2018 is based on limited data in the IESO Participant and Cost Report and additional data provided by Greater Sudbury Hydro. As per the updated Chapter 2 Filing Requirements, forecast CDM is limited to projects that are subject to contractual agreements as of April 30, 2019. A list of applicable projects and forecast savings was provided by Greater Sudbury.

While statistical regression is appropriate for estimating a relationship between explanatory variables and energy use, in the case of CDM, an independent measurement is available providing a greater level of accuracy than could be obtained through regression.

Overall economic activity also impacts energy consumption. There is no known agency that publishes monthly economic accounts on a regional basis for Ontario. However, regional employment levels are available. Specifically, the monthly full-time equivalent (FTE) employment levels for Greater Sudbury, Ontario's Northeast Economic Region,

and Ontario, as reported in Statistics Canada's Monthly Labour Force Survey[1] and Ontario Economic Tables[2] are used. Overall GDP and Mining & Quarrying-related GDP in Ontario were also considered but are available only on an annual basis.[3]

In order to isolate demand determinants at the class specific level, equations to weather normalize and forecast kWh consumption for the Residential, GS < 50 kW, and GS > 50 kW classes have been estimated.

In addition to the weather and economic variables, a time trend variable, number of days and number of working days in each month, number of customers, and month of year variables have been examined for all weather-sensitive rate classes. More details on the individual class specifications are provided in the next section.

Finally, for classes with demand charges, an annual kW to kWh ratio is calculated using actual observations for each historical year and applied to the normalized kWh to derive a weather normal kW observation.

1.1 SUMMARIZED RESULTS

The following table summarizes the historic and forecast kWh for 2014 to 2020:

Normal Forecast

kWh	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Normaliz	2019 Forecast	2020 Forecast
Residential	401,059,652	378,767,131	363,718,803	354,425,141	375,861,349	358,897,806	364,724,418	361,941,743
GS < 50	144,307,855	138,792,580	135,472,797	132,427,313	138,106,022	134,390,668	135,483,244	136,355,273
GS > 50	378,009,413	362,799,633	350,224,516	352,367,387	360,554,580	349,067,251	347,514,904	347,108,530
Street Light	7,654,363	7,541,644	7,520,842	7,471,833	7,471,085	7,471,085	7,391,715	7,342,584
Sentinel Light	438,854	428,604	426,193	412,948	403,671	403,671	396,354	389,166
USL	1,346,883	1,276,038	1,219,818	1,179,515	1,134,622	1,134,622	1,106,746	1,081,447
Total	932,817,019	889,605,630	858,582,969	848,284,136	883,531,330	851,365,104	856,617,383	854,218,743

Table 1 kWh Forecast by Class

The following table summarizes the 2020 CDM Adjusted kWh Load Forecast. Details for this calculation can be found in Schedule 6 of this report.

[1] Statistics Canada Table 14-10-0294-01 – Formerly CANSIM series Table 282-0135

[2] Ontario Economic Tables https://www.fin.gov.on.ca/fallstatement/2018/ecotables.html

[3] Statistics Canada Table 36-10-0402-01 – Formerly CANSIM series Table 379-0330

CDM Adjusted

kWh	2020 Weather Normal Forecast	CDM Adjustment	2020 CDM Adjusted Forecast
Residential	361,941,743	853,358	361,088,385
GS < 50	136,355,273	2,024,086	134,331,187
GS > 50	347,108,530	3,875,781	343,232,749
Street Light	7,342,584	0	7,342,584
Sentinel Light	389,166	0	389,166
USL	1,081,447	0	1,081,447
Total	854,218,743	6,753,225	847,465,518

Table 2 CDM Adjusted kWh Forecast

The following table summarizes the historic and forecast kW for 2014 to 2020:

Normal Forecast

kW	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Normaliz	2019 Forecast	2020 Forecast
GS > 50	936,619	910,216	894,192	882,488	887,145	871,063	867,190	866,176
Street Light	21,396	21,075	20,946	20,884	20,878	20,870	20,648	20,511
Sentinel Light	1,212	1,182	1,078	1,137	1,111	1,102	1,082	1,062
Total	959,227	932,473	916,216	904,510	909,134	893,035	888,919	887,748

Table 3 kW Forecast

The following table summarizes the 2020 CDM Adjusted kW Load Forecast. Details for this calculation can be found at the end of in Schedule 6 of this report.

CDM Adjusted

kW	2020 Weather Normal Forecast	CDM Adjustment	2020 CDM Adjusted Forecast
GS > 50	866,176	9,672	856,504
Street Light	20,511	0	20,511
Sentinel Light	1,062	0	1,062
Total	887,748	9,672	878,077

Table 4 CDM Adjusted kW Forecast

The following table summarizes the historic and forecast customer/connections for 2014 to 2020:

Customers / Connections

Customers	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast
Residential	42,636	42,712	42,797	42,818	42,890	42,998	43,107
GS < 50	3,989	4,015	4,051	4,071	4,132	4,157	4,182
GS > 50	508	517	508	508	496	494	492
Street Light	9,736	9,753	9,748	9,786	9,862	9,901	9,941
Sentinel Light	410	398	392	378	372	365	359
USL	332	322	311	303	292	287	283
Total	57,611	57,716	57,806	57,863	58,042	58,202	58,363

Table 5 Customer / Connection Forecast for 2014-2020

2 CLASS SPECIFIC KWH REGRESSION

Consumption for the Residential, GS < 50, and GS > 50 rate classes were forecast with multivariate regressions. Regressions were not used for the Street Light, Sentinel Light, and USL rate classes as these classes do not exhibit sensitivity to the explanatory variables available for a statistical regression approach.

2.1 RESIDENTIAL

For Residential kWh consumption the equation was estimated using 120 observations from 2009:01-2018:12. Multiple heating degree day and cooling degree day thresholds were considered in the Residential regression. Consumption is relatively stable when the average monthly temperature is between 12°C and 18°C and increases as average temperatures deviate from that range. HDD relative to 12°C and CDD relative to 18°C were found to provide the strongest results. HDD and CDD measures near 12°C and 18°C, respectively, were also considered but found to be less predictive of monthly consumption.

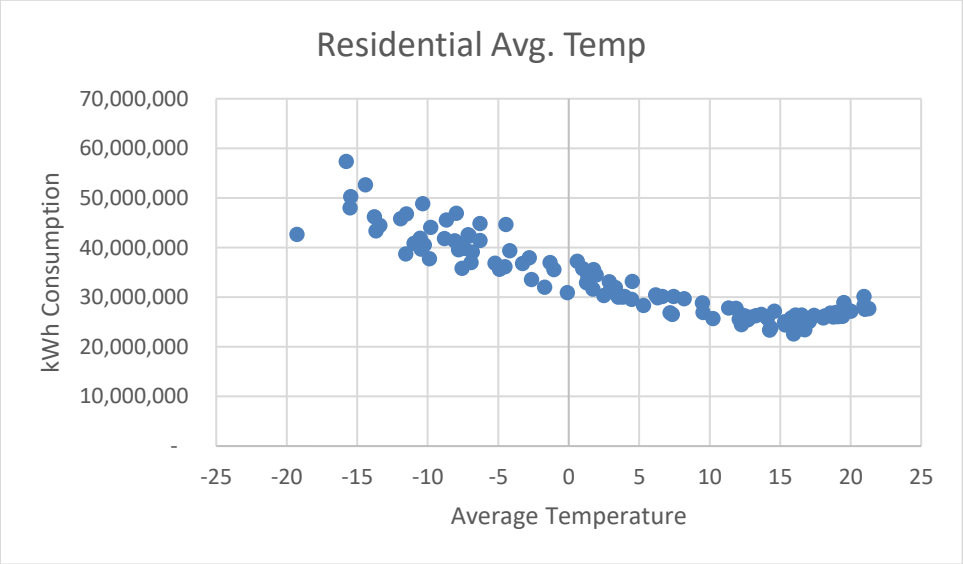

Figure 1 Residential kWh and Average Temperature

A Trend variable was used, indicating 1 in January 2009, and increasing by one each month, reaching 120 in the last month of the regression, December 2018. The number of Ontario FTEs was used and found to be more predictive than any other economic variable, including Sudbury FTEs. A count of the number of calendar days in the month was also used.

Several other variables were examined and found to not show a statistically significant relationship to energy usage, or a weaker relationship than similar variables that are included. Those included GDP, calendar variables, and a count of customer accounts.

Ordinary least-squares (OLS) regressions exhibited errors with a high level of autocorrelation with a Durbin-Watson statistic near 1.00[4]. A time-series autoregressive model using the Prais-Winsten estimation was used instead of an OLS regression for the Residential class to account for autocorrelation.

The following table outlines the resulting regression model:

Model 58: Prais-Winsten, using observations 2009:01-2018:12 (T = 120)
Dependent variable: Res_NoCDM
rho = 0.269175

	coefficient	std. error	t-ratio	p-value
const	-63099997.47	20311405.67	-3.10663	2.39E-03
Trend	-85026.7436	22684.31103	-3.74826	2.81E-04
CDD	30170.84201	8522.486613	3.540145	5.80E-04
MonthDays	1177623.08	155671.5459	7.564793	1.08E-11
DD12	29538.37616	757.0413472	39.01818	8.70E-68
OntFTEs	8255.773799	3144.691132	2.625305	9.84E-03

Statistics based on the rho-differenced data

Mean dependent var	32901681.38	S.D. dependent var	7833201
Sum squared resid	2.88055E+14	S.E. of regression	1.59E+06
R-squared	0.960572001	Adjusted R-squared	9.59E-01
F(5, 114)	401.6594452	P-value(F)	1.27E-70
rho	-0.025187297	Durbin-Watson	1.97E+00

Table 6 Residential Regression Model

[4] The Durbin-Watson statistic value of 2.00 suggests there is no error autocorrelation. Generally, a Durbin-Watson statistic of 1.5 to 2.5 is considered acceptable.

Using the above model coefficients, we derive the following:

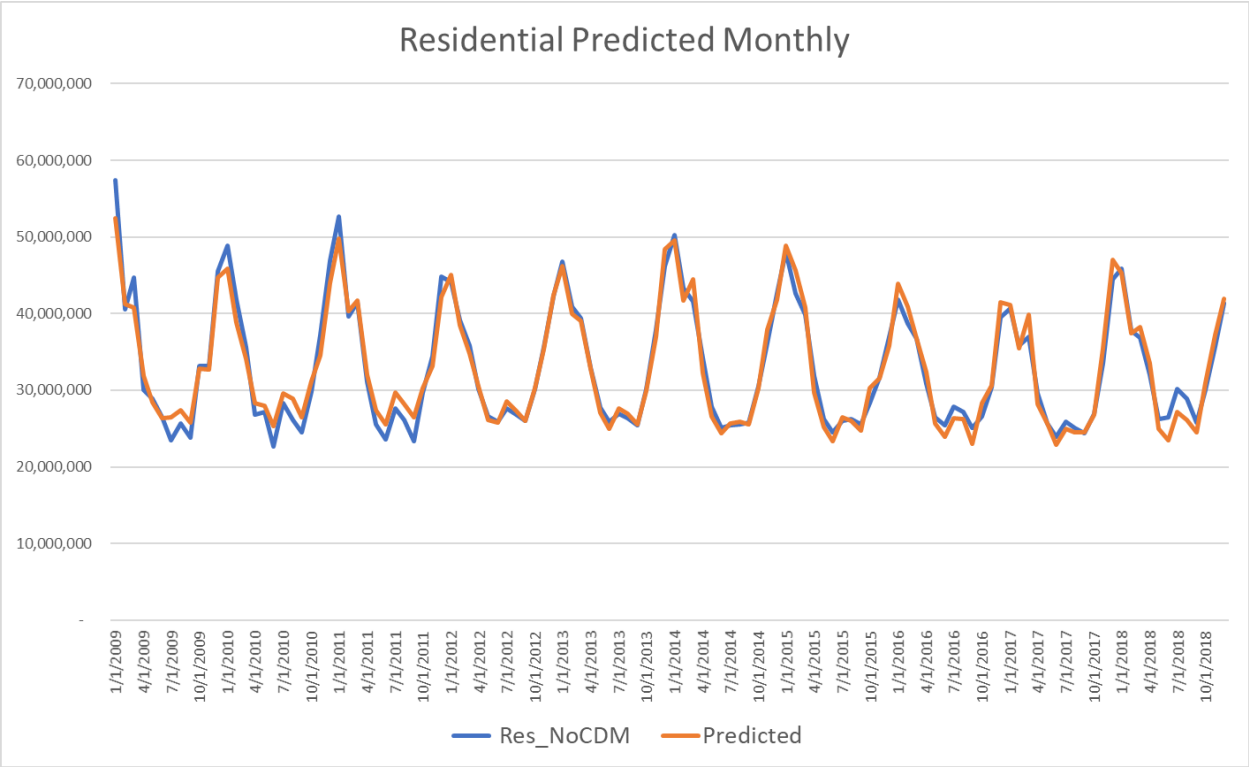

Figure 2 Residential Predicted vs Actual observations

Annual estimates using actual weather are compared to actual values in the table below. Mean absolute percentage error (MAPE) for annual estimates for the period is 0.6%. The MAPE calculated monthly over the period is 3.9%.

	Res kWh		Absolute
Year	CDM Added Back	Predicted	Error (%)
2009	412,656,888	411,194,110	0.4%
2010	395,922,465	395,209,084	0.2%
2011	400,205,654	406,616,245	1.6%
2012	389,870,750	390,205,522	0.1%
2013	406,546,454	405,485,325	0.3%
2014	408,368,850	406,086,154	0.6%
2015	387,971,396	388,250,551	0.1%
2016	376,624,292	379,533,365	0.8%
2017	372,998,805	376,468,366	0.9%
2018	397,036,211	390,766,669	1.6%

Mean Absolute Percentage Error (Annual)	0.6%
Mean Absolute Percentage Error (Monthly)	3.9%

Table 7 Residential model error

2.2 GS < 50

For the GS < 50 class, the regression equation was estimated using 120 observations from 2009:01-2018:12. Consumption for this class is relatively stable when the average monthly temperature is between 10°C and 18°C and increases as average temperatures deviate from that range. HDD relative to 10°C and CDD relative to 18°C were found to provide the strongest results. HDD and CDD measures near 10°C and 18°C, respectively, were also considered but found to be less predictive of monthly consumption.

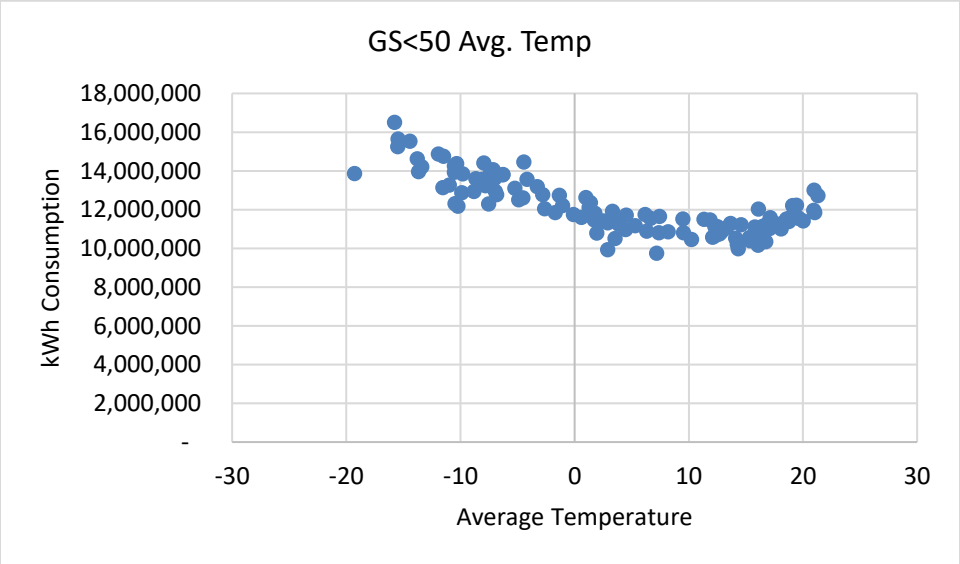

Figure 3 GS<50 kWh and Average Temperature

Greater Sudbury employment has been included as an indicator of economic activity. Measures for Ontario employment, and Ontario GDP were also tested, but found to be statistically less significant than Greater Sudbury employment. A count of the number of calendar days in the month has been included. A trend variable indicating 1 in January 2009, increasing by 1 each month, and reaching 120 in December 2018 has been included. The customer count and various calendar variables were tested but found to not have statistically significant relationships to energy usage.

