OSHAWA POWER

Exhibit 3:
Customer and Load Forecast

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3.1 INTRODUCTION

3.1.1 Methodology Overview

This section outlines the results of, and methodology used to derive, Oshawa Power's weather normal load forecast for the 2026 Test Year.

The regression equations Oshawa Power adopted to normalize and forecast its weather sensitive load use monthly heating degree days and cooling degree days measured at Environment Canada's Oshawa[1] weather station to account for temperature sensitivity. Oshawa Power typically experiences relatively large cooling loads in the summer and smaller heating loads in the winter so its peak load is generally in the summer. 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 Conservation and Demand Management (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 historical programs are subtracted off to reflect the actual normal forecast.

CDM data beyond 2018 is based on limited data in the IESO Participant and Cost Report. As per the updated CDM Guidelines, forecast CDM is based on a forecast of Oshawa Power's share of provincial energy savings.

While statistical regression is appropriate for estimating a relationship between explanatory variables and energy use, in the case of CDM, an independent measurement

[1] "Oshawa" operated by NAVCAN, Latitude:43°55'22" N, Longitude:78°53'00" W, Elevation:139.90 m

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 Oshawa and Ontario, as reported in Statistics Canada's Monthly Labour Force Survey[2] are considered. Ontario GDP is available from Ontario Economic Accounts[3] on a quarterly basis and Overall GDP is available from Statistics Canada on an annual basis.[4] Overall provincial GDP, Services GDP, and Professional Services GDP measures from Statistics Canada and Overall GDP, Services GDP, Professional Services GDP, and Transportation & Warehousing GDP measures from Ontario Economic Accounts sources were tested.

In order to isolate demand determinants at the class specific level, equations to weather normalize and forecast kWh consumption for the Residential, General Service < 50 kW, General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Large Use 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.

A range of COVID variables were considered to account for the impacts triggered by the COVID-19 pandemic. These variables have been included in load forecasts used to set electricity distribution rates in Ontario.[5] COVID flag variables were tested and found to be

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[2] Statistics Canada Table 14-10-0380-01

[3] Ontario Economic Accounts (https://data.ontario.ca/dataset/ontario-economic-accounts)

[4] Statistics Canada Table 36-10-0402-01

[5] Grimsby Power Inc. (EB-2021-0027), Bluewater Power Distribution Corporation (EB-2022-0016), EPCOR Electricity Distribution Ontario Inc. (EB-2022-0028), Kingston Hydro (EB-2022-0044), Milton Hydro Distribution Inc. (EB-2022-0049), and Synergy North Corporation (EB-2023-0052).

statistically significant for some classes. The following COVID flag variables were considered:

A “COVID” variable equal to 0 in all months prior to March 2020, 1 in all months from March 2020 to December 2021, and 0.5 from January 2022 to December 2022, and 0 thereafter.

A “COVID_AM” variable equal to 0 in all months prior to March 2020, equal to 0.5 in March 2020, equal to 1 in April and May 2020, 0.5 in each month from June 2020 to December 2021, 0.25 each month from January 2022 to December 2022, and 0 thereafter. This variable accounts for the relatively larger impact of COVID in the first two and a half months following the first lockdowns in March 2020.

A “COVID_WFH” variable equal to 0 in all months prior to March 2020, equal to 0.5 in March 2020, equal to 1 each month from April 2020 to December 2020, 0.75 from January 2021 to December 2021, 0.5 from January 2022 to December 2022, and 0.25 from January 2023 to December 2024. This variable is intended to reflect the shift to “Work from Home”, which had larger impacts through the summer of 2020 and continues to reflect ongoing impacts.

A “COVID2020” variable equal to 0 in all months prior to March 2020, equal to 0.5 in March 2020, equal to 1 in April and May 2020, equal to 0.5 in June 2020, and equal to 0 in July 2020 and each month thereafter. This variable reflects the temporary impacts experienced by some customers, particularly larger customers.

The extent to which consumption from March 2020 onward differed from typical consumption was tested with a set of COVID/weather interaction variables. The “HDD COVID” and “CDD COVID” variables are equal to the relevant HDD and CDD variables since March 2020, and 0 in all earlier months. The coefficients reflect incremental heating and cooling load consumed as people stayed home during the pandemic. These variables continue to December 2021 but are reduced to 50% of HDD and CDD in all months in 2022 and to 0 in 2023 and 2024.

The “CWFH HDD” and “CWFH CDD” variables are COVID/weather interaction variables that are equal to the relevant HDD and CDD variables applied to the COVID_WFH (“work

from home"). The variables are 0 in all months prior to March 2020, 50% of weather variables in March 2020, 100% of weather variables in April 2020 to December 2020, 75% of weather variables in 2021, and 25% of weather variables in 2022 and thereafter.

Each of the COVID variables were tested for each of the Residential, General Service < 50 kW, General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Large Use rate classes. The CWFH CDD variable was used for the Residential rate class. The COVID_AM variable was used for the General Service < 50 kW, General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Large Use rate classes.

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.

3.1.2 Summarized Results

The following table summarizes the historical and forecast kWh for 2020 to 2026:

Table 3-1: kWh Forecast by Class

kWh	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual	*2024 Normal*	2025 Forecast	2026 Forecast
Residential	515,808,015	512,708,991	507,634,502	515,036,056	521,215,102	*529,163,818*	*542,522,401*	*555,745,808*
GS < 50	115,055,107	119,245,755	126,198,741	126,694,932	131,296,579	*128,696,315*	*130,535,767*	*132,753,100*
GS 50-999	304,515,885	310,470,030	342,060,680	321,367,375	310,385,723	*330,372,183*	*331,001,039*	*332,269,497*
GS 1,000-4,999	70,871,832	70,260,672	81,816,679	77,073,500	81,507,757	*79,390,483*	*80,415,846*	*81,008,540*
Large Use	30,798,516	36,146,632	33,850,160	33,850,160	39,718,186	*36,717,393*	*36,214,960*	*35,828,326*
Street Light	4,357,194	4,352,367	4,432,743	4,495,190	4,596,499	*4,596,499*	*4,602,000*	*4,665,082*
Sentinel Lights	26,989	26,915	26,915	26,915	26,324	*26,324*	*26,718*	*26,718*
USL	2,565,642	2,615,361	2,750,057	2,811,443	2,849,870	*2,849,870*	2,848,081	2,866,800
Total	**1,043,999,180**	**1,055,826,723**	**1,098,770,478**	**1,081,355,571**	**1,091,596,040**	***1,111,812,886***	**1,128,166,811**	**1,145,163,871**

The following table summarizes the 2026 CDM Adjusted kWh Load Forecast. Details for this calculation can be found in section 3.7 of this Exhibit.

Table 3-2: CDM Adjusted kWh Forecast

kWh	2026 Weather Normal Forecast	CDM Adjustment	2026 CDM Adjusted Forecast
Residential	555,745,808	4,241,502	551,504,306
GS < 50	132,753,100	4,476,961	128,276,139
GS 50-999	332,269,497	6,208,994	326,060,504
GS 1,000-4,999	81,008,540	6,343,945	74,664,595
Large Use	35,828,326	897,026	34,931,300
Street Light	4,665,082		4,665,082
Sentinel Lights	26,718		26,718
USL	2,866,800		2,866,800
Total	**1,145,163,871**	**22,168,428**	**1,122,995,443**

The following table summarizes the historical and forecast kW for 2020 to 2026:

Table 3-3: kW Forecast by Class

kW	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual	*2024 Normal*	2025 Forecast	2026 Forecast
GS 50-999	816,354	798,585	825,642	832,496	809,030	835,847	837,901	842,135
GS 1,000-4,999	176,692	171,435	179,600	179,794	184,987	188,159	191,066	193,545
Large Use	72,644	73,480	76,263	73,164	82,740	81,685	80,607	79,830
Street Light	12,276	12,332	12,587	12,769	12,817	13,004	13,020	13,198
Sentinel Lights	85	81	79	77	75	78	79	79
Total	**1,078,050**	**1,055,913**	**1,094,171**	**1,098,300**	**1,089,649**	***1,118,773***	**1,122,672**	**1,128,787**

The following table summarizes the 2025 CDM Adjusted kW Load Forecast. Details for this calculation can be found at the end of in section 3.7 of this Exhibit.

Table 3-4: CDM Adjusted kW Forecast

kW	2026 Weather Normal Forecast	CDM Adjustment	2026 CDM Adjusted Forecast
GS 50-999	842,135	15,737	826,398
GS 1,000-4,999	193,545	15,157	178,388
Large Use	79,830	1,999	77,832
Street Light	13,198		13,198
Sentinel Lights	79		79
Total	**1,128,787**	**32,892**	**1,095,895**

The following table summarizes the historical and forecast customer/device counts for 2020 to 2026:

Table 3-5: Customer / Device Forecast for 2020-2026

Customers	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual	2025 Forecast	2026 Forecast
Residential	54,549	55,127	55,762	56,981	57,937	58,721	59,515
GS < 50	4,212	4,271	4,305	4,393	4,427	4,475	4,523
GS 50-999	538	538	543	521	517	517	518
GS 1,000-4,999	15	17	18	18	17	18	18
Large Use	1	1	1	1	1	1	1
Street Light	13,979	14,038	14,204	14,384	14,446	14,644	14,845
Sentinel Lights	19	19	19	19	19	19	19
USL	253	251	253	259	260	261	263
Total	73,565	74,263	75,104	76,577	*77,624*	78,656	79,703

Finally, a summary of billing determinants is provided in Table 6.

Table 3-6: Billing Determinant Summary

2026	kWh	kW	Customers / Devices
Residential	551,504,306		59,515
GS < 50	128,276,139		4,523
GS 50-999	326,060,504	826,398	518
GS 1,000-4,999	74,664,595	178,388	18
Large Use	34,931,300	77,832	1
Street Light	4,665,082	13,198	14,845
Sentinel Lights	26,718	79	19
USL	2,866,800		263
Total	1,122,995,443	1,095,895	79,703

3.1.3 Load Factor Influences

Table 3-7 below provides a summary of Oshawa Power's total system consumption and the key factors that influence its load. HDD and CDD figures represent the differences between actual weather-related loads and 10-year normalized weather-related loads.

Table 3-7: Load Influence Summary

Year	Total kWh	kWh Growth	HDD	CDD	Metered Cust.	Metered Customer Growth
2019	1,051,223,405				59,312	
2020	1,043,999,180	-0.70%	-10.4%	50.7%	59,314	0.00%
2021	1,055,826,723	1.10%	-5.1%	-15.1%	59,955	1.10%
2022	1,098,770,478	4.10%	10.1%	-14.4%	60,629	1.10%
2023	1,081,355,571	-1.60%	-11.1%	-13.4%	61,915	2.10%
2024	1,091,596,040	0.90%	-3.3%	18.7%	62,899	1.60%
Avg. Growth 2019-2024		***0.76%***				***1.18%***
2025	1,128,166,811	3.40%	12.1%	3.6%	63,732	1.30%
2026	1,122,995,443	-0.50%	0.0%	0.0%	64,576	1.30%
Avg. Growth 2019-2026		***0.95%***				***1.22%***

Oshawa Power's consumption increased by 3.84% since 2019, or 0.76% per year. On a weather-normalized basis, consumption decreased by 6.29% from 2019 to 2024, or 1.23% per year.

Table 3-8: Residential and Commercial/Industrial Loads

	Residential				GS < 50 & GS > 50			
Year	Cust.	Cust. Growth %	kWh	kWh Growth %	Cust.	Cust. Growth %	kWh	kWh Growth %
2019	54,577		482,531,158		4,735		561,820,101	
2020	54,549	-0.10%	515,808,015	6.90%	4,765	0.60%	521,241,340	-7.20%
2021	55,127	1.10%	512,708,991	-0.60%	4,828	1.30%	536,123,089	2.90%
2022	55,762	1.20%	507,634,502	-1.00%	4,867	0.80%	583,926,260	8.90%
2023	56,981	2.20%	515,036,056	1.50%	4,934	1.40%	558,985,967	-4.30%
2024	57,937	1.70%	521,215,102	1.20%	4,962	0.60%	562,908,245	0.70%
Avg. 2019-24		***1.20%***		***1.55%***		***0.94%***		***0.04%***
2025	58,721	1.40%	540,401,650	3.70%	5,011	1.00%	570,485,730	1.30%
2026	59,515	1.40%	551,504,306	2.10%	5,061	1.00%	563,932,537	-1.10%
Avg. 2019-26		***1.25%***		***1.93%***		***0.95%***		***0.05%***

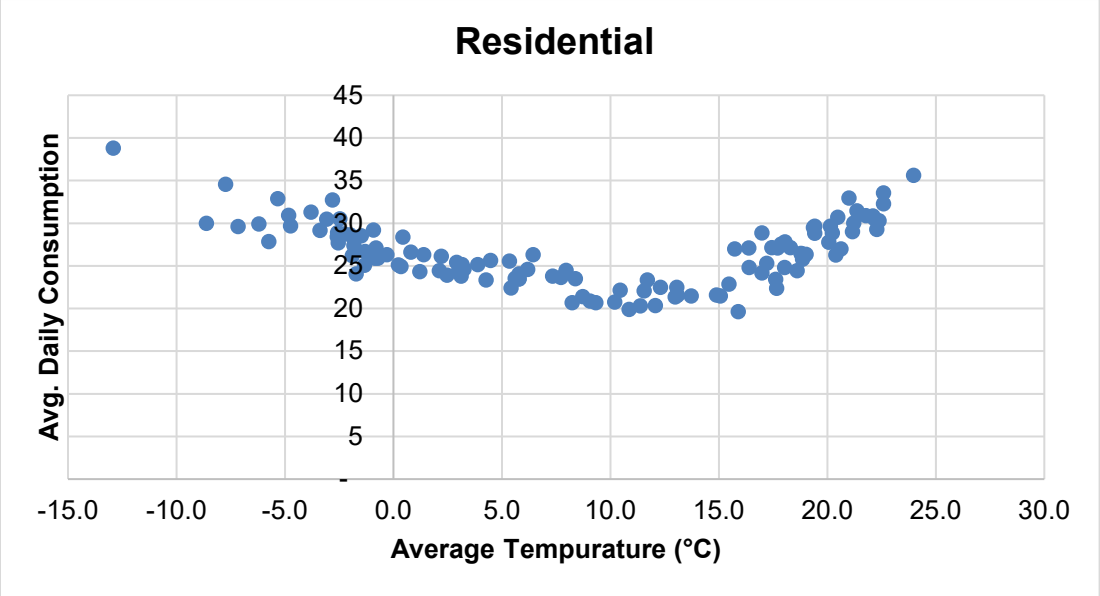
3.2 CLASS SPECIFIC KWH REGRESSION

Consumption for the Residential, GS < 50 kW, and GS 50 to 999 kW, GS 1,000 to 4,999 kW, and Large Use 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.

3.2.1 Residential

For Residential kWh consumption the equation was estimated using 120 observations from January 2015 to December 2024. 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 10°C and 14°C and increases as average temperatures deviate from that range. HDD relative to 14°C and CDD relative to 10°C were found to provide the strongest results. HDD and CDD measures near 14°C and 10°C, respectively, were also considered but found to be less predictive of monthly consumption.

Figure 3-1: Residential kWh and Average Temperature



Economic variables, such as Oshawa employment and various GDP measures, were tested but not found to be statistically significant variables. The COVID Work from Home CDD (CWFH12) variable was found to be statistically significant and more significant than other COVID variables. The COVID Work From Home HDD variable was not found to be statistically significant. A time trend variable, equal to 1 in January 2015 and increasing by 1 in each subsequent month was found to be statistically significant and is used in the model. This variable was found to be more statistically significant than other trending variables such as economic variables and the Residential customer count.

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 customer counts, employment, GDP, number of days in the month, and calendar variables.

A time-series autoregressive model using the Prais-Winsten estimation was used for the Residential class to account for autocorrelation.

