



**London
Hydro**

**EXHIBIT 3 – CUSTOMER AND LOAD
FORECAST**

EXHIBIT 3 – CUSTOMER AND LOAD FORECAST

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3.1 OVERVIEW

3.1.1 Introduction

This Exhibit presents details of London Hydro's customer and load forecast, by rate class, for the 2026 Bridge Year and the 2027 Test Year. This Exhibit and its attachments detail London Hydro's approach to derive the forecast of customer and connection counts, consumption (kWh) and demand (kW) billing determinants used in cost allocation and rate design for all rate classes and to establish distribution rates for the 2027 Test Year.

London Hydro engaged Power Advisory LLC ("Power Advisory") to develop the weather normal 2026 to 2027 customer and load forecast. Power Advisory's report is attached as Appendix 3-1 to this Exhibit. The forecast in London Hydro's 2022 Cost of Service Rate Application (EB-2021-0042) used multivariate regressions to forecast total wholesale purchases that were allocated to the rate classes based on average usage per customer in each class and weather sensitivity. The methodology has since been refined in this Application. The 2027 load forecast uses separate multivariate regressions for each Residential and General Service rate class, and the unmetered rate classes are forecast based on average usage per connection. London Hydro has accounted for and incorporated the impact of CDM/eDSM activity within the load forecast. Per the applicable CDM Guidelines the forecast CDM/eDSM incorporated was based on London Hydro's proportional share of provincial energy savings. The load forecast model is attached as Appendix 3-2 – Power Advisory: London Hydro Load Forecast Model to this Exhibit.

Table 3-1 provides an overall summary of forecast consumption, billed demand, and average metered customers for the period of 2017 through 2027.

Table 3-1- Forecast Consumption, Demand, and Customers

Forecast Consumption, Demand, and Customers						
	KWh Consumption	% Increase	kW Demand	% Increase	Average Metered Customers	% Increase
2017 Actual	3,082,805,226		4,225,237		156,392	
2018 Actual	3,211,370,207	4.2%	4,276,829	1.2%	158,191	1.2%
2019 Actual	3,072,237,481	-4.3%	4,129,590	-3.4%	159,871	1.1%
2020 Actual	3,075,860,259	0.1%	3,908,650	-5.4%	161,416	1.0%
2021 Actual	3,106,587,105	1.0%	3,985,332	2.0%	163,117	1.1%
2022 Actual	3,188,303,530	2.6%	4,106,318	3.0%	165,094	1.2%
2023 Actual	3,156,353,936	-1.0%	4,167,087	1.5%	166,565	0.9%
2024 Actual	3,253,135,773	3.1%	4,283,807	2.8%	167,726	0.7%
2025 Actual	3,319,326,527	2.0%	4,333,923	1.2%	168,704	0.6%
2026 Forecast	3,299,626,511	-0.6%	4,270,261	-1.5%	170,131	0.8%
2027 Forecast	3,335,463,424	1.1%	4,282,478	0.3%	171,569	0.8%

The consumption forecast for the 2026 Bridge Year and the 2027 Test Year is presented in Table 3-2.

Table 3-2 – 2026 and 2027 Consumption Forecast by Rate Class (kWh)

Forecast kWh by Rate Class		
Rate Class	2026 Bridge Year	2027 Test Year
Residential	1,221,708,842	1,246,806,817
General Service <50kW	414,457,158	419,590,049
General Service 50 to 4,999 kW	1,442,877,697	1,445,764,307
General Service 1,000 to 4,999 kW (Co-Generation)	38,299,276	37,958,687
Large User	158,677,987	161,514,994
Unmetered Scattered Load	5,438,761	5,443,581
Sentinel Lighting	499,090	492,053
Street Lighting	17,667,701	17,892,936
Total kWh	3,299,626,511	3,335,463,423

The billed kW demands forecast by rate class for the 2026 Bridge Year and the 2027 Test Year are presented in Table 3-3.

Table 3-3- 2026 and 2027 Billed Demand Forecast by Rate Class (kW)

Forecast kW by Rate Class		
Rate Class	2026 Bridge Year	2027 Test Year
General Service 50 to 4,999 kW	3,651,494	3,658,332
General Service 1,000 to 4,999 kW (Co-Generation)	68,138	67,532
Standby	196,800	196,800
Large Use	302,941	308,313
Sentinel Lighting	1,353	1,334
Street Lighting	49,535	50,167
Total	4,270,261	4,282,478

The forecast customer and connection counts by rate class for the 2026 Bridge Year and the 2027 Test Year are presented in Table 3-4.

Table 3-4 - 2026 and 2027 Customer and Connection Count Forecast by Rate Class

Forecast Customer/Connection Counts			
Rate Class	Customers / Connections	2026 Bridge Year	2027 Test Year
Residential	Customers	154,970	156,277
General Service <50kW	Customers	13,632	13,764
General Service 50 to 4,999 kW	Customers	1,519	1,519
General Service 1,000 to 4,999 kW (Co-Generation)	Customers	7	7
Large User	Customers	2	2
Total Customers		170,130	171,569
Unmetered Scattered Load	Connections	1,578	1,585
Sentinel Lighting	Connections	473	466
Street Lighting	Connections	41,020	41,543
Total Connections		43,071	43,594

3.2 ACCURACY OF LOAD FORECAST AND VARIANCE ANALYSES

3.2.1 Overview

The following sections provide London Hydro's analysis of the accuracy of the load forecast and a year over year variance analysis. London Hydro has completed Appendix 2-IB – Load Forecast Analysis with the following inputs.

- 2022 – 2024 actual consumption, billed demand, average-year customer, and connection counts
- 2022 – 2024 Historical weather normalized consumption and billed demand
- 2026 Bridge Year forecasted consumption, billed demand and average-year customer, and connection counts
- 2027 Proposed Test Year forecasted consumption, billed demand and average-year customer, and connection counts

OEB Appendix 2-IB is provided in Excel format in Tab “App.2.-IB-Load_Forecast_Analysis” of the file LHI_2027_Chapter2_Appendices_20260828. The data used to determine customer and connection counts, demand and load forecasts has been provided in a live Excel file Appendix 3-2: Power Advisory: London Hydro Load Forecast Model to this Exhibit.

3.2.2 Customer/Connection Count Variance Analysis

Customer and connection counts for the 2022 OEB Approved, the 2022 to 2025 Actuals and the 2026 Bridge Year and 2027 Test Year forecasts are provided below in Table 3-5. The year-over-year variances in those counts are provided in Table 3-6 and Table 3-7 below. Customer and connection counts presented are based on the average for the year.

Table 3-5 – 2022 – 2027 Customer/Connection Count

Historical Actual, and Forecast Customer/Connection Counts								
Rate Class	Customers / Connections	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential	Customers	150,337	150,464	151,859	152,856	153,674	154,970	156,277
General Service <50kW	Customers	13,050	13,154	13,233	13,364	13,502	13,632	13,764
General Service 50 to 4,999 kW	Customers	1,526	1,468	1,464	1,497	1,520	1,519	1,519
General Service 1,000 to 4,999 kW (Co-Generation)	Customers	9	7	7	7	7	7	7
Large User	Customers	1	1	2	2	2	2	2
Total Customers		164,923	165,094	166,565	167,726	168,705	170,130	171,569
Unmetered Scattered Load	Connections	1,548	1,550	1,564	1,566	1,571	1,578	1,585
Sentinel Lighting	Connections	465	506	501	493	481	473	466
Street Lighting	Connections	38,784	39,232	39,733	40,244	40,504	41,020	41,543
Total Connections	Connections	40,797	41,288	41,798	42,303	42,556	43,071	43,594

Table 3-6 – 2022 – 2027 Customer/Connection Count Year-Over-Year Change

Customer/Connection Counts Year over Year Change								
Rate Class	Customers / Connections	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential	Customers		127	1,395	997	818	1,296	1,307
General Service <50kW	Customers		104	79	131	138	130	132
General Service 50 to 4,999 kW	Customers		-58	-4	33	23	-1	0
General Service 1,000 to 4,999 kW (Co-Generation)	Customers		-2	0	0	0	0	0
Large User	Customers		0	1	0	0	0	0
Unmetered Scattered Load	Connections		2	14	2	5	7	7
Sentinel Lighting	Connections		41	-5	-8	-12	-8	-7
Street Lighting	Connections		448	501	511	260	516	523

Table 3-7 – 2022 – 2027 Customer/Connection Count Year-Over-Year Change Rate (%)

Customer/Connection Counts Year over Year % Change								
Rate Class	Customers / Connections	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential	Customers		0.08%	0.93%	0.66%	0.54%	0.84%	0.84%
General Service <50kW	Customers		0.80%	0.60%	0.99%	1.03%	0.96%	0.97%
General Service 50 to 4,999 kW	Customers		-3.80%	-0.27%	2.25%	1.54%	-0.07%	0.00%
General Service 1,000 to 4,999 kW (Co-Generation)	Customers		-22.22%	0.00%	0.00%	0.00%	0.00%	0.00%
Large User	Customers		0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Unmetered Scattered Load	Connections		0.13%	0.90%	0.13%	0.32%	0.45%	0.44%
Sentinel Lighting	Connections		8.82%	-0.99%	-1.60%	-2.43%	-1.66%	-1.48%
Street Lighting	Connections		1.16%	1.28%	1.29%	0.65%	1.27%	1.27%

1 The definition and composition of the Residential customer class has remained stable since 2022.
2 While the growth rate in this customer class has slowed slightly and trailed local population gains
3 in London Hydro's service territory, this difference can be explained by a shift in housing density.
4 Population growth is largely being accommodated through multi-residential development and
5 increased density within existing premises.

6 The General Service customer classes have also remained unchanged in definition or
7 composition. The General Service <50 kW customer class has experienced a modest year-over-
8 year growth trend with minimal fluctuations while the General Service 50 to 4,999 kW growth rate
9 has fluctuated during the historical period of 2022 to 2025. Customer transitions between the
10 General Service rate classes partially contribute to these annual fluctuations. London Hydro
11 conducts a reclassification exercise annually in compliance with and as required by the
12 Distribution System Code. Customer movement between General Service < 50kW and General
13 Service 50 to 4,999 kW customer classes occurs due to changes in customer demand year to
14 year. After a decline in customer count in 2022 and 2023 the General Service 50 to 4,999 kW
15 customer class experienced more moderate growth. This growth aligns with increased housing
16 intensification through multi-residential development.

17 The Bridge Year and Test Year forecasts counts for the Residential and General Service customer
18 classes have been calculated using the geometric mean of the last five historical years to reflect
19 historical trends and performance.

20 London Hydro has experienced no change in the General Service 1,000 to 4,999 kW (Co-
21 generation) customer class. Growth previously forecasted in 2022 did not materialize and the
22 Bridge Year and Test Year forecasts, like the historical customer counts, are expected to remain
23 constant at seven customers.

24 The Large User customer class has very few customers. Because this customer class is so small,
25 individual additions or losses create large variances on a percentage basis and material impacts
26 within the class. Notably, the addition of one customer in late 2022 and impacting 2023 as a full-

year variance doubled the class from one to two customers. The Bridge Year and Test Year forecasts maintain the customer count in this class at two.

Historical Street Lighting connection counts show a steady growth trend. Bridge Year and Test Year forecasts project this stable, moderate growth to continue.

Sentinel Lighting connection counts dropped gradually from 2022 to 2025. The overall decline reflects lower demand for Sentinel Lighting due to modernization and conversions to alternate lighting solutions. The Bridge Year and Test Year forecasts carry this gradual downward trend forward.

Unmetered Scattered Load connections grew at a low, steady rate over the historical period. The Bridge Year and Test Year forecasts reflect this same gradual historical growth.

Bridge Year and Test Year forecasts connection counts for Street Lighting, Sentinel Lighting and Unmetered Scattered Load have been calculated using the geometric mean of the last five historical years to accurately reflect historical trends and performance.

3.2.3 Consumption and Demand

The following section summarizes London Hydro's 2022 OEB-approved, 2022 to 2025 Actual, and 2026 Bridge Year and 2027 Test Year forecast for consumption and billed demand with both historical actual values and historical weather normal values.

London Hydro has six demand-billed rate classes. To normalize and forecast the kW for the demand-billed rate classes, kW/kWh ratios are applied to weather normal kWh consumption, excluding the Standby rate class, where the forecast is based on historical actuals. The 2026 Bridge Year and 2027 Test Year forecasts assume a continuation of the average ratio for each rate class from 2017 to 2025.

1 Table 3-8 and Table 3-9 present the 2022 to 2027 consumption with historical weather actual values by class and the year-over-year
2 changes.