The following table outlines the resulting regression model:

Model 2: OLS, using observations 2009:01-2018:12 (T = 120)
Dependent variable: GS_lt_50_NoCDM

	coefficient	std. error	t-ratio	p-value
const	-5794009	2071904	-2.796465606	6.07E-03
Trend	-3520.74	1157.179	-3.042516866	2.91E-03
GSFTEs	53692.94	19572.77	2.743247689	7.07E-03
MonthDays	394714.5	49607.51	7.956748477	1.43E-12
CDD	17611.56	2019.936	8.718869372	2.62E-14
HDD10	5869.002	179.6341	32.67197856	1.02E-59

Mean dependent var	12095472	S.D. dependent var	1408656.628
Sum squared resid	2.13E+13	S.E. of regression	432453.6444
R-squared	0.909713	Adjusted R-squared	0.905752718
F(5, 114)	229.7272	P-value(F)	0.00000000
Log-likelihood	-1724.46	Akaike criterion	3.46E+03
Schwarz criterion	3477.65	Hannan-Quinn	3.47E+03
rho	-0.00346	Durbin-Watson	1.97E+00

Model 2: OLS, using observations 2009:01-2018:12 (T = 120)

Table 8 GS < 50 Regression Model

Using the above model coefficients we derive the following:

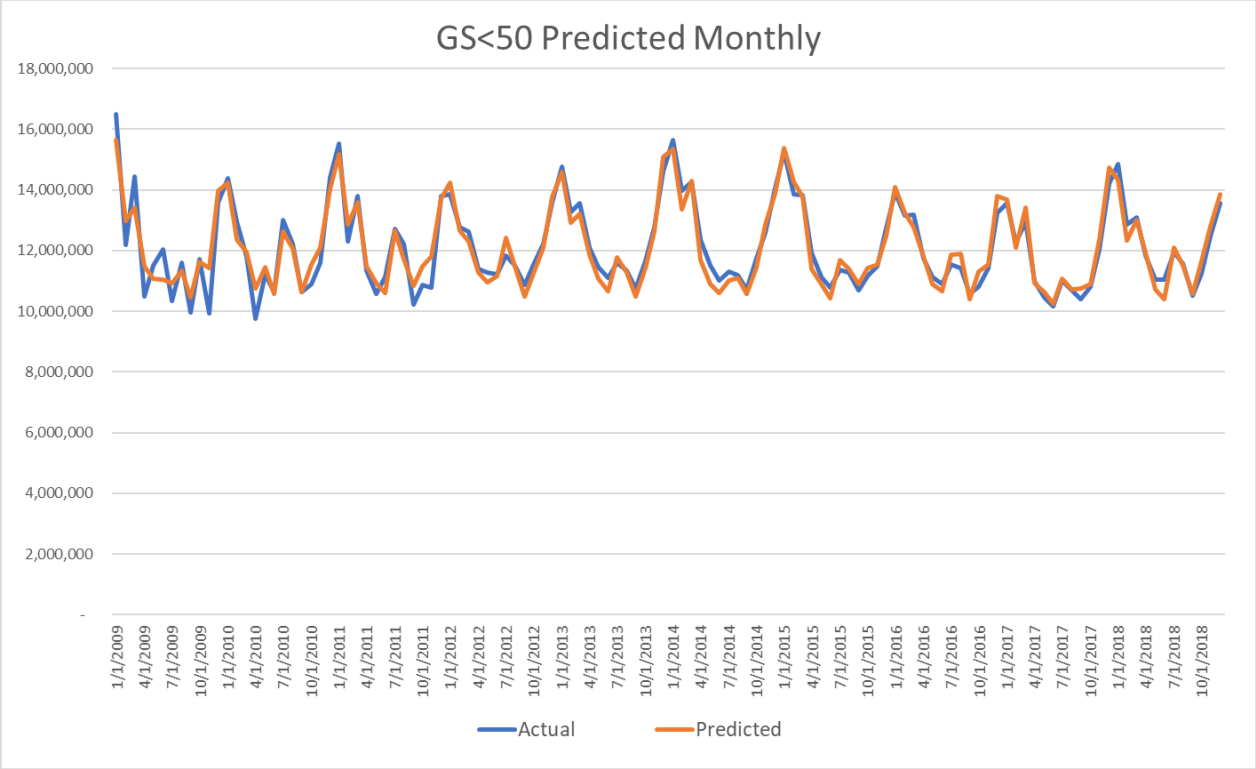

Figure 4 GS < 50 Predicted vs Actual observations

Annual estimates using actual weather are compared to actual values in the table below. Mean absolute percentage error (MAPE) for annual estimates for the period is 0.9%. The MAPE calculated monthly over the period is 2.8%.

	GS<50 kWh		Absolute
	CDM Added Back	Predicted	Error (%)
2009	144,344,077	145,421,145	0.7%
2010	143,517,749	144,319,617	0.6%
2011	145,288,571	146,805,306	1.0%
2012	144,762,739	144,064,653	0.5%
2013	148,972,634	147,018,942	1.3%
2014	150,384,977	147,082,503	2.2%
2015	145,482,402	145,560,400	0.1%
2016	142,984,443	144,297,638	0.9%
2017	139,544,664	141,548,130	1.4%
2018	146,032,640	145,196,561	0.6%
Mean Absolute Percentage Error (Annual)			0.9%
Mean Absolute Percentage Error (Monthly)			2.8%

Table 9 GS < 50 model error

2.3 GS > 50

For the GS > 50 class, the regression equation was estimated using 120 observations from 2009:01-2018:12. GS > 50 consumption is relatively flat when the average monthly temperature is between 10°C and 16°C and increases as average temperatures deviate from that range. HDD relative to 10°C and CDD relative to 16°C were found to provide the strongest results. HDD and CDD measures near 10°C and 16°C, respectively, were also considered but found to be less predictive of monthly consumption.

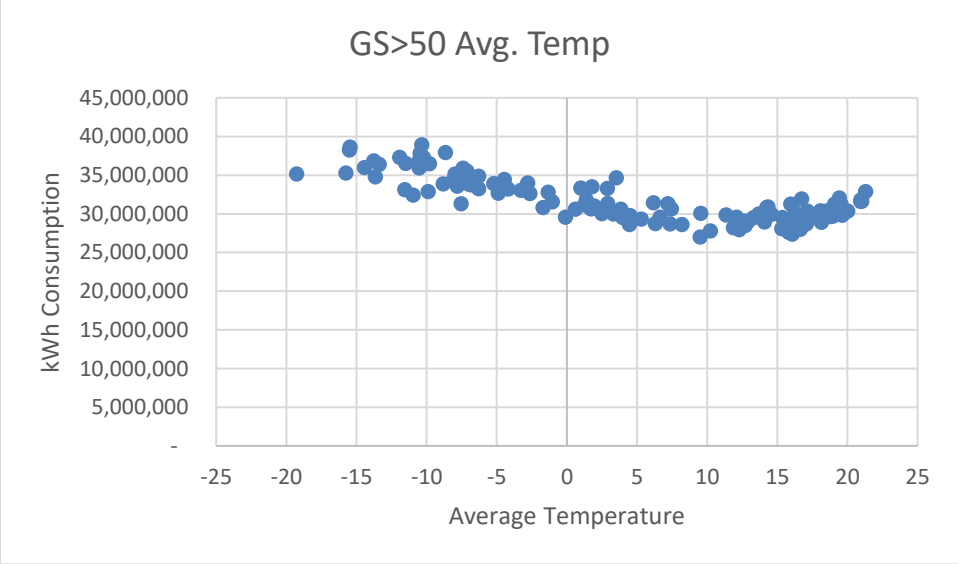

Figure 5 GS>50 kWh and Average Temperature

A time trend variable, beginning at 1 in January 2009 and ending at 120 in December 2018, and the number of days in the month were included in the GS>50 kW OLS regression.

Economic variables were tested but found not to have a statistically significant relationship with class consumption. This includes employment data for Greater Sudbury, Ontario's Northeast Economic Region, and Ontario (both seasonally adjusted and unadjusted) and GDP data for Ontario as a whole and mining-related GDP.

The customer count and binary calendar variables representing seasons and months were tested but found to not have a statistically significant relationship to energy use.

The following table outlines the resulting regression model:

Model 49: OLS, using observations 2009:01-2018:12 (T = 120)
Dependent variable: GS_gt_50_NoCDM

	coefficient	std. error	t-ratio	p-value
const	16969361	4041943	4.198317832	5.33E-05
Trend	-14774.1	3068.77	-4.814334726	4.53E-06
HDD10	11741.44	511.1349	22.97132001	8.77E-45
CDD16	19845.49	3301.758	6.010584756	2.23E-08
MonthDays	400878.8	132639.7	3.022313265	3.09E-03

Mean dependent var	31733866	S.D. dependent var	2902402.857
Sum squared resid	1.56E+14	S.E. of regression	1163482.586
R-squared	0.844706	Adjusted R-squared	0.839304251
F(4, 115)	156.3825	P-value(F)	1.54E-45
Log-likelihood	-1843.75	Akaike criterion	3.70E+03
Schwarz criterion	3711.438	Hannan-Quinn	3.70E+03
rho	-0.03221	Durbin-Watson	1.98703037

Table 10 GS > 50 Regression Model

Using the above model coefficients we derive the following:

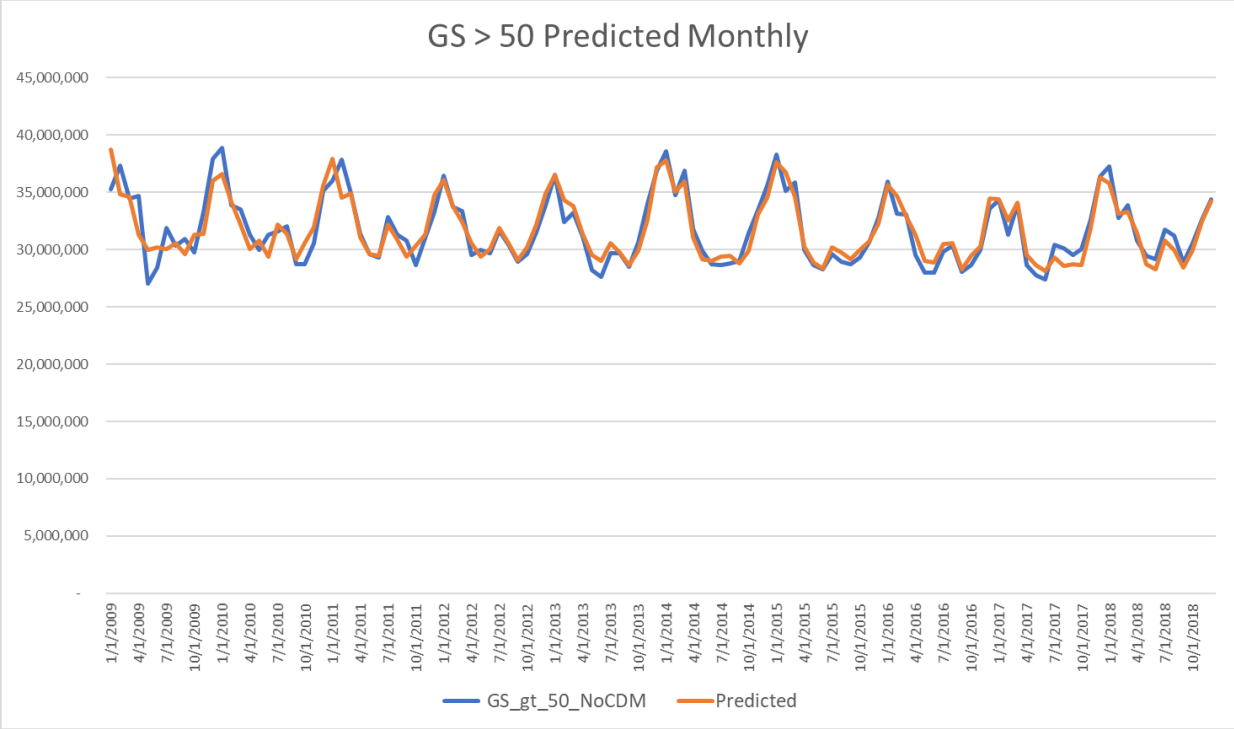

Figure 6 GS > 50 Predicted vs Actual observations

Annual estimates using actual weather are compared to actual values in the table below. Mean absolute percentage error (MAPE) for annual estimates for the period is 0.9%. The MAPE calculated monthly over the period is 2.8%.

	GS>50 kWh		Absolute
	CDM Added Back	Predicted	Error (%)
2009	391,347,021	388,484,958	0.7%
2010	385,576,979	383,984,973	0.4%
2011	386,806,739	386,398,931	0.1%
2012	378,666,681	381,017,100	0.6%
2013	378,510,613	383,205,447	1.2%
2014	387,543,472	383,260,825	1.1%
2015	376,242,692	378,631,073	0.6%
2016	368,181,419	375,843,267	2.1%
2017	372,548,417	370,800,901	0.5%
2018	382,639,943	376,436,499	1.6%
Mean Absolute Percentage Error (Annual)			0.9%
Mean Absolute Percentage Error (Monthly)			2.8%

Table 11 GS > 50 model error

3 WEATHER NORMALIZATION AND ECONOMIC FORECAST

It is not possible to accurately forecast weather for months or years in advance. Therefore, future weather expectations can be based only on what has happened in the past. Individual years may experience unusual spells of weather (unusually cold winter, unusually warm summer, etc.). However, over time, these unusual spells "average" out. While there may be trends over several years (e.g., warmer winters for example), using several years of data rather than one particular year filters out the extremes of any particular year. While there are several different approaches to determining an appropriate weather normal, Greater Sudbury has adopted the most recent 10-year monthly degree day average as the definition of weather normal, consistent with many LDCs load forecast filings for cost-of-service rebasing applications. It is Elenchus' opinion that the 10-year average HDD and CDD are more appropriate weather figures for the purposes of short-term load forecasts. The 20-year trend figures tend to be over reliant on the first and last year values, which can sometimes lead to negative values for HDD and CDD, and are typically more volatile from year to year than 10-year average values.

3.1 10-YEAR AVERAGE

The table below displays the most recent 10-year average of heating degree days and cooling degree days for a number of temperature thresholds based on temperatures reported by Environment Canada for Sudbury Airport, which is used as the weather station for Greater Sudbury.

	8°C	10°C		12°C		14°C		16°C		18°C		20°C
	HDD	**HDD**	CDD	**HDD**	CDD	HDD	CDD	HDD	**CDD**	HDD	**CDD**	CDD
January	629	**691**	0	**753**	0	815	0	877	**0**	939	**0**	0
February	533	**590**	0	**646**	0	702	0	759	**0**	815	**0**	0
March	392	**453**	2	**514**	1	576	1	637	**0**	699	**0**	0
April	172	**226**	5	**283**	2	342	1	401	**0**	462	**0**	0
May	17	**36**	102	**63**	67	98	41	141	**21**	191	**9**	3
June	0	**1**	195	**5**	139	16	90	35	**49**	68	**22**	9
July	0	**0**	289	**0**	227	1	166	8	**111**	23	**64**	30
August	0	**0**	256	**1**	195	5	136	15	**84**	37	**44**	18
September	5	**15**	136	**33**	93	59	60	94	**34**	135	**16**	6
October	88	**132**	24	**181**	12	236	5	294	**1**	356	**0**	0
November	260	**319**	0	**379**	0	439	0	499	**0**	559	**0**	0
December	501	**563**	0	**625**	0	687	0	749	**0**	811	**0**	0

Table 12 - 10 Year Average HDD and CDD

HDD based on 10°C and 12°C and CDD based on 16°C and 18°C are used in this forecast.

3.2 20-YEAR TREND

As part of the minimum filing requirements the OEB has requested monthly degree days calculated using a trend based on 20 years. This is shown in the table below.

	8°C	10°C		12°C		14°C		16°C		18°C		20°C
	HDD	HDD	CDD	HDD	CDD	HDD	CDD	HDD	CDD	HDD	CDD	CDD
January	602	664	0	726	0	788	0	850	0	912	0	0
February	562	619	0	675	0	731	0	788	0	844	0	0
March	425	486	2	547	1	608	1	670	0	732	0	0
April	204	259	4	316	2	375	0	434	-0	495	0	0
May	18	38	106	64	70	98	43	140	23	191	11	4
June	0	1	193	4	137	14	86	30	43	63	16	5
July	0	0	292	-0	230	1	168	7	112	20	64	29
August	0	0	259	1	198	4	139	12	85	33	44	17
September	4	13	144	30	101	55	66	87	39	127	18	7
October	86	127	29	174	14	227	6	284	1	345	-0	-0
November	292	351	1	411	0	471	0	531	0	591	0	0
December	511	573	0	635	0	697	0	759	0	821	0	0

Table 13 - 20 Year Trend HDD and CDD

Normalized and forecast results for the weather-sensitive rate classes were reproduced using 20-year trend HDD and CDD values. The summarized results are presented below.

Normal Forecast

kWh	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Normaliz	2019 Forecast	2020 Forecast
Residential	401,059,652	378,767,131	363,718,803	354,425,141	375,861,349	361,749,904	367,576,516	364,793,840
GS < 50	144,307,855	138,792,580	135,472,797	132,427,313	138,106,022	134,971,413	136,063,989	136,936,018
GS > 50	378,009,413	362,799,633	350,224,516	352,367,387	360,554,580	350,334,778	348,782,431	348,376,057
Street Light	7,654,363	7,541,644	7,520,842	7,471,833	7,471,085	7,471,085	7,391,715	7,342,584
Sentinel Light	438,854	428,604	426,193	412,948	403,671	403,671	396,354	389,166
USL	1,346,883	1,276,038	1,219,818	1,179,515	1,134,622	1,134,622	1,106,746	1,081,447
Total	932,817,019	889,605,630	858,582,969	848,284,136	883,531,330	856,065,473	861,317,752	858,919,112

Table 14 kWh forecast by class – 20-year trend

Weather-normalized 2018 and forecast 2019 figures in Table 14 and Table 16 use 2018 and 2019-specific HDD and CDD trend values, not the 2020 trend values provided in Table 13.

CDM Adjusted

kWh	2020 Weather Normal Forecast	CDM Adjustment	2020 CDM Adjusted Forecast
Residential	364,793,840	853,358	363,940,482
GS < 50	136,936,018	2,024,086	134,911,932
GS > 50	348,376,057	3,875,781	344,500,275
Street Light	7,342,584	0	7,342,584
Sentinel Light	389,166	0	389,166
USL	1,081,447	0	1,081,447
Total	858,919,112	6,753,225	852,165,887

Table 15 CDM Adjusted kWh forecast– 20-year trend

Normal Forecast

kW	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Normaliz	2019 Forecast	2020 Forecast
GS > 50	936,619	910,216	894,192	882,488	887,145	874,226	870,353	869,339
Street Light	21,396	21,075	20,946	20,884	20,878	20,870	20,648	20,511
Sentinel Light	1,212	1,182	1,078	1,137	1,111	1,102	1,082	1,062
Total	959,227	932,473	916,216	904,510	909,134	896,198	892,082	890,911

Table 16 kW Forecast– 20-year trend

CDM Adjusted

kW	2020 Weather Normal Forecast	CDM Adjustment	2020 CDM Adjusted Forecast
GS > 50	869,339	9,672	859,667
Street Light	20,511	0	20,511
Sentinel Light	1,062	0	1,062
Total	890,911	9,672	881,240

Table 17 CDM Adjusted kW Forecast– 20-year trend

3.3 ECONOMIC FORECAST

GDP and employment forecasts are based on the mean forecasts of five major Canadian banks, RBC, TD, Scotiabank, BMO, and CIBC as of July 30, 2019. Average forecast rates are applied to the most recent GDP and Labour Force Survey monthly data available.

Report Date	BMO 13-May-2019	TD 17-Jun-2019	Scotiabank 7-Jun-2019	RBC 7-Jun-2019	CIBC 8-Jul-2019	Average
FTE (Employment growth % YoY)						
2019	2.40%	2.60%	2.40%	2.20%	2.60%	2.44%
2020	1.80%	0.80%	1.20%	0.70%	0.70%	1.04%
GDP (Real % YoY)						
2019	1.60%	1.30%	1.60%	1.90%	1.70%	1.62%
2020	1.70%	1.40%	1.70%	1.60%	1.30%	1.54%

Table 18 Economic Forecasts

For example, the 2019 forecast FTE growth rate, 2.44%, is applied to the number of January 2018 FTEs to forecast the number of FTEs in January 2019. The January 2020 FTE forecast is then determined by applying 1.04%, the 2020 FTE forecast growth rate, to the January 2019 forecast.