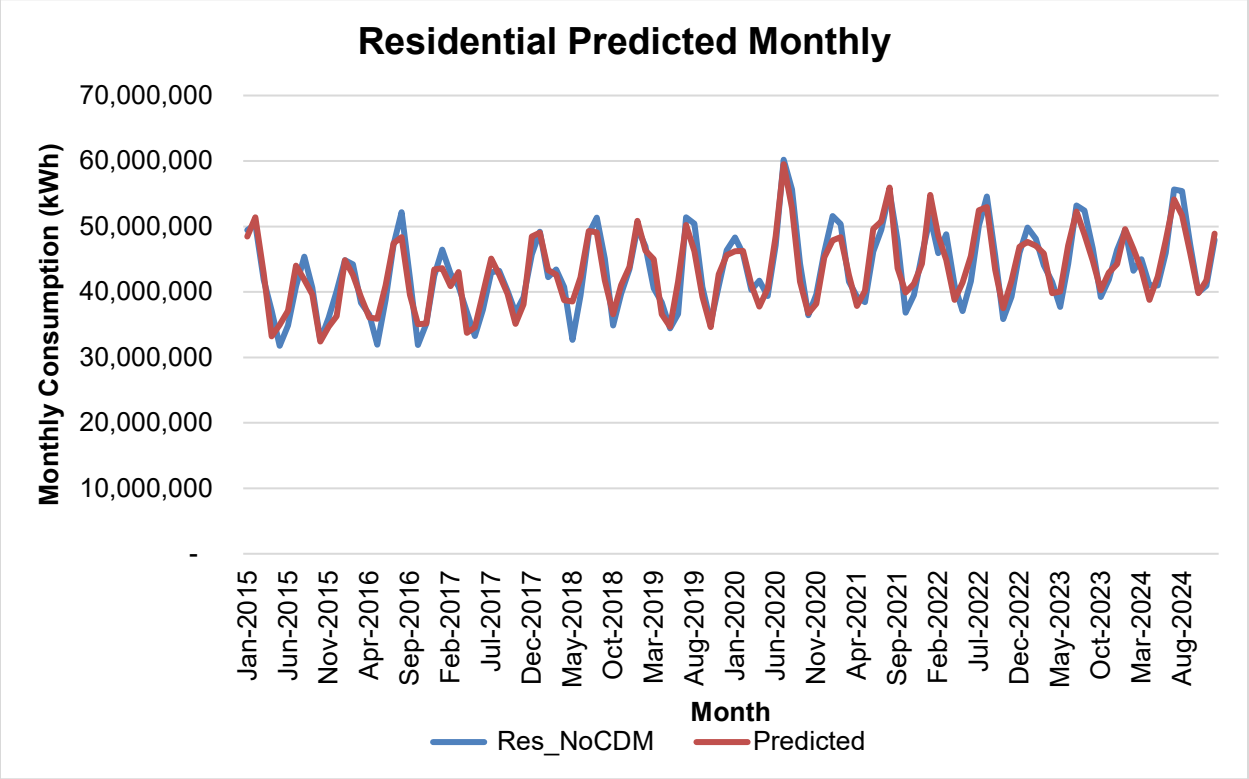
The following table outlines the resulting regression model:

Table 3-9: Residential Regression Model

Model 2: Prais-Winsten, using observations 2015:01-2024:12 (T = 120) Dependent variable: Res_NoCDM rho = 0.0588231				
	coefficient	std. error	t-ratio	p-value
const	24,255,451	880,516.80	27.55	0
HDD14	35,816	1,772.00	20.21	0
CDD10	58,591	3,119.90	18.78	0
CWFHCDD12	15,159	4,593.00	3.3	0.0013
Trend	63,843	6,854.00	9.31	0
Statistics based on the rho-differenced data				
Mean dependent var	6.22E+14	S.E. of regression	2,325,747	
Sum squared resid	0.853	Adjusted R-squared	0.848	
R-squared	157.4808	P-value(F)	0.000	
F(7, 112)	0.02	Durbin-Watson	1.96	

Using the above model coefficients, the following is derived:

Figure 3-2: 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 0.8%. The MAPE calculated monthly over the period is 4.5%.

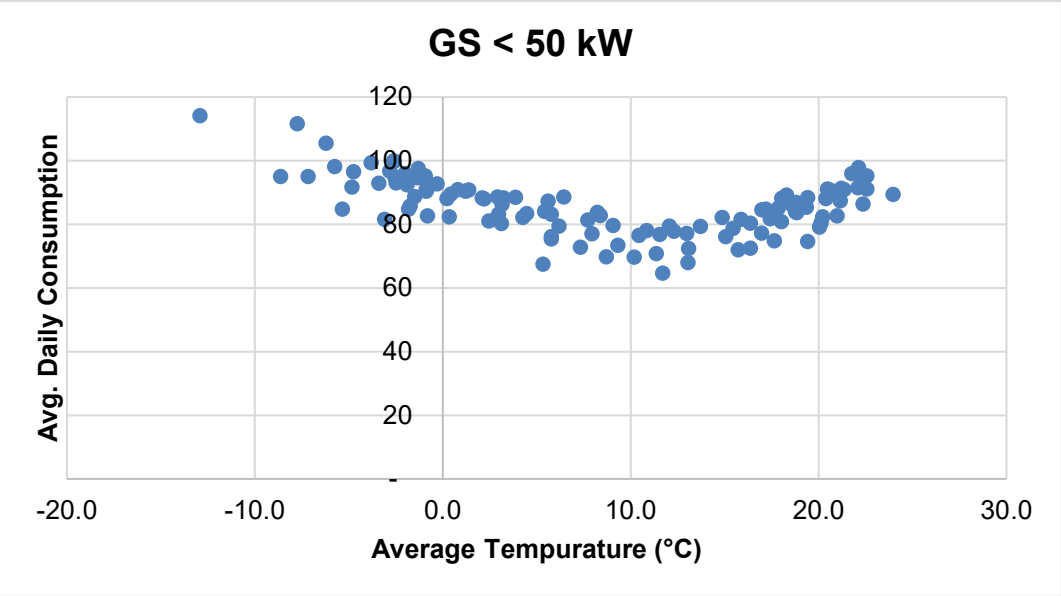
Table 3-10: Residential Model Error

	Residential kWh		Absolute
Year	CDM Added Back	Predicted	Error (%)
2015	481,012,060	476,922,040	0.90%
2016	485,657,329	488,717,248	0.60%
2017	485,732,543	484,768,652	0.20%
2018	511,063,537	516,004,977	1.00%
2019	511,763,347	513,749,416	0.40%
2020	545,038,339	534,506,065	1.90%
2021	542,014,863	542,208,592	0.00%
2022	537,151,508	548,900,875	2.20%
2023	545,169,866	540,714,119	0.80%
2024	552,782,368	550,897,964	0.30%
Total	**5,197,385,758**	**5,197,389,949**	**0.00%**
Mean Absolute Percentage Error (Annual)			0.80%
Mean Absolute Percentage Error (Monthly)			4.50%

3.2.2 GS < 50 kW

For the GS < 50 kW class, the regression equation was estimated using 120 observations from January 2015 to December 2024. Consumption for this class is relatively stable when the average monthly temperature is between 14°C and 16°C and increases as average temperatures deviate from that range. HDD relative to 16°C and CDD relative to 14°C were found to provide the strongest results. HDD and CDD measures near 16°C and 14°C, respectively, were also considered but found to be less predictive of monthly consumption.

Figure 3-3: GS<50 kWh and Average Temperature



The number of days in each month was found to be statistically significant and was used in the GS < 50 kW model. The COVID_AM variable was found to be statistically significant and more significant than other COVID variables. The GS < 50 kW customer count was found to be statistically significant, and more significant than other trending variables, so it is used in the model.

Measures for FTEs and GDP and were tested but not found to be statistically significant. A time trend and other calendar variables were tested but found to not have statistically significant relationships to energy usage.

The following table outlines the resulting regression model:

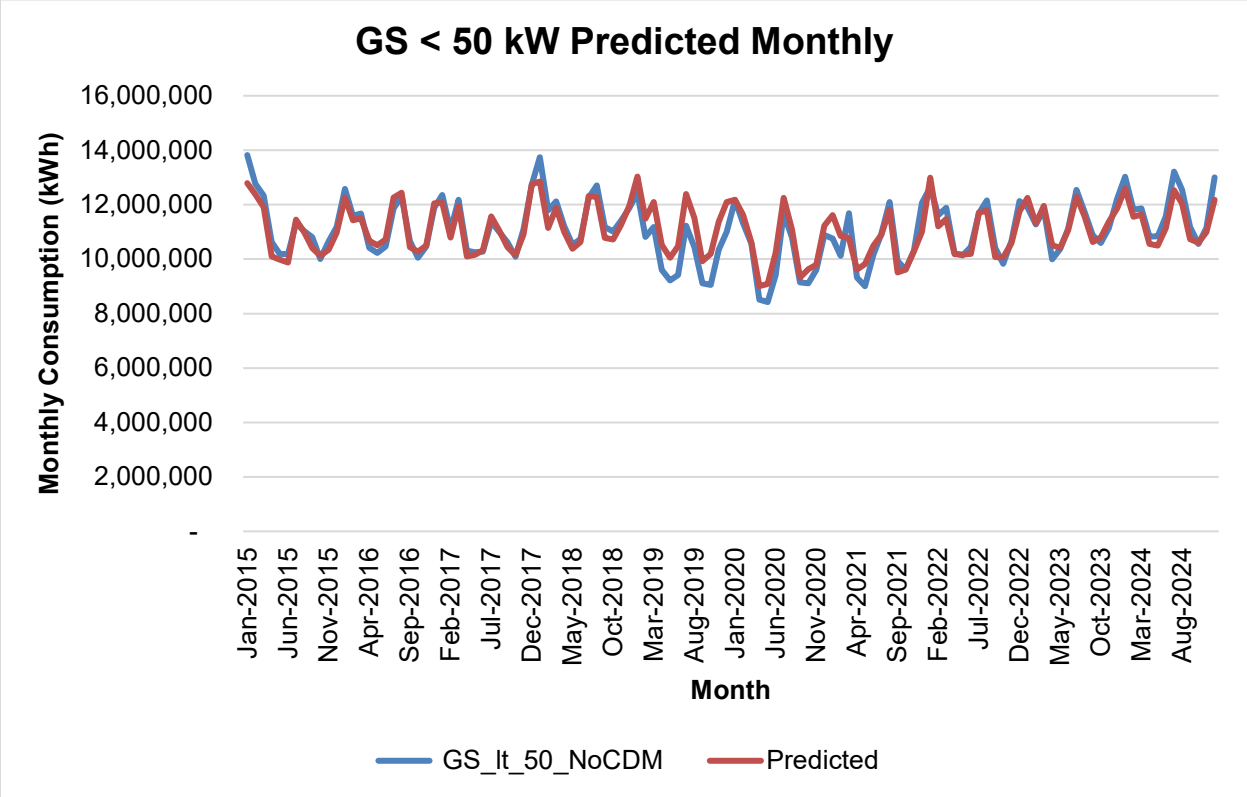
Table 3-11: GS < 50 Regression Model

Model 1: Prais-Winsten, using observations 2015:01-2024:12 (T = 120) Dependent variable: GS_lt_50_NoCDM rho = 0.627472				
	coefficient	std. error	t-ratio	p-value
const	-5,629,454	3,211,570.50	-1.75	0.082
HDD16	5,401	286.9	18.83	0.000
CDD14	12,618	695.4	18.15	0.000
COVID_AM	-1,579,308	323,896.00	-4.88	0.000
MonthDays	269,329	30,464.20	8.84	0.000
GS_lt_50_Customers	1,526	715	2.13	0.035

Statistics based on the rho-differenced data			
Mean dependent var	1.60E+13	S.E. of regression	375,061
Sum squared resid	0.89	Adjusted R-squared	0.885
R-squared	180.87	P-value(F)	0.000
F(5, 115)	-0.13	Durbin-Watson	2.181

Using the above model coefficients, the following is derived:

Figure 3-4: 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 2.4%. The MAPE calculated monthly over the period is 3.4%.

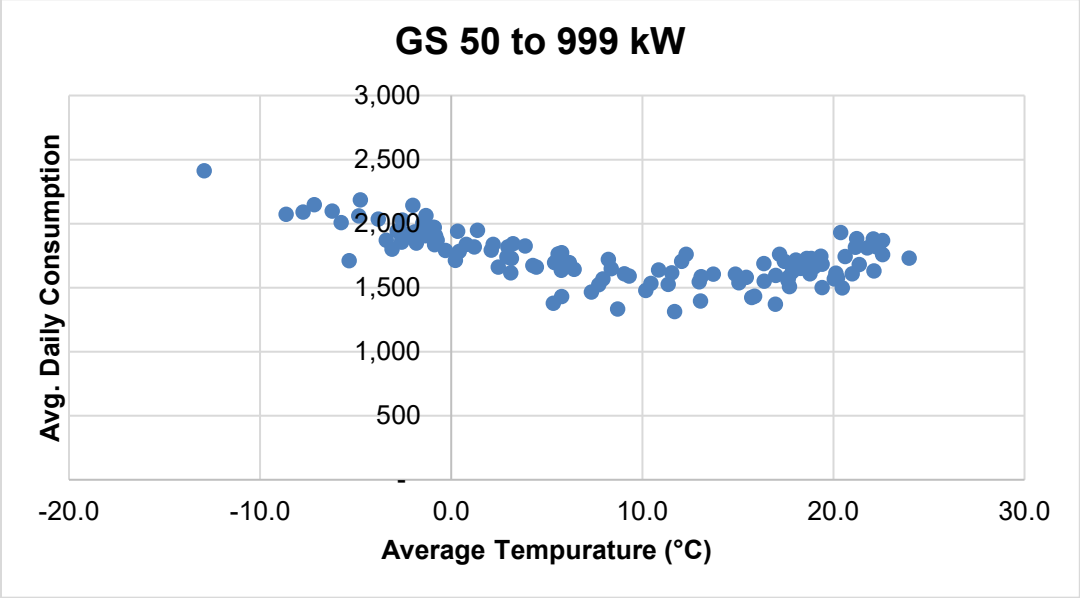
Table 3-12: GS < 50 Model Error

	GS<50 kWh		Absolute
	CDM Added Back	Predicted	Error (%)
2015	134,898,302	131,308,100	2.70%
2016	134,192,420	135,054,185	0.60%
2017	133,352,087	132,262,084	0.80%
2018	140,606,315	137,242,957	2.40%
2019	123,864,824	135,146,131	9.10%
2020	121,640,409	126,056,839	3.60%
2021	125,968,959	126,268,039	0.20%
2022	133,832,556	132,189,455	1.20%
2023	135,558,435	136,043,605	0.40%
2024	141,570,676	137,051,708	3.20%
Total	**1,325,484,982**	**1,328,623,102**	**0.20%**
Mean Absolute Percentage Error (Annual)			2.40%
Mean Absolute Percentage Error (Monthly)			3.40%

3.2.3 GS 50 to 999 kW

For the GS 50 to 999 kW class, the regression equation was estimated using 120 observations from January 2015 to December 2024. GS 50 to 999 kW consumption is relatively flat when the average monthly temperature is between 12°C and 18°C and increases as average temperatures deviate from that range. Consumption does not vary significantly at lower temperatures but there is a stronger relationship between consumption and high temperatures. HDD relative to 18°C and CDD relative to 12°C were found to provide the strongest results. HDD and CDD measures near 18°C and 12°C, respectively, were also considered but found to be less predictive of monthly consumption.

Figure 3-5: GS 50 to 999 KW kWh and Average Temperature



Total Ontario GDP from Ontario Economic Accounts has been included as an indicator of economic activity. Measures for Ontario employment and other measures of GDP were also tested but found to be statistically less significant than Ontario GDP. The number of days in each month was found to be statistically significant and was used in the GS 50 to 999 kW model. The COVID_AM variable was found to be statistically significant and more significant than other COVID variables.