3 **Table 3-8 – 2022 – 2027 Consumption with Historical Actual Values (kWh)**

Weather Actual Historical, and Forecast Consumption (kWh)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential	1,148,751,823	1,180,210,180	1,127,950,491	1,181,706,112	1,217,191,863	1,221,708,842	1,246,806,817
General Service <50kW	413,182,553	404,904,348	399,918,444	404,233,974	416,596,865	414,457,158	419,590,049
General Service 50 to 4,999 kW	1,457,535,688	1,424,708,526	1,400,393,230	1,446,263,152	1,470,647,189	1,442,877,697	1,445,764,307
General Service 1,000 to 4,999 kW (Co-Generation)	29,242,525	43,045,721	51,773,686	34,855,427	31,417,818	38,299,276	37,958,687
Large User	93,966,041	112,464,987	153,160,750	162,734,022	160,084,660	158,677,987	161,514,994
Unmetered Scattered Load	5,335,956	5,441,494	5,450,501	5,428,927	5,436,604	5,438,761	5,443,581
Sentinel Lighting	430,125	527,895	522,311	512,976	506,226	499,090	492,053
Street Lighting	12,837,504	17,000,378	17,184,524	17,401,184	17,445,300	17,667,701	17,892,936
Total	3,161,282,215	3,188,303,529	3,156,353,937	3,253,135,774	3,319,326,525	3,299,626,511	3,335,463,423

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Table 3-9 – 2022 – 2027 Consumption with Historical Actual Values (kWh)

Weather Actual Consumption Year-over-Year Change (kWh)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential		31,458,357	-52,259,689	53,755,621	35,485,751	4,516,979	25,097,975
General Service <50kW		-8,278,205	-4,985,904	4,315,530	12,362,891	-2,139,707	5,132,891
General Service 50 to 4,999 kW		-32,827,162	-24,315,296	45,869,922	24,384,037	-27,769,492	2,886,610
General Service 1,000 to 4,999 kW (Co-Generation)		13,803,196	8,727,965	-16,918,259	-3,437,609	6,881,458	-340,589
Large User		18,498,946	40,695,763	9,573,272	-2,649,362	-1,406,673	2,837,007
Unmetered Scattered Load		105,538	9,007	-21,574	7,677	2,157	4,820
Sentinel Lighting		97,770	-5,584	-9,335	-6,750	-7,136	-7,037
Street Lighting		4,162,874	184,146	216,660	44,116	222,401	225,235
Total	-	27,021,314	(31,949,592)	96,781,837	66,190,751	(19,700,014)	35,836,912

Table 3-10 and Table 3-11 present the 2022 to 2027 consumption with historical weather normal actual values by class and the year-over-year changes.

Table 3-10 – 2022 – 2027 Consumption with Historical Weather Normal Actuals (kWh)

Weather Normal Historical, and Forecast Consumption (kWh)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential	1,148,751,823	1,170,984,715	1,171,666,833	1,199,538,032	1,201,673,800	1,221,708,842	1,246,806,817
General Service <50kW	413,182,553	403,013,118	408,057,420	408,543,689	413,670,352	414,457,158	419,590,049
General Service 50 to 4,999 kW	1,457,535,688	1,422,376,436	1,418,315,077	1,451,817,830	1,465,451,455	1,442,877,697	1,445,764,307
General Service 1,000 to 4,999 kW (Co-Generation)	29,242,525	43,238,092	53,524,815	34,495,657	31,196,455	38,299,276	37,958,687
Large User	93,966,041	112,714,915	154,419,607	162,038,067	159,912,031	158,677,987	161,514,994
Unmetered Scattered Load	5,335,956	5,441,494	5,450,501	5,428,927	5,436,604	5,438,761	5,443,581
Sentinel Lighting	430,125	527,895	522,311	512,976	506,226	499,090	492,053
Street Lighting	12,837,504	17,000,378	17,184,524	17,401,184	17,445,300	17,667,701	17,892,936
Total	3,161,282,215	3,175,297,042	3,229,141,088	3,279,776,363	3,295,292,223	3,299,626,511	3,335,463,423

Table 3-11 – 2022 – 2027 Consumption with Historical Weather Normal Actuals Values Year-Over-Year Change (kWh)

Weather Normal Year-over-Year Change (kWh)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
Residential		22,232,892	682,118	27,871,199	2,135,768	20,035,042	25,097,975
General Service <50kW		-10,169,435	5,044,302	486,270	5,126,663	786,806	5,132,891
General Service 50 to 4,999 kW		-35,159,252	-4,061,359	33,502,754	13,633,625	-22,573,759	2,886,610
General Service 1,000 to 4,999 kW (Co-Generation)		13,995,567	10,286,723	-19,029,158	-3,299,202	7,102,821	-340,589
Large User		18,748,874	41,704,692	7,618,460	-2,126,036	-1,234,044	2,837,007
Unmetered Scattered Load		105,538	9,007	-21,574	7,677	2,157	4,820
Sentinel Lighting		97,770	-5,584	-9,335	-6,750	-7,136	-7,037
Street Lighting		4,162,874	184,146	216,660	44,116	222,401	225,235
Total		14,014,827	53,844,045	50,635,275	15,515,861	4,334,288	35,836,912

Table 3-12 and Table 3-13 present the 2022 to 2027 billed demand with historical weather actual values by class and the year-over-year changes.

Table 3-12 – 2022 – 2027 Billed Demand and Historical Actual Values (kW)

Weather Actual Historical, and Forecast Billed Demand (kW)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
General Service 50 to 4,999 kW	3,669,928	3,574,257	3,541,020	3,656,086	3,705,957	3,651,494	3,658,332
General Service 1,000 to 4,999 kW (Co-Generation)	20,197	72,459	81,017	69,036	70,644	68,138	67,532
Standby	172,800	196,800	196,800	196,800	196,800	196,800	196,800
Large Use	178,535	213,690	298,642	311,836	310,224	302,941	308,313
Sentinel Lighting	1,161	1,427	1,416	1,395	1,371	1,353	1,334
Street Lighting	35,945	47,685	48,192	48,655	48,927	49,535	50,167
Total	4,078,566	4,106,318	4,167,087	4,283,807	4,333,923	4,270,261	4,282,478

Table 3-13 – 2022 – 2027 Billed Demand and Historical Actual Values Year-Over-Year Changes (kW)

Weather Actual Year-over-Year Change (kW)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
General Service 50 to 4,999 kW		-95,671	-33,236	115,066	49,871	-54,463	6,838
General Service 1,000 to 4,999 kW (Co-Generation)		52,262	8,558	-11,981	1,608	-2,506	-606
Standby		24,000	0	0	0	0	0
Large Use		35,155	84,952	13,194	-1,612	-7,283	5,372
Sentinel Lighting		266	-11	-21	-24	-18	-19
Street Lighting		11,740	506	463	272	608	631
Total		27,752	60,769	116,721	50,116	(63,662)	12,217

Table 3-14 and Table 3-15 present the 2022 to 2027 billed demand with historical weather normalized actual values by class and the year-over-year changes.

Table 3-14 – 2022 – 2027 Billed Demand and Historical Weather Normal Actual Values (kW)

Weather Normal Historical, and Forecast Billed Demand (kW)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
General Service 50 to 4,999 kW	3,669,928	3,577,934	3,663,534	3,670,663	3,651,419	3,651,494	3,658,332
General Service 1,000 to 4,999 kW (Co-Generation)	20,197	69,213	69,062	69,522	68,668	68,138	67,532
Standby	172,800	196,800	196,800	196,800	196,800	196,800	196,800
Large Use	178,535	221,504	291,187	296,117	299,089	302,941	308,313
Sentinel Lighting	1,161	1,431	1,416	1,391	1,372	1,353	1,334
Street Lighting	35,945	47,664	48,181	48,788	48,912	49,535	50,167
Total	4,078,566	4,114,547	4,270,179	4,283,281	4,266,259	4,270,261	4,282,478

Table 3-15 – 2022 – 2027 Billed Demand and Historical Weather Normal Actual Values Year-Over-Year Changes (kW)

Weather Normal Year-over-Year Change (kW)							
Rate Class	2022 OEB Approved	2022 Actual	2023 Actual	2024 Actual	2025 Actual	2026 Bridge Year Forecast	2027 Test Year Forecast
General Service 50 to 4,999 kW		-91,994	85,600	7,129	-19,244	75	6,838
General Service 1,000 to 4,999 kW (Co-Generation)		49,016	-152	461	-855	-530	-606
Standby		24,000	0	0	0	0	0
Large Use		42,969	69,683	4,930	2,972	3,852	5,372
Sentinel Lighting		270	-15	-25	-18	-19	-19
Street Lighting		11,719	516	607	124	624	631
Total		35,981	155,632	13,102	(17,022)	4,002	12,217

3.2.4 Consumption and Demand Variance Analysis

Table 3-16 to Table 3-26 below provide London Hydro's year-over-year variance analysis of weather actual and weather normal consumption and demand including the 2026 Bridge Year forecast and 2027 Test Year forecast.

2022 OEB Approved vs. 2022

Table 3-16 – 2022 OEB Approved vs. 2022 Actuals – Billing Determinants

2022 Cost of Service vs. 2022 Actual Billing Determinants					
Rate Class	Billing Determinant	2022 Cost of Service	2022 Actual	Variance	Increase/ Decrease %
Residential	kWh	1,148,751,823	1,180,210,180	31,458,357	2.74%
General Service <50kW	kWh	413,182,553	404,904,348	-8,278,205	-2.00%
General Service 50 to 4,999 kW	kW	3,669,928	3,574,257	-95,671	-2.61%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	20,197	72,459	52,262	258.76%
Standby	kW	172,800	196,800	24,000	13.89%
Large User	kW	178,535	213,690	35,155	19.69%
Unmetered Scattered Load	kWh	5,335,956	5,441,494	105,538	1.98%
Sentinel Lighting	kW	1,161	1,427	266	22.91%
Street Lighting	kW	35,945	47,685	11,740	32.66%

Table 3-17 – 2022 OEB Approved vs. 2022 Normalized – Billing Determinants

2022 Cost of Service vs. 2022 Weather Normal Billing Determinants					
Rate Class	Billing Determinant	2022 Cost of Service	2022 Normal	Variance	Increase/Decrease %
Residential	kWh	1,148,751,823	1,170,984,715	22,232,892	1.94%
General Service <50kW	kWh	413,182,553	403,013,118	-10,169,435	-2.46%
General Service 50 to 4,999 kW	kW	3,669,928	3,577,934	-91,994	-2.51%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	20,197	69,213	49,016	242.69%
Standby	kW	172,800	196,800	24,000	13.89%
Large User	kW	178,535	221,504	42,969	24.07%
Unmetered Scattered Load	kWh	5,335,956	5,441,494	105,538	1.98%
Sentinel Lighting	kW	1,161	1,431	270	23.26%
Street Lighting	kW	35,945	47,664	11,719	32.60%

The Residential, General Service < 50 kW, General Service > 50 kW and Unmetered Scattered Load rate classes did not experience a material variance relative to the 2022 OEB Approved forecast. Demand within the General Service (Co-Generation) rate class is subject to monthly and yearly volatility and exceeded the 2022 forecast. The variance observed in the Standby rate class resulted from additional Co-Generation customers electing Standby service which increased the demand by 2,000 kW each month. The Large User rate class variance was predominantly attributable to the addition of a single customer in late 2022. In addition, the variances in the Sentinel Lighting and Street Lighting rate classes were due to connection count variances. The Sentinel Lighting count declined at a lower rate than the forecast and the Street Lighting connection count growth rate exceeded the 2022 forecast.