4 CLASS SPECIFIC NORMALIZED FORECASTS

4.1 RESIDENTIAL

Incorporating the forecast economic variables, 10-yr weather normal heating and cooling degree days, and calendar variables, the following weather corrected consumption and forecast values are calculated:

Residential kWh

Year	Actual A	Cumulative Persisting CDM B	Actual No CDM C = A + B	Normalized No CDM D	Cumulative Persisting CDM E = B	Normalized F = D - E
2009	412,129,188	527,699	412,656,888	411,794,547	527,699	411,266,847
2010	394,465,898	1,456,567	395,922,465	407,890,678	1,456,567	406,434,111
2011	397,644,877	2,560,777	400,205,654	408,045,348	2,560,777	405,484,572
2012	386,121,712	3,749,037	389,870,750	401,361,285	3,749,037	397,612,248
2013	401,699,412	4,847,042	406,546,454	399,875,183	4,847,042	395,028,141
2014	401,059,652	7,309,198	408,368,850	393,408,723	7,309,198	386,099,524
2015	378,767,131	9,204,265	387,971,396	385,395,956	9,204,265	376,191,690
2016	363,718,803	12,905,489	376,624,292	381,702,959	12,905,489	368,797,470
2017	354,425,141	18,573,664	372,998,805	380,268,043	18,573,664	361,694,379
2018	375,861,349	21,174,862	397,036,211	380,072,668	21,174,862	358,897,806
2019				385,316,464	20,592,046	364,724,418
2020				381,885,859	19,944,116	361,941,743

Table 19 Actual vs Normalized Residential kWh

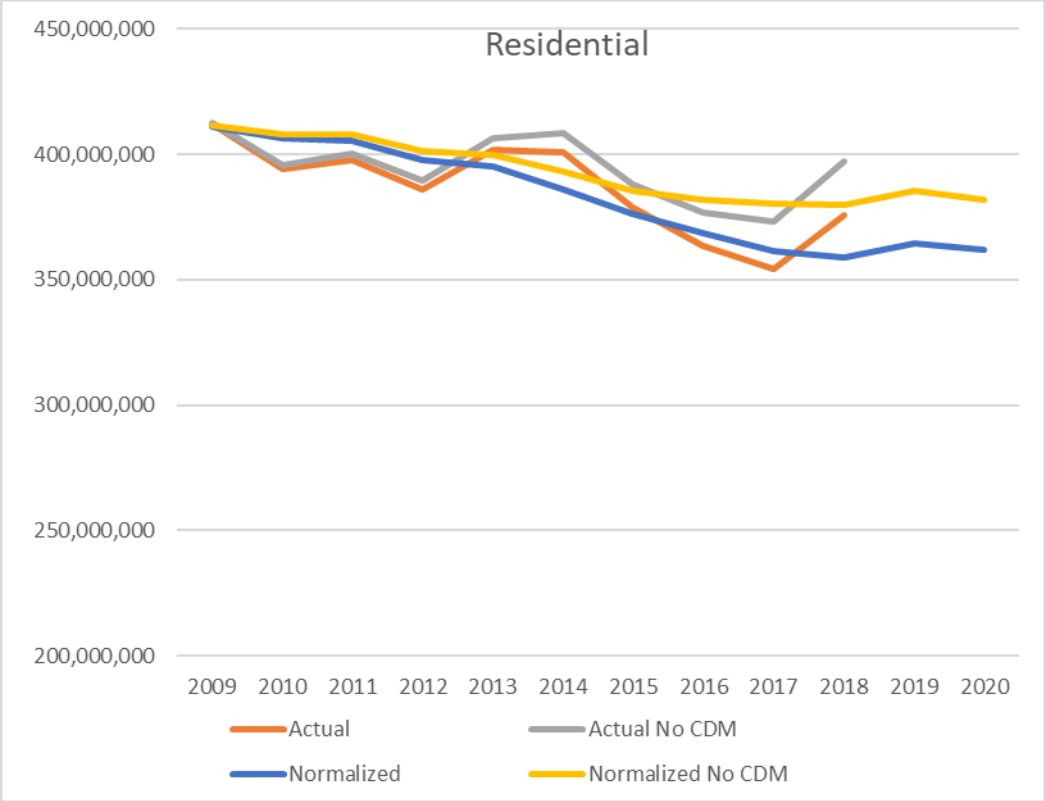

Figure 7 Actual vs Normalized Residential kWh

Note that the vertical intercept does not begin at 0 in any figure in this section. While Residential customer counts are not a component of the regression model, they are forecasted for the purpose of rate setting. The Geometric mean of the annual growth from 2009 to 2018 was used to forecast the growth rate from 2019 to 2020.

Year	Residential Customers	Percent of Prior Year
2009	41,926	
2010	42,068	100.34%
2011	42,279	100.50%
2012	42,365	100.20%
2013	42,526	100.38%
2014	42,636	100.26%
2015	42,712	100.18%
2016	42,797	100.20%
2017	42,818	100.05%
2018	42,890	100.17%
2019	42,998	100.25%
2020	43,107	100.25%

Table 20 Forecasted Residential Customer Count

4.2 GS < 50

Incorporating the forecast economic variables, 10-yr weather normal heating and cooling degree days, and calendar variables, the following weather corrected consumption and forecast values are calculated:

GS < 50 kWh

Year	Actual A	Cumulative Persisting CDM B	Actual No CDM C = A + B	Normalized No CDM D	Cumulative Persisting CDM E = B	Normalized F = D - E
2009	143,769,626	574,451	144,344,077	146,472,380	574,451	145,897,929
2010	142,203,409	1,314,341	143,517,749	146,211,263	1,314,341	144,896,922
2011	143,218,155	2,070,416	145,288,571	146,722,964	2,070,416	144,652,548
2012	141,313,724	3,449,015	144,762,739	145,656,842	3,449,015	142,207,827
2013	144,032,205	4,940,430	148,972,634	146,243,965	4,940,430	141,303,535
2014	144,307,855	6,077,121	150,384,977	145,485,651	6,077,121	139,408,530
2015	138,792,580	6,689,822	145,482,402	144,954,318	6,689,822	138,264,497
2016	135,472,797	7,511,646	142,984,443	144,109,774	7,511,646	136,598,128
2017	132,427,313	7,117,350	139,544,664	142,972,919	7,117,350	135,855,568
2018	138,106,022	7,926,618	146,032,640	142,317,287	7,926,618	134,390,668
2019				143,083,767	7,600,522	135,483,244
2020				143,522,985	7,167,712	136,355,273

Table 21 Actual vs Normalized GS < 50 kWh

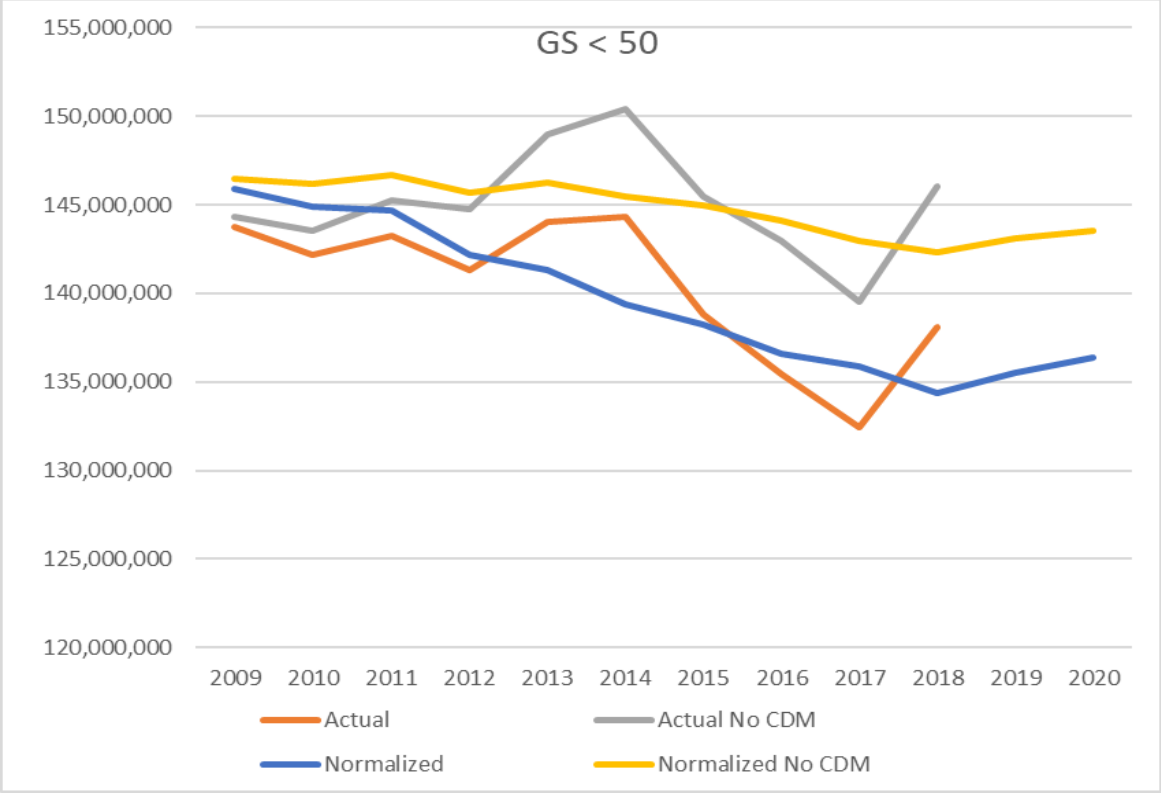

Figure 8 Actual vs Normalized GS < 50 kWh

While GS < 50 customer counts are not a component of the regression model, they are forecasted for the purpose of rate setting. The Geometric mean of the annual growth from 2009 to 2018 was used to forecast the growth rate from 2019 to 2020.

The following table includes the customer Actual / Forecast customer count on this basis:

	GS < 50	
Year	Customers	Percent of Prior Year
2009	3,911	
2010	3,920	100.23%
2011	3,940	100.51%
2012	3,920	99.50%
2013	3,954	100.85%
2014	3,989	100.88%
2015	4,015	100.66%
2016	4,051	100.89%
2017	4,071	100.50%
2018	4,132	101.49%
2019	4,157	100.61%
2020	4,182	100.61%

Table 22 Forecasted GS < 50 Customer Count

4.3 GS > 50

Incorporating the forecast economic variables, 10-yr weather normal heating and cooling degree days, and calendar variables, the following weather corrected consumption and forecast values are calculated:

	GS < 50 kWh					
Year	Actual A	Cumulative Persisting CDM B	Actual No CDM C = A + B	Normalized No CDM D	Cumulative Persisting CDM E = B	Normalized F = D - E
2009	389,924,101	1,422,920	391,347,021	390,299,829	1,422,920	388,876,909
2010	382,334,753	3,242,226	385,576,979	388,172,361	3,242,226	384,930,135
2011	382,967,078	3,839,660	386,806,739	386,044,892	3,839,660	382,205,232
2012	373,916,819	4,749,862	378,666,681	384,318,303	4,749,862	379,568,441
2013	371,933,646	6,576,966	378,510,613	381,789,956	6,576,966	375,212,989
2014	378,009,413	9,534,059	387,543,472	379,662,488	9,534,059	370,128,428
2015	362,799,633	13,443,058	376,242,692	377,535,019	13,443,058	364,091,961
2016	350,224,516	17,956,903	368,181,419	375,808,430	17,956,903	357,851,527
2017	352,367,387	20,181,031	372,548,417	373,280,083	20,181,031	353,099,052
2018	360,554,580	22,085,363	382,639,943	371,152,615	22,085,363	349,067,251
2019				369,025,146	21,510,242	347,514,904
2020				367,298,557	20,190,027	347,108,530

Table 23 Actual vs Normalized GS > 50 kWh

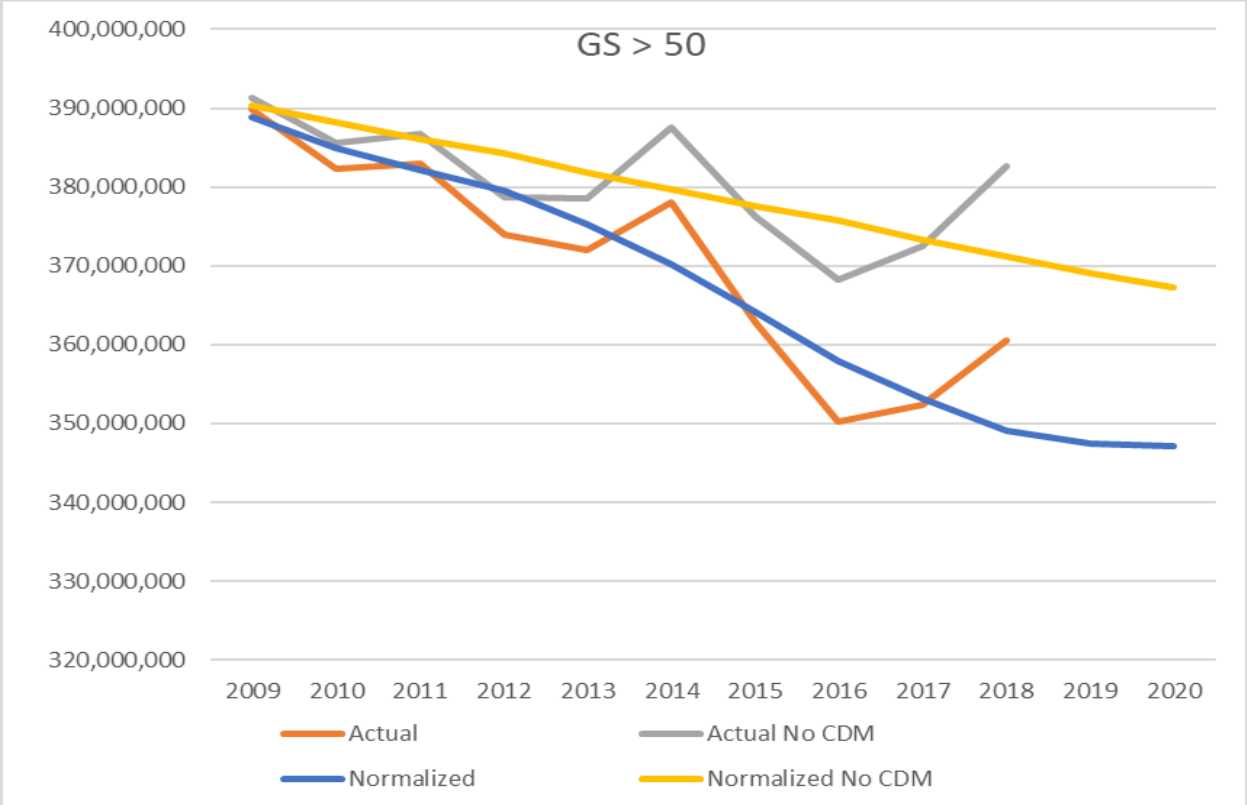

Figure 9 Actual vs Normalized GS > 50 kWh

While GS > 50 customer counts are not a component of the regression model, they are forecasted for the purpose of rate setting. The Geometric mean of the annual growth from 2009 to 2018 was used to forecast the growth rate from 2019 to 2020.

The following table includes the customer Actual / Forecast customer count on this basis:

Year	GS > 50 Customers	Percent of Prior Year
2009	512	
2010	524	102.34%
2011	529	100.95%
2012	533	100.76%
2013	513	96.25%
2014	508	99.03%
2015	517	101.67%
2016	508	98.26%
2017	508	100.15%
2018	496	97.49%
2019	494	99.64%
2020	492	99.64%

Table 24 Forecasted GS > 50 Customer Count

In order to normalize and forecast class kW for those classes that bill based on kW (demand) billing determinants, the relationship between billed kW and kWh is used. The trend of the 3-year moving average of the kW/kWh ratio from 2009-2018 was analysed as Elenchus has found trends kW/kWh ratios for certain classes of other LDCs. There is no trend in this ratio for the GS>50 kW class so a simple average of ratios from 2009 to 2018 is used.

	GS > 50			
	kWh	kW	Ratio	3-yr MA
	A	B	C = B / A	D
2009	389,924,101	967,553	0.002481	
2010	382,334,753	965,342	0.002525	
2011	382,967,078	957,195	0.002499	0.002502
2012	373,916,819	913,518	0.002443	0.002489
2013	371,933,646	930,008	0.002500	0.002481
2014	378,009,413	936,619	0.002478	0.002474
2015	362,799,633	910,216	0.002509	0.002496
2016	350,224,516	894,192	0.002553	0.002513
2017	352,367,387	882,488	0.002504	0.002522
2018	360,554,580	887,145	0.002461	0.002506

	kWh Normalized	kW Normalized	Average Trend
	E	F = E * G	G
2018	349,067,251	871,063	0.002495
2019	347,514,904	867,190	0.002495
2020	347,108,530	866,176	0.002495

Table 25 Forecasted GS > 50 kW

5 STREET LIGHT, SENTINEL AND USL FORECAST

The Street Lighting, Sentinel, and Unmetered Scattered Load Classes are non-weather sensitive classes. Connection counts are forecasted on the geometric mean growth rate from 2009 to 2018. Energy for these classes are forecasted on the basis of average energy per connection or the trend of average energy per connection.

5.1 STREET LIGHT

The table below summarizes the historic and forecast annual energy consumption for the Street Light class. Greater Sudbury has had a gradual phase-in of LED lights over a number of years, which is not reflected in persisting CDM data. There has been a clear decline in consumption per luminaire since 2010, particularly between 2012 and 2013 which saw a 9% reduction in consumption per device, and an average reduction of 1.2% per year since 2013. This 2013-2018 trend is forecast to continue to 2020.