Other binary calendar variables representing other 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:

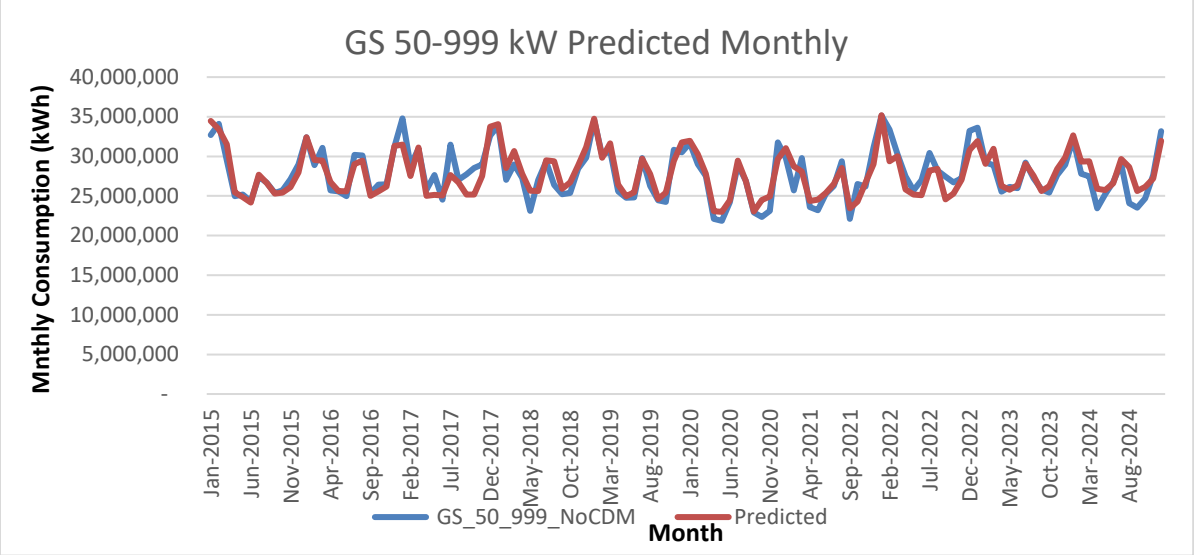
Table 3-13: GS 50 to 999 KW Regression Model

Model 16: Prais-Winsten, using observations 2015:01-2024:12 (T = 120) Dependent variable: GS_50_999_NoCDM rho = 0.21953				
	coefficient	std. error	t-ratio	p-value
const	-9,326,438	5,537,103.00	-1.68	0.095
HDD18	18,455	1,137.40	16.23	0.000
CDD12	28,827	2,587.40	11.14	0.000
COVID_AM	-2,849,745	802,892.80	-3.55	0.001
OEA_GDP	7.176	3.5	2.03	0.045
MonthDays	771,929	159,051.10	4.85	0.000

Statistics based on the rho-differenced data			
Mean dependent var	2.75E+14	S.E. of regression	1,552,436
Sum squared resid	0.773	Adjusted R-squared	0.763
R-squared	71.32	P-value(F)	0.000
F(5, 114)	-0.05	Durbin-Watson	1.9459

Using the above model coefficients the following is derived:

Figure 3-6: GS 50 to 999 KW 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 2.4%. The MAPE calculated monthly over the period is 3.9%.

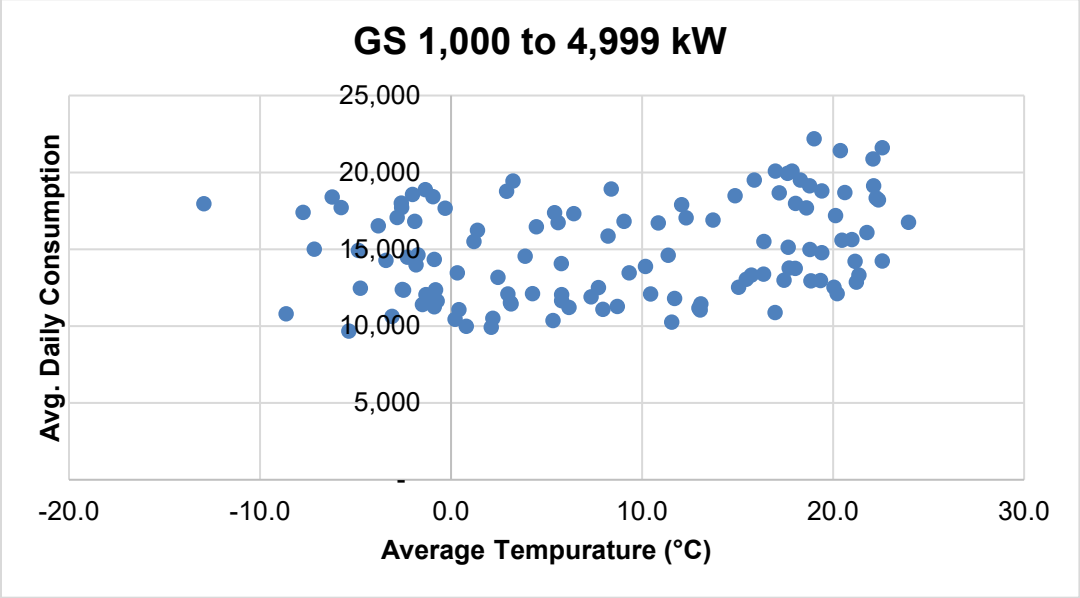
Table 3-14: GS 50 to 999 KW Model Error

	GS 50 to 999 kWh		Absolute
	CDM Added Back	Predicted	Error (%)
2015	331,966,599	333,025,224	0.30%
2016	338,382,861	335,876,761	0.70%
2017	348,869,191	331,226,870	5.10%
2018	331,859,176	343,800,642	3.60%
2019	336,690,488	341,735,211	1.50%
2020	312,300,870	318,920,896	2.10%
2021	318,889,100	320,616,453	0.50%
2022	352,184,064	335,037,277	4.90%
2023	333,727,084	337,125,250	1.00%
2024	325,027,823	338,776,736	4.20%
Total	**3,329,897,256**	**3,336,141,320**	**0.20%**
Mean Absolute Percentage Error (Annual)			2.40%
Mean Absolute Percentage Error (Monthly)			3.90%

3.2.4 GS 1,000 to 4,999 kW

For the GS 1,000 to 4,999 kW class, the regression equation was estimated using 120 observations from January 2015 to December 2024. GS 1,000 to 4,999 kW consumption is not significantly correlated with weather and is relatively flat when the average monthly temperature is below 16°C and is somewhat higher at temperatures above 16°C. CDD relative to 16°C was found to provide the strongest results as a measure of cooling load and no HDD measure was found to be statistically significant.

Figure 3-7: GS 1,000 to 4,999 kWh and Average Temperature



Seasonally-adjusted Oshawa employment from Statistics Canada has been included as an indicator of economic activity. Measures for Ontario DSP and other measures of employment were also tested but found to be statistically less significant than Adjusted Oshawa FTEs. The number of days in each month was found to be statistically significant and were used in the GS 1,000 to 4,999 kW model. The COVID_AM variable was found to be statistically significant and more significant than other COVID variables.

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

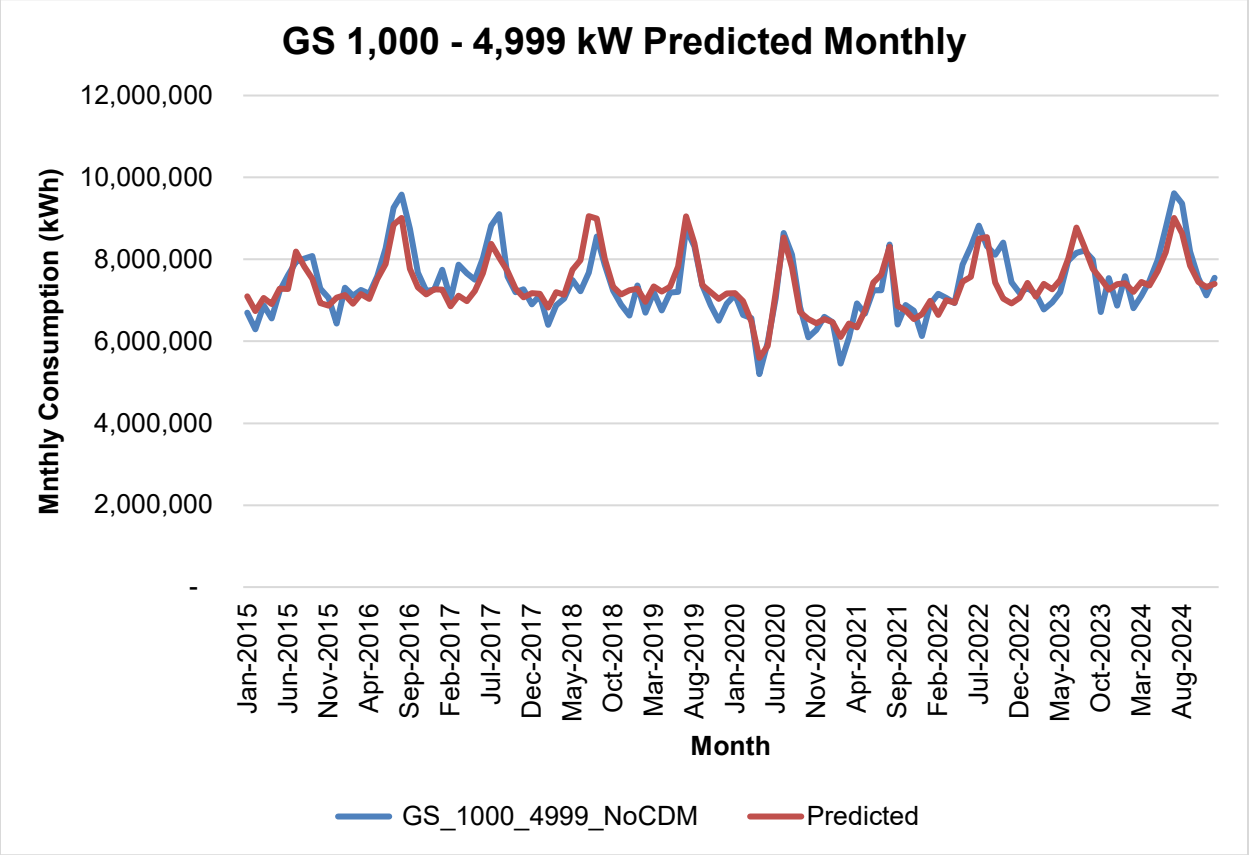
The following table outlines the resulting regression model:

Table 3-15: GS 1,000 to 4,999 kW Regression Model

Model 24: Prais-Winsten, using observations 2015:01-2024:12 (T = 120) Dependent variable: GS_1000_4999_NoCDM rho = 0.428824				
	coefficient	std. error	t-ratio	p-value
const	1,142,089	1,521,355	0.8	0.450
CDD16	8,945	741	12.1	0.000
COVID_AM	-1,392,045	257,023	-5.4	0.000
Osh_FTEAdj	12,066	5,124	2.4	0.020
MonthDays	113,582	35,066	3.2	0.000
Statistics based on the rho-differenced data				
Mean dependent var	1.72E+13	S.E. of regression	386,261	
Sum squared resid	0.783	Adjusted R-squared	0.776	
R-squared	55.64	P-value(F)	0.000	
F(5, 114)	-0.05	Durbin-Watson	2.0898	

Using the above model coefficients, the following is derived:

Figure 3-8: GS 1,000 to 4,999 kW 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 3.1%. The MAPE calculated monthly over the period is 4.4%.

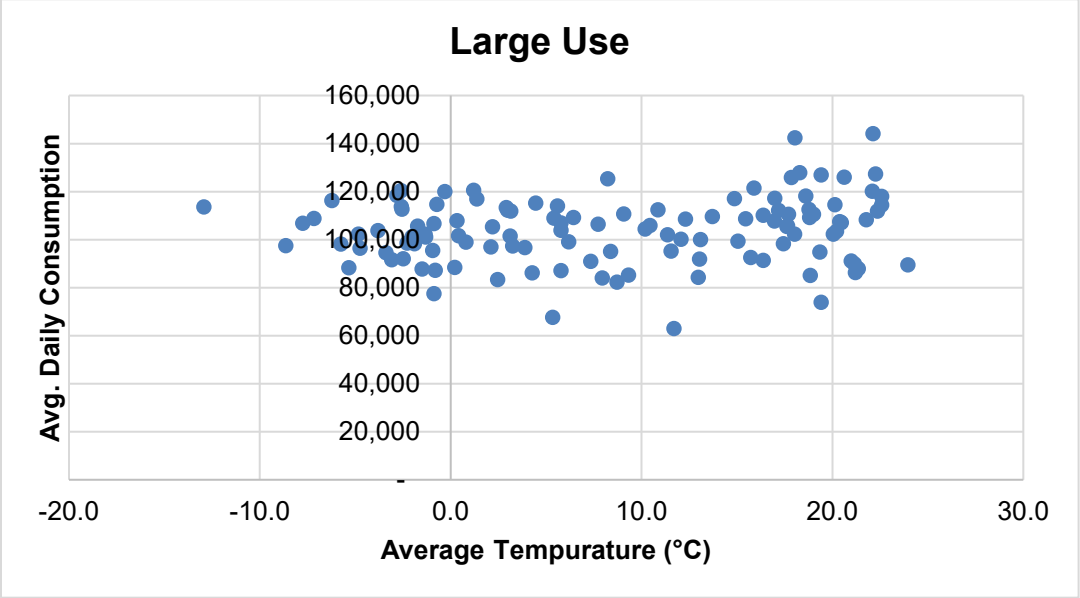
Table 3-16: GS 1,000 to 4,999 kW Model Error

	GS 1,000 to 4,999 kWh		Absolute
	CDM Added Back	Predicted	Error (%)
2015	86,087,442	86,774,118	0.80%
2016	94,437,615	90,988,322	3.70%
2017	92,723,490	88,772,595	4.30%
2018	87,032,630	91,837,136	5.50%
2019	87,142,340	90,180,010	3.50%
2020	81,138,766	81,866,845	0.90%
2021	80,645,469	82,281,858	2.00%
2022	92,552,275	88,122,136	4.80%
2023	88,849,938	91,722,853	3.20%
2024	95,120,796	92,991,976	2.20%
Total	**885,730,762**	**885,537,849**	**0.00%**
Mean Absolute Percentage Error (Annual)			3.10%
Mean Absolute Percentage Error (Monthly)			4.40%

3.2.5 Large Use

For the Large Use class, the regression equation was estimated using 120 observations from January 2015 to December 2024. Large Use consumption is not significantly correlated with weather but tends to be higher at monthly temperatures below 8°C and monthly temperatures above 14°. HDD relative to 8°C and CDD relative to 14°C were found to provide the strongest results. HDD and CDD measures near 8°C and 14°C, respectively, were also considered but found to be less predictive of monthly consumption.

Figure 3-9: Large Use kWh and Average Temperature



The quarterly change in Ontario GDP from Ontario Economic Accounts has been included as an indicator of economic activity. Measures for Ontario employment and other measures of GDP were also tested but found to be statistically less significant than Ontario GDP. A time trend variable equal to 1 in January 2015 and increasing by 1 in each subsequent month was used and found to be statistically significant. The Shoulder variable (equal to 1 in the spring and fall months) was found to be statistically significant and were used in the Large Use model. The COVID_AM variable was found to be statistically significant and more significant than other COVID variables.