2022 vs. 2023

Table 3-18 – 2022 Actuals vs. 2023 Actuals – Billing Determinants

2022 Actual vs 2023 Actual Billing Determinants					
Rate Class	Billing Determinant	2022 Actual	2023 Actual	Variance	Increase/ Decrease %
Residential	kWh	1,180,210,180	1,127,950,491	-52,259,689	-4.43%
General Service <50kW	kWh	404,904,348	399,918,444	-4,985,904	-1.23%
General Service 50 to 4,999 kW	kW	3,574,257	3,541,020	-33,237	-0.93%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	72,459	81,017	8,558	11.81%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	213,690	298,642	84,952	39.75%
Unmetered Scattered Load	kWh	5,441,494	5,450,501	9,007	0.17%
Sentinel Lighting	kW	1,427	1,416	-11	-0.77%
Street Lighting	kW	47,685	48,192	507	1.06%

Table 3-19 – 2022 Normalized vs. 2023 Normalized – Billing Determinants

2022 Weather Normal vs. 2023 Weather Normal Billing Determinants					
Rate Class	Billing Determinant	2022 Normal	2023 Normal	Variance	Increase/ Decrease %
Residential	kWh	1,170,984,715	1,171,666,833	682,118	0.06%
General Service <50kW	kWh	403,013,118	408,057,420	5,044,302	1.25%
General Service 50 to 4,999 kW	kW	3,577,934	3,663,534	85,600	2.39%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	69,213	69,062	-151	-0.22%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	221,504	291,187	69,683	31.46%
Unmetered Scattered Load	kWh	5,441,494	5,450,501	9,007	0.17%
Sentinel Lighting	kW	1,431	1,416	-15	-1.05%
Street Lighting	kW	47,664	48,181	517	1.08%

Variances in 2023 for Residential and General Service < 50 kW rate classes were related to increases in customer count and the residual recovery effects associated with the COVID-19 pandemic. Milder temperatures also dampened weather-sensitive loads relative to prior periods. Heating degree days were 11.5% lower in 2023 than 2022 (3,386 HDD in 2023 vs. 3,825 HDD in 2022) and cooling degree days were 29.9% lower in 2023 than 2022 (210 CDD in 2023 vs. 300 CDD in 2022). Variances within the General Service > 50 kW class were primarily attributable to the weather normalization effects and the continued reversal of commercial operational impacts linked to the post-COVID-19 pandemic recovery. The Large User variance in 2023 was largely driven by full-year impacts of the additional customer added to this rate class in late 2022, while variances for both the Sentinel Lighting and Street Lighting were consistent with the growth trends in these rate classes.

2023 vs. 2024

Table 3-20 – 2023 Actuals vs. 2024 Actuals – Billing Determinants

2023 Actual vs 2024 Actual Billing Determinants					
Rate Class	Billing Determinant	2023 Actual	2024 Actual	Variance	Increase/ Decrease %
Residential	kWh	1,127,950,491	1,181,706,112	53,755,621	4.77%
General Service <50kW	kWh	399,918,444	404,233,974	4,315,530	1.08%
General Service 50 to 4,999 kW	kW	3,541,020	3,656,086	115,066	3.25%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	81,017	69,036	-11,981	-14.79%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	298,642	311,836	13,194	4.42%
Unmetered Scattered Load	kWh	5,450,501	5,428,927	-21,574	-0.40%
Sentinel Lighting	kW	1,416	1,395	-21	-1.48%
Street Lighting	kW	48,192	48,655	463	0.96%

Table 3-21 – 2023 Normalized vs. 2024 Normalized – Billing Determinants

2023 Weather Normal vs. 2024 Weather Normal Billing Determinants					
Rate Class	Billing Determinant	2023 Normal	2024 Normal	Variance	Increase/ Decrease %
Residential	kWh	1,171,666,833	1,199,538,032	27,871,199	2.38%
General Service <50kW	kWh	408,057,420	408,543,689	486,269	0.12%
General Service 50 to 4,999 kW	kW	3,663,534	3,670,663	7,129	0.19%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	69,062	69,522	460	0.67%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	291,187	296,117	4,930	1.69%
Unmetered Scattered Load	kWh	5,450,501	5,428,927	-21,574	-0.40%
Sentinel Lighting	kW	1,416	1,391	-25	-1.77%
Street Lighting	kW	48,181	48,788	607	1.26%

In 2024, variances in the Residential and General Service < 50 kW rate classes continued to follow the customer growth trend. A milder winter was balanced by a hotter summer, increasing consumption in weather-sensitive loads. Heating degree days were 4.5% lower in 2024 than 2023 (3,234 HDD in 2024 vs. 3,386 HDD in 2023) and cooling degree days were 36.7% higher in 2024 than 2023 (287 CDD in 2024 vs. 210 CDD in 2023). Demand in the General Service (Co-Generation) rate class fluctuated consistent with the heating and cooling degree days experienced in 2025. Customer growth was the primary driver of variances in the General Service > 50 kW rate class. The Large User rate class variance was related to weather as well as the ongoing ramp-up period towards full operational capacity for the new customer in 2024. Variances for both Sentinel Lighting and Street Lighting were consistent with the growth trends in these rate classes.

2024 vs. 2025

Table 3-22 – 2024 Actuals vs. 2025 Actuals – Billing Determinants

2024 Actual vs 2025 Actual Billing Determinants					
Rate Class	Billing Determinant	2024 Actual	2025 Actual	Variance	Increase/ Decrease %
Residential	kWh	1,181,706,112	1,217,191,863	35,485,751	3.00%
General Service <50kW	kWh	404,233,974	416,596,865	12,362,891	3.06%
General Service 50 to 4,999 kW	kW	3,656,086	3,705,957	49,871	1.36%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	69,036	70,644	1,608	2.33%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	311,836	310,224	-1,612	-0.52%
Unmetered Scattered Load	kWh	5,428,927	5,436,604	7,677	0.14%
Sentinel Lighting	kW	1,395	1,371	-24	-1.72%
Street Lighting	kW	48,655	48,927	272	0.56%

Table 3-23 – 2024 Normalized vs. 2025 Normalized – Billing Determinants

2024 Weather Normal vs. 2025 Weather Normal Billing Determinants					
Rate Class	Billing Determinant	2024 Normal	2025 Normal	Variance	Increase/Decrease %
Residential	kWh	1,199,538,032	1,201,673,800	2,135,768	0.18%
General Service <50kW	kWh	408,543,689	413,670,352	5,126,663	1.25%
General Service 50 to 4,999 kW	kW	3,670,663	3,651,419	-19,244	-0.52%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	69,522	68,668	-854	-1.23%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	296,117	299,089	2,972	1.00%
Unmetered Scattered Load	kWh	5,428,927	5,436,604	7,677	0.14%
Sentinel Lighting	kW	1,391	1,372	-19	-1.37%
Street Lighting	kW	48,788	48,912	124	0.25%

Similar to prior historical years, the Residential and General Service < 50 kW rate classes continued to follow the trend in customer growth. Colder winter weather and a hotter summer contributed to increased consumption in weather-sensitive loads in 2025. Heating degree days were 18% higher in 2025 than 2024 (3,815 HDD in 2025 vs. 3,234 HDD in 2024) and cooling degree days were 9.8% higher in 2025 than 2024 (315 CDD in 2025 vs. 287 CDD in 2024). Demand in the General Service (Co-Generation) rate class fluctuated due to normal business operations and weather. The General Service > 50 kW class continued to experience a moderate growth trend which increased demand in 2025. The Large User rate class variance was less material in 2025 as operations stabilized within this rate class. Variances for both the Sentinel Lighting and Street Lighting were consistent with the growth trends in these rate classes.

2025 vs. 2026

Table 3-24 – 2025 Actuals vs. 2026 Bridge Year Forecast – Billing Determinants

2025 Actual vs 2026 Bridge Year Forecast Billing Determinants					
Rate Class	Billing Determinant	2025 Actual	2026 Forecast	Variance	Increase/Decrease %
Residential	kWh	1,217,191,863	1,221,708,842	4,516,979	0.37%
General Service <50kW	kWh	416,596,865	414,457,158	-2,139,707	-0.51%
General Service 50 to 4,999 kW	kW	3,705,957	3,651,494	-54,463	-1.47%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	70,644	68,138	-2,506	-3.55%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	310,224	302,941	-7,283	-2.35%
Unmetered Scattered Load	kWh	5,436,604	5,438,761	2,157	0.04%
Sentinel Lighting	kW	1,371	1,353	-18	-1.31%
Street Lighting	kW	48,927	49,535	608	1.24%

Table 3-25 – 2025 Normalized vs. 2026 Bridge Year Forecast – Billing Determinants

2025 Weather Normal vs. 2026 Bridge Year Forecast Billing Determinants					
Rate Class	Billing Determinant	2025 Normal	2026 Forecast	Variance	Increase/Decrease %
Residential	kWh	1,201,673,800	1,221,708,842	20,035,042	1.67%
General Service <50kW	kWh	413,670,352	414,457,158	786,806	0.19%
General Service 50 to 4,999 kW	kW	3,651,419	3,651,494	75	0.00%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	68,668	68,138	-530	-0.77%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	299,089	302,941	3,852	1.29%
Unmetered Scattered Load	kWh	5,436,604	5,438,761	2,157	0.04%
Sentinel Lighting	kW	1,372	1,353	-19	-1.38%
Street Lighting	kW	48,912	49,535	623	1.27%

Variances between the 2025 and the 2026 Bridge Year forecast reflect the results of the load forecast methodologies described in this Exhibit. The forecast volume variances are between 1-2% for each rate class and reflect the results of the load forecast with normalized weather.

2026 vs. 2027

Table 3-26 – 2026 Bridge Year Forecast vs. 2027 Test Year Forecast– Billing Determinants

2026 Bridge Year Forecast vs 2027 Test Year Billing Determinants					
Rate Class	Billing Determinant	2026 Forecast	2027 Forecast	Variance	Increase/Decrease %
Residential	kWh	1,221,708,842	1,246,806,817	25,097,975	2.05%
General Service <50kW	kWh	414,457,158	419,590,049	5,132,891	1.24%
General Service 50 to 4,999 kW	kW	3,651,494	3,658,332	6,838	0.19%
General Service 1,000 to 4,999 kW (Co-Generation)	kW	68,138	67,532	-606	-0.89%
Standby	kW	196,800	196,800	0	0.00%
Large User	kW	302,941	308,313	5,372	1.77%
Unmetered Scattered Load	kWh	5,438,761	5,443,581	4,820	0.09%
Sentinel Lighting	kW	1,353	1,334	-19	-1.40%
Street Lighting	kW	49,535	50,167	632	1.28%

Variances between the 2026 Bridge Year forecast and the 2027 Test Year forecast reflect the results of the load forecast methodologies described in this Exhibit. The forecast volume variances are between 1- 3% for each rate class and reflect the results of the load forecast with normalized weather.

APPENDIX 3-1: POWER ADVISORY REPORT: LONDON HYDRO 2027 CUSTOMER AND LOAD FORECAST



London Hydro 2027 Customer and Load Forecast

July 3, 2026



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1. INTRODUCTION

1.1 Load Forecast Summary

Power Advisory was retained to prepare a 2026 to 2027 customer and load forecast for London Hydro for its 2027 cost of service application. This report provides the methodology resulting forecast of London Hydro's customer/connection counts, consumption, and billed demand forecasts by rate class for the 2026 bridge year and 2027 test year.

Table 1 provides an overall summary of forecast consumption, demand, and metered customers from 2017 through 2027.

Table 1 – Forecast Consumption, Demand, and Customers

	kWh Consumption	% Increase	kW Demand	% Increase	Metered Customers	% Increase
2017 Actual	3,082,805,226		4,225,237		156,392	
2018 Actual	3,211,370,207	4.2%	4,276,829	1.2%	158,191	1.2%
2019 Actual	3,072,237,481	-4.3%	4,129,590	-3.4%	159,871	1.1%
2020 Actual	3,075,860,259	0.1%	3,908,650	-5.4%	161,416	1.0%
2021 Actual	3,106,587,105	1.0%	3,985,332	2.0%	163,117	1.1%
2022 Actual	3,188,303,530	2.6%	4,106,318	3.0%	165,094	1.2%
2023 Actual	3,156,353,936	-1.0%	4,167,087	1.5%	166,565	0.9%
2024 Actual	3,253,135,773	3.1%	4,283,807	2.8%	167,726	0.7%
2025 Actual	3,319,326,527	2.0%	4,333,923	1.2%	168,704	0.6%
2026 Forecast	3,299,626,511	-0.6%	4,270,261	-1.5%	170,131	0.8%
2027 Forecast	3,335,463,424	1.1%	4,282,478	0.3%	171,569	0.8%

1.2 Methodology Overview

This schedule outlines the results of, and methodology used to derive, London Hydro's weather normal load forecast for the 2027 test year.

The load forecast methodology has been refined since London Hydro's 2022 COS load forecast (EB-2021-0041) was prepared. The 2022 load forecast used multivariate regressions to forecast total wholesale purchases that were then allocated to rate classes. The allocation to rate classes was based on average usage per customer in each class and the weather-sensitivity of each class. The 2027 load forecast uses separate multivariate regressions for each Residential and General Service rate class. The forecasts for unmetered rate classes are based on average use per connection.

The regression equations used to normalize and forecast London Hydro's weather sensitive load use monthly heating degree days and cooling degree days as measured at Environment Canada's London A¹ (Airport) weather station to take into account temperature sensitivity. London Hydro 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 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/eDSM is based on a forecast of London Hydro'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 is available providing a greater level of accuracy than could be obtained through regression.