Street Light								
Year	Actual	Persisting CDM	Actual No CDM	Lamps	Avg. / Lamp	Normalized No CDM	Persisting CDM	Normalized
	A	B	C = A + B	D	E = C / D	F = C * E	G = B	H = F - G
2009	8,601,957	0	8,601,957	9,513	904	8,601,957	0	8,601,957
2010	8,626,792	0	8,626,792	9,513	907	8,626,792	0	8,626,792
2011	8,647,174	0	8,647,174	9,566	904	8,647,174	0	8,647,174
2012	8,579,757	0	8,579,757	9,608	893	8,579,757	0	8,579,757
2013	7,862,676	0	7,862,676	9,690	***811***	7,862,676	0	7,862,676
2014	7,654,363	38,230	7,692,592	9,736	***790***	7,692,592	38,230	7,654,363
2015	7,541,644	76,418	7,618,062	9,753	***781***	7,618,062	76,418	7,541,644
2016	7,520,842	76,418	7,597,260	9,748	***779***	7,597,260	76,418	7,520,842
2017	7,471,833	76,289	7,548,121	9,786	***771***	7,548,121	76,289	7,471,833
2018	7,471,085	76,289	7,547,374	9,862	***765***	7,547,374	76,289	7,471,085
2019				9,901	***754***	7,468,004	76,289	7,391,715
2020				9,941	***746***	7,415,929	73,344	7,342,584

Table 26 Street Light Consumption Forecast

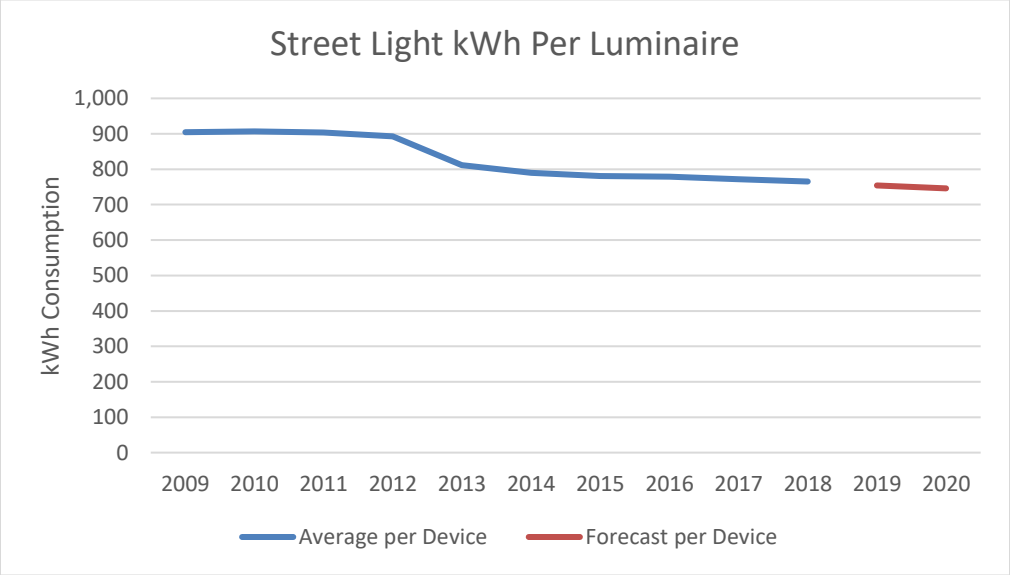

Figure 10 Street Light kWh per Luminaire

This declining consumption is somewhat offset by an increasing connection count, as reflected in column D of Table 26 and detailed in the following table.

Street Light Year	Lamps / Devices	Percent of Prior Year
2009	9,513	
2010	9,513	100.00%
2011	9,566	100.56%
2012	9,608	100.43%
2013	9,690	100.85%
2014	9,736	100.48%
2015	9,753	100.18%
2016	9,748	99.94%
2017	9,786	100.39%
2018	9,862	100.78%
2019	9,901	100.40%
2020	9,941	100.40%

Table 27 Forecasted Street Light Device Count

There has been no trend in the kW/kWh ratio so the average of the ratios from 2009 to 2018 is applied to normalized consumption to forecast kW demand.

	Street Lights			
	kWh	kW	Ratio	3-yr MA
	A	B	C = B / A	D
2009	8,601,957	24,038	0.002794	
2010	8,626,792	24,111	0.002795	
2011	8,647,174	24,155	0.002793	0.002794
2012	8,579,757	23,956	0.002792	0.002793
2013	7,862,676	21,973	0.002795	0.002793
2014	7,654,363	21,396	0.002795	0.002794
2015	7,541,644	21,075	0.002794	0.002795
2016	7,520,842	20,946	0.002785	0.002792
2017	7,471,833	20,884	0.002795	0.002792
2018	7,471,085	20,878	0.002794	0.002792

	kWh Normalized	kW Normalized	Average Trend
	E	F = E * G	G
2018	7,471,085	20,870	0.002793
2019	7,391,715	20,648	0.002793
2020	7,342,584	20,511	0.002793

Table 28 Forecasted Street Light kW

5.2 SENTINEL LIGHT

The following table summarizes the historic and forecast annual energy consumption for the Sentinel Light class.

					Sentinel			
Year	Actual A	Persisting CDM B	Actual No CDM C = A + B	Lamps / Devices D	Average / Device E = C / D	Normalized No CDM F = C * E	Persisting CDM G = B	Normalized H = F - G
2009	523,175	0	523,175	436	1,200	523,175	0	523,175
2010	476,532	0	476,532	436	1,093	476,532	0	476,532
2011	467,079	0	467,079	436	1,071	467,079	0	467,079
2012	457,021	0	457,021	428	1,068	457,021	0	457,021
2013	444,394	0	444,394	420	1,059	444,394	0	444,394
2014	438,854	0	438,854	410	1,070	438,854	0	438,854
2015	428,604	0	428,604	398	1,078	428,604	0	428,604
2016	426,193	5,675	431,868	392	1,101	431,868	5,675	426,193
2017	412,948	11,351	424,298	378	1,124	424,298	11,351	412,948
2018	403,671	11,353	415,024	372	1,117	415,024	11,353	403,671
2019				365	1,117	407,707	11,353	396,354
2020				359	1,117	400,519	11,353	389,166

Table 29 Sentinel Light Consumption Forecast

Unlike the Street Light class, there is no clear trend in consumption per device. Consumption per device decreased from 2009 to 2013, increased from 2013 to 2017, and decreased again in 2018. Consumption per device in 2018 is used as the forecast consumption per device in 2019 and 2020.

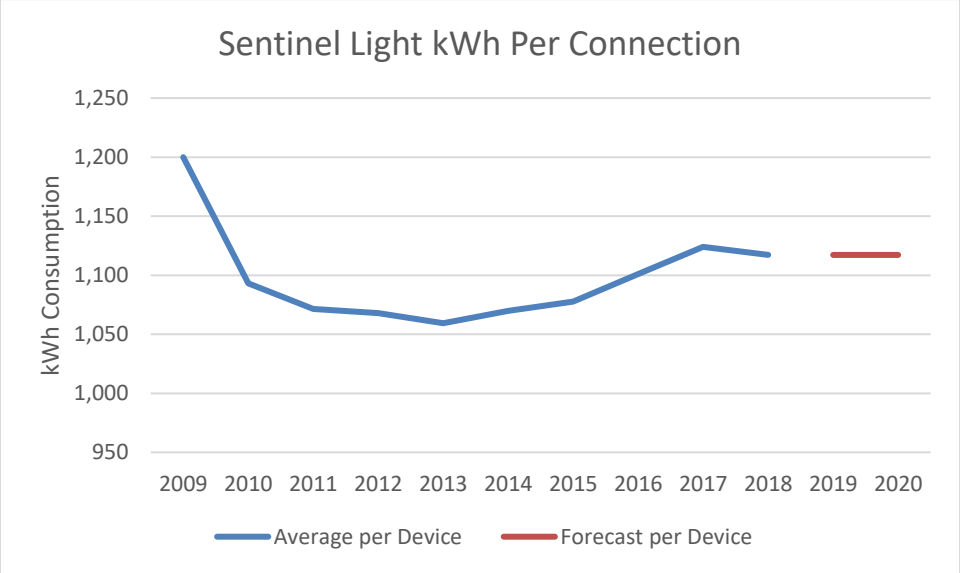

Figure 11 Sentinel Light kWh per Luminaire

There has been a decline in the number of Greater Sudbury's Sentinel customers and this trend is expected to continue to 2020.

Sentinel Light Year	Connections	Percent of Prior Year
2009	436	
2010	436	100.00%
2011	436	100.00%
2012	428	98.17%
2013	420	98.01%
2014	410	97.79%
2015	398	96.95%
2016	392	98.62%
2017	378	96.24%
2018	372	98.41%
2019	365	98.24%
2020	359	98.24%

Table 30 Forecasted Sentinel connections

The Sentinel Light class' kW/kWh ratio changed materially from 2009 to 2011 but has remained fairly consistent since 2011. A simple average of the 2011 to 2018 kW/kWh ratios is applied to normalized kWh consumption to determine the 2020 kW forecast.

	Sentinel Lights kWh A	kW B	Ratio C = B / A	3-yr MA D
2009	523,175	1,255	0.002399	
2010	476,532	1,153	0.002420	
2011	467,079	1,287	***0.002755***	0.002525
2012	457,021	1,261	***0.002759***	0.002645
2013	444,394	1,227	***0.002761***	0.002759
2014	438,854	1,212	***0.002762***	0.002761
2015	428,604	1,182	***0.002758***	0.002760
2016	426,193	1,078	***0.002529***	0.002683
2017	412,948	1,137	***0.002754***	0.002680
2018	403,671	1,111	***0.002752***	0.002678

	kWh Normalized E	kW Normalized F = E * G	Average Trend G
2018	403,671	1,102	0.002729
2019	396,354	1,082	0.002729
2020	389,166	1,062	0.002729

Table 31 Forecasted Sentinel Light kW

5.3 USL

The following table summarizes historic and forecast annual energy consumption for Greater Sudbury's USL class.

Year	Actual A	USL Connections B	Average / Customer C = A / B	Normal Forecast D = C * B
2009	2,252,111	338	6,663	2,252,111
2010	2,285,597	338	6,762	2,285,597
2011	2,310,407	352	6,564	2,310,407
2012	1,564,449	350	4,470	1,564,449
2013	1,424,754	346	4,121	1,424,754
2014	1,346,883	332	4,054	1,346,883
2015	1,276,038	322	***3,966***	1,276,038
2016	1,219,818	311	***3,922***	1,219,818
2017	1,179,515	303	***3,899***	1,179,515
2018	1,134,622	292	***3,886***	1,134,622
2019		287	3,852	1,106,746
2020		283	3,826	1,081,447

Table 32 USL Consumption Forecast

Total consumption and consumption per connection have decreased significantly since 2009. Most of this decrease occurred between 2009 and 2012 and the rate of decline has since been decelerating. The average use per customer forecast is based on a continuation of the trend from 2015 to 2018 to reflect only the current rate of decline.

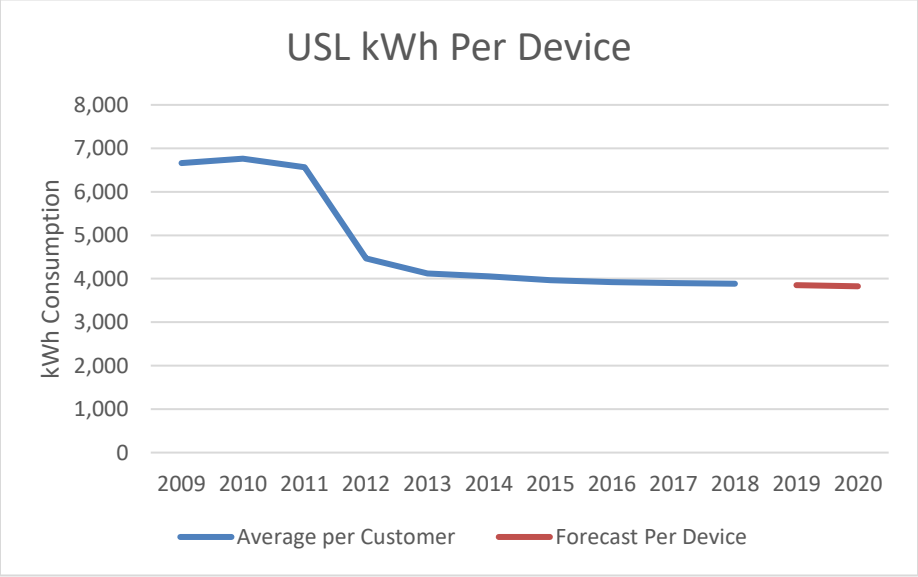

Figure 12 USL kWh per Device

The number of USL customers has declined materially over that past 10 years and this trend is forecast to continue to 2020.

USL Year	Connections	Percent of Prior Year
2009	338	
2010	338	100.00%
2011	352	104.14%
2012	350	99.43%
2013	346	98.79%
2014	332	96.10%
2015	322	96.84%
2016	311	96.66%
2017	303	97.27%
2018	292	96.53%
2019	287	98.39%
2020	283	98.39%

Table 33 Forecasted USL Connections

6 CDM Adjustment to Load Forecast

The Chapter 2 OEB Minimum Filing requirements were amended to reflect the cancellation of the Conservation First Framework. As a result, the IESO did not provide a final report of 2018 savings and 2019-2020 forecast savings are limited to projects for which there is a contractual agreement by April 30, 2019.

CDM in 2018 is based on the IESO's last Participant and Cost Report. Forecast savings in 2019 and 2020 are based on a project list provided by Greater Sudbury of projects for which the utility has a contractual obligation to complete. Greater Sudbury contacted a number of customers and has removed any projects it considers unlikely to be completed. Savings from 2019 programs persisting to 2020 were calculated with persistence tables provided in the Reference Tables tab of the IESO's Cost and Participation Report. See the "2019-20 CDM" tab within the model for more detail.

It is recognized that the CDM programs in a year are not in effect for the full year, although persistence of previous year's programs will be. Therefore, the actual impact on the load forecast for the first year of the program should not be the full annualized amount. For this reason, the amount that will be used for the LRAMVA will be related to, but not necessarily equal to, the CDM adjustment for the load forecast.

The following is the proposed forecast of the CDM kWh load forecast adjustment and final proposed load forecast, based on a half-year of savings from 2018, a full year of savings

from 2019, and a half-year of savings from 2020. The CDM figures reflect savings from that year persisting to 2020, not all first-year savings.

2018-2020 Estimated and Forecasted Savings by Rate Class					
Rate Class	**2018 (50%)**	**2019**	**2020 (50%)**	**CDM Adjustment**	**LRAMVA Target**
Residential	853,358	-	-	853,358	1,706,716
GS < 50	445,599	1,253,557	324,929	2,024,086	2,794,615
GS > 50	959,792	1,539,914	1,376,074	3,875,781	6,211,648
TOTAL	**3,151,784**	**2,793,472**	**1,701,004**	**6,753,225**	**10,712,978**

Table 34 Proposed CDM and LRAMVA kWh Adjustments

The proposed forecast of the CDM kW load adjustment is only applicable to the GS > 50 class. The CDM adjustment is based on the percentage of kWh CDM as a share of the class' total kWh, as calculated in the following table.

2018-2020 kW Forecasted Savings by Rate Class								
Rate Class	2020 Forecast kWh			2020 Forecast kW		LRAMVA		
	Weather-Normal Forecast	**CDM**	**% Savings**	**Weather-Normal Forecast**	**CDM**	**LRAMVA kWh**	**% Savings**	**LRAMVA kW**
	A	**B**	**C = B / A**	**D**	**E = C * D**	**F**	**G = F / B**	**H = D * G**
GS > 50	347,108,530	3,875,781	1.1%	866,176	9,672	6,211,648	1.8%	15,501
TOTAL	347,108,530	3,875,781	1.1%	866,176	9,672	6,211,648		15,501

Table 35 Proposed CDM and LRAMVA kW Adjustments

Attachment 2 (of 2):

OEB Appendix 2-I

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Appendix 2-I
Load Forecast CDM Adjustment Work Form

Appendix 2-I was initially developed to help determine what would be the amount of CDM savings needed in each year to cumulatively achieve the four year 2011-2014 CDM target. This then determined the amount of kWh (and with translation, kW of demand) savings that were converted into dollar balances for the LRAMVA, and also to determine the related adjustment to the load forecast to account for OPA-reported savings. Beginning in the 2015 year, it was adjusted because the persistence of 2011-2014 CDM programs will be an adjustment to the load forecast in addition to the estimated savings for the first year (2015) for the new 2015-2020 CDM plan. This appendix has been updated for 2020 rate applications to acknowledge that in accordance with the Minister of Energy's March 20, 2019 Directive to the IESO, the Conservation First Framework (CFF) is no longer in effect. As distributors are no longer working towards the former 2015-2020 CDM targets, for 2019 and 2020 activity only CDM projects that are subject to a contractual agreement entered into between the distributor and a customer by April 30, 2019 under a former CFF program should be included in the proposed CDM manual adjustment to the load forecast. Distributors should provide relevant documentation to support the manual adjustments for 2019 and 2020 CDM projects, including the corresponding CFF program, project timelines and projected savings. For any savings from new projects that begin on or after May 1, 2019 that are under the IESO's interim framework (May 1, 2019 to December 31, 2020), distributors should not include these savings as part of the 2020 CDM manual adjustment.

2019-2020 CDM Activities

For the first year of the new 2015-2020 CDM plan, for simplicity it was assumed that each year's program will achieve an equal amount of new CDM savings. This resulted in each year's program being about 1/6 (or 16.67%) of the cumulative 2015-2020 CDM target for kWh savings. A distributor could have proposed an alternative approach but would have been expected to document in its application why it believes that its proposal is more reasonable.

For 2020 rate applications, distributors should ensure that the sum of the results for the 2015 to 2018 program years is consistent with the results provided by the IESO. For 2019 and 2020 program years, the projected CDM savings should not match the distributor's CDM Plan or its 2015-2020 CDM targets. Rather, for 2019 and 2020 CDM activity, distributors should only include the projected CDM savings from projects that are subject to contractual agreements between the distributor and customer made on or before April 30, 2019 under the former CFF.

Former CFF 6 Year (2015-2020) kWh Target*							
			37,762,709				
	2015	2016	2017	2018	2019	2020	Total
			%				
2015 CDM Programs						24.22%	26.96%
2016 CDM Programs						25.12%	27.97%
2017 CDM Programs						28.04%	28.04%
2018 CDM Programs						11.96%	11.96%
2019 CDM Programs						7.40%	7.40%
2020 CDM Programs						9.01%	9.01%
Total in Year						**105.75%**	**111.35%**
			kWh				
2015 CDM Programs	10,761,443	10,688,938	10,680,695	10,658,428	10,516,336	10,182,616	10,182,616.00
2016 CDM Programs		10,562,776	10,562,775	10,563,913	10,562,242	10,562,242	10,562,242.00
2017 CDM Programs			12,299,427	10,590,039	10,590,039	10,590,039	10,590,039.00
2018 CDM Programs				4,556,353	4,536,926	4,517,499	4,517,499.38
2019 CDM Programs					2,796,671	2,793,472	2,793,471.90
2020 CDM Programs						3,402,007	3,402,007.18
Total in Year	**10,761,443.00**	**21,251,714.00**	**33,542,897.00**	**36,368,732.80**	**39,002,214.46**	**42,047,875.47**	**37,762,708.60**
						Inputs do no match 2015-20 CDM target	

*This total will not equal the distributor's former CFF CDM target. Rather, for 2019 and 2020, the distributor should only include the projected savings from projects that are subject to contractual agreements made between the LDC and a customer on or before April 30, 2019 under the former CFF.

Note: The default formulae in the above table assume that the 2015-2020 kWh CDM target is achieved through persistence of CDM savings to the end of 2020. The distributor should enter measured CDM savings for 2015, 2016, 2017 and 2018, and the persistence of 2015, 2016, 2017 and 2018 programs for 2018-2020 in rows 34, 35, 36 and 37. Distributors should rely on the Participant and Cost monthly reports provided by the IESO for 2018 CDM savings which can be entered into row 37. The distributor should include only those projected CDM savings in 2019 and 2020 from projects that it has contractual obligations with a customer on or before April 30, 2019 under the former CFF.