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

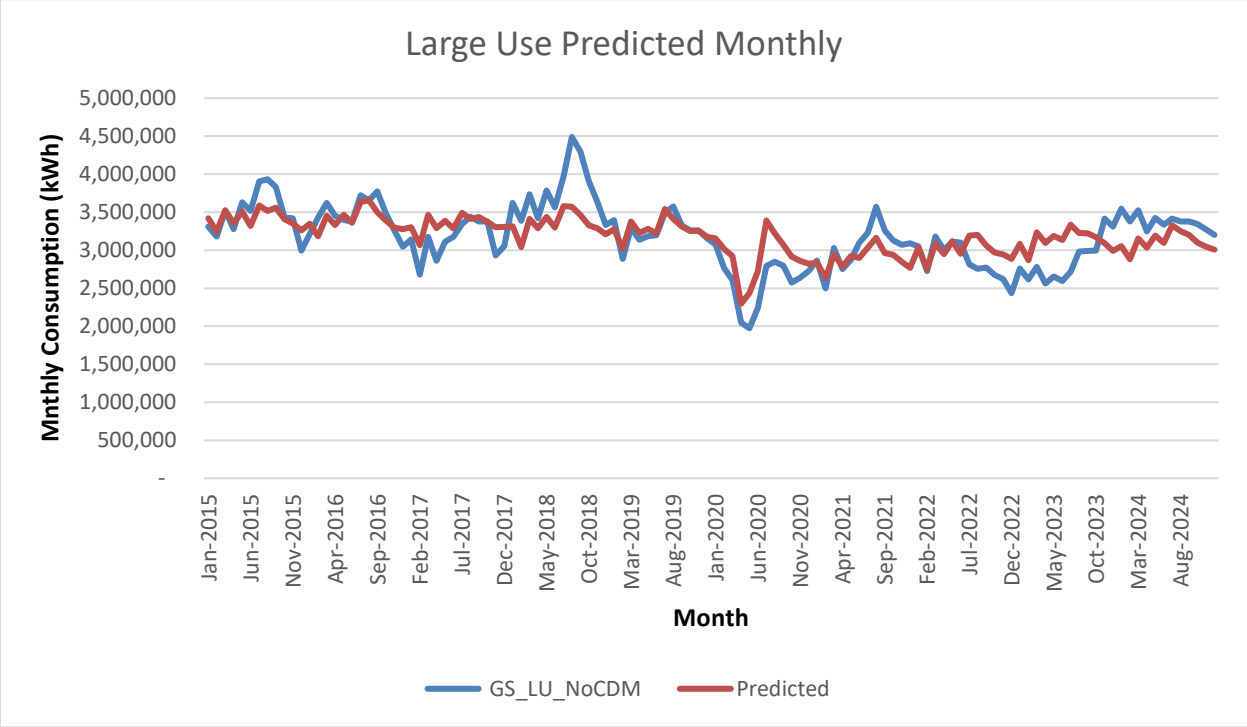
The following table outlines the resulting regression model:

Table 3-17: Large Use Regression Model

Model 25: Prais-Winsten, using observations 2015:01-2024:12 (T = 120) Dependent variable: GS_LU_NoCDM rho = 0.827817				
	coefficient	std. error	t-ratio	p-value
const	1,049,331	411,836	2.5	0.010
HDD8	412	186	2.2	0.030
CDD14	1,804	329	5.5	0.000
Trend	-2,861	2,318	-1.2	0.220
MonthDays	70,079	12,708	5.5	0.000
COVID_AM	-689,457	186,989	-3.7	0.000
Shoulder	177,041	37,533	4.7	0.000
OEA_GDPChange	2.1	0.98	2.1	0.030
Statistics based on the rho-differenced data				
Mean dependent var	3.20E+12	S.E. of regression	168,907	
Sum squared resid	0.849	Adjusted R-squared	0.84	
R-squared	26.04	P-value(F)	0.000	
F(5, 114)	0.02	Durbin-Watson	1.9586	

Using the above model coefficients, the following is derived:

Figure 3-10: Large Use 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 6.1%. The MAPE calculated monthly over the period is 7.5%.

Table 3-18: Large Use Model Error

	Large Use kWh		Absolute
	CDM Added Back	Predicted	Error (%)
2015	41,948,976	41,060,791	2.10%
2016	41,438,246	40,895,697	1.30%
2017	37,675,687	40,120,962	6.50%
2018	45,152,334	40,237,982	10.90%
2019	39,157,632	39,358,598	0.50%
2020	31,076,990	34,827,370	12.10%
2021	36,461,103	34,741,903	4.70%
2022	34,241,073	36,151,038	5.60%
2023	34,385,309	37,645,756	9.50%
2024	40,445,029	37,345,119	7.70%
Total	**381,982,380**	**382,385,215**	**0.10%**
Mean Absolute Percentage Error (Annual)			6.10%
Mean Absolute Percentage Error (Monthly)			7.50%

3.3 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, Oshawa Power has adopted the most recent 10-year monthly degree day average as the definition of weather normal.

3.3.1 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 Oshawa, which is used as the weather station for Oshawa Power.

Table 3-19: 10 Year Average HDD and CDD

	8°C		10°C		12°C		14°C		16°C		18°C		20°C	
	HDD	CDD	HDD	**CDD**	HDD	**CDD**	**HDD**	**CDD**	**HDD**	**CDD**	**HDD**	CDD	HDD	CDD
January	**387**	0	449	**0**	511	**0**	**573**	**0**	**635**	**0**	**697**	0	759	0
February	**341**	0	398	**0**	454	**0**	**511**	**0**	**568**	**0**	**624**	0	681	0
March	**239**	2	299	**1**	360	**0**	**422**	**0**	**484**	**0**	**546**	0	608	0
April	**80**	28	125	**13**	178	**6**	**235**	**2**	**293**	**0**	**352**	0	412	0
May	**7**	181	18	**130**	36	**86**	**64**	**52**	**103**	**29**	**150**	14	203	5
June	**0**	314	0	**255**	1	**195**	**3**	**138**	**12**	**86**	**33**	47	66	21
July	**0**	422	0	**360**	0	**298**	**0**	**236**	**0**	**174**	**2**	114	10	60
August	**0**	397	0	**335**	0	**273**	**0**	**211**	**1**	**150**	**6**	93	21	46
September	**0**	276	1	**217**	3	**159**	**10**	**106**	**26**	**62**	**55**	31	97	13
October	**25**	99	50	**62**	86	**35**	**130**	**18**	**181**	**7**	**238**	2	298	0
November	**140**	13	192	**6**	249	**2**	**307**	**1**	**367**	**0**	**427**	0	487	0
December	**269**	1	330	**0**	392	**0**	**454**	**0**	**516**	**0**	**578**	0	640	0

HDD and CDD values used in this forecast are bolded in the table above.

3.3.2 Economic Forecast

GDP and employment forecasts are based on the mean forecasts of four major Canadian banks TD, BMO, Scotiabank, RBC as of September 2024. Average forecast rates are applied to the most recent GDP and Labour Force Survey monthly data available.

Table 3-20: Economic Forecasts

Report Date	BMO 28-Mar-25	RBC 13-Mar-25	Scotia 18-Mar-25	TD 19-Mar-25	Average
FTE (Employment growth % YoY)					
2024	1.60%	1.70%	1.70%	1.70%	1.68%
2025	0.60%	1.40%	1.30%	1.40%	1.18%
2026	0.60%	0.20%	0.70%	0.30%	0.45%
GDP (Real GDP % YoY)					
2024	1.50%	1.50%	1.50%	1.30%	1.45%
2025	-0.20%	1.20%	1.60%	1.00%	0.90%
2026	0.20%	1.20%	1.30%	0.90%	0.90%

For example, the 2025 forecast FTE growth rate, 1.18%, is applied to the number of January 2024 FTEs to forecast the number of FTEs in January 2025. The January 2026 FTE forecast is then determined by applying 0.45%, the 2026 FTE forecast growth rate, to the January 2025 forecast.

3.4 CLASS SPECIFIC NORMALIZED FORECASTS

3.4.1 Residential

Normalized forecast by rate class are provided below. Customer/connection counts are mid-year averages, in alignment with instructions provided in Appendix 2-K, with variances year-over-year.

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

Table 3-21: Actual vs. Normalized Residential kWh

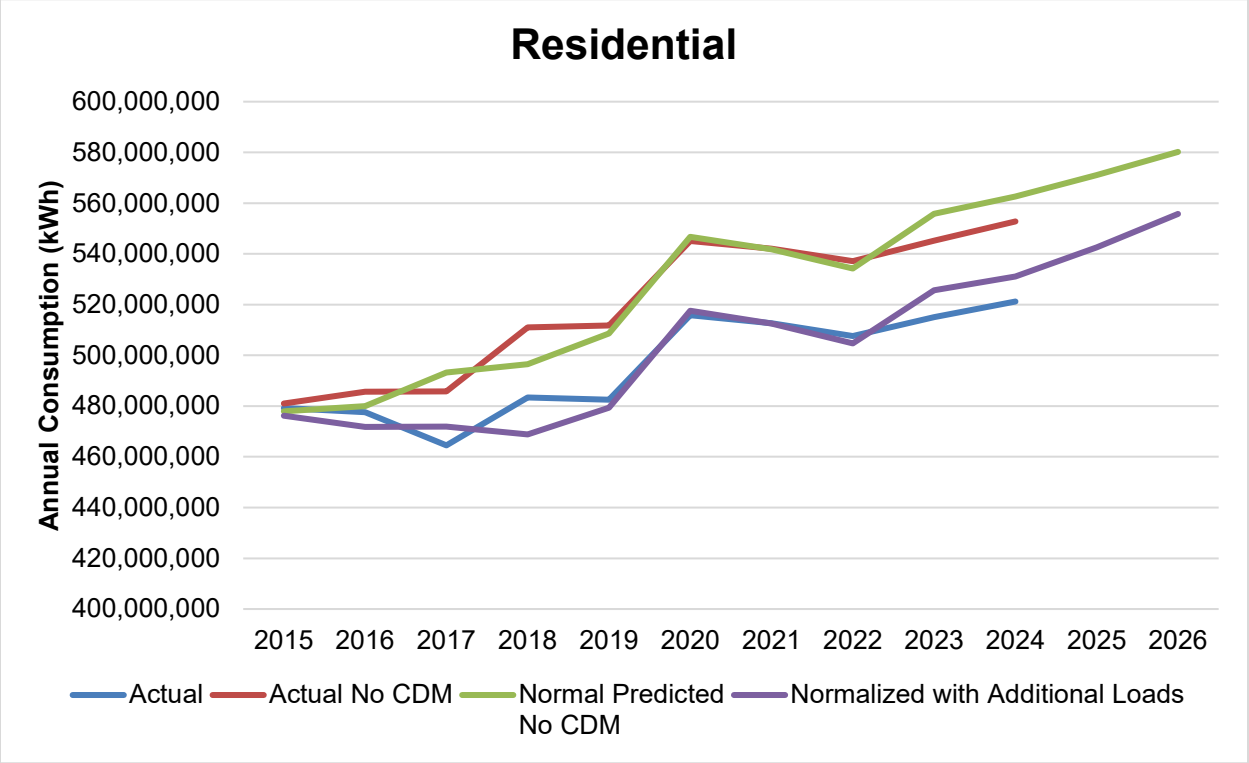
Residential kWh						
Year	Actual	Cumulative Persisting CDM	Actual No CDM	Normalized No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2015	479,266,201	1,745,859	481,012,060	477,932,080	1,745,859	476,186,221
2016	477,527,824	8,129,505	485,657,329	479,975,603	8,129,505	471,846,099
2017	464,513,659	21,218,884	485,732,543	493,192,876	21,218,884	471,973,993
2018	483,410,782	27,652,755	511,063,537	496,481,007	27,652,755	468,828,253
2019	482,531,158	29,232,189	511,763,347	508,629,842	29,232,189	479,397,653
2020	515,808,015	29,230,324	545,038,339	546,758,836	29,230,324	517,528,512
2021	512,708,991	29,305,872	542,014,863	541,846,756	29,305,872	512,540,884
2022	507,634,502	29,517,006	537,151,508	534,213,779	29,517,006	504,696,773
2023	515,036,056	30,133,810	545,169,866	555,739,491	30,133,810	525,605,681
2024	521,215,102	31,567,265	552,782,368	562,615,487	31,567,265	531,048,222
2025				570,997,300	31,134,906	539,862,394
2026				580,190,762	30,745,480	549,445,282

Additional loads, as described further in section 3.6 below, to account for increased loads from electric vehicles and heat pumps are forecast and added to the weather normalized forecasts for 2025 and 2026.

Table 3-22: Additional Residential kWh Consumption

	Normalized Forecast	Additional Loads	Total kWh Forecast
2025	539,862,394	2,660,006	542,522,401
2026	549,445,282	6,300,526	555,745,808

Figure 3-11: 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 forecast for the purpose of rate setting. The geometric mean of the annual growth from 2017 to 2024 was used to forecast the growth rate from 2024 to 2026. This is an 8 year forecast as growth from 2016 to 2017 was extraordinary and not reflective of recent or expected Residential customer count growth.

Table 3-23: Forecast Residential Customer Count

Residential		Percent of Prior Year
Year	Customers	
2015	48,572	
2016	49,247	101.39%
2017	52,736	107.08%
2018	53,780	101.98%
2019	54,577	101.48%
2020	54,549	99.95%
2021	55,127	101.06%
2022	55,762	101.15%
2023	56,981	102.19%
2024	57,937	101.68%
2025	58,721	101.35%
2026	59,515	101.35%

3.4.1 GS < 50 kW

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

Table 3-24: Actual vs. Normalized GS < 50 kWh

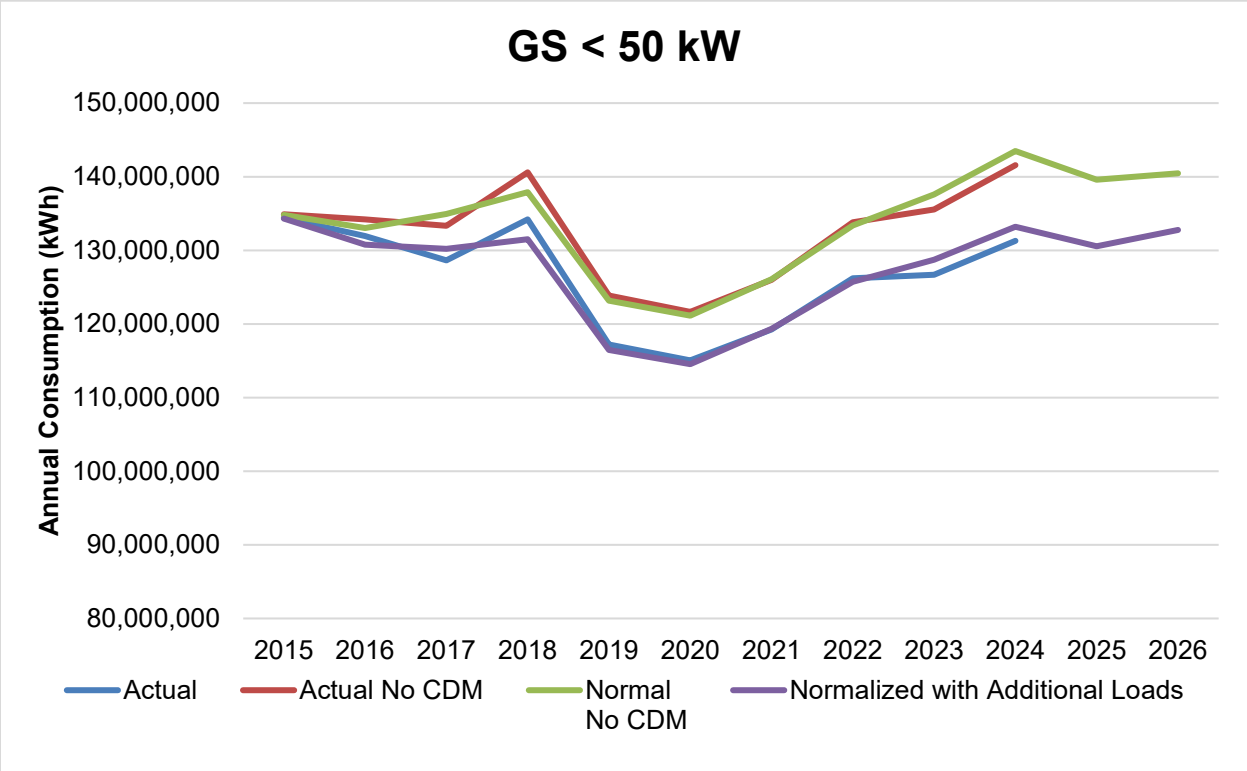
GS < 50 kWh						
Year	Actual	Cumulative Persisting CDM	Actual No CDM	Normalized No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2015	134,383,174	515,128	134,898,302	134,831,661	515,128	134,316,533
2016	131,950,149	2,242,271	134,192,420	133,025,663	2,242,271	130,783,391
2017	128,640,162	4,711,925	133,352,087	134,930,958	4,711,925	130,219,033
2018	134,207,593	6,398,722	140,606,315	137,889,677	6,398,722	131,490,955
2019	117,191,070	6,673,754	123,864,824	123,162,585	6,673,754	116,488,831
2020	115,055,107	6,585,302	121,640,409	121,129,283	6,585,302	114,543,981
2021	119,245,755	6,723,204	125,968,959	126,065,642	6,723,204	119,342,438
2022	126,198,741	7,633,815	133,832,556	133,363,947	7,633,815	125,730,133
2023	126,694,932	8,863,503	135,558,435	137,596,186	8,863,503	128,732,683
2024	131,296,579	10,274,097	141,570,676	143,489,381	10,274,097	133,215,283
2025				139,575,293	9,604,045	129,971,248
2026				140,458,875	9,078,434	131,380,441

Additional loads, as described further in section 3.6 below, increased loads from electric vehicles and heat pumps are forecast and added to the weather normalized forecasts for 2025 and 2026.