London Hydro's loads are expected to increase above what would be forecast using only weather-normalized historical volumes due to electrification. 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 London and Ontario, as reported in Statistics Canada's Monthly Labour Force Survey² are considered. The Ontario GDP is available from Ontario Economic Accounts³ on a quarterly basis and Overall GDP is available from Statistics Canada on an annual basis.⁴ Overall provincial GDP, Manufacturing GDP, Information and cultural industries GDP, Finance and insurance GDP, and Professional, scientific and technical services GDP measures from Statistics Canada and Overall GDP, Manufacturing GDP, Food, Beverage, & Tobacco Products GDP, Information & Culture GDP, and Finance and Insurance GDP measures from Ontario Economic Accounts sources were tested.

¹ "London A" operated by NAVCAN, Latitude:43°01'59" N, Longitude:81°09'04" W, Elevation:278.0 m

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

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 (GS<50 kW), General Service 50 to 4,999 kW (GS>50 kW), General Service 1,000 to 4,999 kW Co-Generation (GS Co-Gen), 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 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 thereafter.

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).

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 4,999 kW, General Service 1,000 to 4,999 kW Co-Generation, and Large Use rate classes.

Table 2 summarizes the variables that are used for each rate class.

Table 2 – Variables used in Regression Models

Residential	GS < 50 kW	GS > 50 kW	GS 1,000 to 4,999 kW Co-Generation	Large Use
HDD18 & CDD14	HDD14 & CDD14	HDD14 & CDD14	CDD14	HDD16 & CDD12
Residential Customers	GDP (OEA)	GDP (OEA)		Large Use Customers & Trend
Shoulder Months, Summer & December Binary	March Binary	Fall Months & August Binary	Summer Months Binary	Fall & Summer Months Binary
# of Days in the Month	# of Days in the Month	# of Days in the Month	# of Non-Holiday Weekdays in the Month	# of Days in the Month
CovHDD18 & COVCDD14	COVID_AM	COVID_AM		COVID_AM

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.

1.3 Summarized Results

The following tables summarize the historical and forecast kWh from 2018 to 2027.

Table 3 – Actual kWh by Class 2018-2022

kWh	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual
Residential	1,139,376,021	1,101,433,888	1,174,376,356	1,183,155,978	1,180,210,180
GS<50 kW	398,801,024	394,237,703	374,506,008	381,478,907	404,904,348
GS 50 – 4,999 kW	1,485,117,370	1,408,341,173	1,365,678,434	1,385,380,121	1,424,708,526
GS Co-Gen	47,167,618	34,966,868	36,542,442	28,072,542	43,045,721
Large Use	117,777,486	110,589,768	101,893,892	105,654,509	112,464,987
Street Light	17,086,179	16,623,912	16,908,317	16,882,809	17,000,378
Sentinel Light	548,885	541,072	535,958	528,906	527,895
USL	5,495,625	5,503,096	5,418,853	5,433,334	5,441,494
Total kWh	3,211,370,207	3,072,237,481	3,075,860,259	3,106,587,105	3,188,303,530

Table 4 – Actual/Forecast kWh by Class 2023-2027

kWh	2023 Actual	2024 Actual	2025 Actual	2026 Forecast	2027 Forecast
Residential	1,127,950,491	1,181,706,112	1,217,191,863	1,221,708,842	1,246,806,817
GS<50 kW	399,918,444	404,233,974	416,596,865	414,457,158	419,590,049
GS 50 – 4,999 kW	1,400,393,230	1,446,263,152	1,470,647,189	1,442,877,697	1,445,764,307
GS Co-Gen	51,773,686	34,855,427	31,417,818	38,299,276	37,958,687
Large Use	153,160,750	162,734,022	160,084,660	158,677,987	161,514,994
Street Light	17,184,524	17,401,184	17,445,300	17,667,701	17,892,936
Sentinel Light	522,311	512,976	506,226	499,090	492,053
USL	5,450,501	5,428,927	5,436,604	5,438,761	5,443,581
Total kWh	3,156,353,936	3,253,135,773	3,319,326,527	3,299,626,511	3,335,463,424

The following tables summarize the historical and forecast kW from 2018 to 2027.

Table 5 – Actual kW by Class 2018-2022

kW	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual
GS 50 – 4,999 kW	3,744,566	3,636,724	3,426,345	3,496,520	3,574,257
GS Co-Gen	88,638	55,791	60,972	50,766	72,459
Large Use	221,471	216,189	189,814	194,965	213,690
Street Light	47,864	46,619	47,272	47,348	47,685
Sentinel Light	1,490	1,467	1,446	1,433	1,427
Standby	172,800	172,800	182,800	194,300	196,800
Total kW	4,276,829	4,129,590	3,908,650	3,985,332	4,106,318

Table 6 – Actual/Forecast kW by Class 2023-2027

kW	2023 Actual	2024 Actual	2025 Actual	2026 Forecast	2027 Forecast
GS 50 – 4,999 kW	3,541,020	3,656,086	3,705,957	3,651,494	3,658,332
GS Co-Gen	81,017	69,036	70,644	68,138	67,532
Large Use	298,642	311,836	310,224	302,941	308,313
Street Light	48,192	48,655	48,927	49,535	50,167
Sentinel Light	1,416	1,395	1,371	1,353	1,334
Standby	196,800	196,800	196,800	196,800	196,800
Total kW	4,167,087	4,283,807	4,333,923	4,270,261	4,282,478

The following tables summarize the historical and forecast customer/light counts from 2018 to 2027. The customer/connection counts are the average monthly counts in each year.

Table 7 – Actual Customers / Connections 2018-2022

Customers / Connections	Units	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual
Residential	Customers	143,927	145,514	146,978	148,596	150,464
GS<50 kW	Customers	12,636	12,772	12,892	12,992	13,154
GS 50 – 4,999 kW	Customers	1,622	1,579	1,541	1,522	1,468
GS Co-Gen	Customers	5	5	5	7	7
Large Use	Customers	1	1	1	1	1
Street Light	Connections	36,831	37,111	37,807	38,502	39,232
Sentinel Light	Connections	530	525	516	510	506
USL	Connections	1,522	1,544	1,534	1,543	1,550
Total		197,075	199,050	201,272	203,673	206,382

London Hydro 2027 Customer and Load Forecast

Table 8 – Actual/Forecast Customers / Connections 2023-2027

Customers / Connections	Units	2023 Actual	2024 Actual	2025 Actual	2026 Forecast	2027 Forecast
Residential	Customers	151,859	152,856	153,674	154,970	156,277
GS<50 kW	Customers	13,233	13,364	13,502	13,632	13,764
GS 50 – 4,999 kW	Customers	1,464	1,497	1,520	1,519	1,519
GS Co-Gen	Customers	7	7	7	7	7
Large Use	Customers	2	2	2	2	2
Street Light	Connections	39,733	40,244	40,504	41,020	41,543
Sentinel Light	Connections	501	493	481	473	466
USL	Connections	1,564	1,566	1,571	1,578	1,585
Total		208,363	210,027	211,259	213,202	215,164

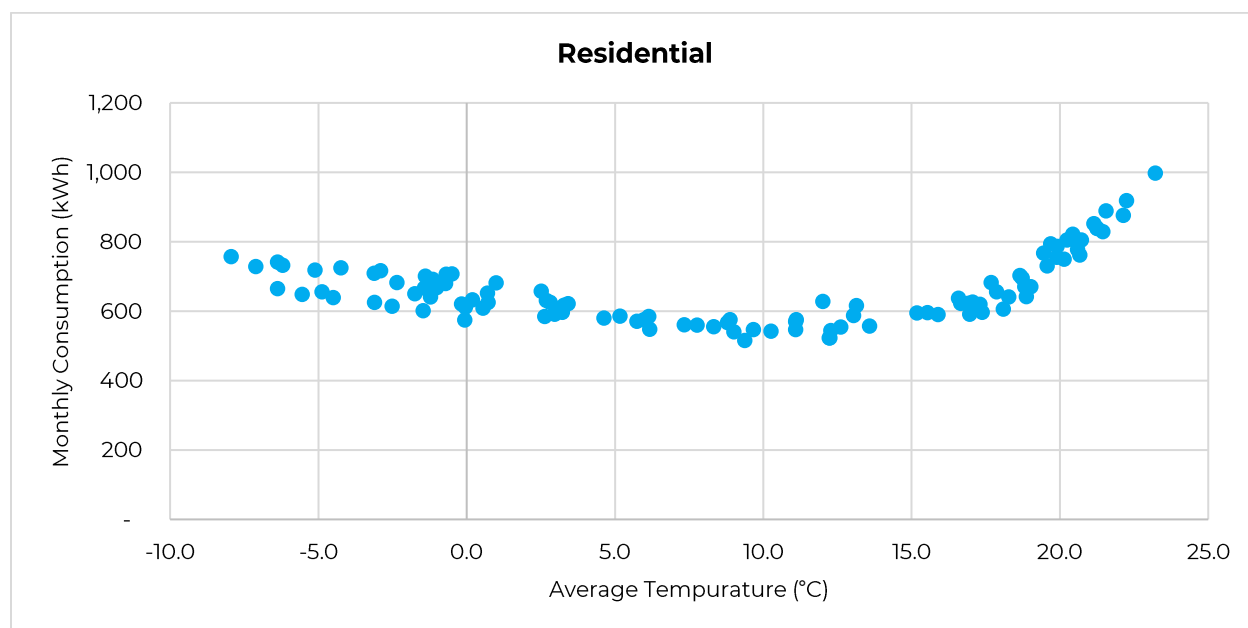
2. CLASS SPECIFIC KWH REGRESSIONS

Consumption for the Residential, GS < 50 kW, and GS 50 to 4,999 kW, GS 1,000 to 4,999 kW Co-Generation, 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.

2.1 Residential

For Residential kWh consumption the equation was estimated using 108 observations from January 2017 to December 2025. 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 18°C and 14°C and increases as average temperatures deviate from that range. HDD relative to 18°C and CDD relative to 14°C were found to provide the strongest results. HDD and CDD measures near 18°C and 14°C, respectively, were also considered but found to be less predictive of monthly consumption.

Figure 1 Residential kWh and Average Temperature



Economic variables, such as London employment and various GDP measures, were tested but not found to be statistically significant variables. The COVID HDD and CDD variables were found to be statistically significant and more significant than other COVID variables. The Residential customer count 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 a simple time trend. A Summer variable, equal to 1 in May, June, July, and August, and 0 in all other months, was found to be statistically significant. The months coincide the University of Western Ontario's Summer semester. A binary variable equal to 1 in December and 0 in all other months is also used. A variable representing the number of days in the month is used as it is statistically significant.

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

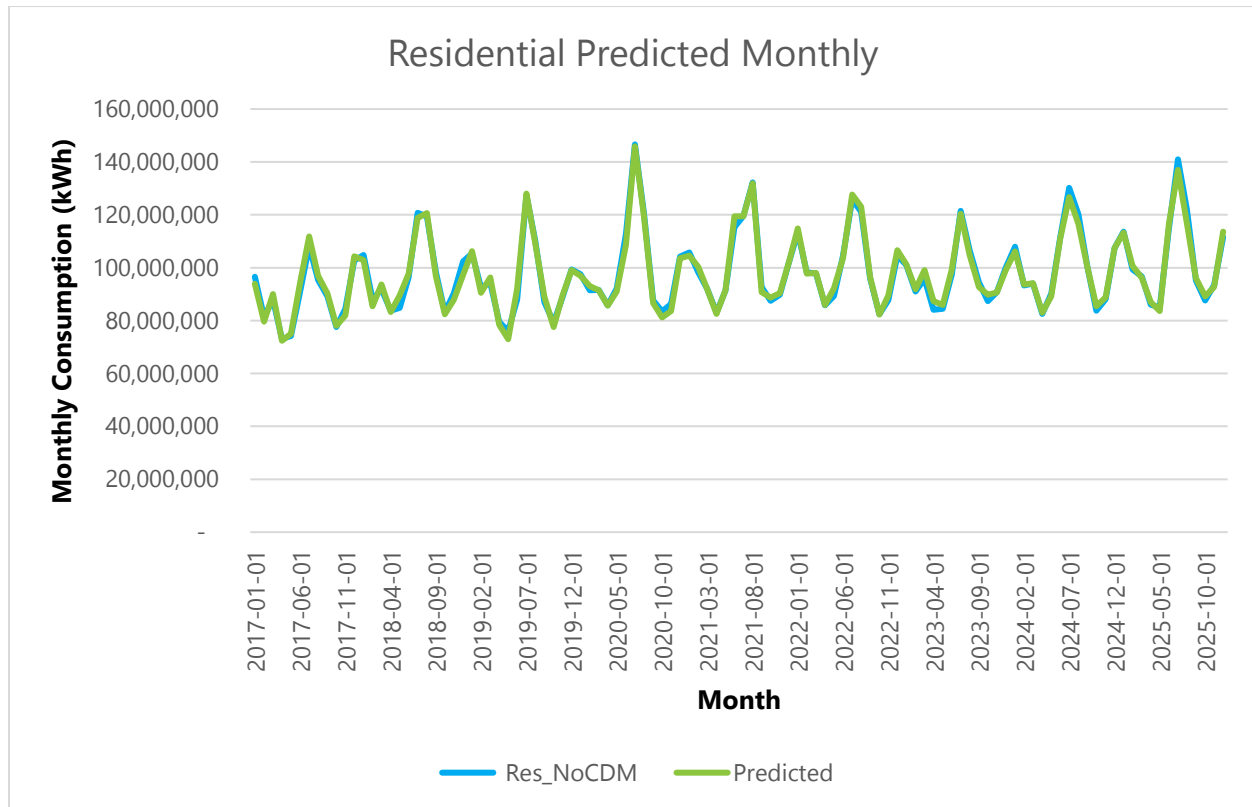
The following table outlines the resulting regression model:

Table 9 - Residential Regression Model

Model 1: Prais-Winsten, using observations 2017:01-2025:12 (T = 108)				
Dependent variable: Res_NoCDM				
rho = 0.144384				
	coefficient	std. error	t-ratio	p-value
const	(154,534,729)	11,091,066	(13.93)	0.000
HDD18	61,391	1,523	40.30	0.000
CDD14	284,053	5,420	52.41	0.000
Residential_Customers	987	58	17.02	0.000
Dec	3,702,152	735,417	5.03	0.000
MonthDays	2,259,810	231,835	9.75	0.000
Summer	(2,784,508)	726,676	(3.83)	0.000
CovHDD18	10,580	2,681	3.95	0.000
CovCDD14	47,920	9,457	5.07	0.000
Statistics based on the rho-differenced data				
Sum squared resid	3.90E+14	S.E. of regression		1,985,417
R-squared	0.983	Adjusted R-squared		0.982
F(7, 112)	629.86	P-value(F)		0.000
rho	(0.008)	Durbin-Watson		1.988

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 1.6%.