Determination of 2020 Load Forecast Adjustment

The OEB determined that the "net" number should be used in its Decision and Order with respect to Centre Wellington Hydro Ltd.'s 2013 Cost of Service rates (EB-2012-0113). This approach has also been used in Settlement Agreements accepted by the OEB in other 2013 and 2014 applications. The distributor should select whether the adjustment is done on a "net" or "gross" basis, but must support a proposal for the adjustment being done on a "gross" basis. Sheet 2-I defaults to the adjustment being done on a "net" basis consistent with OEB policy and practice.

From each of the 2006-2010 CDM Final Report, and the 2011 to 2017 CDM Final Reports, issued by the OPA/IESO for the distributor, the distributor should input the "gross" and "net" results of the cumulative CDM savings for 2018 into cells C57 to C63 and D57 to D63. The model will calculate the cumulative savings for all programs from 2006 to 2016 and determine the "net" to "gross" factor "g".

Net-to-Gross Conversion

Is CDM adjustment being done on a "net" or "gross" basis? **net**

Persistence of Historical CDM programs to 2015	"Gross" kWh	"Net" kWh	Difference kWh	"Net-to-Gross" Conversion Factor ('g')
2006-2010 CDM programs	**14,505,198.34**	**8,601,643.18**	**5,903,555.16**	
2011 CDM program	**4,379,430.46**	**3,054,629.77**	**1,324,800.69**	
2012 CDM program	**4,186,315.24**	**3,571,606.28**	**614,708.96**	
2013 CDM program	**6,747,193.37**	**4,739,399.85**	**2,007,793.52**	
2014 CDM program	**11,823,008.18**	**9,426,938.69**	**2,396,069.49**	
2015 CDM program	**12,046,527.00**	**10,761,443.00**	**1,285,084.00**	
2016 CDM program	**10,241,554.00**	**10,562,776.00**	**-321,222.00**	
2017 CDM program	**11,449,672.00**	**12,299,427.00**	**-849,755.00**	
2018 CDM program*	**5,051,419.27**	**4,556,352.80**	**495,066.47**	
2006 to 2017 OPA CDM programs: Persistence to 2020.	80,430,317.86	67,574,216.57	12,856,101.29	0.00%

*For 2018 CDM programs distributors should rely on the results made available by the IESO in the Participant and Cost monthly reports

The default values below represent the factor used for how each year's CDM program is factored into the manual CDM adjustment. Distributors can choose alternative weights of "0", "0.5" or "1" from the drop-down menu for each cell, but must support its alternatives.

These factors do not mean that CDM programs are excluded, but the assumption that impacts of previous year CDM programs are already implicitly reflected in the actual data for historical years that are used to derive the load forecast prior to any manual CDM adjustment for the 2020 test year.

Weight Factor for Inclusion in CDM Adjustment to 2020 Load Forecast

	2015	2016	2017	2018*	2019**	2020**	
Weight Factor for each year's CDM program impact on 2020 load forecast	**0**	**0**	**0**	**0.5**	**1**	**0.5**	Distributor can select "0", "0.5", or "1" from drop-down list
Default Value selection rationale.	*Full year impact of 2015 CDM is assumed to be reflected in the base forecast, as the full year persistence of 2015 CDM programs is in the 2018 historical actual data. No further impact is necessary for the manual adjustment to the load forecast.*	*Full year impact of 2016 CDM is assumed to be reflected in the base forecast, as the full year persistence of 2016 CDM programs is in the 2018 historical actual data. No further impact is necessary for the manual adjustment to the load forecast.*	*Full year impact of 2017 CDM is assumed to be reflected in the base forecast, as the full year persistence of 2017 CDM programs is in the 2018 historical actual data. No further impact is necessary for the manual adjustment to the load forecast.*	*Default is 0.5, but one option is for full year impact of persistence of 2018 CDM programs on 2020 load forecast, but 50% impact in base forecast (first year impact of 2018 CDM programs on 2018 actuals, which is part of the data underlying the base load*	*Full year impact of persistence of 2019 programs on 2020 load forecast. 2019 CDM program impacts are not in the base forecast.*	*Only 50% of 2019 CDM programs are assumed to impact the 2020 load forecast based on the "half-year" rule.*	

* For 2018 CDM programs distributors should rely on the results made available by the IESO in the Participant and Cost monthly reports

** For 2019 and 2020 CDM program activity, the distributor should include only those projected CDM savings from projects that it has contractual obligations with a customer under the former CFF.

2015-2020 LRAMVA and 2020 CDM adjustment to Load Forecast

One manual adjustment for CDM impacts to the 2020 load forecast is made. There is a different but related threshold amount that is used for the 2020 LRAMVA amount for Account 1568.

The amount used for the CDM threshold of the LRAMVA is the kWh that will be used to determine the base amount for the LRAMVA balance for 2020. This allows for a comparison between projected CDM savings and actual CDM savings.

If used to determine the manual CDM adjustment for the system purchased kWh, the proposed loss factor should correspond with the proposed total loss factor calculated in Appendix 2-R .

The Manual Adjustment for the 2020 Load Forecast is the amount manually subtracted from the system-wide load forecast (either based on a purchased or billed basis) derived from the base forecast from historical data. If the distributor has developed their load forecast on a system purchased basis, then the manual adjustment should be on a system purchased basis, including the adjustment for losses. If the load forecast has been developed on a billed basis, either on a system basis or on a class-specific basis, the manual adjustment should be on a billed basis, excluding losses.

The distributor should determine the allocation of the savings to all customer classes in a reasonable manner (e.g. taking into account what programs and what IESO-measured impacts were directed at specific customer classes), for both the LRAMVA and for the load forecast adjustment.

	2015	2016	2017	2018	2019	2020	Total for 2020
Amount used for CDM threshold for LRAMVA (2020)	10,182,616.00	10,562,242.00	10,590,039.00	4,517,499.38	2,793,471.90	3,402,007.18	**42,047,875.47**

Manual Adjustment for 2020 Load Forecast (billed basis)	-	-	-	2,258,749.69	2,793,471.90	1,701,003.59	6,753,225.19
Manual Adjustment for 2020 LDC-only CDM programs (billed basis)							
Total Manual Forecast to Load Forecast	-	-	-	2,258,749.69	2,793,471.90	1,701,003.59	**6,753,225.19**
Proposed Loss Factor (TLF)	5.40%	Format: X.XX%					
Manual Adjustment for 2020 Load Forecast (system purchased basis)	-	-	-	2,380,722.17	2,944,319.39	1,792,857.79	**7,117,899.35**

Manual adjustment uses "gross" versus "net" (i.e. numbers multiplied by (1 + g). The Weight factor is also used to calculate the impact of each year's program on the CDM adjustment to the 2020

Exhibit 3: Operating Revenue

Tab 2 (of 3): Accuracy of Load Forecast and Variance Analysis

VARIANCE ANALYSIS OF LOAD FORECAST

Variance Analysis

Customer and Connection Count Variance Analysis

The 2013 Board Approved and 2013 to 2018 actual customer counts are detailed in Table 1. Customer counts are the average of quarterly customer counts throughout the year.

Table 1 – Approved and Actual Customer/Connection Counts

	2013 Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
Residential	42,512	42,526	42,636	42,712	42,797	42,818	42,890
GS < 50	4,061	3,954	3,989	4,015	4,051	4,071	4,132
GS > 50	531	513	508	517	508	508	496
Street Light	9,578	9,690	9,736	9,753	9,748	9,786	9,862
Sentinel Light	436	420	410	398	392	378	372
USL	345	346	332	322	311	303	292
Total	57,463	57,448	57,611	57,716	57,806	57,863	58,042

The following table (Table 2) shows the absolute and relative variances between 2013 approved and 2013 actual and annual year-over-year variances of customer/connection counts.

Table 2 - Customer/Connection Variances

	2013 Approved vs 2013 Actual		2013 Actual vs 2014 Actual		2014 Actual vs 2015 Actual	
	Difference	%	Difference	%	Difference	%
Residential	14	0.03%	110	0.26%	76	0.18%
GS < 50	(107)	-2.64%	35	0.88%	27	0.66%
GS > 50	(18)	-3.39%	(5)	-0.97%	9	1.67%
Street Light	112	1.16%	47	0.48%	17	0.18%
Sentinel Light	(17)	-3.78%	(9)	-2.21%	(13)	-3.05%
USL	1	0.22%	(14)	-3.90%	(11)	-3.16%
Total	(16)	-0.03%	163	0.28%	106	0.18%

	2015 Actual vs 2016 Actual		2016 Actual vs 2017 Actual		2017 Actual vs 2018 Actual	
	Difference	%	Difference	%	Difference	%
Residential	85	0.20%	21	0.05%	72	0.17%
GS < 50	36	0.89%	20	0.50%	61	1.49%
GS > 50	(9)	-1.74%	1	0.15%	(13)	-2.51%
Street Light	(6)	-0.06%	38	0.39%	76	0.78%
Sentinel Light	(6)	-1.38%	(15)	-3.76%	(6)	-1.59%
USL	(11)	-3.34%	(9)	-2.73%	(11)	-3.47%
Total	90	0.16%	57	0.10%	179	0.31%

Overall, the number of Residential and GS < 50 kW customers and Street Light connections have steadily increased since 2013. Sentinel Light and USL connections have gradually declined over this period and GS > 50 kW customers fluctuated from year to year but declined overall.

The variance between 2013 Approved and 2013 Actual customer counts is primarily due to lower-than-expected customer growth in 2012 for the General Services classes, partially offset by higher than expected Street Light connection growth in 2012 and 2013. Since the 2013 forecast is based on data up to 2011 the average growth rates until 2011 were applied to 2012 and 2013.

Load Forecast Variance Analysis

Consumption Variances

The following table (Table 3) details the 2013 approved forecast and actual consumption by class from 2013 to 2018.

Table 3 - Actual Consumption by Class

	2013 Approved kWh	2013 Actual kWh	2014 Actual kWh	2015 Actual kWh	2016 Actual kWh	2017 Actual kWh	2018 Actual kWh
Residential	402,126,214	401,699,412	401,059,652	378,767,131	363,718,803	354,425,141	375,861,349
GS < 50	142,890,815	144,032,205	144,307,855	138,792,580	135,472,797	132,427,313	138,106,022
GS > 50	388,576,753	371,933,646	378,009,413	362,799,633	350,224,516	352,367,387	360,554,580
Street Light	8,016,815	7,862,676	7,654,363	7,541,644	7,520,842	7,471,833	7,471,085
Sentinel Light	462,466	444,394	438,854	428,604	426,193	412,948	403,671
USL	1,443,337	1,424,754	1,346,883	1,276,038	1,219,818	1,179,515	1,134,622
Total	943,516,400	927,397,087	932,817,019	889,605,630	858,582,969	848,284,136	883,531,330

The following table (Table 4) shows the 2013 approved forecast, normalized consumption by class from 2013 to 2018, and forecast consumption in 2019 and 2020.

Table 4 – Normalized Consumption by Class

	2013 Approved kWh	2013 Normalized kWh	2014 Normalized kWh	2015 Normalized kWh
Residential	402,126,214	395,028,141	386,099,524	376,191,690
GS < 50	142,890,815	141,303,535	139,408,530	138,264,497
GS > 50	388,576,753	375,212,989	370,128,428	364,091,961
Street Light	8,016,815	7,862,676	7,654,363	7,541,644
Sentinel Light	462,466	444,394	438,854	428,604
USL	1,443,337	1,424,754	1,346,883	1,276,038
Total	943,516,400	921,276,490	905,076,581	887,794,434

	2016 Normalized kWh	2017 Normalized kWh	2018 Normalized kWh	2019 Forecast kWh	2020 Forecast kWh
Residential	368,797,470	361,694,379	358,044,448	363,871,060	361,088,385
GS < 50	136,598,128	135,855,568	133,945,069	133,784,087	134,331,187
GS > 50	357,851,527	353,099,052	348,107,459	345,015,198	343,232,749
Street Light	7,520,842	7,471,833	7,471,085	7,391,715	7,342,584
Sentinel Light	426,193	412,948	403,671	396,354	389,166
USL	1,219,818	1,179,515	1,134,622	1,106,746	1,081,447
Total	872,413,977	859,713,295	849,106,355	851,565,161	847,465,518

Table 5 details the absolute and relative variances between 2013 approved and 2013 actual consumption and the year-over-year changes from 2013 to 2018.

Table 5 - Actual Consumption Variances

	2013 Approved vs 2013 Actual		2013 Actual vs 2014 Actual		2014 Actual vs 2015 Actual	
	kWh	%	kWh	%	kWh	%
Residential	(426,802)	-0.11%	(639,761)	-0.16%	(22,292,521)	-5.56%
GS < 50	1,141,390	0.80%	275,651	0.19%	(5,515,275)	-3.82%
GS > 50	(16,643,107)	-4.28%	6,075,767	1.63%	(15,209,780)	-4.02%
Street Light	(154,139)	-1.92%	(208,314)	-2.65%	(112,719)	-1.47%
Sentinel Light	(18,072)	-3.91%	(5,540)	-1.25%	(10,249)	-2.34%
USL	(18,583)	-1.29%	(77,871)	-5.47%	(70,845)	-5.26%
Total	(16,119,313)	-1.71%	5,419,932	0.58%	(43,211,389)	-4.63%

	2015 Actual vs 2016 Actual		2016 Actual vs 2017 Actual		2017 Actual vs 2018 Actual	
	kWh	%	kWh	%	kWh	%
Residential	(15,048,328)	-3.97%	(9,293,662)	-2.56%	21,436,209	6.05%
GS < 50	(3,319,784)	-2.39%	(3,045,483)	-2.25%	5,678,709	4.29%
GS > 50	(12,575,117)	-3.47%	2,142,871	0.61%	8,187,193	2.32%
Street Light	(20,802)	-0.28%	(49,009)	-0.65%	(748)	-0.01%
Sentinel Light	(2,412)	-0.56%	(13,245)	-3.11%	(9,276)	-2.25%
USL	(56,219)	-4.41%	(40,303)	-3.30%	(44,893)	-3.81%
Total	(31,022,662)	-3.49%	(10,298,832)	-1.20%	35,247,193	4.16%

Table 6 details the absolute and relative variances between 2013 approved and 2013 normalized consumption, the year-over-year changes from normalized 2013 consumption to normalized 2018 consumption and year-over-year changes from 2018 normalized consumption to 2020 forecast consumption.

Table 6 - Normalized Consumption Variances

	2013 Approved vs 2013 Normalized		2013 Normalized vs 2014 Normalized		2014 Normalized vs 2015 Normalized		2015 Normalized vs 2016 Normalized	
	kWh	%	KWh	%	kWh	%	kWh	%
Residential	(7,098,073)	-1.77%	(8,928,617)	-2.26%	(9,907,834)	-2.57%	(7,394,220)	-1.97%
GS < 50	(1,587,280)	-1.11%	(1,895,006)	-1.34%	(1,144,033)	-0.82%	(1,666,369)	-1.21%
GS > 50	(13,363,764)	-3.44%	(5,084,561)	-1.36%	(6,036,467)	-1.63%	(6,240,434)	-1.71%
Street Light	(154,139)	-1.92%	(208,314)	-2.65%	(112,719)	-1.47%	(20,802)	-0.28%
Sentinel Light	(18,072)	-3.91%	(5,540)	-1.25%	(10,249)	-2.34%	(2,412)	-0.56%
USL	(18,583)	-1.29%	(77,871)	-5.47%	(70,845)	-5.26%	(56,219)	-4.41%
Total	(22,239,910)	-2.36%	(16,199,909)	-1.76%	(17,282,147)	-1.91%	(15,380,456)	-1.73%

	2016 Normalized vs 2017 Normalized		2017 Normalized vs 2018 Normalized		2018 Normalized vs 2019 Forecast		2019 Forecast vs 2020 Forecast	
	kWh	%	kWh	%	kWh	%	kWh	%
Residential	(7,103,091)	-1.93%	(3,649,931)	-1.01%	5,826,612	1.60%	(2,782,676)	-0.76%
GS < 50	(742,559)	-0.54%	(1,910,499)	-1.41%	(160,981)	-0.12%	547,099	0.41%
GS > 50	(4,752,475)	-1.33%	(4,991,593)	-1.41%	(3,092,261)	-0.90%	(1,782,448)	-0.52%
Street Light	(49,009)	-0.65%	(748)	-0.01%	(79,370)	-1.07%	(49,131)	-0.66%
Sentinel Light	(13,245)	-3.11%	(9,276)	-2.25%	(7,317)	-1.85%	(7,188)	-1.81%
USL	(40,303)	-3.30%	(44,893)	-3.81%	(27,876)	-2.52%	(25,299)	-2.29%
Total	(12,700,682)	-1.46%	(10,606,940)	-1.23%	2,458,807	0.29%	(4,099,643)	-0.48%

Tables 5 and 6 show that the Board-Approved 2013 forecast exceeded actual and normalized 2013 consumption for all classes except for actual GS < 50 consumption. Forecast consumption was likely above actual consumption because the 2013 forecast did not account for persisting CDM activities and consumption trends. CDM persistence is considered in the 2020 load forecast and the model for each class includes a negative trend variable to account for changing consumption trends over time.

The largest actual year-over-year consumption changes can be explained by weather. The significant variances, Residential, GS <50, and GS > 50 between 2014 and 2015, 2016 to 2017, and 2017 to 2018, are due to differences in weather. The normalized variances in Table 6 are significantly smaller than the actual variances in Table 5.

The material variances to Sentinel Lights and USL, two non-weather sensitive classes, are due to declining customer counts.

Consumption Per Customer Variances

The following table (Table 7) shows the 2013 approved forecast and actual consumption per customer by class from 2013 to 2018.

Table 7 – Actual Consumption Per Customer/Connection

	2013 Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
	kWh	kWh	kWh	kWh	kWh	kWh	kWh
Residential	9,459	9,446	9,407	8,868	8,499	8,277	8,763
GS < 50	35,186	36,427	36,176	34,569	33,442	32,529	33,424
GS > 50	731,783	725,017	744,113	701,740	689,418	693,637	726,925
Street Light	837	811	786	773	772	764	758
Sentinel Light	1,061	1,058	1,070	1,077	1,087	1,092	1,085
USL	4,184	4,118	4,057	3,963	3,922	3,893	3,886
Total	782,509	776,877	795,610	750,990	737,140	740,192	774,840

The following table (Table 8) shows the 2013 approved forecast consumption per customer, normalized consumption per customer by class from 2013 to 2018 and forecast consumption per customer in 2019 and 2020.