Table 3-25: Additional GS<50 kWh Consumption

	Normalized Forecast	Additional Loads	Total kWh Forecast
2025	539,862,394	2,660,006	542,522,401
2026	549,445,282	6,300,526	555,745,808

Figure 3-12: Actual vs. Normalized GS<50 kWh



While GS < 50 customer counts are not a component of the regression model, they are forecast for the purpose of rate setting. The Geometric mean of the annual growth from 2015 to 2024 was used to forecast the growth rate from 2024 to 2026.

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

Table 3-26: Forecast GS<50 kW Customer Count

GS < 50 kW		Percent of Prior Year
Year	Customers	
2015	4,020	
2016	4,150	103.23%
2017	4,162	100.29%
2018	4,199	100.90%
2019	4,195	99.89%
2020	4,212	100.40%
2021	4,271	101.41%
2022	4,305	100.79%
2023	4,393	102.06%
2024	4,427	100.77%
2025	4,475	101.08%
2026	4,523	101.08%

3.4.2 GS 50 to 999 kW

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

Table 3-27: Actual vs. Normalized GS 50 to 999 kWh

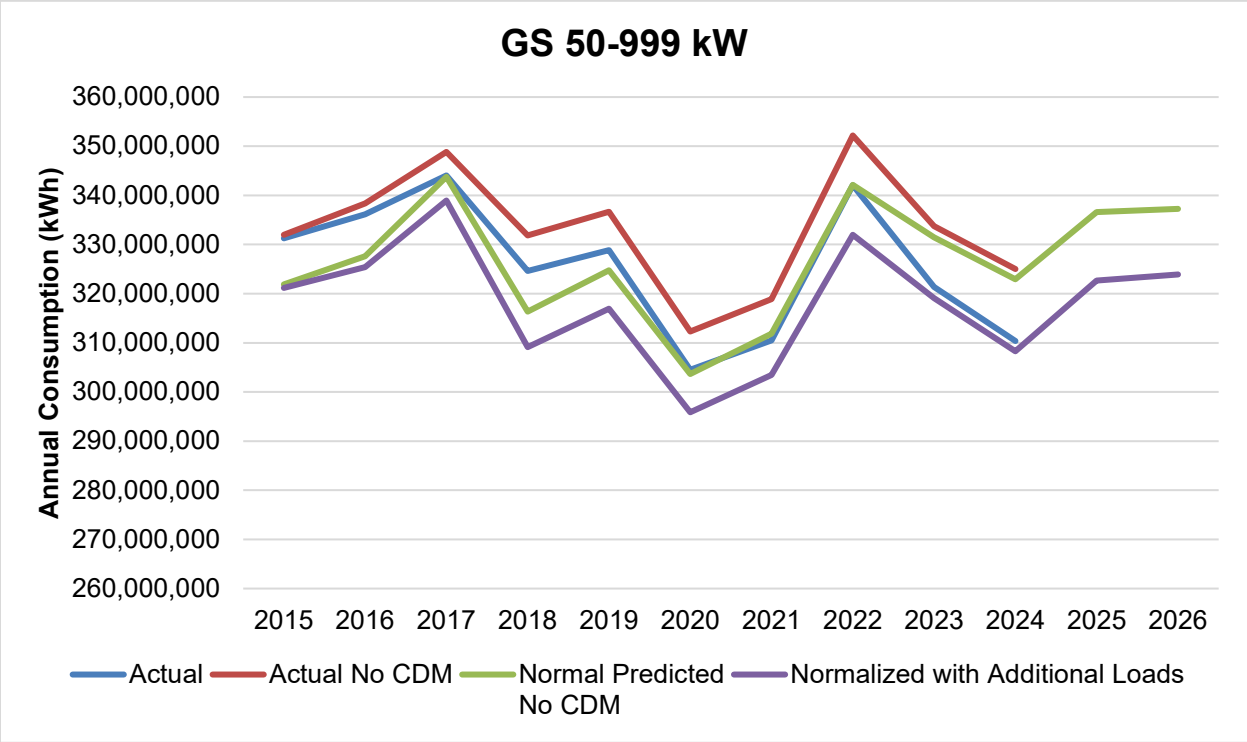
GS 50 to 999 kWh						
Year	Actual	Cumulative Persisting CDM	Actual No CDM	Normalized No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2015	331,248,131	718,467	331,966,599	321,895,054	718,467	321,176,587
2016	336,135,880	2,246,980	338,382,861	327,641,153	2,246,980	325,394,173
2017	344,049,960	4,819,231	348,869,191	343,769,841	4,819,231	338,950,610
2018	324,633,083	7,226,094	331,859,176	316,344,733	7,226,094	309,118,639
2019	328,874,819	7,815,669	336,690,488	324,769,416	7,815,669	316,953,747
2020	304,515,885	7,784,985	312,300,870	303,652,654	7,784,985	295,867,669
2021	310,470,030	8,419,070	318,889,100	311,848,726	8,419,070	303,429,656
2022	342,060,680	10,123,384	352,184,064	342,130,819	10,123,384	332,007,435
2023	321,367,375	12,359,709	333,727,084	331,461,100	12,359,709	319,101,391
2024	310,385,723	14,642,100	325,027,823	322,918,882	14,642,100	308,276,782
2025				336,576,278	14,028,875	322,547,403
2026				337,262,813	13,684,221	323,578,592

Additional loads, as described further in section 3.6 below, loads from electric vehicles are forecast and added to the weather normalized forecasts for 2025 and 2026.

Table 3-28: Additional GS 50 to 999 kWh Consumption

	Normalized Forecast	Additional Loads	Total kWh Forecast
2025	322,547,403	107,148	322,654,551
2026	323,578,592	344,417	323,923,010

Figure 3-13: Actual vs. Normalized GS 50 to 999 kWh



The Geometric mean of the annual growth from 2015 to 2024 was used to forecast the customer count growth rate from 2024 to 2026.

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

Table 3-29: Forecast GS 50 to 999 kW Customer Count

GS 50 to 999 kW		Percent of Prior Year
Year	Customers	
2015	509	
2016	518	101.64%
2017	524	101.24%
2018	515	98.36%
2019	525	101.91%
2020	538	102.40%
2021	538	100.11%
2022	543	100.87%
2023	521	95.96%
2024	517	99.14%
2025	517	100.16%
2026	518	100.16%

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 ratio is calculated as the 10-year average kW/kWh ratio from 2015-2024.

Table 3-30: Forecast GS 50 to 999 kW

GS 50 to 999 kW					
	kWh	kW	Ratio		
	A	B	C = B / A		
2015	331,248,131	839,348	0.00253		
2016	336,135,880	851,612	0.00253		
2017	344,049,960	818,804	0.00238		
2018	324,633,083	829,834	0.00256		
2019	328,874,819	800,108	0.00243		
2020	304,515,885	816,354	0.00268		
2021	310,470,030	798,585	0.00257		
2022	342,060,680	825,642	0.00241		
2023	321,367,375	832,496	0.00259		
2024	310,385,723	809,030	0.00261		
	kWh Normalized	kW Normalized	Average	Additional Load	Total
	D	E = D * G	F	G	H = E + G
2024	330,372,183	835,847	0.00253		835,847
2025	330,893,891	837,167	0.00253	734	837,901
2026	331,925,080	839,776	0.00253	2,359	842,135

Additional billed demand loads are calculated separately as described in section 3.6.

3.4.3 GS 1,000 to 4,999 kW

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

Table 3-31: Actual vs. Normalized GS 1,000 to 4,999 kW

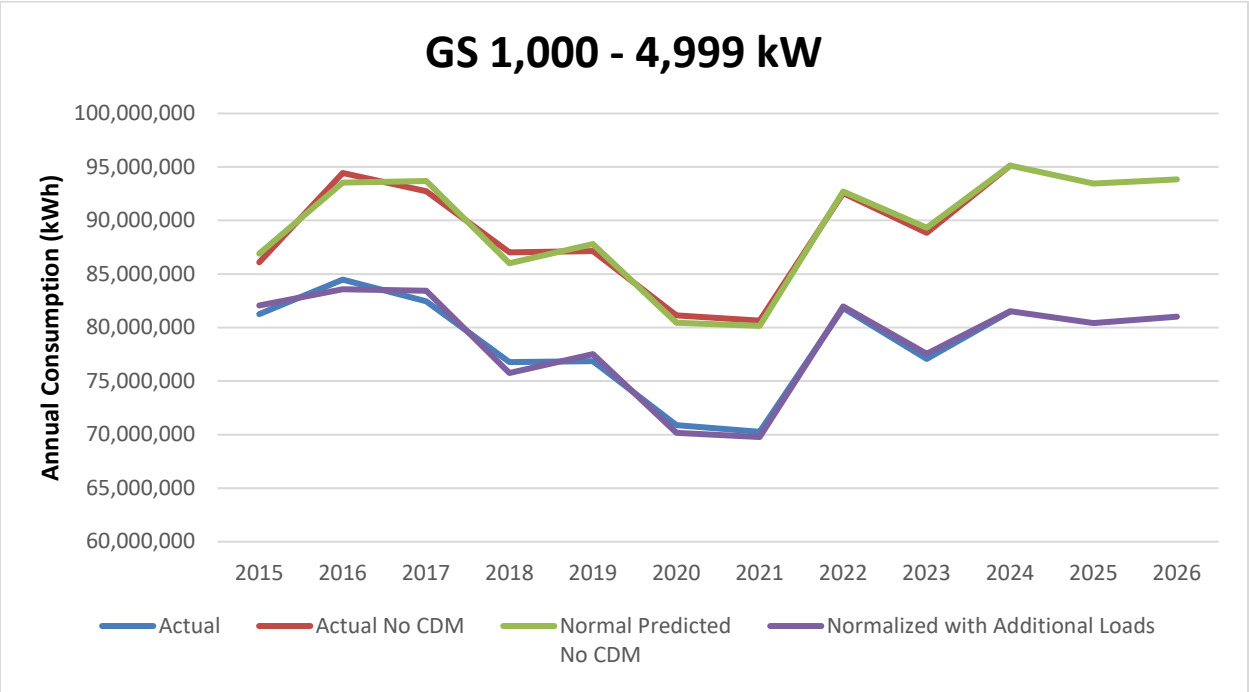
	GS 1,000 to 4,999 kWh					
Year	Actual	Cumulative Persisting CDM	Actual No CDM	Normalized No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2015	81,262,024	4,825,418	86,087,442	86,902,672	4,825,418	82,077,253
2016	84,479,484	9,958,131	94,437,615	93,536,463	9,958,131	83,578,332
2017	82,458,080	10,265,410	92,723,490	93,694,024	10,265,410	83,428,614
2018	76,765,564	10,267,066	87,032,630	86,016,116	10,267,066	75,749,050
2019	76,875,274	10,267,066	87,142,340	87,799,845	10,267,066	77,532,779
2020	70,871,832	10,266,934	81,138,766	80,445,755	10,266,934	70,178,820
2021	70,260,672	10,384,798	80,645,469	80,158,682	10,384,798	69,773,884
2022	81,816,679	10,735,596	92,552,275	92,716,809	10,735,596	81,981,213
2023	77,073,500	11,776,437	88,849,938	89,328,056	11,776,437	77,551,619
2024	81,507,757	13,613,039	95,120,796	95,132,342	13,613,039	81,519,303
2025				93,445,528	13,136,830	80,308,698
2026				93,841,797	13,059,603	80,782,194

Additional loads, as described further in section 3.6 below, loads from electric vehicles are forecast and added to the weather normalized forecasts for 2025 and 2026.

Table 3-32: Additional GS 1,000 to 4,999 kWh Consumption

	Normalized Forecast	Additional Loads	Total kWh Forecast
2025	80,308,698	107,148	80,415,846
2026	80,782,194	226,346	81,008,540

Figure 3-14: Actual vs. Normalized GS 1,000 to 4,999 kWh



The geometric mean of the annual growth from 2015 to 2024 was used to forecast the customer count growth rate from 2024 to 2026.

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

Table 3-33: Forecast GS 1,000 to 4,999 kW Customer Count

GS 1,000 to 4,999		Percent of Prior Year
Year	Customers	
2015	13	
2016	13	102.67%
2017	12	92.21%
2018	12	101.41%
2019	14	116.67%
2020	15	103.57%
2021	17	117.24%
2022	18	105.88%
2023	18	100.00%
2024	17	94.44%
2025	18	103.48%
2026	18	103.48%

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 ratio is calculated as the 10-year average kW/kWh ratio from 2015-2024.

Table 3-34: Forecast GS 1,000 to 4,999 kW

GS 1,000 to 4,999 kW					
	kWh A	kW B	Ratio C = B / A		
2015	81,262,024	190,622	0.00235		
2016	84,479,484	203,972	0.00241		
2017	82,458,080	192,774	0.00234		
2018	76,765,564	190,148	0.00248		
2019	76,875,274	184,106	0.00240		
2020	70,871,832	176,692	0.00249		
2021	70,260,672	171,435	0.00244		
2022	81,816,679	179,600	0.00220		
2023	77,073,500	179,794	0.00233		
2024	81,507,757	184,987	0.00227		
	kWh Normalized D	kW Normalized E = D * G	Average F	Additional Load G	Total H = E + G
2024	79,390,483	188,159	0.00237		188,159
2025	80,415,846	190,590	0.00237	477	191,066
2026	81,008,540	191,994	0.00237	1,550	193,545

Additional billed demand loads are calculated separately as described in section 3.6.