Table 10 - Residential Model Error

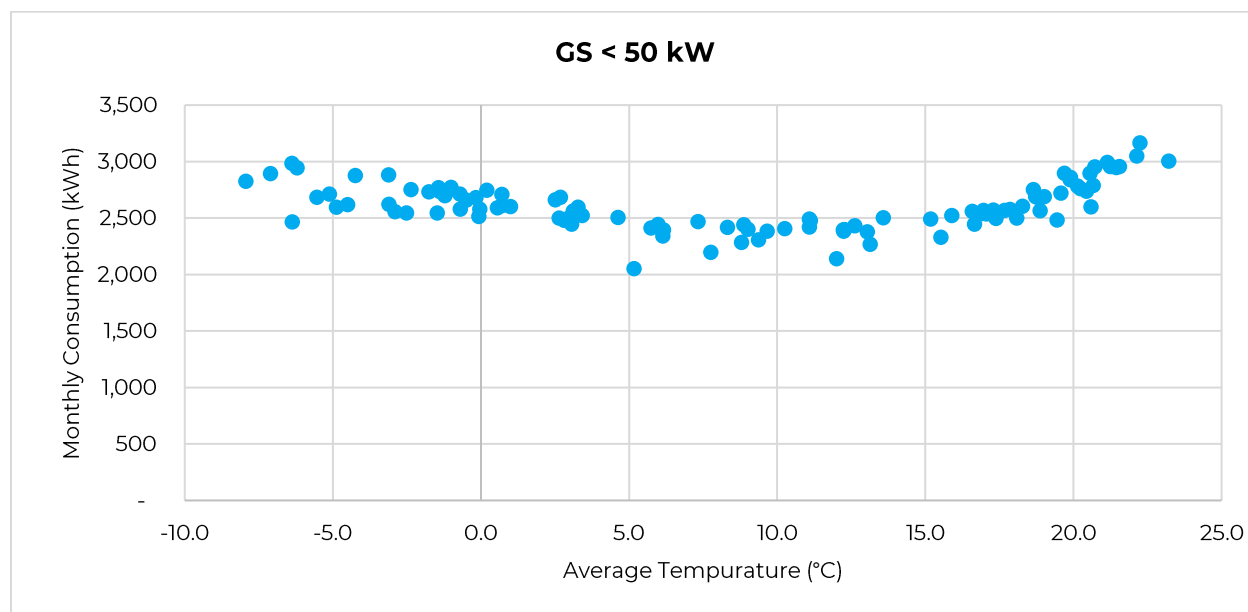
Year	Residential		Absolute Error (%)
	Actual	Predicted	
2017	1,061,607,912	1,069,066,505	0.7%
2018	1,163,819,903	1,156,169,901	0.7%
2019	1,127,333,149	1,128,726,328	0.1%
2020	1,200,275,617	1,187,569,704	1.1%
2021	1,209,220,866	1,213,187,347	0.3%
2022	1,206,543,449	1,217,784,637	0.9%
2023	1,154,587,493	1,162,017,529	0.6%
2024	1,209,243,410	1,201,977,743	0.6%
2025	1,246,519,884	1,242,751,061	0.3%
Total	10,579,151,682	10,579,250,755	0.0%

Mean Absolute Percentage Error (Annual)	0.6%
Mean Absolute Percentage Error (Monthly)	1.6%

2.2 GS < 50 kW

For the GS < 50 kW class, the regression equation was estimated using 108 observations from January 2017 to December 2025. Consumption for this class increases as average temperatures deviate from 14°C. HDD and CDD relative to 14°C were found to provide the strongest results. HDD and CDD measures near 14°C were also considered but found to be less predictive of monthly consumption.

Figure 3 GS<50 kWh and Average Temperature



Ontario GDP, as measured by the Ontario Economic Accounts, has been included as an indicator of economic activity. Full-time equivalents in London and Ontario were also tested but found to be statistically less significant than GDP. 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 and time trend variables were not found to be statistically significant. A March binary variable was also found to be statistically significant.

Other calendar variables were tested but found to not have statistically significant relationships to energy usage.

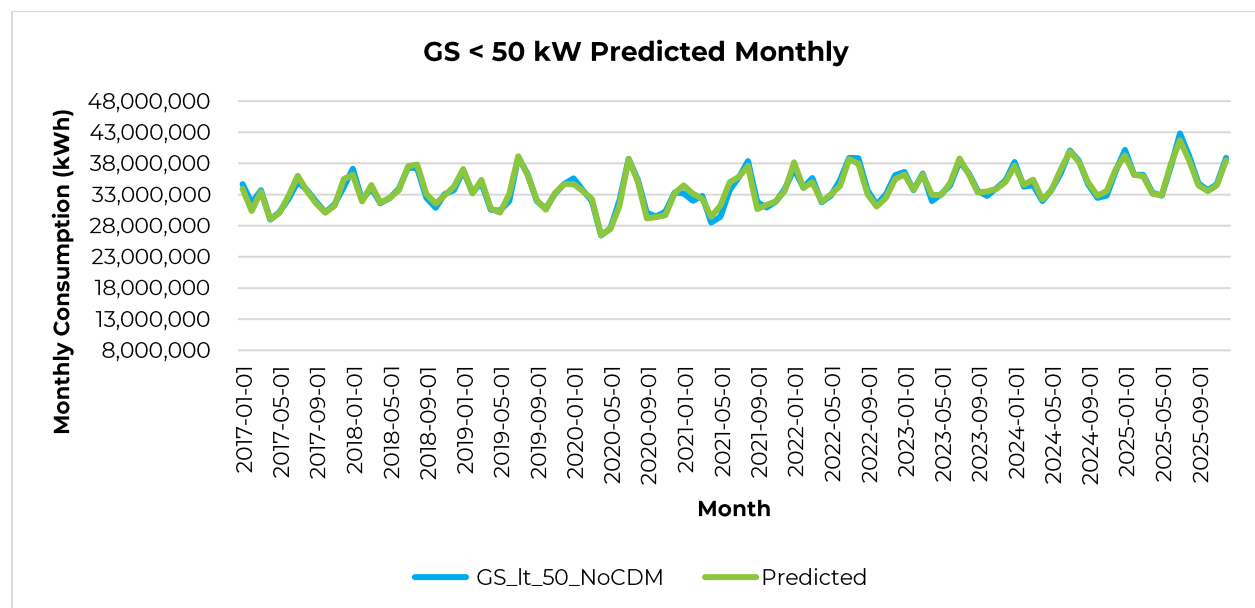
The following table outlines the resulting regression model:

Table 11 - GS < 50 Regression Model

Model 2: Prais-Winsten, using observations 2017:01-2025:12 (T = 108)				
Dependent variable: GS_It_50_NoCDM				
rho = 0.234742				
	coefficient	std. error	t-ratio	p-value
const	(13,592,433)	2,361,005	(5.76)	0.000
HDD14	13,816	462	29.89	0.000
CDD14	43,046	1,157	37.20	0.000
COVID_AM	(2,090,363)	333,970	(6.26)	0.000
MonthDays	669,469	67,156	9.97	0.000
OEA_GDP	26	2	16.97	0.000
Mar	522,033	217,218	2.40	0.018
Statistics based on the rho-differenced data				
Sum squared resid	4.08E+13	S.E. of regression		597,992
R-squared	0.9229	Adjusted R-squared		0.9195
F(7, 112)	323.42	P-value(F)		0.0000
rho	-0.1514	Durbin-Watson		2.2983

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 0.6%. The MAPE calculated monthly over the period is 1.3%.

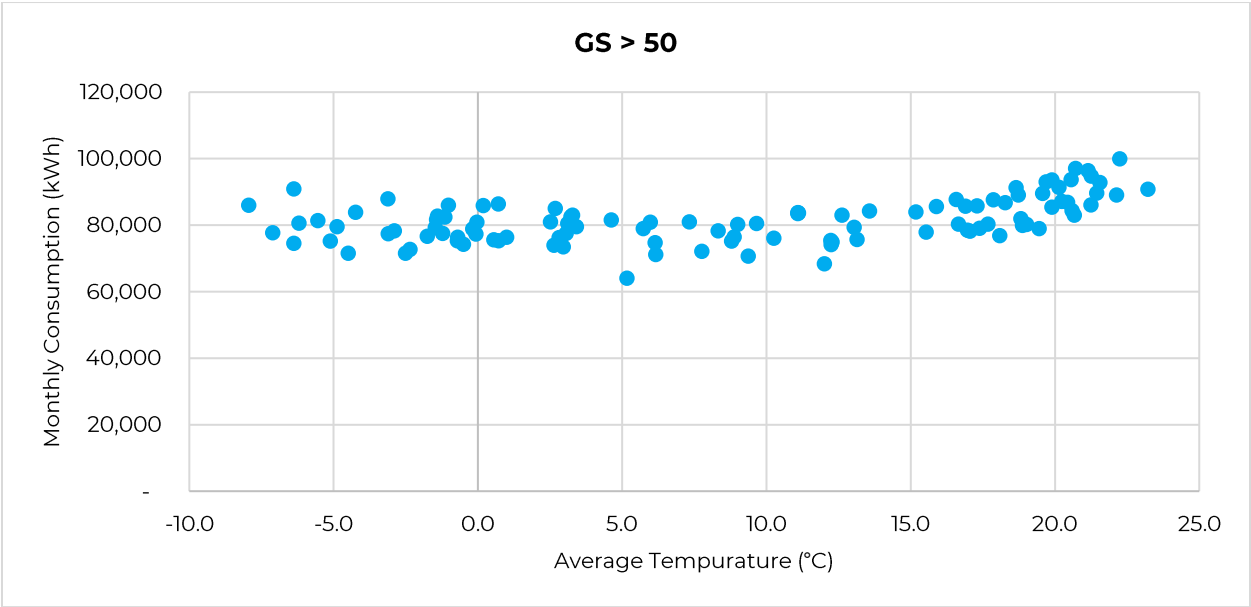
Table 12 - GS < 50 Model Error

Year	GS < 50 kWh		Absolute Error (%)
	Actual	Predicted	
2017	387,915,717	387,538,874	0.1%
2018	406,063,921	407,660,712	0.4%
2019	403,942,335	405,610,413	0.4%
2020	384,605,406	380,937,055	1.0%
2021	392,400,911	396,679,770	1.1%
2022	418,725,197	415,234,434	0.8%
2023	416,649,282	417,871,149	0.3%
2024	424,203,695	427,076,344	0.7%
2025	440,351,101	436,621,609	0.8%
Total	3,674,857,566	3,675,230,360	0.0%
Mean Absolute Percentage Error (Annual)			0.6%
Mean Absolute Percentage Error (Monthly)			1.3%

2.3 GS > 50 kW

For the GS > 50 kW class, the regression equation was estimated using 108 observations from January 2017 to December 2025. This class not very weather-sensitive, but the HDD and CDD variables are used as they were found to be statistically significant. HDD and CDD relative to 14°C were found to provide the strongest results. HDD and CDD measures near 14°C were also considered but found to be less predictive of monthly consumption.