Table 8 - Normalized Consumption Per Customer/Connection

	2013 Approved	2013 Normalized	2014 Normalized	2015 Normalized
	kWh	kWh	kWh	kWh
Residential	9,459	9,289	9,056	8,808
GS < 50	35,186	35,737	34,948	34,437
GS > 50	731,783	731,409	728,599	704,240
Street Light	837	811	786	773
Sentinel Light	1,061	1,058	1,070	1,077
USL	4,184	4,118	4,057	3,963
Total	782,509	782,423	778,517	753,297

	2016 Normalized	2017 Normalized	2018 Normalized	2019 Forecast	2020 Forecast
	kWh	kWh	kWh	kWh	kWh
Residential	8,617	8,447	8,348	8,462	8,377
GS < 50	33,720	33,372	32,417	32,183	32,118
GS > 50	704,432	695,077	701,830	698,836	697,761
Street Light	772	764	758	747	739
Sentinel Light	1,087	1,092	1,085	1,086	1,085
USL	3,922	3,893	3,886	3,852	3,826
Total	752,550	742,644	748,322	745,166	743,905

Table 3.14 details the absolute and relative variances between 2013 approved and 2013 actual consumption per customer and the year-over-year changes in actual consumption per customer from 2013 to 2018.

Table 9 - Actual Consumption Per Customer Variances

	2013 Approved vs 2013 Actual		2013 Actual vs 2014 Actual		2014 Actual vs 2015 Actual	
	kWh	%	kWh	%	kWh	%
Residential	(13)	-0.14%	(39)	-0.42%	(539)	-5.73%
GS < 50	1,241	3.53%	(251)	-0.69%	(1,608)	-4.44%
GS > 50	(6,766)	-0.92%	19,096	2.63%	(42,373)	-5.69%
Street Light	(26)	-3.06%	(25)	-3.11%	(13)	-1.64%
Sentinel Light	(3)	-0.25%	12	1.16%	7	0.61%
USL	(66)	-1.57%	(61)	-1.48%	(94)	-2.32%
Total	(5,632)	-0.72%	18,732	2.41%	(44,620)	-5.61%

	2015 Actual vs 2016 Actual		2016 Actual vs 2017 Actual		2017 Actual vs 2018 Actual	
	kWh	%	kWh	%	kWh	%
Residential	(369)	-4.16%	(221)	-2.60%	486	5.87%
GS < 50	(1,127)	-3.26%	(912)	-2.73%	894	2.75%
GS > 50	(12,322)	-1.76%	4,218	0.61%	33,288	4.80%
Street Light	(2)	-0.22%	(8)	-1.04%	(6)	-0.78%
Sentinel Light	10	0.96%	5	0.48%	(7)	-0.67%
USL	(41)	-1.02%	(29)	-0.75%	(7)	-0.18%
Total	(13,850)	-1.84%	3,052	0.41%	34,648	4.68%

Table 10 details the absolute and relative variances between 2013 approved and 2013 normalized consumption per customer, the year-over-year changes from normalized 2013 consumption per customer to normalized 2018 consumption per customer and year-over-year changes from 2018 normalized consumption per customer to 2020 forecast consumption per customer.

Table 10 - Actual Consumption Per Customer/Connection

	2013 Approved vs 2013 Normalized		2013 Normalized vs 2014 Normalized		2014 Normalized vs 2015 Normalized		2015 Normalized vs 2016 Normalized	
	kWh	%	kWh	%	kWh	%	kWh	%
Residential	(170)	-1.80%	(233)	-2.51%	(248)	-2.74%	(190)	-2.16%
GS < 50	551	1.57%	(789)	-2.21%	(511)	-1.46%	(717)	-2.08%
GS > 50	(374)	-0.05%	(2,810)	-0.38%	(24,359)	-3.34%	192	0.03%
Street Light	(26)	-3.06%	(25)	-3.11%	(13)	-1.64%	(2)	-0.22%
Sentinel Light	(3)	-0.25%	12	1.16%	7	0.61%	10	0.96%
USL	(66)	-1.57%	(61)	-1.48%	(94)	-2.32%	(41)	-1.02%
Total	(87)	-0.01%	(3,906)	-0.50%	(25,219)	-3.24%	(747)	-0.10%

	2016 Normalized vs 2017 Normalized		2017 Normalized vs 2018 Normalized		2018 Normalized vs 2019 Forecast		2019 Normalized vs 2020 Forecast	
	kWh	%	kWh	%	kWh	%	kWh	%
Residential	(170)	-1.97%	(99)	-1.18%	115	1.35%	(86)	-1.02%
GS < 50	(348)	-1.03%	(955)	-2.86%	(234)	-0.73%	(65)	-0.20%
GS > 50	(9,355)	-1.33%	6,753	0.97%	(2,994)	-0.43%	(1,075)	-0.15%
Street Light	(8)	-1.04%	(6)	-0.78%	(11)	-1.48%	(8)	-1.06%
Sentinel Light	5	0.48%	(7)	-0.67%	1	0.08%	(1)	-0.05%
USL	(29)	-0.75%	(7)	-0.18%	(33)	-0.87%	(26)	-0.68%
Total	(9,906)	-1.32%	5,678	0.76%	(3,156)	-0.42%	(1,261)	-0.17%

As with total class consumption variances, consumption per customer variances are primarily due to changes in weather, as demonstrated by the materially lower variances in normalized consumption per customer volumes.

Demand Variances

Table 11 details the 2013 approved forecast and actual demand by class from 2013 to 2018.

Table 11 - Actual Demand by Class

	2013 Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
	kW	kW	kW	kW	kW	kW	kW
GS > 50	969,035	930,008	936,619	910,216	894,192	882,488	884,750
Street Light	22,580	21,973	21,396	21,075	20,946	20,884	20,878
Sentinel Light	1,285	1,227	1,212	1,182	1,078	1,137	1,111
Total	992,900	953,208	959,227	932,473	916,216	904,510	906,739

The following table shows the 2013 approved demand forecast, normalized demand by class from 2013 to 2018, and forecast demand in 2019 and 2020.

Table 12 - Normalized Demand by Class

	2013 Approved	2013 Normalized	2014 Normalized	2015 Normalized	2016 Normalized
	kW	kW	kW	kW	kW
GS > 50	969,035	936,307	923,619	908,556	892,984
Street Light	22,580	21,973	21,396	21,075	20,946
Sentinel Light	1,285	1,227	1,212	1,182	1,078
Total	992,900	959,507	946,227	930,813	915,008

	2017 Normalized	2018 Normalized	2019 Forecast	2020 Forecast
	kW	kW	kW	kW
GS > 50	881,124	868,668	862,873	856,504
Street Light	20,884	20,878	20,648	20,511
Sentinel Light	1,137	1,111	1,082	1,062
Total	903,146	890,657	884,603	878,077

Table 13 details the absolute and relative variances between 2013 approved and 2013 actual demand and the year-over-year changes in demand from 2013 to 2018.

Table 13 - Actual Demand Variances

	2013 Approved vs 2013 Actual		2013 Actual vs 2014 Actual		2014 Actual vs 2015 Actual	
	kW	%	kW	%	kW	%
GS > 50	(39,027)	-4.03%	6,611	0.71%	(26,403)	-2.82%
Street Light	(607)	-2.69%	(577)	-2.63%	(321)	-1.50%
Sentinel Light	(58)	-4.51%	(15)	-1.22%	(30)	-2.48%
Total	(39,692)	-4.00%	6,019	0.63%	(26,754)	-2.79%

	2015 Actual vs 2016 Actual		2016 Actual vs 2017 Actual		2017 Actual vs 2018 Actual	
	kW	%	kW	%	kW	%
GS > 50	(16,024)	-1.76%	(11,704)	-1.31%	2,262	0.26%
Street Light	(129)	-0.61%	(62)	-0.30%	(6)	-0.03%
Sentinel Light	(104)	-8.82%	60	5.53%	(26)	-2.30%
Total	(16,257)	-1.74%	(11,707)	-1.28%	2,230	0.25%

Table 14 details the absolute and relative variances between 2013 approved and 2013 normalized demand, the year-over-year changes from normalized 2013 demand to normalized 2018 demand and year-over-year changes from 2018 normalized demand to 2020 forecast demand.

Table 14 - Normalized Demand Variances

	2013 Approved vs 2013 Normalized		2013 Normalized vs 2014 Normalized		2014 Normalized vs 2015 Normalized		2015 Normalized vs 2016 Normalized	
	kW	%	kW	%	kW	%	kW	%
GS > 50	(32,728)	-3.38%	(12,688)	-1.36%	(15,063)	-1.63%	(15,572)	-1.71%
Street Light	(607)	-2.69%	(577)	-2.63%	(321)	-1.50%	(129)	-0.61%
Sentinel Light	(58)	-4.51%	(15)	-1.22%	(30)	-2.48%	(104)	-8.82%
Total	(33,393)	-3.36%	(13,280)	-1.38%	(15,414)	-1.63%	(15,805)	-1.70%

	2016 Normalized vs 2017 Normalized		2017 Normalized vs 2018 Normalized		2018 Normalized vs 2019 Forecast		2019 Forecast vs 2020 Forecast	
	kW	%	kW	%	kW	%	kW	%
GS > 50	(11,859)	-1.33%	(12,456)	-1.41%	(5,795)	-0.67%	(6,369)	-0.74%
Street Light	(62)	-0.30%	(6)	-0.03%	(230)	-1.10%	(137)	-0.66%
Sentinel Light	60	5.53%	(26)	-2.30%	(30)	-2.66%	(20)	-1.81%
Total	(11,862)	-1.30%	(12,489)	-1.38%	(6,055)	-0.68%	(6,526)	-0.74%

The Board-Approved 2013 demand forecast is materially higher than 2013 actual and normalized demand. The 2013 demand forecast relied on the consumption forecast so the demand forecast is overstated for the same reasons, the absence of persisting CDM adjustments and time trend variables.

Revenue Variance Analysis

The following table details the 2013 approved forecast and actual revenues by class from 2013 to 2020.

Table 15 - Distribution Revenues by Class

	2013 Approved	2013 Actual	2014 Actual	2015 Actual	2016 Actual
Residential	$12,936,375	$13,142,157	$13,144,233	$13,067,014	$13,152,127
GS < 50	$3,628,368	$3,662,890	$3,669,510	$3,615,554	$3,600,781
GS > 50	$4,948,063	$4,925,639	$4,983,978	$4,918,037	$4,832,743
Street Lighting	$661,594	$677,494	$683,112	$690,916	$695,132
Sentinel Lighting	$35,921	$34,338	$34,503	$34,127	$32,636
USL	$43,784	$46,556	$42,455	$41,307	$40,063
Total	$22,254,105	$22,489,073	$22,557,791	$22,366,955	$22,353,482

	2017 Actual	2018 Actual	2019 Forecast	2020 Forecast
Residential	$13,317,170	$13,753,914	$13,884,976	$16,613,711
GS < 50	$3,581,549	$3,737,892	$3,707,286	$4,404,267
GS > 50	$4,895,510	$4,832,725	$4,843,599	$5,565,046
Street Lighting	$703,668	$716,030	$722,173	$729,403
Sentinel Lighting	$33,051	$32,869	$31,645	$39,993
USL	$39,239	$38,273	$37,148	$43,707
Total	$22,570,189	$23,111,704	$23,226,827	$27,396,127

The variances between 2013 approved revenue and 2013 actual revenue, and year-over-year changes from 2013 to 2020 are presented in the following table.

Table 16 - Distribution Revenue Variance

	2013 Approved vs 2013 Actual		2013 Actual vs 2014 Actual		2014 Actual vs 2015 Actual	
	Difference	%	Difference	%	Difference	%
Residential	$205,782	1.59%	$2,077	0.02%	($77,219)	-0.59%
GS < 50	$34,522	0.95%	$6,620	0.18%	($53,956)	-1.47%
GS > 50	($22,424)	-0.45%	$58,339	1.18%	($65,941)	-1.32%
Street Lighting	$15,900	2.40%	$5,619	0.83%	$7,803	1.14%
Sentinel Lighting	($1,583)	-4.41%	$165	0.48%	($376)	-1.09%
USL	$2,772	6.33%	($4,101)	-8.81%	($1,147)	-2.70%
Total	$234,968	1.06%	$68,719	0.31%	($190,836)	-0.85%

	2015 Actual vs 2016 Actual		2016 Actual vs 2017 Actual		2017 Actual vs 2018 Actual	
	Difference	%	Difference	%	Difference	%
Residential	$85,113	0.65%	$165,043	1.25%	$436,744	3.28%
GS < 50	($14,773)	-0.41%	($19,232)	-0.53%	$156,343	4.37%
GS > 50	($85,294)	-1.73%	$62,767	1.30%	($62,786)	-1.28%
Street Lighting	$4,216	0.61%	$8,537	1.23%	$12,361	1.76%
Sentinel Lighting	($1,492)	-4.37%	$416	1.27%	($182)	-0.55%
USL	($1,244)	-3.01%	($824)	-2.06%	($966)	-2.46%
Total	($13,473)	-0.06%	$216,707	0.97%	$541,515	2.40%

	2018 Actual vs 2019 Forecast		2019 Forecast vs 2020 Actual	
	Difference	%	Difference	%
Residential	$131,062	0.95%	$2,727,632	19.64%
GS < 50	$(30,606)	-0.82%	$690,209	18.62%
GS > 50	$10,874	0.23%	$744,563	15.37%
Street Lighting	$6,143	0.86%	$(9,395)	-1.30%
Sentinel Lighting	$(1,224)	-3.72%	$9,776	30.89%
USL	$(1,125)	-2.94%	$6,514	17.54%
Total	$115,123	0.50%	$4,169,299	17.95%

Revenues are dependent on customer counts, consumption, and demand, so the causes of revenue variances are a combination of the factors already described in this section. Year-over-year changes in total revenues are aligned with consumption changes once inflation (less the stretch factor) is considered. The most significant variance is between 2017 and 2018 which is the result of moderate temperatures (both

in the summer and winter) in 2017 and more extreme temperatures in 2018. Revenues for all classes except the Street Lighting class increase from 2019 to 2020 as the result of the proposed increase in rates required to recover GSHI's 2020 revenue requirement. The Street Lighting class' revenues have declined as a result of the updated cost allocation model which is discussed in Exhibit 7.

Attachment 1 (of 1):

OEB Appendix 2-IB

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Appendix 2-IB
Customer, Connections, Load Forecast and Revenues Data and Analysis

This sheet is to be filled in accordance with the instructions documented in section 2.3.2 of Chapter 2 of the Filing Requirements for Distribution Rate Applications, in terms of one set of tables per customer class.

Color coding for Cells: Data input | Drop-down List | No data entry required | Blank or calculated value

Distribution System (Total)

	Calendar Year (for 2020 Cost of Service		Consumption (kWh) [3]					
				Actual (Weather actual)	Weather-normalized			Weather-normalized
Historical	*2013*		Actual	927,397,087	921,276,490	**OEB Approved**	943,516,400	
Historical	*2014*		Actual	932,817,019	905,076,581			
Historical	*2015*		Actual	889,605,630	887,794,434			
Historical	*2016*		Actual	858,582,969	872,413,977			
Historical	*2017*		Actual	848,284,136	859,713,295			
Historical	*2018*		Actual	883,531,330	849,106,355			
Bridge Year	*2019*		Forecast		851,565,161			
Test Year	*2020*		Forecast		847,465,518			

Variance Analysis	**Year**	**Year-over-year**		**Versus OEB-approved**
	2013			
	2014	0.6%	-1.8%	
	2015	-4.6%	-1.9%	
	2016	-3.5%	-1.7%	
	2017	-1.2%	-1.5%	
	2018	4.2%	-1.2%	
	2019		0.3%	
	2020		-0.5%	-10.2%
	Geometric Mean	-1.2%	-1.4%	-1.8%

Customer Class Analysis (one for each Customer Class, excluding MicroFIT and Standby)

1 Customer Class: Residential — Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2020 Cost of Service	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2013*	Actual	42,526	OEB-approved	42,512	Actual	401,699,412	395,028,141.31	OEB-approved	402,126,214	Actual	9,445.97	9,289.10	OEB-approved	9,459.12
Historical	*2014*	Actual	42,636			Actual	401,059,652	386,099,524.22			Actual	9,406.65	9,055.77		
Historical	*2015*	Actual	42,712			Actual	378,767,131	376,191,690.46			Actual	8,867.93	8,807.63		
Historical	*2016*	Actual	42,797			Actual	363,718,803	368,797,469.96			Actual	8,498.65	8,617.32		
Historical	*2017*	Actual	42,818			Actual	354,425,141	361,694,379.21			Actual	8,277.48	8,447.25		
Historical	*2018*	Actual	42,890			Actual	375,861,349	358,044,448.19			Actual	8,763.43	8,348.02		
Bridge Year	*2019*	Forecast	42,998			Forecast		363,871,060.48			Forecast	0.00	8,462.47		
Test Year	*2020*	Forecast	43,107			Forecast		361,088,384.54			Forecast	0.00	8,376.58		

Variance Analysis	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved
	2013				2013				2013			
	2014	0.3%			*2014*	-0.2%	-2.3%		*2014*	-0.4%	-2.5%	
	2015	0.2%			*2015*	-5.6%	-2.6%		*2015*	-5.7%	-2.7%	
	2016	0.2%			*2016*	-4.0%	-2.0%		*2016*	-4.2%	-2.2%	
	2017	0.0%			*2017*	-2.6%	-1.9%		*2017*	-2.6%	-2.0%	
	2018	0.2%			*2018*	6.0%	-1.0%		*2018*	5.9%	-1.2%	
	2019	0.3%			*2019*		1.6%		*2019*		1.4%	
	2020	0.3%		1.4%	*2020*		-0.8%	-10.2%	*2020*		-1.0%	-11.4%
	Geometric Mean	0.2%		0.2%	Geometric Mean	-1.6%	-1.5%	-1.8%	Geometric Mean	-1.9%	-1.7%	-2.0%

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	2013	Actual	$ 13,142,157	OEB-approved	$12,936,375
Historical	*2014*	Actual	$ 13,144,233		
Historical	*2015*	Actual	$ 13,067,014		
Historical	*2016*	Actual	$ 13,152,127		
Historical	*2017*	Actual	$ 13,317,170		
Historical	*2018*	Actual	$ 13,753,914		
Bridge Year (Foreca	*2019*	Forecast	$ 13,884,976		
Test Year (Forecast	*2020*	Forecast	$ 16,612,608		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved
	2013		
	2014	0.0%	
	2015	-0.6%	
	2016	0.7%	
	2017	1.3%	
	2018	3.3%	
	2019	1.0%	
	2020	19.6%	28.4%
	Geometric Mean	4.8%	4.3%