3.4.4 Large Use

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

Table 3-35: Actual vs. Normalized Large Use kWh

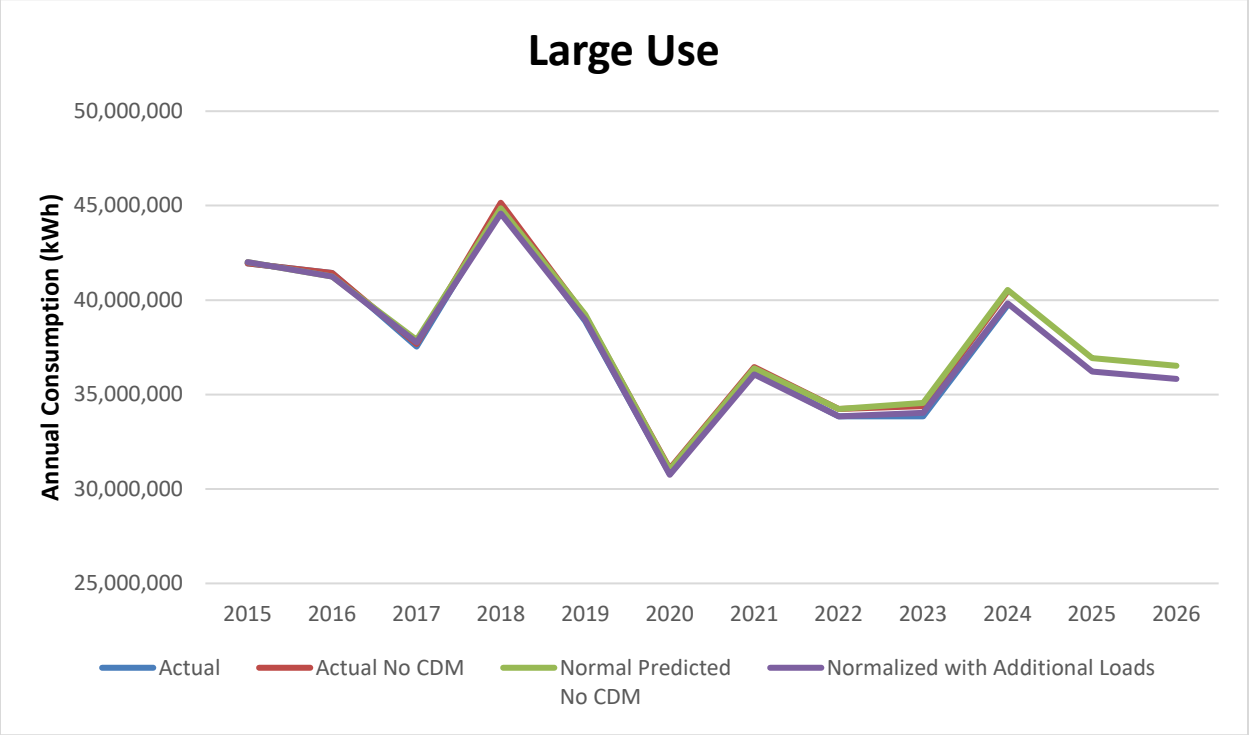
Large Use kWh						
Year	Actual	Cumulative Persisting CDM	Actual No CDM	Normalized No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2015	41,948,976	0	41,948,976	42,011,642	0	42,011,642
2016	41,438,246	0	41,438,246	41,251,053	0	41,251,053
2017	37,536,243	139,444	37,675,687	37,897,521	139,444	37,758,078
2018	44,873,420	278,914	45,152,334	44,858,431	278,914	44,579,517
2019	38,878,938	278,694	39,157,632	39,227,774	278,694	38,949,080
2020	30,798,516	278,474	31,076,990	31,027,913	278,474	30,749,439
2021	36,146,632	314,471	36,461,103	36,380,891	314,471	36,066,420
2022	33,850,160	390,913	34,241,073	34,226,221	390,913	33,835,309
2023	33,850,160	535,149	34,385,309	34,556,786	535,149	34,021,637
2024	39,718,186	726,843	40,445,029	40,544,147	726,843	39,817,304
2025				36,932,531	726,156	36,206,375
2026				36,521,000	719,352	35,801,648

Additional loads, as described further in section 3.6 below, loads from electric are forecast and added to the weather normalized forecasts for 2025 and 2026.

Table 3-36: Additional Large Use kWh Consumption

	Normalized Forecast	Additional Loads	Total kWh Forecast
2025	36,206,375	8,586	36,214,960
2026	35,801,648	26,678	35,828,326

Figure 3-15: Actual vs. Normalized Large Use kWh



The Large Use rate class has had one customer since 2015 and this is forecast to continue through the 2026 Test Year.

Table 3-37: Forecast Large Use Customer Count

Large Use		Percent of Prior Year
Year	Customers	
2015	1	
2016	1	100.00%
2017	1	100.00%
2018	1	100.00%
2019	1	100.00%
2020	1	100.00%
2021	1	100.00%
2022	1	100.00%
2023	1	100.00%
2024	1	100.00%
2025	1	100.00%
2026	1	100.00%

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 ratio is calculated as the 10-year average kW/kWh ratio from 2015-2024.

Table 3-38: Forecast Large Use kW

	Large Use				
	kWh	kW	Ratio		
	A	B	C = B / A		
2015	41,948,976	95,646	0.00228		
2016	41,438,246	99,493	0.00240		
2017	37,536,243	91,981	0.00245		
2018	44,873,420	88,890	0.00198		
2019	38,878,938	87,299	0.00225		
2020	30,798,516	72,644	0.00236		
2021	36,146,632	73,480	0.00203		
2022	33,850,160	76,263	0.00225		
2023	33,850,160	73,164	0.00216		
2024	39,718,186	82,740	0.00208		
	kWh Normalized	kW Normalized	Average	Additional Load	Total
	D	E = D * G	F	G	H = E + G
2024	36,717,393	81,685	0.002225		81,685
2025	36,206,375	80,548	0.002225	59	80,607
2026	35,801,648	79,648	0.002225	183	79,830

Additional billed demand loads are calculated separately as described in section 3.6.

3.5 STREET LIGHT, SENTINEL LIGHT, AND USL FORECAST

The Street Lighting, Sentinel Light, and Unmetered Scattered Load classes are non-weather sensitive classes. Device counts for each class reflect mid-year averages and are forecast on the geometric mean growth rate from 2016 to 2024, with the exception of the Sentinel Lighting class which is forecast to continue at the same device count it has had since 2019. Energy volumes for these classes are forecast on the basis of average energy per device over the last three years.

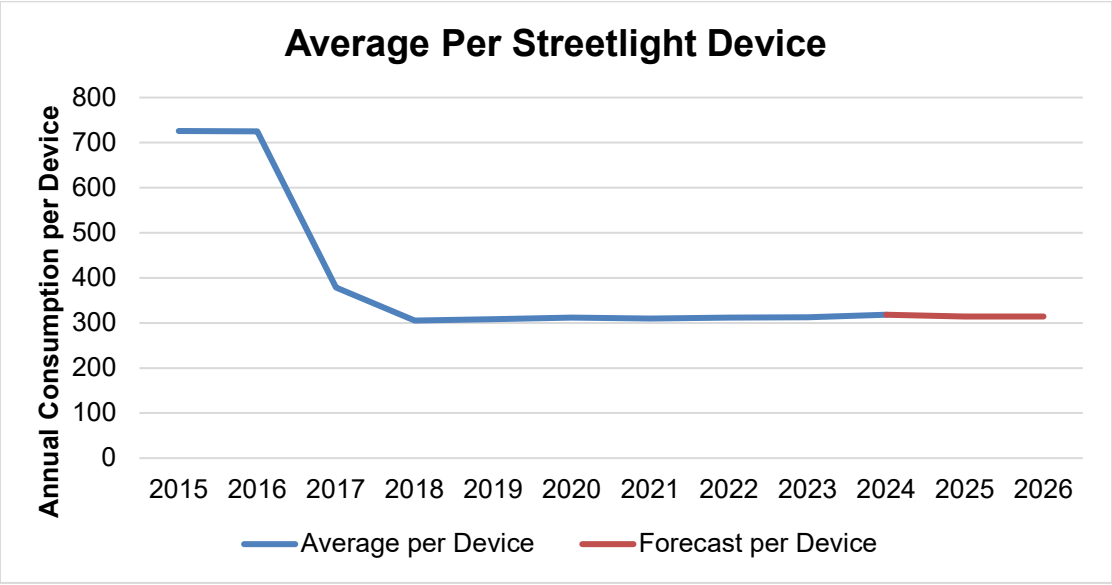
3.5.1 Street Light

The table below summarizes the historical and forecast annual energy consumption for the Street Light class. Oshawa Power underwent a LED conversion ending in 2017, which saw a 58% reduction in consumption per device. The 2022 to 2024 average consumption per device is used as the average consumption per device in 2025 and 2026.

Table 3-39: Street Light Consumption Forecast

Streetlight kWh				
Year	Actual	Devices	Average / Device	Normalized
	A	B	C = A / B	D = C * B
2015	9,200,437	12,676	726	9,200,437
2016	9,395,991	12,955	725	9,395,991
2017	4,988,074	13,171	379	4,988,074
2018	4,221,567	13,828	305	4,221,567
2019	4,294,352	13,934	308	4,294,352
2020	4,357,194	13,979	312	4,357,194
2021	4,352,367	14,038	310	4,352,367
2022	4,432,743	14,204	312	4,432,743
2023	4,495,190	14,384	313	4,495,190
2024	4,596,499	14,446	318	4,596,499
2025		14,644	314	4,602,000
2026		14,845	314	4,665,082

Figure 3-16: Street Light kWh per Device



The Geometric mean of the annual growth from 2016 to 2024 is used to forecast the growth rate from 2024 to 2026.

Table 3-40: Forecast Street Light Device Count

Street Light		Percent of Prior Year
Year	Devices	
2015	12,676	
2016	12,955	102.20%
2017	13,171	101.67%
2018	13,828	104.98%
2019	13,934	100.77%
2020	13,979	100.33%
2021	14,038	100.42%
2022	14,204	101.18%
2023	14,384	101.27%
2024	14,446	100.43%
2025	14,644	101.37%
2026	14,845	101.37%

The 10-year average of the ratio from 2015 to 2024 is applied to normalized consumption to forecast kW demand.

Table 3-41: Forecast Street Light kW

	Street Lights		
	kWh	kW	Ratio
	A	B	C = B / A
2015	9,200,437	26,108	0.00284
2016	9,395,991	26,524	0.00282
2017	4,988,074	13,945	0.00280
2018	4,221,567	12,111	0.00287
2019	4,294,352	12,225	0.00285
2020	4,357,194	12,276	0.00282
2021	4,352,367	12,332	0.00283
2022	4,432,743	12,587	0.00284
2023	4,495,190	12,769	0.00284
2024	4,596,499	12,817	0.00279
	kWh Normalized	kW Normalized	Average
	D	E = D * G	F
2024	4,596,499	13,004	0.00283
2025	4,602,000	13,020	0.00283
2026	4,665,082	13,198	0.00283

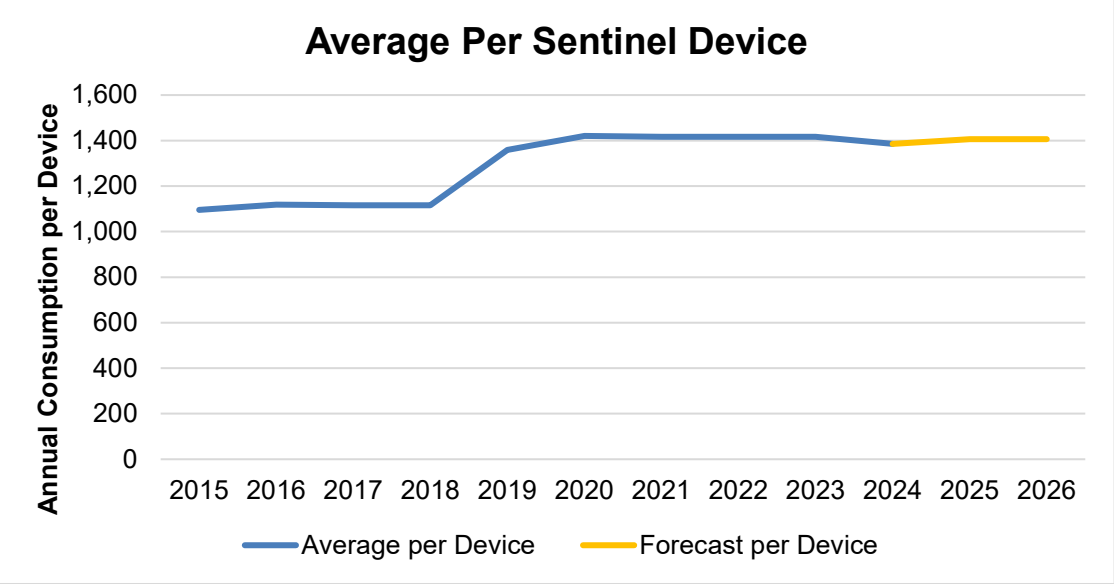
3.5.2 Sentinel Lighting

The table below summarizes the historical and forecast annual energy consumption for the Sentinel Lighting class. Consumption per Sentinel Lighting device increased in 2019 following a decline in the number of Sentinel Lighting devices. The 2022-2024 average consumption per device is used as the average consumption per device in 2025 and 2026.

Table 3-42: Sentinel Lighting Consumption Forecast

Sentinel Lighting kWh				
Year	Actual	Devices	Average / Device	Normalized
	A	B	C = A / B	D = C * B
2015	27,388	25	1,096	27,388
2016	25,738	23	1,119	25,738
2017	25,668	23	1,116	25,668
2018	25,647	23	1,115	25,647
2019	25,816	19	1,359	25,816
2020	26,989	19	1,420	26,989
2021	26,915	19	1,417	26,915
2022	26,915	19	1,417	26,915
2023	26,915	19	1,417	26,915
2024	26,324	19	1,385	26,324
2025		19	1,406	26,718
2026		19	1,406	26,718

Figure 3-17: Sentinel Lighting kWh per Device



The class has had 19 devices since 2019 and that is forecast to continue to the 2026 Test Year.

Table 3-43: Forecast Sentinel Lighting Device Count

Sentinel Lighting		Percent of Prior Year
Year	Devices	
2015	25	
2016	23	92.00%
2017	23	100.00%
2018	23	100.00%
2019	19	82.61%
2020	19	100.00%
2021	19	100.00%
2022	19	100.00%
2023	19	100.00%
2024	19	100.00%
2025	19	100.00%
2026	19	100.00%

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 5-year average kW/kWh ratio from 2020-2024 was used.

Table 3-44: Forecast Sentinel Lighting kW

Sentinel Lighting			
	kWh A	kW B	Ratio C = B / A
2015	27,388	100	0.00365
2016	25,738	85	0.00330
2017	25,668	85	0.00331
2018	25,647	85	0.00331
2019	25,816	85	0.00329
2020	26,989	85	0.00315
2021	26,915	81	0.00301
2022	26,915	79	0.00294
2023	26,915	77	0.00286
2024	26,324	75	0.00285
	kWh Normalized D	kW Normalized E = D * G	Average F
2024	26,324	78	0.00296
2025	26,718	79	0.00296
2026	26,718	79	0.00296

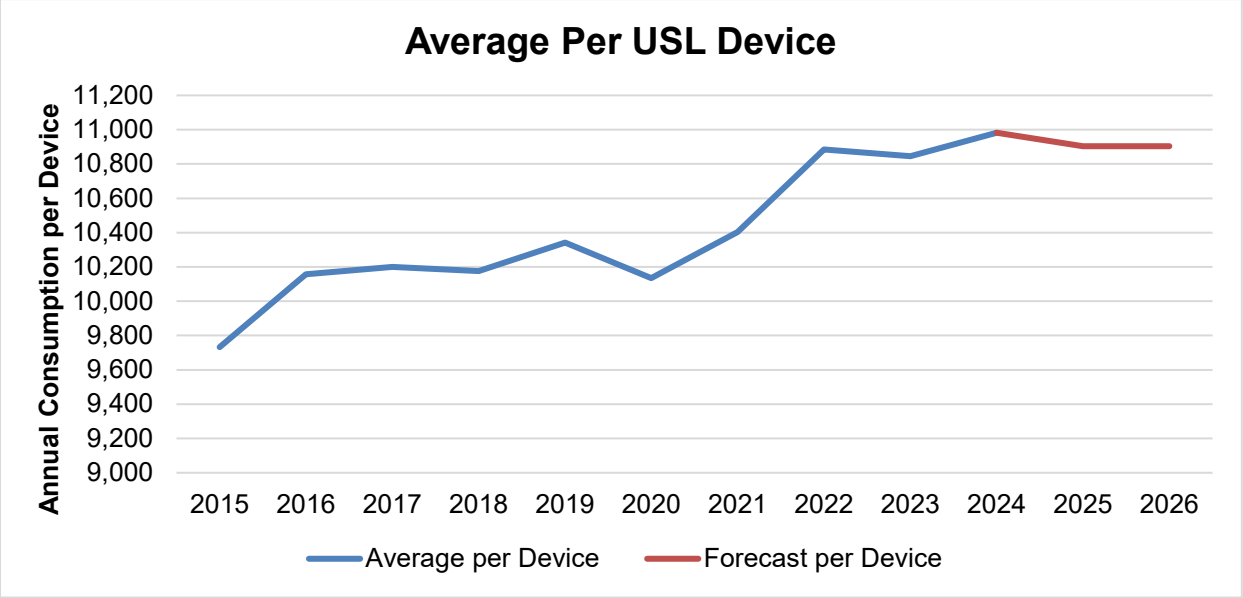
3.5.3 USL

The following table summarizes historical and forecast annual energy consumption for Oshawa Power's USL class. Consumption in 2025 and 2026 has been forecast based on the average consumption per device from 2022 to 2024 and forecast device counts

Table 3-45: USL Consumption Forecast

USL				
Year	Actual	Devices	Average / Device	Normal Forecast
	A	B	C = A / B	D = C * B
2015	2,509,347	258	9,732	2,509,347
2016	2,501,224	246	10,157	2,501,224
2017	2,510,071	246	10,200	2,510,071
2018	2,522,886	248	10,176	2,522,886
2019	2,551,978	247	10,342	2,551,978
2020	2,565,642	253	10,134	2,565,642
2021	2,615,361	251	10,402	2,615,361
2022	2,750,057	253	10,884	2,750,057
2023	2,811,443	259	10,845	2,811,443
2024	2,849,870	260	10,982	2,849,870
2025		261	10,904	2,848,081
2026		263	10,904	2,866,800

Figure 3-18: USL kWh per Device



The number of USL devices decreased from 262 to 244 in October 2015 and has generally increased at a low rate since 2016. This decline does not reflect more recent trends in device growth or Oshawa Power's expectations to the 2026 Test Year so a nine-year 2016-2024 growth rate is used to forecast USL device counts.