Figure 5 GS > 50 kW kWh and Average Temperature



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

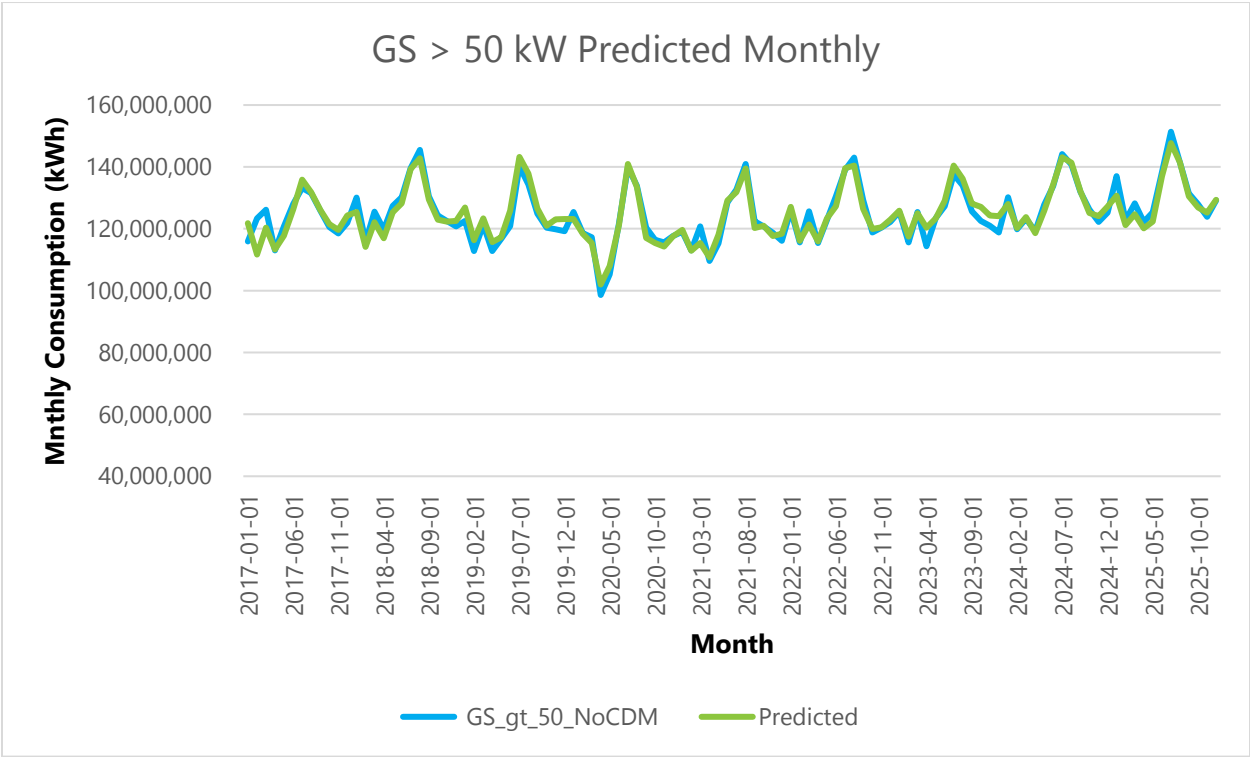
The following table outlines the resulting regression model:

Table 13 - GS > 50 kW Regression Model

Model 3: Prais-Winsten, using observations 2017:01-2025:12 (T = 108)				
Dependent variable: GS_gt_50_NoCDM				
rho = 0.230368				
	coefficient	std. error	t-ratio	p-value
const	(1,907,163)	10,520,847	(0.18)	0.857
HDD14	21,333	2,422	8.81	0.000
CDD14	118,461	6,120	19.36	0.000
COVID_AM	(9,863,415)	1,555,113	(6.34)	0.000
MonthDays	2,565,339	291,853	8.79	0.000
OEA_GDP	44	7	6.15	0.000
Fall	3,497,669	810,376	4.32	0.000
Aug	2,800,661	1,007,258	2.78	0.006
Statistics based on the rho-differenced data				
Sum squared resid	7.43E+14	S.E. of regression		2,726,319
R-squared	0.911	Adjusted R-squared		0.905
F(7, 112)	118.65	P-value(F)		0.000
rho	(0.032)	Durbin-Watson		2.021

Using the above model coefficients we derive the following:

Figure 6 GS > 50 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 0.9%. The MAPE calculated monthly over the period is 1.6%.

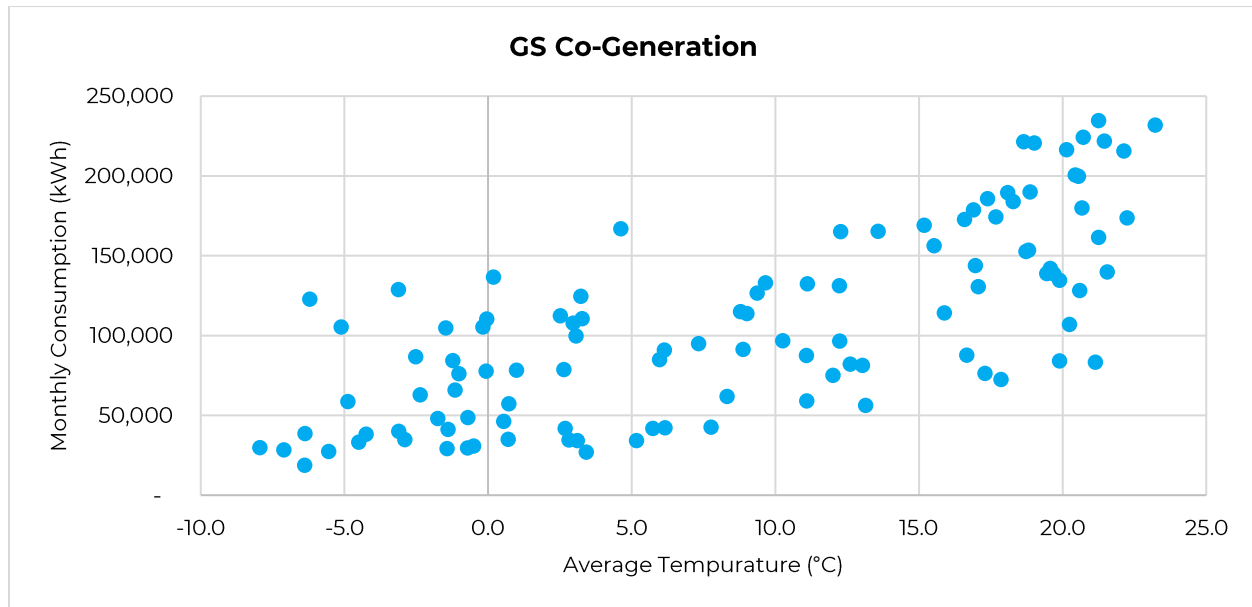
Table 14 - GS > 50 kW Model Error

Year	GS 50-4,999 kWh		Absolute Error (%)
	Actual	Predicted	
2017	1,478,802,060	1,470,493,396	0.6%
2018	1,531,749,984	1,511,559,261	1.3%
2019	1,465,919,871	1,500,141,623	2.3%
2020	1,430,777,478	1,426,757,979	0.3%
2021	1,457,908,040	1,454,414,924	0.2%
2022	1,508,808,583	1,501,020,670	0.5%
2023	1,491,054,782	1,521,171,398	2.0%
2024	1,544,629,364	1,544,061,854	0.0%
2025	1,579,092,813	1,557,283,145	1.4%
Total	13,488,742,975	13,486,904,249	0.0%
Mean Absolute Percentage Error (Annual)			0.9%
Mean Absolute Percentage Error (Monthly)			1.6%

2.4 GS 1,000 to 4,999 kW Co-Generation

For the GS 1,000 to 4,999 kW Co-Generation class, the regression equation was estimated using 108 observations from January 2017 to December 2025. Consumption of this rate class varies significantly from month to month and year to year. A statistical approach is used despite the weaker predictive value of this model relative other rate classes. This approach produced a similar forecast as a three-year average from 2023 to 2025. GS 1,000 to 4,999 kW Co-Generation consumption is significantly correlated with weather, however, a CDD variable was found to be statistically significant. The model produced negative coefficients for the HDD variables so they are excluded.

Figure 7 GS 1,000 to 4,999 kW Co-Generation and Average Temperature



No measures of economic activity were found to be statistically significant. The number of peak days in each month, representing the number of non-holiday weekdays, was found to be statistically significant and more statistically significant than the overall number of days in the month. A Summer variable equal to 1 in July and August and 0 in all other months was found to be statistically significant and is used in the model.

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

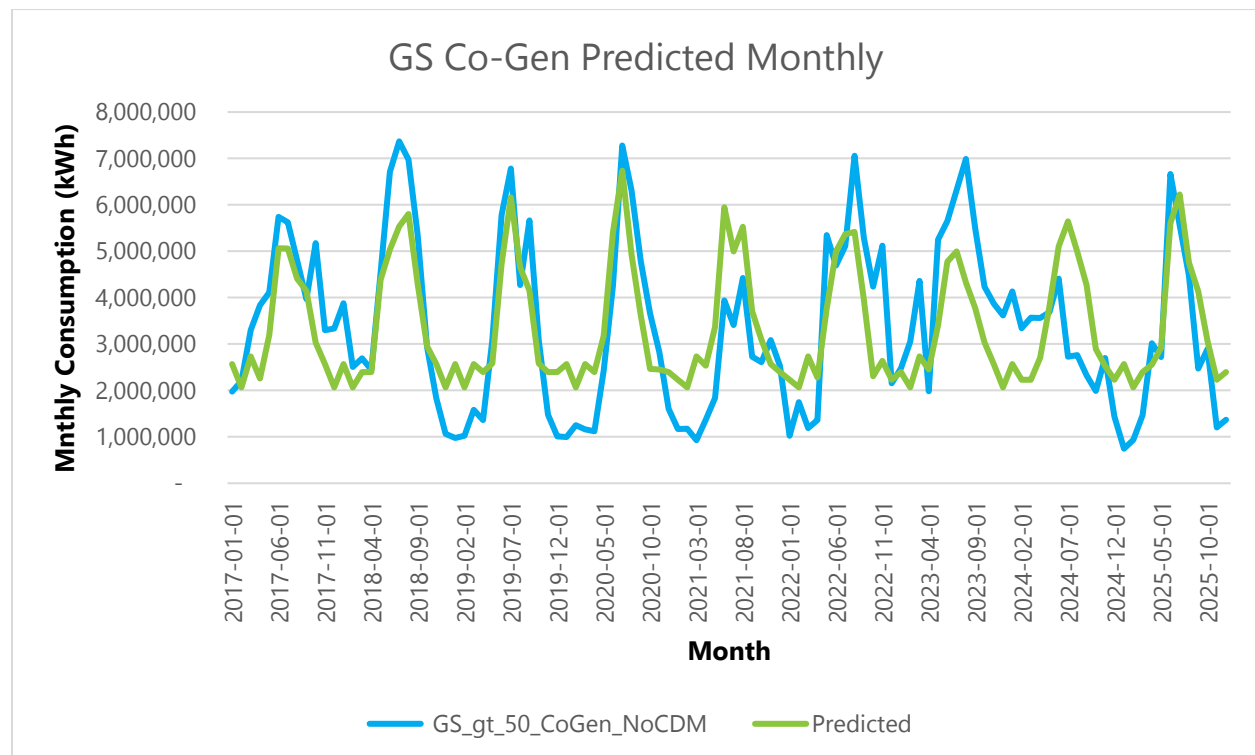
The following table outlines the resulting regression model:

Table 15 - GS 1,000 to 4,999 kW Co-Generation Regression Model

Model 4: Prais-Winsten, using observations 2017:01-2025:12 (T = 108)				
Dependent variable: GS_gt_50_CoGen_NoCDM				
rho = 0.669734				
	coefficient	std. error	t-ratio	p-value
const	(1,091,819)	1,156,131	(0.94)	0.347
CDD14	17,004	1,966	8.65	0.000
PeakDays	166,232	53,671	3.10	0.003
Summer2	(689,077)	303,899	(2.27)	0.025
Statistics based on the rho-differenced data				
Sum squared resid	8.53E+13	S.E. of regression		905,822
R-squared	0.753	Adjusted R-squared		0.746
F(7, 112)	32.18	P-value(F)		0.000
rho	(0.078)	Durbin-Watson		2.152

Using the above model coefficients we derive the following:

Figure 8 GS 1,000 to 4,999 kW Co-Generation 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 17.3%. The MAPE calculated monthly over the period is 43.9%.