2 **Customer Class:** GS < 50 kW

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2020 Cost of Service	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2013	Actual	3,954	OEB-approved	4,061	Actual	144,032,205	141,303,535	OEB-approved	142,890,815	Actual	36,429.26	35,739.12	OEB-approved	35,186
Historical	*2014*	Actual	3,989			Actual	144,307,855	139,408,530			Actual	36,180.98	34,952.62		
Historical	*2015*	Actual	4,015			Actual	138,792,580	138,264,497			Actual	34,568.51	34,436.99		
Historical	*2016*	Actual	4,051			Actual	135,472,797	136,598,128			Actual	33,443.88	33,721.69		
Historical	*2017*	Actual	4,071			Actual	132,427,313	135,855,568			Actual	32,529.43	33,371.55		
Historical	*2018*	Actual	4,132			Actual	138,106,022	133,945,069			Actual	33,425.55	32,418.48		
Bridge Year	*2019*	Forecast	4,157			Forecast		133,784,087			Forecast	0.00	32,182.58		
Test Year	*2020*	Forecast	4,182			Forecast		134,331,187			Forecast	0.00	32,117.64		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved
	2013			2013				2013			
	2014	0.9%		*2014*	0.2%	-1.3%		*2014*	-0.7%	-2.2%	
	2015	0.7%		*2015*	-3.8%	-0.8%		*2015*	-4.5%	-1.5%	
	2016	0.9%		*2016*	-2.4%	-1.2%		*2016*	-3.3%	-2.1%	
	2017	0.5%		*2017*	-2.2%	-0.5%		*2017*	-2.7%	-1.0%	
	2018	1.5%		*2018*	4.3%	-1.4%		*2018*	2.8%	-2.9%	
	2019	0.6%		*2019*		-0.1%		*2019*		-0.7%	
	2020	0.6%	3.0%	*2020*		0.4%	-6.0%	*2020*		-0.2%	-8.7%
	Geometric Mean	0.9%	0.5%	Geometric Mean	-1.0%	-0.8%	-1.0%	Geometric Mean	-2.1%	-1.8%	-1.5%

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	2013	Actual	$ 3,662,890	OEB-approved	$3,628,368
Historical	*2014*	Actual	$ 3,669,510		
Historical	*2015*	Actual	$ 3,615,554		
Historical	*2016*	Actual	$ 3,600,781		
Historical	*2017*	Actual	$ 3,581,549		
Historical	*2018*	Actual	$ 3,737,892		
Bridge Year (Foreca	*2019*	Forecast	$ 3,707,286		
Test Year (Forecast	*2020*	Forecast	$ 4,397,494		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved
	2013		
	2014	0.2%	
	2015	-1.5%	
	2016	-0.4%	
	2017	-0.5%	
	2018	4.4%	
	2019	-0.8%	
	2020	18.6%	21.2%
	Geometric Mean	3.7%	3.3%

3 **Customer Class:** GS > 50 kW

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2020 Cost of Service	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	2013	Actual	513	OEB-approved	531	Actual	371,933,646.21	375,212,989.49	OEB-approved	388,576,753	Actual	725,016.85	731,409.34	OEB-approved	731,783
Historical	*2014*	Actual	508			Actual	378,009,413.04	370,128,428.31			Actual	744,113.02	728,599.27		
Historical	*2015*	Actual	517			Actual	362,799,633.31	364,091,960.90			Actual	702,419.43	704,921.51		
Historical	*2016*	Actual	508			Actual	350,224,516.35	357,851,526.94			Actual	690,097.57	705,126.16		
Historical	*2017*	Actual	508			Actual	352,367,386.91	353,099,052.25			Actual	693,295.40	694,734.98		
Historical	*2018*	Actual	496			Actual	360,554,579.57	348,107,459.06			Actual	727,658.08	702,537.76		
Bridge Year	*2019*	Forecast	494			Forecast		345,015,197.60			Forecast	0.00	698,836.00		
Test Year	*2020*	Forecast	492			Forecast		343,232,749.14			Forecast	0.00	697,760.63		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved
	2013			2013				*2013*			
	2014	-1.0%		*2014*	1.6%	-1.4%		*2014*	2.6%	-0.4%	
	2015	1.7%		*2015*	-4.0%	-1.6%		*2015*	-5.6%	-3.2%	
	2016	-1.7%		*2016*	-3.5%	-1.7%		*2016*	-1.8%	0.0%	
	2017	0.1%		*2017*	0.6%	-1.3%		*2017*	0.5%	-1.5%	
	2018	-2.5%		*2018*	2.3%	-1.4%		*2018*	5.0%	1.1%	
	2019	-0.4%		*2019*		-0.9%		*2019*		-0.5%	
	2020	-0.4%	-7.4%	*2020*		-0.5%	-11.7%	*2020*		-0.2%	-4.6%
	Geometric Mean	-0.7%	-1.3%	Geometric Mean	-0.8%	-1.5%	-2.0%	Geometric Mean	0.1%	-0.8%	-0.8%

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	*2013*	Actual	$ 4,925,639	OEB-approved	$4,948,063
Historical	*2014*	Actual	$ 4,983,978		
Historical	*2015*	Actual	$ 4,918,037		
Historical	*2016*	Actual	$ 4,832,743		
Historical	*2017*	Actual	$ 4,895,510		
Historical	*2018*	Actual	$ 4,832,725		
Bridge Year (Foreca	*2019*	Forecast	$ 4,843,599		
Test Year (Forecast	*2020*	Forecast	$ 5,588,162		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved
	2013		
	2014	1.2%	
	2015	-1.3%	
	2016	-1.7%	
	2017	1.3%	
	2018	-1.3%	
	2019	0.2%	
	2020	15.4%	12.9%
	Geometric Mean	2.3%	2.0%

4 Customer Class: Street Lighting

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2020 Cost of Service	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2013*	Actual	9,690	OEB-approved	9,578	Actual	7,862,676	7,862,676	OEB-approved	8,016,815	Actual	811.46	811.46	OEB-approved	837.00
Historical	*2014*	Actual	9,736			Actual	7,654,363	7,654,363			Actual	786.19	786.19		
Historical	*2015*	Actual	9,753			Actual	7,541,644	7,541,644			Actual	773.24	773.24		
Historical	*2016*	Actual	9,748			Actual	7,520,842	7,520,842			Actual	771.57	771.57		
Historical	*2017*	Actual	9,786			Actual	7,471,833	7,471,833			Actual	763.54	763.54		
Historical	*2018*	Actual	9,862			Actual	7,471,085	7,471,085			Actual	757.58	757.58		
Bridge Year	*2019*	Forecast	9,901			Forecast		7,391,715			Forecast	0.00	746.54		
Test Year	*2020*	Forecast	9,941			Forecast		7,342,584			Forecast	0.00	738.62		

Variance Analysis	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved
	2013				*2013*				*2013*			
	2014	0.5%			*2014*	-2.6%	-2.6%		*2014*	-3.1%	-3.1%	
	2015	0.2%			*2015*	-1.5%	-1.5%		*2015*	-1.6%	-1.6%	
	2016	-0.1%			*2016*	-0.3%	-0.3%		*2016*	-0.2%	-0.2%	
	2017	0.4%			*2017*	-0.7%	-0.7%		*2017*	-1.0%	-1.0%	
	2018	0.8%			*2018*	0.0%	0.0%		*2018*	-0.8%	-0.8%	
	2019	0.4%			*2019*		-1.1%		*2019*		-1.5%	
	2020	0.4%		3.8%	*2020*		-0.7%	-8.4%	*2020*		-1.1%	-11.8%
	Geometric Mean	0.4%		0.6%	Geometric Mean	-1.3%	-1.1%	-1.5%	Geometric Mean	-1.7%	-1.6%	-2.1%

	Calendar Year (for 2020 Cost of Service	Revenues				
Historical	*2013*	Actual	$ 677,494	OEB-approved	$661,594	
Historical	*2014*	Actual	$ 683,112			
Historical	*2015*	Actual	$ 690,916			
Historical	*2016*	Actual	$ 695,132			
Historical	*2017*	Actual	$ 703,668			
Historical	*2018*	Actual	$ 716,030			
Bridge Year (Foreca	*2019*	Forecast	$ 722,173			
Test Year (Forecast	*2020*	Forecast	$ 712,778			

Variance Analysis	Year	Year-over-year		Test Year Versus OEB-approved
	2013			
	2014	0.8%		
	2015	1.1%		
	2016	0.6%		
	2017	1.2%		
	2018	1.8%		
	2019	0.9%		
	2020	-1.3%		7.7%
	Geometric Mean	0.8%		1.2%

5 **Customer Class:** Sentinel Lighting — Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kW

	Calendar Year (for 2020 Cost of Service	Customers				Consumption (kWh) [3]					Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2013*	Actual	420	OEB-approved	436	Actual	444,394	444,394	OEB-approved	462,466	Actual	1,059.34	1,059.34	OEB-approved	1,060.70
Historical	*2014*	Actual	410			Actual	438,854	438,854			Actual	1,069.72	1,069.72		
Historical	*2015*	Actual	398			Actual	428,604	428,604			Actual	1,077.57	1,077.57		
Historical	*2016*	Actual	392			Actual	426,193	426,193			Actual	1,086.53	1,086.53		
Historical	*2017*	Actual	378			Actual	412,948	412,948			Actual	1,093.90	1,093.90		
Historical	*2018*	Actual	372			Actual	403,671	403,671			Actual	1,086.60	1,086.60		
Bridge Year	*2019*	Forecast	365			Forecast		396,354			Forecast	0.00	1,086.05		
Test Year	*2020*	Forecast	359			Forecast		389,166			Forecast	0.00	1,085.49		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved
	2013			*2013*				*2013*			
	2014	-2.2%		*2014*	-1.2%	-1.2%		*2014*	1.0%	1.0%	
	2015	-3.0%		*2015*	-2.3%	-2.3%		*2015*	0.7%	0.7%	
	2016	-1.4%		*2016*	-0.6%	-0.6%		*2016*	0.8%	0.8%	
	2017	-3.8%		*2017*	-3.1%	-3.1%		*2017*	0.7%	0.7%	
	2018	-1.6%		*2018*	-2.2%	-2.2%		*2018*	-0.7%	-0.7%	
	2019	-1.8%		*2019*		-1.8%		*2019*		-0.1%	
	2020	-1.8%	-17.8%	*2020*		-1.8%	-15.8%	*2020*		-0.1%	2.3%
	Geometric Mean	-2.6%	-3.2%	Geometric Mean	-2.4%	-2.2%	-2.8%	Geometric Mean	0.6%	0.4%	0.4%

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	*2013*	Actual	$ 34,338	OEB-approved	$35,921
Historical	*2014*	Actual	$ 34,503		
Historical	*2015*	Actual	$ 34,127		
Historical	*2016*	Actual	$ 32,636		
Historical	*2017*	Actual	$ 33,051		
Historical	*2018*	Actual	$ 32,869		
Bridge Year (Foreca	*2019*	Forecast	$ 31,645		
Test Year (Forecast	*2020*	Forecast	$ 41,421		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved
	2013		
	2014	0.5%	
	2015	-1.1%	
	2016	-4.4%	
	2017	1.3%	
	2018	-0.6%	
	2019	-3.7%	
	2020	30.9%	15.3%
	Geometric Mean	3.2%	2.4%

6 **Customer Class:** USL

Is the customer class billed on consumption (kWh) or demand (kW or kVA)? kWh

	Calendar Year (for 2020 Cost of Service	Customers				Consumption (kWh) [3]				Consumption (kWh) per Customer				
							Actual (Weather actual)	Weather-normalized		Weather-normalized		Actual (Weather actual)	Weather-normalized		Weather-normalized
Historical	*2013*	Actual	346	OEB-approved	345	Actual	1,424,754	1,424,754	OEB-approved	1,443,337	Actual	4,120.76	4,120.76	OEB-approved	4,183.59
Historical	*2014*	Actual	332			Actual	1,346,883	1,346,883			Actual	4,053.82	4,053.82		
Historical	*2015*	Actual	322			Actual	1,276,038	1,276,038			Actual	3,965.93	3,965.93		
Historical	*2016*	Actual	311			Actual	1,219,818	1,219,818			Actual	3,922.24	3,922.24		
Historical	*2017*	Actual	303			Actual	1,179,515	1,179,515			Actual	3,899.22	3,899.22		
Historical	*2018*	Actual	292			Actual	1,134,622	1,134,622			Actual	3,885.69	3,885.69		
Bridge Year	*2019*	Forecast	287			Forecast		1,106,746			Forecast	0.00	3,852.34		
Test Year	*2020*	Forecast	283			Forecast		1,081,447			Forecast	0.00	3,825.97		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved	Year	Year-over-year		Test Year Versus OEB-approved
	2013			*2013*				*2013*			
	2014	-3.9%		*2014*	-5.5%	-5.5%		*2014*	-1.6%	-1.6%	
	2015	-3.2%		*2015*	-5.3%	-5.3%		*2015*	-2.2%	-2.2%	
	2016	-3.3%		*2016*	-4.4%	-4.4%		*2016*	-1.1%	-1.1%	
	2017	-2.7%		*2017*	-3.3%	-3.3%		*2017*	-0.6%	-0.6%	
	2018	-3.5%		*2018*	-3.8%	-3.8%		*2018*	-0.3%	-0.3%	
	2019	-1.6%		*2019*		-2.5%		*2019*		-0.9%	
	2020	-1.6%	-18.1%	*2020*		-2.3%	-25.1%	*2020*		-0.7%	-8.5%
	Geometric Mean	-3.3%	-3.3%	Geometric Mean	-5.5%	-4.5%	-4.7%	Geometric Mean	-1.5%	-1.2%	-1.5%

	Calendar Year (for 2020 Cost of Service	Revenues			
Historical	*2013*	Actual	$ 46,556	OEB-approved	$43,784
Historical	*2014*	Actual	$ 42,455		
Historical	*2015*	Actual	$ 41,307		
Historical	*2016*	Actual	$ 40,063		
Historical	*2017*	Actual	$ 39,239		
Historical	*2018*	Actual	$ 38,273		
Bridge Year (Foreca	*2019*	Forecast	$ 37,148		
Test Year (Forecast	*2020*	Forecast	$ 43,662		

Variance Analysis	Year	Year-over-year	Test Year Versus OEB-approved
	2013		
	2014	-8.8%	
	2015	-2.7%	
	2016	-3.0%	
	2017	-2.1%	
	2018	-2.5%	
	2019	-2.9%	
	2020	17.5%	-0.3%
	Geometric Mean	-1.1%	0.0%

Note: If there are more than ten (10) customer classes, please contact OEB Staff to add tables for additional customer classes.

Exhibit 3: Operating Revenue

Tab 3 (of 3): Other Revenue

OVERVIEW OF OTHER REVENUE

Other Revenue relates to all utility revenues other than the distribution and costs of power revenues. GSHi has classified other revenues in the following categories, which are summarized in OEB Appendix 2-H (Exhibit 3, Tab 3, Schedule 1, Attachment 1):

1. Specific Service Charges
2. Late Payment Charges
3. Other Operating Revenues
4. Other Income or Deductions

Specific Service Charges (Account 4235)

Included with Specific Service Charges are the following items:

- Statement of Account
- Returned Cheque Charge
- Account Set Up Charge/Change of Occupancy
- Collection of Account Charge (No Disconnection)
- Disconnect/Reconnect at Meter
- Disconnect/Reconnect at Pole
- Transformer Rental Charge
- Lawyer Letter Request Charge
- MicroFIT and Fit Charge

Late Payment Charges (Account 4225)

Late payment charges are imposed at a rate of 1.5% per month (19.56% annually) to customer accounts when the total amount of the bill has not been paid within 3 business days of the due date printed on the bill.

Other Operating Revenues

Included in Other Operating Revenues are the following items:

- Standard Supply Service – Administrative Charge (Account 4086)
-

- Retail Services Revenues (including Distributor-Consolidated Billing Charge) (Account 4082)
- Service Transactions Requests (Account 4084)
- Rent from Electric Property (Account 4210)
- Other Electric Revenues (Account 4220)
- Amortization of Deferred Revenue (Account 4245)

Other Income or Deductions

Included in Other Income or Deductions are the following items:

- Regulatory Credits (Account 4310)
- Gain on Disposition of Utility and Other Property (Account 4355)
- Loss on Disposition of Utility and Other Property (Account 4360)
- Revenues for Non-Utility Operations (Account 4375)
- Expenses of Non-Utility Operations (Account 4380)
- Non-Rate-Regulated Utility Rental Income (Account 4385)
- Miscellaneous Non-Operating Income (Account 4390)
- Interest and Dividend Income (Account 4405)

It should be noted that included in Rent from Electric Property (Account 4210) is the revenue from the building rent charged to affiliate companies as well as the rent from pole attachment charges. For further details on revenues and transactions with affiliate companies please refer to Exhibit 4, Tab 5. Based on the descriptions provided in the Accounting Procedures Handbook, GSHi included the building rent revenue in this account. The associated expenses are included in account 5675 Maintenance of General Plant.

In account 4310 – Regulatory Credits, GSHi has historically recorded the offset to the dollars related to disposals on capital assets, however; as a part of this cost of service application GSHi has budgeted for the losses, therefore the deferral account is no longer needed and this account is no longer required for the offset.

Included in historical figures in account 4405 are interest amounts relating to deferral and variances accounts. GSHi notes that there are no dollar amounts budgeted in 2019 and 2020 relating to interest on deferral and variance accounts.

OEB Appendix 2-H: Other Operating Revenue has been included at Exhibit 3, Tab 3, Schedule 1, Attachment 1.

Proposed Specific Service Charges

It should be noted that GSHi is not proposing any new specific service charges in this current rate application.

Other Revenue Variance Analysis

Table 1 below summarizes GSHi's Other Revenue by category and highlights the variances year over year. Significant variances (greater than the materiality threshold $115,000) are shown in bold and explained in detail below.

Table 1 – Summary of Other Revenue and Related Variances

			Summary Totals					
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Specific Service Charges	(486,033)	(500,020)	(477,143)	(516,505)	(441,434)	(320,068)	(352,195)	(219,234)
Late Payment Charges	(144,064)	(175,092)	(182,322)	(195,236)	(166,761)	(148,898)	(160,000)	(156,800)
Other Operating Revenues	(723,897)	(683,775)	(995,911)	(848,274)	(952,621)	(858,690)	(901,745)	(1,534,028)
Other Income or Deductions	(607,581)	(496,598)	(238,904)	(1,409,220)	(448,483)	(863,414)	(311,532)	351,690
Total	(1,961,576)	(1,855,484)	(1,894,278)	(2,969,236)	(2,009,298)	(2,191,070)	(1,725,472)	(1,558,372)
			Variances					
		2014 vs 2013	**2015 vs 2014**	**2016 vs 2015**	**2017 vs 2016**	**2018 vs 2017**	**2019 vs 2018**	**2020 vs 2019**
Specific Service Charges		(13,987)	22,877	(39,363)	75,071	**121,366**	(32,127)	**132,961**
Late Payment Charges		(31,027)	(7,230)	(12,915)	28,476	17,863	(11,102)	3,200
Other Operating Revenues		40,123	**(312,136)**	**147,637**	(104,347)	93,931	(43,055)	**(632,283)**
Other Income or Deductions		110,983	**257,695**	**(1,170,316)**	**960,737**	**(414,931)**	**551,882**	**663,222**
		106,092	(38,794)	(1,074,957)	959,937	(181,771)	465,598	167,100

2014 Actual vs 2013 Actual

No significant variances.