Table 3-46: Forecast USL Devices

USL		Percent of Prior Year
Year	Devices	
2015	258	
2016	246	95.51%
2017	246	99.93%
2018	248	100.75%
2019	247	99.53%
2020	253	102.60%
2021	251	99.31%
2022	253	100.50%
2023	259	102.61%
2024	260	100.10%
2025	261	100.66%
2026	263	100.66%

3.6 ADDITIONAL LOADS

Oshawa Power's loads are expected to increase above what would be forecast using only weather-normalized historical averages and trends from increased electrification. These loads are estimated using a bottom-up approach in which the specific sources of incremental loads are forecast separately and layered onto the top-down forecast that is based on historical loads.

3.6.1 Electric Vehicles

Electric vehicle consumption is forecast based on Canada's zero-emission vehicle sales target to reach 20% by 2026, estimated consumption per type of EV, and EV statistics from Statistics Canada. The data from Statistics Canada includes the total number of EVs sold in Oshawa and the number of EVs sold in Ontario by type of vehicle.

Statistics Canada provides data for the total number of zero-emission vehicles by municipality, but this data does not provide a breakdown between type of vehicle at the

municipal level. This data by type of vehicle is available at the provincial level so it is assumed that the number of the number of each type of EV as a share of total EVs in Ontario is the same as the share in Oshawa Power's service area.

The total number of EVs in Oshawa Power and the number of EVs in Ontario by type are provided in the table below.

Table 3-47: Ontario and Oshawa EV Statistics

	2018	2019	2020	2021	2022	2023	2024	
Oshawa New EVs	151	90	78	179	328	522	726	A
ON New EVs	16,758	9,762	10,515	19,716	38,662	50,132	56,600	B
Oshawa % of ON EVs	0.93%	0.96%	0.75%	1.00%	0.86%	1.07%	1.44%	C = A / B
EVs by Type in Ontario								
Passenger EVs	12,828	7,124	5,699	8,028	13,157	11,001	9,794	D
Multi-Purp. EVs	3,055	2,546	4,681	11,406	23,938	36,195	42,094	E
Vans EVs	875	92	135	282	695	1,127	632	F
Pickup Truck EVs	-	-	-	-	872	1,809	4,080	G
EV Types as % of Total EVs								
Passenger EVs	76.5%	73.0%	54.2%	40.7%	34.0%	21.9%	17.3%	H = D /B
Multi-Purp. EVs	18.2%	26.1%	44.5%	57.9%	61.9%	72.2%	74.4%	I = E / B
Vans EVs	5.2%	0.9%	1.3%	1.4%	1.8%	2.2%	1.1%	J = F / B
Pickup Truck EVs	0.0%	0.0%	0.0%	0.0%	2.3%	3.6%	7.2%	K = G / B

These values are used to estimate the number of EVs by type in Oshawa Power's service territory based on the actual total number of EVs. Are Passenger EVs and Multi-Purpose Vehicle EVs, which are SUVs and crossovers, are combined. Those vehicle types are assumed to have the same annual consumption. The share of Passenger and Multi-Purpose Vehicles have each changed significantly over the past seven years, but jointly the share has been reasonably consistent over time.

Table 3-48: Estimate of Oshawa EVs by Type

	2018	2019	2020	2021	2022	2023	2024	
New Vehicles in Oshawa								
Total (Actual)	151	90	78	179	328	522	726	L = A
Passenger & Multi-Purpose EVs	143	89	77	177	315	491	660	M = L * (H + I)
Van EVs	8	1	1	2	6	11	7	N = L * J
Pickup Truck EVs	-	-	-	-	7.5	19.3	58.9	O = L * K

The total number of EVs in Oshawa Power in the Bridge and Test Years is forecast based on the number of vehicles sold in Ontario, the share of Ontario EVs sold in Oshawa, and the target number of EVs sold in Canada. Actual EV sales in Ontario have lagged behind a trajectory to 20% EV sales in Ontario by 2026, so this target is pushed by two years to 2028 and the 2026 target with this trajectory is 12.7%.

Table 3-49: Forecast of EVs Oshawa Power EVs by Type 2023-2026

	2023	2024	2025	2026	
All Vehicles in Ontario	677,044	699,289	713,275	727,540	P
New EV Target	7.40%	8.10%	10.10%	12.70%	Q
Oshawa % of ON EVs	1.04%	1.28%	1.29%	1.29%	R
Total New Oshawa EVs	522	726	934	1,194	S = P * Q * R
Passenger & Multi-Purp.	491	660	864	1,105	T = S * (H + I)
Van	11	7	14	18	U = S * J
Pickup Truck	19	59	56	71	V = S * K

Table 3-50 provides a summary of the assumptions used to forecast EV sales in Oshawa Power.

Table 3-50: Basis of Forecast Elements

Metric	Basis of 2025/2026 Forecast
All Vehicles in Ontario	2% Growth
New EV Target	Trajectory to 2028 Target
Oshawa % of ON EVs	Equal 2024 share
Total New Oshawa EVs	Total vehicles times share of EVs times Oshawa share of EVs
Passenger & Multi-Purp.	Total Oshawa EVs times 2024 share of vehicle type
Van	Total Oshawa EVs times 2024 share of vehicle type
Pickup Truck	Total Oshawa EVs times 2024 share of vehicle type

The total number of total Ontario vehicle sales as fluctuated in recent years, primarily due to COVID-19 and associated supply chain issues. The number of vehicles sold is assumed to grow by 2% each year in 2025 and 2026. The share of total Ontario EVs sold in Oshawa is first based on the actual share of 1.29% 2024 persisting to 2026. The total number of EVs sold in Oshawa in each year is calculated as the total number of vehicles sold in Ontario multiplied by the target share of EVs sold multiplied by Oshawa Power's share of total EVs. The number of EVs in Oshawa by type is based on the Ontario proportion of EVs by type from Table 3-48.

Calculations for the average consumption per type of vehicle is provided in Table 3-51. The average distance is based on the average vehicle kilometers traveled per day as

provided by the AES Engineering report on EV Charging Performance.[6] The average efficiency per type of vehicle is based on a review of efficiency ratings from NRCan's Fuel Consumption Guides[7] and Plug n' Drive's summary of EVs available in Canada. This figure as adjusted to account for the difference between battery electric vehicles and plug-in hybrid electric vehicles.

Table 3-51: Consumption by EV Type

	Avg. Distance	Avg. Efficiency	Total Consumption per Vehicle
	km	kWh/100 km	kWh
Passenger & Multi-purpose vehicles	14,235	20	2,847
Van	20,000	25	5,000
Pickup Truck	20,000	30	6,000

Cumulative and incremental kWh from EVs are calculated based on the number of EVs multiplied by the average consumption per vehicle. A half-year adjustment is included for new vehicles.

Table 3-52: Forecast EVs and kWh Consumption by EV Type

	2023	2024	2025	2026	
Pass. & MP EVs	491	660	864	1,105	A
Cumulative EVs	1,355	2,015	2,879	3,984	B
Cumulative kWh	2,854,435	4,364,917	6,374,791	8,971,763	$C = (B^{t-1} + A/2) * 4,643$
Incremental kWh			2,009,873	2,596,972	$D = C - C^{t-1}$
Van EVs	11	7	14	18	E
Cumulative EVs	32.3	39.3	53.3	71.2	F
Cumulative kWh	88,343	125,227	168,326	233,569	$G = (F^{t-1} + E/2) * 5,000$
Incremental kWh			43,099	65,242	$H = G - G^{t-1}$
Pickup Truck EVs	19	59	56	71	I
Cumulative EVs	52	114	176	255	J
Cumulative kWh	102,719	337,145	680,570	1,060,847	$K = (J^{t-1} + I/2) * 6,000$
Incremental kWh			343,425	380,277	$L = K - K^{t-1}$

[6] https://council.cleanairpartnership.org/wp-content/uploads/2021/11/2-21-050-EV-Charging-Performance-Requirements-in-GTHA.pdf

[7] https://natural-resources.canada.ca/sites/nrcan/files/files/pdf/2024_Fuel_Consumption_Guide.pdf
Please note that Statistics Canada no longer tracks these figures.

The allocation of incremental consumption is estimated based on judgement as Oshawa Power does not have these details by rate class. The allocations and allocated incremental consumption by EV type to each class is provided in Table 3-53.

Table 3-53: Allocations to Rate Classes

	Allocations			2025 kWh			2026 kWh		
	Pass/ Multi	Van	Pick-up Truck	Pass/ Multi	Van	Pick-up Truck	Pass/ Multi	Van	Pick-up Truck
Residential	80%	25%	25%	1,607,899	10,775	85,856	2,077,578	16,311	95,069
GS<50	10%	40%	30%	200,987	17,240	103,028	259,697	26,097	114,083
GS 50 to 999	5%	25%	30%	100,494	10,775	103,028	129,849	16,311	114,083
GS 1,000 to 4,999	5%	10%	10%	100,494	4,310	34,343	129,849	6,524	38,028
Large Use	0%	0%	5%	-	-	17,171	-	-	19,014
Total	**100%**	**100%**	**100%**	**2,009,873**	**43,099**	**343,425**	**2,596,972**	**65,242**	**380,277**

Finally, Table 3-54 provides a summary of EV consumption and demand by rate class. Incremental 2025 consumption is added to class loads in the 2025 Bridge Year and 2026 incremental loads, plus twice the 2025 incremental load (to account for the half-year rule) is added to class loads in the 2026 Test Year. Incremental billed demands are forecast using an estimated 20% load factor.

Table 3-54: EV Forecast Summary

Rate Class	2025 Incremental kWh	2026 Incremental kWh	2026 Incremental + 2025 Full kWh
Residential	1,704,530	2,188,958	2,799,009
GS<50	321,255	399,877	521,193
GS 50 to 999	214,296	260,242	344,417
GS 1,000 to 4,999	139,146	174,401	226,346
Large Use	17,171	19,014	26,678
Total	**2,396,398**	**3,042,492**	**3,917,644**
kW	**2024 Incremental kW**	**2025 Incremental kW**	**2025 Incremental + 2024 Full kW**
GS 50 to 999	1,468	1,782	2,359
GS 1,000 to 4,999	953	1,195	1,550
Large Use	118	130	183
Total	**2,538**	**3,107**	**4,092**

3.6.2 Electric Heating

The forecast of additional loads from electric heating are based on assumptions of heating loads of new customers and customer conversions for the Residential and GS<50 kW classes.

Average kWh per Residential and General Service customer are calculated using the consumption of average Enbridge customers multiplied by m^3/kWh conversion factors as per Natural Resources Canada.

Table 3-55: Heating Consumption per Customer

	Residential	GS<50		
Consumption per Year	1,788	6,955	m^3/year	Typical Enbridge Customer
Convert m^3 to GJ	0.0343	0.0343	GJ/m^3	From NRCan
Convert GJ to kWh	277	277	kWh/GJ	From NRCan
Convert m^3 to kWh	9.5011	9.5011	kWh/m^3	GJ/m^3 times kWh/m^3
kWh per Customer	**16,988**	**66,080**	kWh/Customer	Avg. consumption per year times kWh/m^3
Heat Pump Efficiency	2.55	2.55	Heat Pump Efficiency	Delivered heat kWh-equivalent/kWh
Adj. Consumption	**6,662**	**25,914**	Adj. Consumption	

Residential and GS<50 kW heating loads are forecast for both existing connections and new customers. It is assumed that 0.2% of existing customers will convert from natural gas to electricity heating each year and that 17.5% of new customers will have electric heating. Annual forecast heating loads for the Residential and GS<50 kW class are provided in Table 3-56 and Table 3-57, respectively.

Table 3-56: Residential Heating Summary

Residential	2023	2024	2025	2026
Customer Count	56,981	57,937	58,721	59,515
Increase in customers/year	1,219	956	784	794
Conversions of Existing Connections %	0.20%	0.20%	0.20%	0.20%
New Connections with Electric Heating %	17.50%	17.50%	17.50%	17.50%
Existing Connections #	112	114	116	117
New Connections #	213	167	137	139
Total Connections	325	281	253	256
kWh/Customer	6,662	6,662	6,662	6,662
Total kWh	**2,164,318**	**1,873,849**	**1,685,760**	**1,708,566**

Table 3-57: GS<50 Heating Summary

GS < 50 kW	2023	2024	2025	2026
Customer Count	4,393	4,427	4,475	4,523
Increase in customers/year	89	34	48	48
Conversions of Existing Connections %	0.20%	0.20%	0.20%	0.20%
New Connections with Electric Heating %	17.50%	17.50%	17.50%	17.50%
Existing Connections #	9	9	9	9
New Connections #	16	6	8	8
Total Connections	24	15	17	17
kWh/Customer	25,914	25,914	25,914	25,914
Total kWh	**624,827**	**381,131**	**445,889**	**450,683**

Rather than apply a half-year adjustment, incremental annual loads are adjusted by relative HDD in each season. This seasonal calculation is detailed below.

Table 3-58: Seasonal Heating Calculation

Heating Profile			
Month	HDD	HDD %	Seasonal %
January	697.3	18.80%	64.84%
February	624.3	16.80%	
March	546.1	14.70%	
April	352.4	9.50%	
May	150.1	4.00%	
June	32.5	0.90%	
July	1.6	0.00%	
August	5.7	0.20%	35.15%
September	55	1.50%	
October	237.9	6.40%	
November	426.6	11.50%	
December	577.9	15.60%	
Total	**3,707.5**	**100.00%**	**100%**

Consumption from August to December is added in the first year and consumption from January to July is added in the following year. The total Residential heating consumption in 2025, for example, is 63.6% of 2024 consumption plus 34.4% of 2025 consumption.

Table 3-59: Seasonally Adjusted kWh

	2023	2024	2025	2026
Residential kWh	2,164,318	1,873,849	1,685,760	1,708,566
January to July	956,149	1,403,627	1,215,248	1,093,267
August to December	760,691	658,600	592,493	600,509
Seasonally Adj. kWh	**1,716,841**	**2,062,227**	**1,807,741**	**1,693,776**
GS < 50 kWh	624,827	381,131	445,889	450,683
January to July	242,818	405,219	247,175	289,173
August to December	219,607	133,956	156,716	158,401
Seasonally Adj. kWh	**462,426**	**539,175**	**403,892**	**447,574**

Table 3-60 summarizes the additional heating loads added to the forecast for the Residential and GS<50 kW classes. The total amount added to the 2025 forecast is a sum of the 2024 and 2025 incremental loads.

Table 3-60: Residential and GS<50 Heating Summary

Rate Class	2025 Incremental	2026 Incremental	2025 + 2026 kWh
Residential	1,807,741	1,693,776	3,501,517
GS<50	403,892	447,574	851,466
Total	**2,211,633**	**2,141,350**	**4,352,983**

3.6.3 Additional Loads Summary

Incremental loads from EVs and heating is summarized in Table 3-61. For each type of new loads, a half-year rule or seasonal adjustment is made to new loads in 2025 and 2026. The 2026 additional loads include the full year of 2025 savings so the figures for 2026 do not reflect only incremental loads in that year.