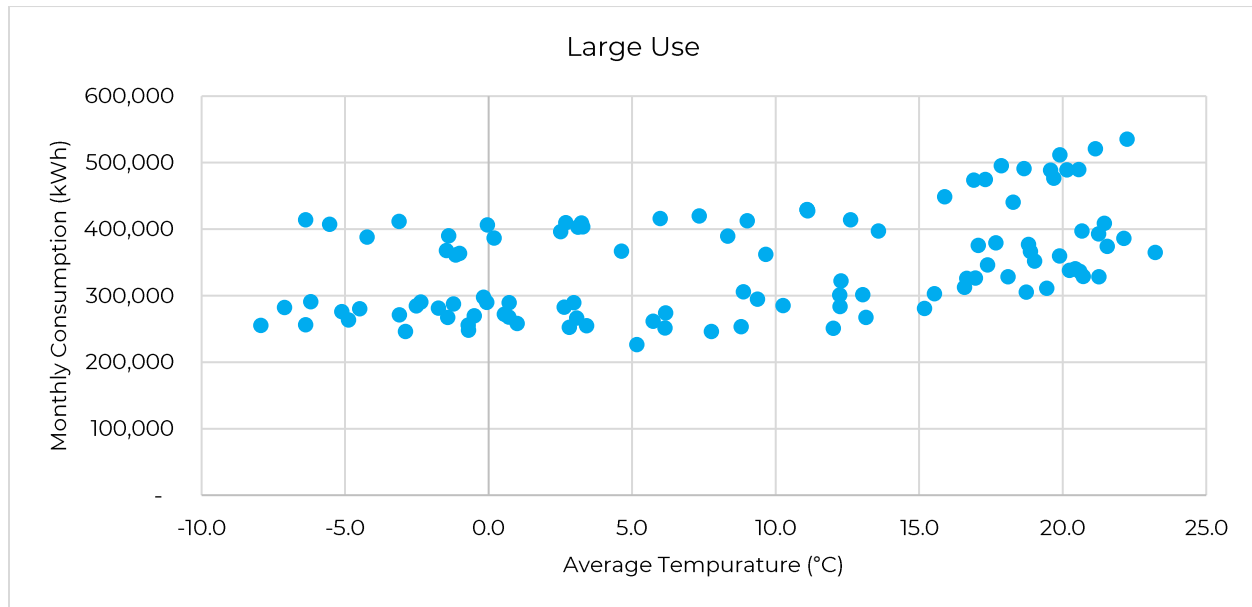
Table 16 - GS 1,000 to 4,999 kW Co-Generation Model Error

Year	GS Co-Generation		Absolute Error (%)
	Actual	Predicted	
2017	47,373,110	39,169,626	17.3%
2018	48,307,539	42,057,443	12.9%
2019	36,105,434	39,258,100	8.7%
2020	37,681,008	40,793,548	8.3%
2021	29,211,108	41,167,876	40.9%
2022	44,333,922	39,999,685	9.8%
2023	53,313,354	38,607,159	27.6%
2024	36,634,929	41,216,757	12.5%
2025	33,511,508	40,912,117	22.1%
Total	366,471,912	363,182,311	0.9%
Mean Absolute Percentage Error (Annual)			17.3%
Mean Absolute Percentage Error (Monthly)			43.9%

2.5 Large Use

For the Large Use class, the regression equation was estimated using 108 observations from January 2017 to December 2025. Consumption is relatively stable when the average monthly temperature is between 12°C and 16°C and increases as average temperatures deviate from that range. HDD relative to 16°C and CDD relative to 12°C were found to provide the strongest results. HDD and CDD measures near 16°C and 12°C, respectively, were also considered but found to be less predictive of monthly consumption. Please note that the data in following graph is influenced by the addition of one customer in the class.

Figure 9 Large Use kWh and Average Temperature



The Large Use customer count is used in the model and reflects the addition of one customer in 2022. A time trend was found to be statistically significant and more significant than other trending variables. No measures of economic activity were found to be statistically significant. The number of days in the month was found to be statistically significant and are used in the Large Use model. The COVID_AM variable was found to be statistically significant and more significant than other COVID variables. The Fall binary variable and Summer binary variable are found to be statistically significant and used in the model.

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

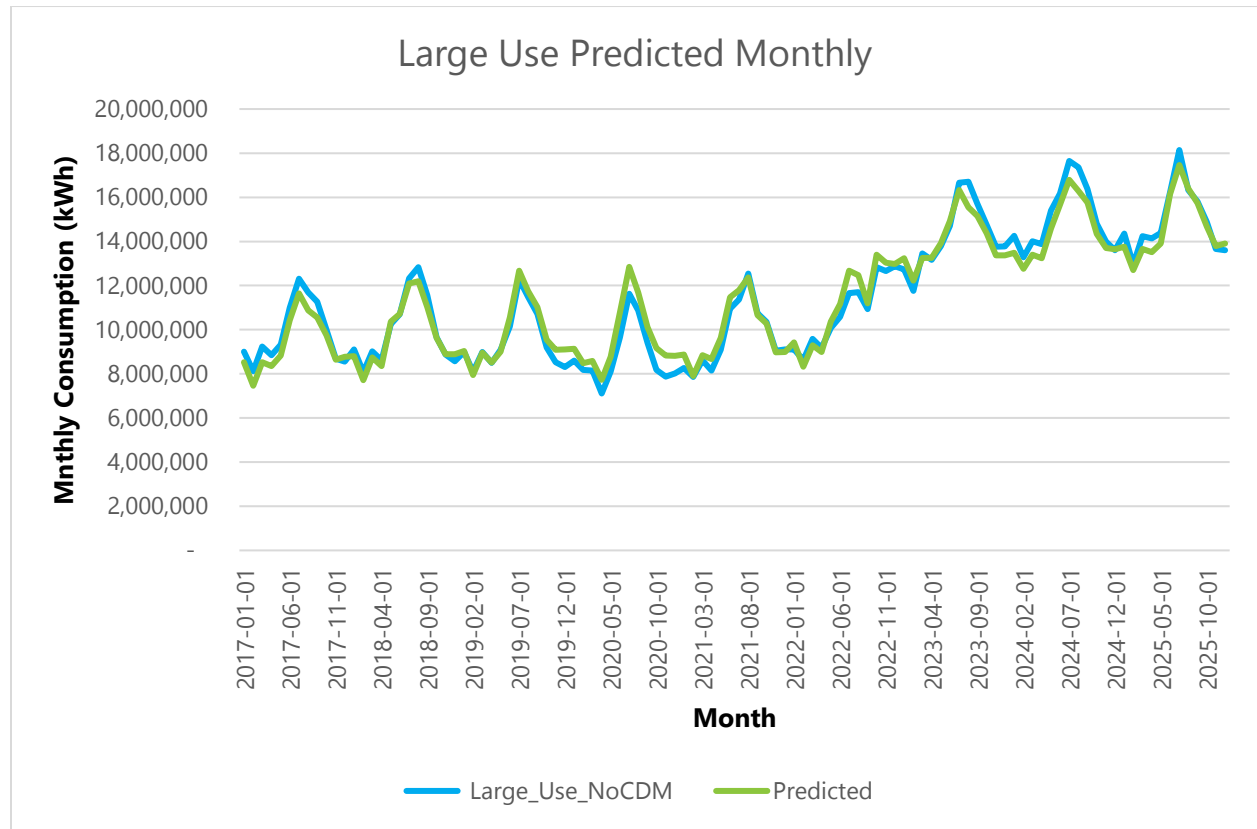
The following table outlines the resulting regression model:

Table 17 - Large Use Regression Model

Model 5: Prais-Winsten, using observations 2017:01-2025:12 (T = 108)				
Dependent variable: Large_Use_NoCDM				
rho = 0.822648				
	coefficient	std. error	t-ratio	p-value
const	(5,783,820)	833,017	(6.94)	0.000
HDD16	617	306	2.02	0.046
CDD12	13,675	622	22.00	0.000
Large_Use_Customers	3,500,000	304,772	11.48	0.000
Fall	387,001	102,535	3.77	0.000
COVID_AM	(989,121)	332,907	(2.97)	0.004
MonthDays	338,145	24,583	13.76	0.000
Trend	17,220	5,960	2.89	0.005
Summer	(352,059)	107,804	(3.27)	0.002
Statistics based on the rho-differenced data				
Sum squared resid	9.22E+12	S.E. of regression		305,210
R-squared	0.989	Adjusted R-squared		0.988
F(7, 112)	155.93	P-value(F)		0.000
rho	(0.045)	Durbin-Watson		2.078

Using the above model coefficients we derive the following:

Figure 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 3.4%. The MAPE calculated monthly over the period is 3.9%.

Table 18 – Large Use Model Error

Year	Large Use		Absolute Error (%)
	Actual	Predicted	
2017	118,024,544	112,359,983	4.8%
2018	119,580,613	117,413,889	1.8%
2019	114,324,760	117,203,906	2.5%
2020	105,806,985	114,945,234	8.6%
2021	116,097,390	118,439,346	2.0%
2022	129,838,257	133,302,195	2.7%
2023	170,966,069	168,968,750	1.2%
2024	180,773,988	173,673,833	3.9%
2025	178,708,885	175,630,781	1.7%
Total	1,234,121,490	1,231,937,917	0.2%
Mean Absolute Percentage Error (Annual)			3.4%
Mean Absolute Percentage Error (Monthly)			3.9%

3. WEATHER NORMALIZATION AND ECONOMIC FORECAST

3.1 Normal Weather

Average monthly heating degree days and cooling degree days in the 10-year period from 2015 to 2024 are used as “normal weather”. Heating degree days and cooling degree days were calculated on a daily basis using temperatures reported by Environment Canada for London, which is used as the weather station London Hydro’s service area. Heating degree days reflect the number of degrees the average daily temperature is below a base temperature. Cooling degree days reflect the number of degrees the average daily temperature is above a base temperature. Environment Canada provides heating and cooling degree day statistics using a base of 18°C but a wider range of base temperatures were considered. The monthly heating and cooling degree days are a sum of the respective values within each month.

The table below displays the 10-year average (2015 to 2024) of heating degree days and cooling degree days for a range of base temperatures.

Table 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	380	0	442	0	504	0	566	0	628	0	683	0	752	0
February	315	1	371	0	427	0	484	0	540	0	590	0	653	0
March	216	8	273	3	333	1	394	0	456	0	522	0	580	0
April	84	44	126	26	174	14	227	7	282	2	343	0	400	0
May	8	188	19	137	38	94	65	59	103	35	146	19	201	9
June	0	334	0	274	1	215	3	157	10	104	29	62	58	32
July	0	417	0	355	0	293	0	231	0	169	2	109	12	57
August	0	382	0	320	0	258	0	196	3	136	7	82	28	38
September	0	273	0	213	3	156	11	104	28	61	56	28	98	11
October	24	109	50	73	85	45	126	25	175	11	229	4	288	1
November	146	15	199	8	254	4	312	2	371	1	422	0	491	0
December	288	1	350	0	412	0	474	0	536	0	592	0	660	0

Historical consumption data is weather normalized by replacing actual heating and cooling degree days with the average values as provided in the above table.

3.2 Economic Forecast

GDP and employment forecasts for 2025 to 2027 are based on the mean forecasts of four major Canadian banks TD, BMO, Scotiabank, RBC as of May 2026.

Table 20 - Economic Forecasts

Source Report Date	BMO 08-May-26	RBC 26-Mar-26	Scotiabank 24-Mar-26	TD 18-Mar-26	Average
GDP Forecast (Real GDP % Year-over-Year)					
2025	1.3%	1.2%	1.2%	1.4%	1.28%
2026	0.8%	0.9%	0.8%	0.9%	0.85%
2027	2.2%	1.3%	1.7%	1.8%	1.75%
FTE Forecast (% Year-over-Year)					
2025	1.0%	1.0%	1.0%	1.0%	1.00%
2026	-0.1%	0.0%	0.2%	-0.2%	-0.03%
2027	0.7%	0.1%	0.9%	0.5%	0.55%

Average forecast rates are applied to the most recent GDP and Labour Force Survey monthly data available. For example, the 2025 forecast FTE growth rate, 0.83%, 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 0.4%, the 2026 FTE forecast growth rate, to the January 2025 forecast.