2015 Actual vs 2014 Actual

Other Operating Revenues – Increase of $312,136

In 2015, GSHi's pole attachment revenue increased by approximately $262,000. This was as a result of a large project with Bell Canada where many new Bell Poles were installed over an extended period of time. 2015 revenues included back billing for 2013 and 2014 as well as the current year billings for 2015.

It should also be noted that 2015 was the first year of the IFRS adoption with respect to the treatment of customer contributions. As such, these contributions are now being shown as deferred revenue whereby the amortization on these contributions are now included in Other Revenue (Account 4245 – Government and Other Assistance Directly Credited to Income) and included in this variance. For 2015, this amounts to $42,626.

Other Income and Deductions – Decrease of ($257,695)

In 2015 GSHi saw CDM program revenues that exceeded expenses of approximately $228,000. This is due to a cost efficiency incentive that flowed to the conservation department due to being under budget in the 2011-2014 CDM Framework.

2016 Actual vs 2015 Actual

Other Operating Revenues – Decrease of ($147,637)

The pole attachment revenue decreased in 2016 over 2015 by approximately $160,000. This is primarily due to the offset of the Bell Canada adjustment discussed above.

Other Income and Deductions – Increase of $1,170,316

As mentioned above, in 2015 GSHi received a performance incentive for the CDM program framework therefore resulting in CDM revenues exceeding expenses in 2015. CDM revenues and expenses broke even in 2016.

Also contributing to this variance is approximately $1.6 million related to recording the loss on capital disposals that GSHi began recognizing in 2016 due to the adoption of IFRS. In 2016, losses from 2014-2016 were recognized with the offset being recorded in 4310 – Regulatory Credits which explains the large increase.

2017 Actual vs 2016 Actual

Other Income and Deductions – Decrease of ($960,737)

As per the variance described above, GSHi has deferred the disposal of capital losses from years 2014 (including the IFRS transition opening balances) to 2016 in the 2016 fiscal year. This resulted in a larger balance in OEB account 4310 Regulatory Credits as opposed to 2017 with only one year of deferred losses included.

2018 Actual vs 2017 Actual

Specific Service Charges – Decrease of ($121,366)

Pursuant to EB-2017-0101 regarding the disconnection moratorium implemented by the OEB, GSHi received less collection charges in 2018 over 2017 as this was the first full year the disconnection ban was in place.

Other Income and Deductions – Increase of $414,931

GSHi recognized more revenue over expenses related to the Conservation First Framework (CFF) CDM program in 2018. This increase was because the Conservation Department received a mid-term incentive of approximately $470,000 as they achieved over fifty percent of their kWh goals half way through the program.

GSHi also collected less interest from affiliate companies in 2018, as these short-term balances were repaid during the year.

2019 Projection vs 2018 Actual

Other Income and Deductions – Decrease of ($551,882)

The CDM variance mentioned above for the mid-term incentive is offset in 2019 as 2018 was a higher year for revenues and 2019 revenues were close to break even.

2020 Projection vs 2019 Projection

Specific Service Charges – Decrease of ($132,961)

Beginning July 1, 2019, as per OEB direction, the collection fee charged to customers will no longer be permitted. GSHi has budgeted zero budget dollars for this collection charge in 2020 resulting in a decrease in specific services charges.

Other Operating Revenues – Increase of $632,283

Effective January 1, 2019, the OEB released through EB-2015-0304 notice that they would be increasing the pole attachment charges from the previous $22.35 per pole to $46.93 per pole. This resulted in a large increase in budgeted revenue for GSHi in 2020 over 2019 of approximately $596,000.

Other Income and Deductions – Decrease of ($663,222)

As GSHi is disposing of the loss on disposal balance in 2020, there is no offsetting balance in 4310 – Regulatory Credits for the 2020 losses that are budgeted. This is resulting in a decrease of $564,690 within this caption.

GSHi also notes that there are no discrete customer groups that may be materially impacted by changes to other rates and charges.

Attachment 1 (of 1):

OEB Appendix 2-H

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TO BE UPDATED AT THE DRAFT RATE ORDER STAGE

Appendix 2-H
Other Operating Revenue

USoA #	USoA Description	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
		2013	2014	2015	2016	2017	2018	2019	2020	2015
	Reporting Basis	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
4235	**Specific Service Charges**	-$ 486,033	-$ 500,020	-$ 477,143	-$ 516,505	-$ 441,434	-$ 320,068	-$ 352,195	-$ 219,234	-$ 477,143
4225	**Late Payment Charges**	-$ 144,064	-$ 175,092	-$ 182,322	-$ 195,236	-$ 166,761	-$ 148,898	-$ 160,000	-$ 156,800	-$ 182,322
4082	**Retail Services Revenues**	-$ 39,393	-$ 33,127	-$ 30,989	-$ 30,666	-$ 21,848	-$ 20,810	-$ 21,015	-$ 40,269	-$ 30,989
4086	Standard Supply Service - Administrative Charge	-$ 134,163	-$ 135,548	-$ 135,841	-$ 157,979	-$ 139,356	-$ 140,733	-$ 140,414	-$ 140,473	-$ 135,841
4084	Service Transactions Requests	-$ 1,114	-$ 733	-$ 853	-$ 643	-$ 306	-$ 302	-$ 325	-$ 325	-$ 853
4210	Rent from Electric Property	-$ 549,227	-$ 514,367	-$ 777,359	-$ 587,682	-$ 577,201	-$ 581,021	-$ 584,072	-$ 1,180,493	-$ 777,359
4360	Loss on Disposition of Utility and Other Property			$ 538,014	$ 637,754	$ 454,852	$ 624,722	$ 564,690	$ 564,690	$ 538,014
4375	Revenues from Non-Utility Operations	-$ 499,147	-$ 984,572	-$ 1,106,728	-$ 1,383,432	-$ 2,033,252	-$ 3,188,326	-$ 1,677,187	-$ 2,495,805	-$ 1,106,728
4380	Expenses of Non-Utility Operations	$ 487,219	$ 966,943	$ 878,607	$ 1,383,432	$ 2,033,252	$ 2,725,752	$ 1,671,380	$ 2,495,805	$ 878,607
4390	Miscellaneous Non-Operating Income[5]	-$ 168,815	-$ 98,068	-$ 165,644	-$ 202,201	-$ 130,581	-$ 147,480	-$ 118,359	-$ 133,000	-$ 165,644
4405	Interest and Dividend Income[2]	-$ 413,019	-$ 333,360	-$ 361,395	-$ 196,989	-$ 290,798	-$ 233,287	-$ 167,366	-$ 60,000	-$ 361,395
4385	Non Rate-Regulated Utility Rental Income	-$ 12,418	-$ 21,537	-$ 21,758	-$ 23,029	-$ 20,106	-$ 20,073	-$ 20,000	-$ 20,000	-$ 21,758
4220	Other Electric Revenues	$ -	$ -	-$ 8,242	-$ 1,268	-$ 121,903	$ -	$ -	$ -	-$ 8,242
4310	Regulatory Credits	$ -	$ -	$ -	-$ 1,624,754	-$ 461,851	-$ 624,722	-$ 564,690	$ -	$ -
4245	Deferred revenue			-$ 42,626	-$ 70,037	-$ 92,007	-$ 115,823	-$ 155,919	-$ 172,468	
4355	Gain on Disposition of Utility and Other Property	-$ 1,402	-$ 26,005							
Specific Service Charges		-$ 486,033	-$ 500,020	-$ 477,143	-$ 516,505	-$ 441,434	-$ 320,068	-$ 352,195	-$ 219,234	-$ 477,143
Late Payment Charges		-$ 144,064	-$ 175,092	-$ 182,322	-$ 195,236	-$ 166,761	-$ 148,898	-$ 160,000	-$ 156,800	-$ 182,322
Other Operating Revenues		-$ 723,897	-$ 683,775	-$ 995,911	-$ 848,274	-$ 952,621	-$ 858,690	-$ 901,745	-$ 1,534,028	-$ 953,284
Other Income or Deductions		-$ 607,581	-$ 496,598	-$ 238,904	-$ 1,409,220	-$ 448,483	-$ 863,414	-$ 311,532	$ 351,690	-$ 238,904
Total		-$ 1,961,576	-$ 1,855,484	-$ 1,894,278	-$ 2,969,236	-$ 2,009,298	-$ 2,191,070	-$ 1,725,472	-$ 1,558,372	-$ 1,851,652

Description	Account(s)
Specific Service Charges:	4235
Late Payment Charges:	4225
Other Distribution Revenues:	4082, 4084, 4090, 4205, 4210, 4215, 4220, 4230, 4240, 4245
Other Income and Expenses:	4305, 4310, 4315, 4320, 4325, 4330, 4335, 4340, 4345, 4350, 4355, 4357, 4360, 4362, 4365, 4370, 4375, 4380, 4385, 4390, 4395, 4398, 4405, 4410, 4415, 4420

Note: Add all applicable accounts listed above to the table and include all relevant information.

Account Breakdown Details

For each "Other Operating Revenue" and "Other Income or Deductions" Account, a detailed breakdown of the account components is required. See the example below for Account 4405, Interest and Dividend Income. Tables for the detailed breakdowns will be generated after cell B89 is filled in.

Example: Account 4405 - Interest and Dividend Income

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Short-term Investment Interest									
Bank Deposit Interest									
Miscellaneous Interest Revenue									
etc.[1]									
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Notes:

1 List and specify any other interest revenue.

2 In the transition year to IFRS, the applicant is to present information in both MIFRS and CGAAP. In column N, present CGAAP transition year information. For the typical applicant that adopted IFRS on January 1, 2015, 2014 must be presented in both a CGAAP and MIFRS basis.

14	**Enter the number of "Other Operating Revenue" and "Other Income or Deductions" Accounts that require a detailed breakdown of the account components.**

Account 4405 - Interest and Dividend Incom

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Short-term Investment Interest	-$ 53,537	-$ 57,046	-$ 52,963	-$ 42,964	-$ 51,721	-$ 72,061	-$ 50,000	-$ 60,000	-$ 52,963
Miscellaneous Interest Revenue	-$ 171,895	-$ 79,031	-$ 127,357	-$ 4,713	-$ 78,340	-$ 60,952	$ -	$ -	-$ 127,357
Intercompany interest	-$ 187,586	-$ 197,283	-$ 181,074	-$ 149,312	-$ 160,737	-$ 100,274	-$ 117,366	$ -	-$ 181,074
Total	-$ 413,019	-$ 333,360	-$ 361,395	-$ 196,989	-$ 290,798	-$ 233,287	-$ 167,366	-$ 60,000	-$ 361,395

Account 4082 - Retail Services Revenue

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
DCBR Bill Charges	-$ 13,170	-$ 11,015	-$ 9,912	-$ 9,734	-$ 6,778	-$ 6,240	-$ 6,350	-$ 12,700	-$ 9,912
Monthly Fixed Fees Rtlrs	-$ 4,180	-$ 3,920	-$ 4,320	-$ 4,580	-$ 3,760	-$ 4,440	-$ 4,415	-$ 9,120	-$ 4,320
Monthly Variable Chgs	-$ 22,044	-$ 18,192	-$ 16,757	-$ 16,352	-$ 11,310	-$ 10,131	-$ 10,250	-$ 18,449	-$ 16,757
Total	-$ 39,393	-$ 33,127	-$ 30,989	-$ 30,666	-$ 21,848	-$ 20,810	-$ 21,015	-$ 40,269	-$ 30,989

Account 4086 - Standard Supply Service

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Residential Customers	-$ 120,399	-$ 121,707	-$ 122,265	-$ 142,590	-$ 125,796	-$ 127,053	-$ 126,754	-$ 126,713	-$ 122,265
GS < 50 kW Customers	-$ 11,311	-$ 11,401	-$ 11,194	-$ 12,795	-$ 11,243	-$ 11,420	-$ 11,400	-$ 11,500	-$ 11,194
GS > 50 kW Customers	-$ 1,290	-$ 1,297	-$ 1,288	-$ 1,389	-$ 1,289	-$ 1,260	-$ 1,250	-$ 1,250	-$ 1,288
Non-metered Customers	-$ 584	-$ 576	-$ 559	-$ 633	-$ 526	-$ 506	-$ 510	-$ 510	-$ 559
Sentinel Light Customers	-$ 573	-$ 560	-$ 529	-$ 565	-$ 496	-$ 489	-$ 500	-$ 500	-$ 529
Streetlight Customers	-$ 7	-$ 6	-$ 6	-$ 7	-$ 6	-$ 6	$ -	$ -	-$ 6
Total	-$ 134,163	-$ 135,548	-$ 135,841	-$ 157,979	-$ 139,356	-$ 140,733	-$ 140,414	-$ 140,473	-$ 135,841

Account 4084 - Standard Supply Service- A

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS	CGAAP
Unbundled Energy Sales - Streetlight Custo	-$ 1,114	-$ 733	-$ 853	-$ 643	-$ 306	-$ 302	-$ 325	-$ 325	-$ 853
Total	-$ 1,114	-$ 733	-$ 853	-$ 643	-$ 306	-$ 302	-$ 325	-$ 325	-$ 853

Account 4210 - Rent from Electric Property

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Rental Income	-$ 90,627	-$ 90,627	-$ 90,627	-$ 61,234	-$ 59,807	-$ 59,807	-$ 61,235	-$ 61,235	-$ 90,627
Pole Rental Income	-$ 458,599	-$ 423,740	-$ 686,732	-$ 526,448	-$ 517,395	-$ 521,214	-$ 522,837	-$ 1,119,258	-$ 686,732
Total	-$ 549,227	-$ 514,367	-$ 777,359	-$ 587,682	-$ 577,201	-$ 581,021	-$ 584,072	-$ 1,180,493	-$ 777,359

Account 4375 - Revenues from Non Utility C

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
City of Greater Sudbury		$ -	$ -				$ -	$ -	$ -
OPA programs	-$ 499,147	-$ 984,572	-$ 1,106,728	-$ 1,383,432	-$ 2,033,252	-$ 2,432,446	-$ 1,677,187	-$ 1,418,525	-$ 1,106,728
Affordability Fund Trust						-$ 755,880	$ -	-$ 1,077,280	
Total	-$ 499,147	-$ 984,572	-$ 1,106,728	-$ 1,383,432	-$ 2,033,252	-$ 3,188,326	-$ 1,677,187	-$ 2,495,805	-$ 1,106,728

Account 4380 - Expenses of Non Utility Ope

	2013 Actual[2]	2014 Actual[2]	2015 Actual[2]	2016 Actual[2]	2017 Actual[2]	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
OPA programs - Expenditure Offset	$ 487,219	$ 966,943	$ 878,607	$ 1,383,432	$ 2,033,252	$ 1,969,873	$ 1,671,380	$ 1,418,525	$ 878,607
Affordability Fund Trust						$ 755,880	$ -	$ 1,077,280	

Total	$ 487,219	$ 966,943	$ 878,607	$ 1,383,432	$ 2,033,252	$ 2,725,752	$ 1,671,380	$ 2,495,805	$ 878,607

Account 4390 - Expenses of Non Utility Ope

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Sale of materials/service	-$ 225	-$ 1,538	-$ 1,944	-$ 3,856	-$ 7,330	-$ 5,509	-$ 5,194	-$ 5,000	-$ 1,944
Sale of Scrap Material	-$ 157,304	-$ 82,477	-$ 114,377	-$ 170,869	-$ 102,368	-$ 119,371	-$ 113,165	-$ 128,000	-$ 114,377
Miscellaneous Revenue	-$ 11,286	-$ 14,053	-$ 49,323	-$ 25,901	-$ 20,884	-$ 22,600	$ -	$ -	-$ 49,323
CDM - Shared Services - Regulatory transf	$ -	$ -	$ -	-$ 1,575	$ -	$ -	$ -	$ -	$ -
Total	-$ 168,815	-$ 98,068	-$ 165,644	-$ 202,201	-$ 130,581	-$ 147,480	-$ 118,359	-$ 133,000	-$ 165,644

Account 4385 - Non Rate-Regulated Utility F

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Equipment Buyout/Sentinal	-$ 12,418	-$ 21,537	-$ 21,758	-$ 23,029	-$ 20,106	-$ 20,073	-$ 20,000	-$ 20,000	-$ 21,758
Total	-$ 12,418	-$ 21,537	-$ 21,758	-$ 23,029	-$ 20,106	-$ 20,073	-$ 20,000	-$ 20,000	-$ 21,758

Account 4220 - Other Electric Revenues

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Fit Fees Revenue			-$ 8,242	-$ 1,268	-$ 1,903				-$ 8,242
Misc revenue					-$ 120,000				
Total	$ -	$ -	-$ 8,242	-$ 1,268	-$ 121,903	$ -	$ -	$ -	-$ 8,242

Account 4310 - Regulatory Credits

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Reclass - Regulatory transfer				-$ 1,624,754	-$ 461,851	-$ 624,722	-$ 564,690		
Total	$ -	$ -	$ -	-$ 1,624,754	-$ 461,851	-$ 624,722	-$ 564,690	$ -	$ -

4360- Loss on Disposition of Utility and Othe

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Loss on disposal of assets				$ 1,624,754	$ 461,851	$ 624,722	$ 564,690	$ 564,690	
Total	$ -	$ -	$ -	$ 1,624,754	$ 461,851	$ 624,722	$ 564,690	$ 564,690	$ -

4245- Government and Other Assistance Di

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Deferred Revenue			-$ 42,626	-$ 70,037	-$ 92,007	-$ 115,823	-$ 155,919	-$ 172,468	
Total	$ -	$ -	-$ 42,626	-$ 70,037	-$ 92,007	-$ 115,823	-$ 155,919	-$ 172,468	$ -

4355 Gain on Disposition of Utility and Othe

	2013 Actual²	2014 Actual²	2015 Actual²	2016 Actual²	2017 Actual²	2018 Actual	Bridge Year	Test Year	CGAAP
	2013	2014	2015	2016	2017	2018	2019	2020	$ 2,015
Reporting Basis									CGAAP
Gain on Disposal	-$ 1,402	-$ 26,005							
Total	-$ 1,402	-$ 26,005	$ -	$ -	$ -	$ -	$ -	$ -	$ -