Table 3-61: Additional Load Summary

		kWh		kW	
		2025	2026	2025	2026
EVs	Residential	852,265	2,799,009		
	GS<50	160,627	521,193		
	GS 50-999	107,148	344,417	734	2,359
	GS 1,000-4,999	69,573	226,346	477	1,550
	Large Use	8,586	26,678	59	183
	Total	**1,198,199**	**3,917,644**	**1,269**	**4,092**
Heating	Residential	1,807,741	3,501,517		
	GS<50	403,892	851,466		
	GS 50-999				
	GS 1,000-4,999				
	Large Use				
	Total	**2,211,633**	**4,352,983**	**-**	**-**
Total	Residential	2,660,006	6,300,526		
	GS<50	564,519	1,372,659		
	GS 50-999	107,148	344,417	734	2,359
	GS 1,000-4,999	69,573	226,346	477	1,550
	Large Use	8,586	26,678	59	183
	Total	**3,409,832**	**8,270,627**	**1,269**	**4,092**

3.7 CDM ADJUSTMENT TO LOAD FORECAST

On December 20, 2021, the OEB issued the Conservation and Demand Management Guidelines for Electricity Distributors which provided updated guidance on the role of CDM for rate-regulated LDCs. Based on these guidelines, a manual adjustment to the load forecast was derived. CDM programs undertaken as part of the 2021-2024 Conservation and Demand Management framework will put downward pressure on its billing determinants for the General Service < 50 kW, and General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Large Use rate classes.

This CDM adjustment has been made to reflect the impact of CDM activities that are expected to be implemented through from 2024 to 2026.

CDM activities have been forecast based on Oshawa Power's share of consumption within the province and the IESO's 2021-2024 Conservation and Demand Management Framework. The table below provides a summary of the 2021-2024 Framework and

Oshawa Power's allocation of savings. CDM savings in 2025 and 2026 are not available so the savings are assumed to be the same as 2024 savings.

Table 3-62: 2021-2024 CDM Framework and Oshawa Power Allocation

Program	In year energy savings (GWh)		*Estimate*		OPCUN Share %	Basis for OPCUN%
	2023	2024	*2025*	*2026*		
Retrofit	359	560	560	560	0.83%	% of provincial kWh
Small Business	20	65	65	65	0.88%	% of provincial kWh
Energy Performance	50	54	54	54	0.79%	% of provincial kWh
Energy Management	29	96	96	96	0.79%	% of provincial kWh
Industrial Energy Efficiency	165	165	165	165	0.78%	% of provincial kWh
Targeted Greenhouse	333	333	333	333	0.00%	
Local Initiatives	161	181	181	181	0.00%	% of provincial kWh
Residential Demand Response	3	7	7	7	0.00%	
Energy Affordability Program	49	97	97	97	2.19%	% of prov. LIM
First Nations Program	15	16	16	16	0.00%	

Oshawa Power's share of kWh is calculated with OEB Yearbook data as a 5-year average of Oshawa Power's kWh Supplied divided by the sum of kWh Supplied of all Ontario LDCs by rate class.

Table 3-63: Oshawa Power kWh

Total kWh			
	Province	Oshawa	Oshawa % Share
2019	128,998,218,669	1,010,612,631	0.78%
2020	127,404,529,765	1,011,470,685	0.79%
2021	128,402,542,287	1,017,906,857	0.79%
2022	130,335,939,993	1,048,656,697	0.80%
2023	129,496,424,297	1,037,913,921	0.80%
5-Year Avg.	**128,927,531,002**	**1,025,312,158**	**0.80%**

Residential kWh			
	Province	Oshawa	Oshawa % Share
2019	40,380,447,498	482,531,158	1.19%
2020	43,245,011,031	515,808,015	1.19%
2021	43,371,552,787	512,708,991	1.18%
2022	43,540,648,596	507,634,502	1.17%
2023	42,711,992,242	504,186,848	1.18%
5-Year Avg.	**42,649,930,431**	**504,573,903**	**1.18%**

GS<50 kWh			
	Province	Oshawa	Oshawa % Share
2019	13,348,732,845	115,614,839	0.87%
2020	12,530,281,719	113,329,725	0.90%
2021	12,853,976,851	117,469,095	0.91%
2022	13,791,653,391	124,305,034	0.90%
2023	13,740,005,714	126,694,932	0.92%
5-Year Avg.	**13,252,930,104**	**119,482,725**	**0.90%**

GS>50 kWh			
	Province	Oshawa	Oshawa % Share
2019	51,307,299,221	405,750,093	0.79%
2020	48,237,791,431	375,387,717	0.78%
2021	48,842,596,891	380,730,702	0.78%
2022	49,862,673,591	409,501,181	0.82%
2023	49,525,695,242	399,693,193	0.81%
5-Year Avg.	**49,555,211,275**	**394,212,577**	**0.80%**

Large Use kWh			
	Province	Oshawa	Oshawa % Share
2019	7,317,111,492	38,878,938	0.53%
2020	6,868,841,739	30,798,516	0.45%
2021	6,625,829,270	36,146,632	0.55%
2022	6,777,000,859	33,850,160	0.50%
2023	6,731,816,436	33,850,160	0.50%
5-Year Avg.	**6,864,119,959**	**34,704,881**	**0.51%**

Oshawa Power's Energy Affordability Program allocation is based on the number of households in Oshawa counted by Statistics Canada within the Low-Income Measure.

Oshawa Power is not aware of any Local Initiatives programs so no share of that program is attributed to Oshawa Power.

Total GWh savings figures are then adjusted by the share attributable to Oshawa Power, yearly weighting factors, and converted to kWh savings. Total CDM savings attributable to Oshawa Power is provided in the following table.

Table 3-64: Oshawa Power CDM

	In year energy savings (kWh)			
	2024	2025	2026	Total CDM
Weighting Factor	*0.5*	*1.0*	*0.5*	
Retrofit	2,314,808	4,629,616	2,314,808	9,259,232
Small Business	284,734	569,467	284,734	1,138,935
Energy Performance	214,615	429,229	214,615	858,459
Energy Management	381,537	763,074	381,537	1,526,149
Industrial Energy Efficiency	645,248	1,290,496	645,248	2,580,991
Targeted Greenhouse	-	-	-	-
Local Initiatives	-	-	-	-
Residential Demand Response	-	-	-	-
Energy Affordability Program	1,060,375	2,120,751	1,060,375	4,241,502
First Nations Program	-	-	-	-
Total CDM	4,901,317	9,802,633	4,901,317	19,605,267

Total CDM savings by program are then allocated to Oshawa Power's rate classes in proportion to historical allocations for those programs. The percentages below reflect the typical share by class used in LRAMVA workforms. The kW share is used for demand-billed classes to better represent the impact of CDM activities on the class's billing determinants.

Table 3-65: 2021-2024 CDM Framework Adjustments

Program	Residential	GS < 50	GS 50-999	GS 1,000-4,999	Large Use
	Allocation %				
Retrofit		36.30%	55.70%	5.60%	2.50%
Small Business		76.00%	24.00%	0.00%	0.00%
Energy Performance		10.70%	14.80%	70.40%	4.10%
Energy Management		10.70%	14.80%	70.40%	4.10%
Industrial Energy Efficiency		0.00%	16.60%	78.80%	4.60%
Targeted Greenhouse					
Local Initiatives					
Residential Demand Response					
Energy Affordability Program	100%				
First Nations Program					
	CDM By Class				
Retrofit		3,356,803	5,155,919	515,478	231,031
Small Business		865,591	273,344	-	-
Energy Performance		91,644	126,917	604,498	35,400
Energy Management		162,923	225,630	1,074,663	62,933
Industrial Energy Efficiency			427,184	2,034,657	119,150
Targeted Greenhouse					
Local Initiatives					
Residential Demand Response					
Energy Affordability Program	4,241,502				
First Nations Program					
2024-2026 Savings	**4,241,502**	**4,476,961**	**6,208,994**	**4,229,297**	**448,513**

3.8 VARIANCE ANALYSIS

The most significant driver of changes in Oshawa Power's loads since its last Cost of Service application (EB-2020-0048) is the gradually returned towards pre-2020 loads following the impacts of the COVID-19 pandemic. Residential loads have remained high relative to pre-2020 volumes following the COVID-19 pandemic. Commercial and industrial loads among the General Service < 50 kW, General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Large Use rate classes had declined in the 2017 to 2019 period before more drastic declines in 2020 and 2021. Overall these loads have since returned to the 2019 volumes, with some variances among rate classes. Street Light and USL loads have increased somewhat since 2021 and Sentinel Light load growth has been virtually flat over this time.

Table 3-66: 2021 OEB Approved vs. 2021 Actual

	Customers/Devices			Volumes			
	2021 Approved	2021 Actual	Diff.	2021 Approved	2021 Actual	kWh / kW	Volumetric Difference
Residential	56,190	55,127	(1,063)	496,495,068	512,708,991	kWh	16,213,923
GS < 50	4,269	4,271	2	128,706,195	119,245,755	kWh	(9,460,440)
GS 50-999	535	538	3	825,711	798,585	kW	(27,126)
GS 1,000-4,999	13	17	4	182,480	171,435	kW	(11,045)
Large Use	1	1	-	86,319	73,480	kW	(12,839)
Street Light	14,391	14,038	(353)	12,504	12,332	kW	(172)
Sentinel Lights	22	19	(3)	81	81	kW	-
USL	273	251	(22)	2,506,367	2,615,361	kWh	108,994
Total	**75,694**	**74,263**	**-1,431**	**628,814,725**	**635,626,020**		

Oshawa Power's 2021 OEB Approved load forecast did not include specific adjustments for the COVID-19 pandemic. Additionally, it did not include actual data for 2020 or economic variables within the regression model so approved billed volumes reflected primarily trends from 2010 to 2019 so actual volumes. The difference between Actual 2021 volumes and Approved 2021 volumes reflect primarily the impacts of the COVID-19 pandemic. Residential loads were higher as residents worked from home and followed stay-at-home orders, and commercial and industrial loads among the General Service classes and the Large Use class declined as people worked from home and due to the overall decline in economic activity.

Table 3-67: 2021 Actual vs. 2022 Actual

	Customers/Devices			Volumes			
	2021 Actual	2022 Actual	Diff.	2021 Actual	2022 Actual	kWh / kW	Volumetric Difference
Residential	55,127	55,762	635	512,708,991	507,634,502	kWh	(5,074,489)
GS < 50	4,271	4,305	34	119,245,755	126,198,741	kWh	6,952,986
GS 50-999	538	543	5	798,585	825,642	kW	27,057
GS 1,000-4,999	17	18	1	171,435	179,600	kW	8,165
Large Use	1	1	-	73,480	76,263	kW	2,783
Street Light	14,038	14,204	166	12,332	12,587	kW	255
Sentinel Lights	19	19	-	81	79	kW	(2)
USL	251	253	1	2,615,361	2,750,057	kWh	134,696
Total	**74,263**	**75,104**	**841**	**635,626,020**	**637,677,471**		

Changes from 2021 to 2022 reflect a partial reversal of the impacts of the COVID-19 pandemic as more people returned to working away from home and stay-at-home orders did not persist after early 2022.

Table 3-68: 2022 Actual vs. 2023 Actual

	Customers/Devices			Volumes			
	2022 Actual	2023 Actual	Diff.	2022 Actual	2023 Actual	kWh / kW	Volumetric Difference
Residential	55,762	56,981	1,219	507,634,502	515,036,056	kWh	7,401,554
GS < 50	4,305	4,393	89	126,198,741	126,694,932	kWh	496,191
GS 50-999	543	521	(22)	825,642	832,496	kW	6,853
GS 1,000-4,999	18	18	-	179,600	179,794	kW	195
Large Use	1	1	-	76,263	73,164	kW	(3,099)
Street Light	14,204	14,384	180	12,587	12,769	kW	182
Sentinel Lights	19	19	-	79	77	kW	(2)
USL	253	259	7	2,750,057	2,811,443	kWh	61,386
Total	**75,104**	**76,577**	**1,473**	**637,677,471**	**645,640,730**		

Volumes of the General Service < 50 kW, General Service 50 to 999 kW, and General Service 1,000 to 4,999 kW classes increased as the impacts of the COVID-19 pandemic continued to subside. Residential customer counts increased at a higher rate than usual from 2022 to 2023, higher than any other year since 2017, and this contributed to an increase in Residential consumption volumes.

Table 3-69: 2023 Actual vs. 2024 Actual

	Customers/Devices			Volumes			
	2023 Actual	2024 Actual	Diff.	2023 Actual	2024 Actual	kWh / kW	Volumetric Difference
Residential	56,981	57,937	956	515,036,056	521,215,102	kWh	6,179,046
GS < 50	4,393	4,427	34	126,694,932	131,296,579	kWh	4,601,647
GS 50-999	521	517	(5)	832,496	809,030	kW	(23,466)
GS 1,000-4,999	18	17	(1)	179,794	184,987	kW	5,193
Large Use	1	1	-	73,164	82,740	kW	9,576
Street Light	14,384	14,446	62	12,769	12,817	kW	48
Sentinel Lights	19	19	-	77	75	kW	(2)
USL	259	260	0	2,811,443	2,849,870	kWh	38,427
Total	**76,577**	**77,624**	**1,046**	**645,640,730**	**656,451,200**		

Residential and General Service < 50 volumes increase primarily due to an 18.7% increase in cooling loads (290 CDD in 2024 vs. 244 CDD in 2023). Aside from the Large Use class, all volumes in 2024 were within 5% of 2023 volumes. The Large Use class included a single customer so year-over-year volume changes can be expected.

Table 3-70: 2024 Actual vs. 2025 Bridge Year

	Customers/Devices			Volumes			Volumetric Difference
	2024 Actual	2025 Forecast	Diff.	2024 Actual	2025 Forecast	kWh / kW	
Residential	57,937	58,721	784	521,215,102	540,401,650	kWh	19,186,548
GS < 50	4,427	4,475	48	131,296,579	128,297,286	kWh	(2,999,293)
GS 50-999	517	517	1	809,030	830,042	kW	21,012
GS 1,000-4,999	17	18	1	184,987	186,042	kW	1,055
Large Use	1	1	-	82,740	80,108	kW	(2,633)
Street Light	14,446	14,644	198	12,817	13,020	kW	203
Sentinel Lights	19	19	-	75	79	kW	4
USL	260	261	2	2,849,870	2,848,081	kWh	(1,789)
Total	**77,624**	**78,656**	**1,033**	**656,451,200**	**672,656,306**		

All forecast volumes in the 2025 Bridge Year are expected to be within 5% of actual 2024 volumes. Customer counts are expected to grow based on long-term customer growth trends. Load changes reflect an increase in volumes due to electrification and decreases in loads from CDM (or eDSM) activities. General Service < 50 kW and Large Use volumes were higher than predicted in 2024 and the decline reflects a return to the classes' longer-term trends.

Table 3-71: 2025 Bridge Year vs. 2026 Test Year

	Customers/Devices			Volumes			Volumetric Difference
	2025 Forecast	2026 Forecast	Diff.	2025 Forecast	2026 Forecast	kWh / kW	
Residential	58,721	59,515	794	540,401,650	551,504,306	kWh	11,102,657
GS < 50	4,475	4,523	48	128,297,286	128,276,139	kWh	(21,147)
GS 50-999	517	518	1	830,042	826,398	kW	(3,644)
GS 1,000-4,999	18	18	1	186,042	178,388	kW	(7,654)
Large Use	1	1	-	80,108	77,832	kW	(2,276)
Street Light	14,644	14,845	201	13,020	13,198	kW	178
Sentinel Lights	19	19	-	79	79	kW	-
USL	261	263	2	2,848,081	2,866,800	kWh	18,720
Total	**78,656**	**79,703**	**1,047**	**672,656,306**	**683,743,140**		

Customer count and load volumes are not forecast to change materially from the 2025 Bridge Year to the 2026 Test Year. Customer counts are expected to grow based on long-term customer growth trends. As in 2025, load changes in 2026 reflect an increase in volumes due to electrification and decreases in loads from CDM (or eDSM) activities. Growth in 2026 is somewhat reduced by pessimistic economic forecast figures.