4. CLASS SPECIFIC NORMALIZED FORECASTS

4.1 Residential

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 21 - Actual vs Normalized Residential kWh

Year	Residential kWh					
	Actual	Cumulative Persisting CDM	Actual No CDM	Normal Predicted No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2017	1,047,993,667	13,614,245	1,061,607,912	1,091,421,251	13,614,245	1,077,807,006
2018	1,139,376,021	24,443,882	1,163,819,903	1,111,795,234	24,443,882	1,087,351,351
2019	1,101,433,888	25,899,260	1,127,333,149	1,130,596,976	25,899,260	1,104,697,716
2020	1,174,376,356	25,899,260	1,200,275,617	1,185,491,438	25,899,260	1,159,592,177
2021	1,183,155,978	26,064,888	1,209,220,866	1,204,965,822	26,064,888	1,178,900,934
2022	1,180,210,180	26,333,269	1,206,543,449	1,208,158,758	26,333,269	1,181,825,489
2023	1,127,950,491	26,637,002	1,154,587,493	1,205,733,871	26,637,002	1,179,096,869
2024	1,181,706,112	27,537,298	1,209,243,410	1,219,809,664	27,537,298	1,192,272,365
2025	1,217,191,863	29,328,021	1,246,519,884	1,227,232,998	29,328,021	1,197,904,977
2026				1,242,585,419	29,012,629	1,213,572,789
2027				1,258,068,572	28,647,899	1,229,420,673

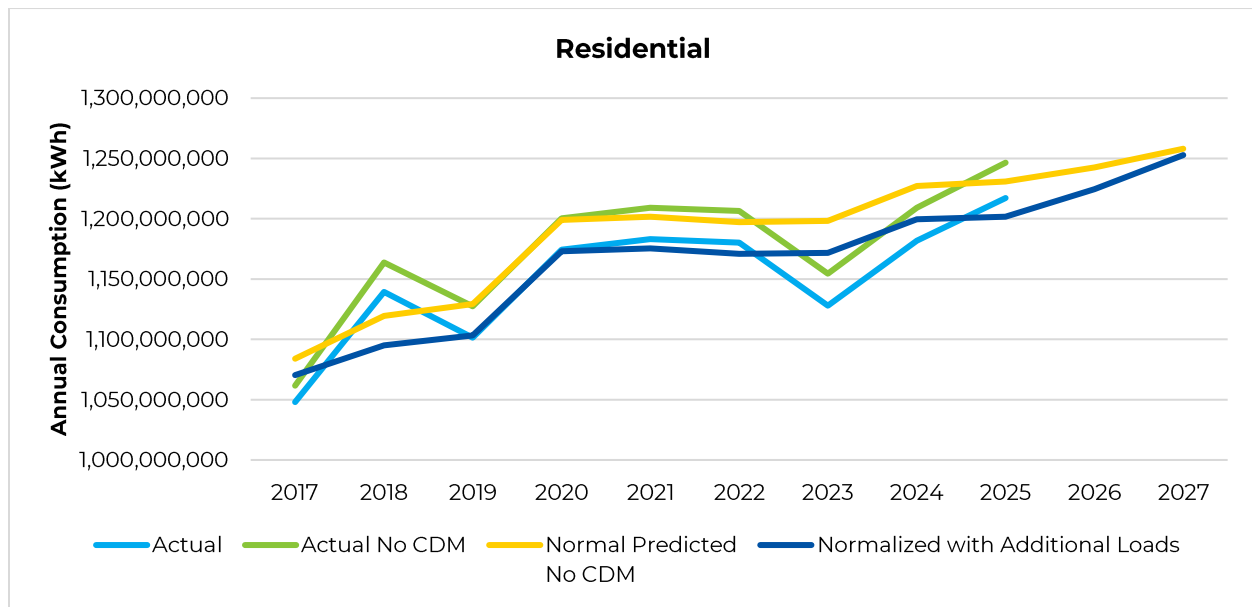
Column D in this table is calculated by applying normal (10-year average) heating and cooling degree days, as well as the remaining variables, to the regression coefficients from Table 9. From 2025 onwards the regression coefficients are applied to forecast values, including the same normal heating and cooling degree days. The calculations are detailed in the load forecast model.

Additional loads, as described further in Section 5, are forecast and added to the weather normalized forecasts for 2026 and 2027.

Table 22 - Additional Residential kWh Consumption

Year	Normalized	Additional Loads	Normalized with Additional Loads
	F	G	H = F + G
2026	1,213,572,789	10,940,222	1,224,513,012
2027	1,229,420,673	23,387,079	1,252,807,752

Figure 11 Actual vs Normalized Residential kWh



Note that the vertical intercept does not begin at 0 in any figure in this section. The Residential customer count is forecast using the Geometric mean of the annual growth from 2021 to 2025 applied to 2025 counts. Residential customer count growth has declined from 2017 to 2025, so a five-year period was selected for the purpose of calculated customer growth.

Table 23 - Forecasted Residential Customer Count

Residential		Percent of Prior Year
Year	Customers	
2017	142,207	
2018	143,927	101.21%
2019	145,514	101.10%
2020	146,978	101.01%
2021	148,596	101.10%
2022	150,464	101.26%
2023	151,859	100.93%
2024	152,856	100.66%
2025	153,674	100.53%
2026	154,970	100.84%
2027	156,277	100.84%

4.2 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 24 - Actual vs Normalized GS < 50 kWh

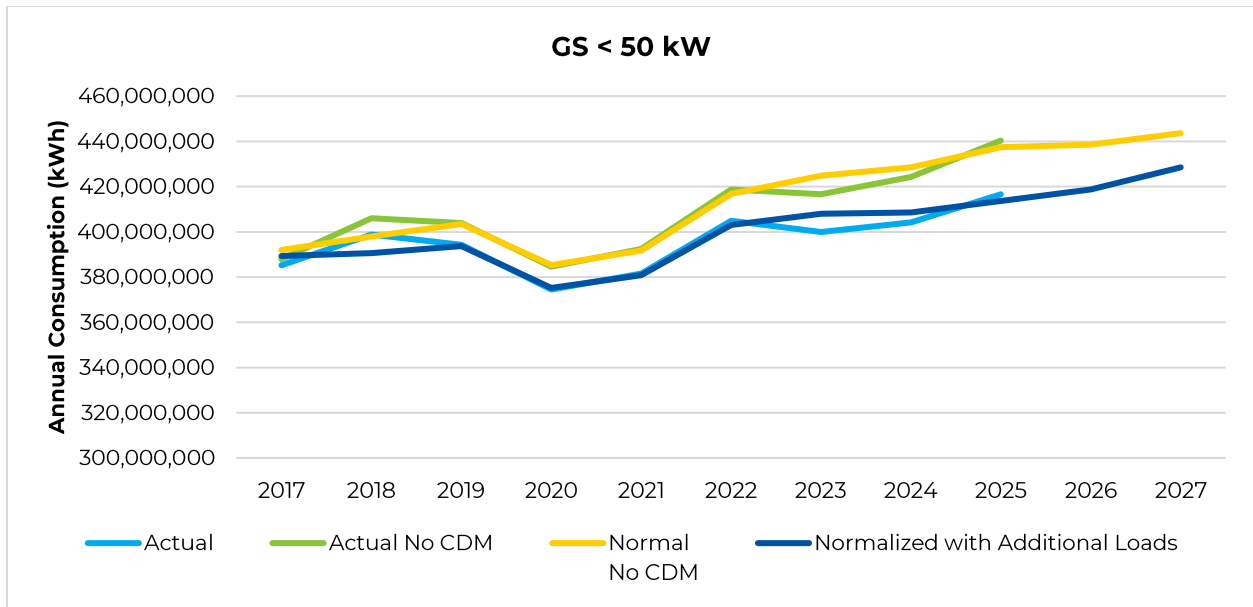
Year	GS<50 kWh					
	Actual	Cumulative Persisting CDM	Actual No CDM	Normal Predicted No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2017	385,223,199	2,692,518	387,915,717	391,574,668	2,692,518	388,882,149
2018	398,801,024	7,262,897	406,063,921	399,517,451	7,262,897	392,254,554
2019	394,237,703	9,704,632	403,942,335	405,077,682	9,704,632	395,373,050
2020	374,506,008	10,099,399	384,605,406	381,635,981	10,099,399	371,536,582
2021	381,478,907	10,922,004	392,400,911	396,031,276	10,922,004	385,109,271
2022	404,904,348	13,820,849	418,725,197	413,343,204	13,820,849	399,522,356
2023	399,918,444	16,730,838	416,649,282	426,010,125	16,730,838	409,279,287
2024	404,233,974	19,969,722	424,203,695	431,386,060	19,969,722	411,416,338
2025	416,596,865	23,754,236	440,351,101	433,695,096	23,754,236	409,940,860
2026				438,621,758	23,244,976	415,376,782
2027				443,634,637	22,219,399	421,415,238

Additional loads, as described further in Section 5Error! Reference source not found. below, are forecast and added to the weather normalized forecasts for 2026 and 2027.

Table 25 - Additional GS < 50 kWh Consumption

Year	Normalized	Additional Loads	Normalized with Additional Loads
	F	G	H = F + G
2026	415,376,782	3,332,181	418,708,963
2027	421,415,238	7,085,206	428,500,444

Figure 12 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 GS <50 customer count is forecast using the Geometric mean of the annual growth from 2021 to 2025 applied to 2025 counts.

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

Table 26 - Forecasted GS<50 kW Customer Count

GS < 50 kW		Percent of Prior Year
Year	Customers	
2017	12,575	
2018	12,636	100.48%
2019	12,772	101.08%
2020	12,892	100.94%
2021	12,992	100.78%
2022	13,154	101.25%
2023	13,233	100.60%
2024	13,364	100.99%
2025	13,502	101.03%
2026	13,632	100.97%
2027	13,764	100.97%

4.3 GS > 50 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 27 - Actual vs Normalized GS > 50 kWh

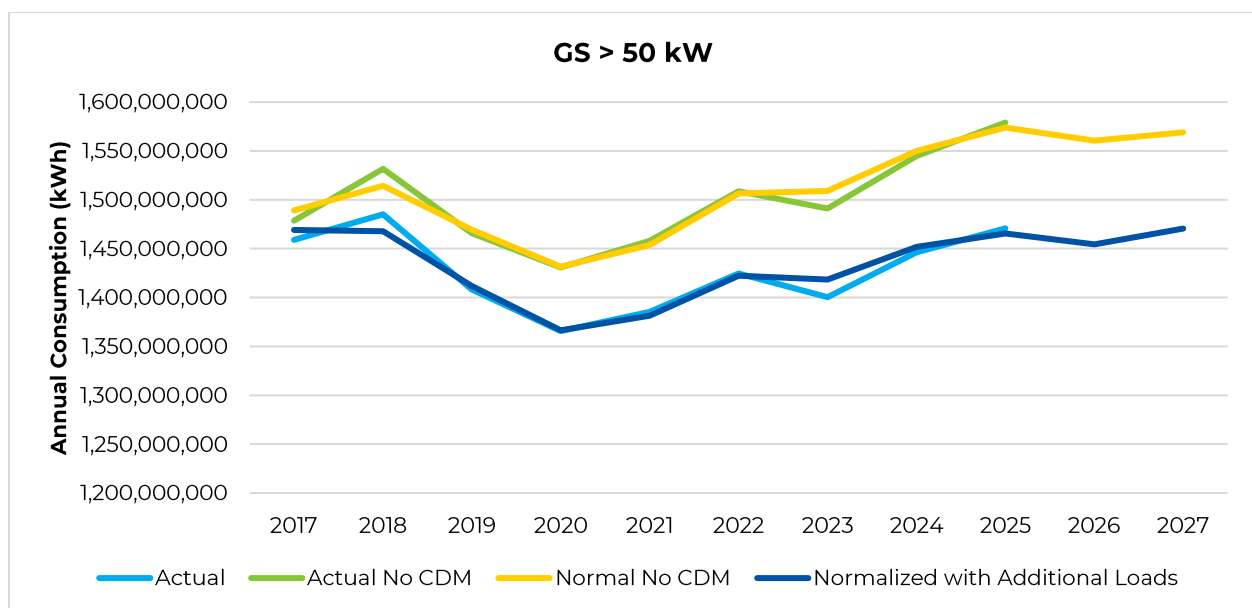
GS 50 – 4,999 kW kWh						
Year	Actual	Cumulative Persisting CDM	Actual No CDM	Normal Predicted No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2017	1,458,855,316	19,946,744	1,478,802,060	1,480,867,901	19,946,744	1,460,921,157
2018	1,485,117,370	46,632,614	1,531,749,984	1,494,297,991	46,632,614	1,447,665,377
2019	1,408,341,173	57,578,698	1,465,919,871	1,503,699,531	57,578,698	1,446,120,834
2020	1,365,678,434	65,099,045	1,430,777,478	1,427,522,900	65,099,045	1,362,423,855
2021	1,385,380,121	72,527,918	1,457,908,040	1,450,429,883	72,527,918	1,377,901,965
2022	1,424,708,526	84,100,057	1,508,808,583	1,498,688,580	84,100,057	1,414,588,522
2023	1,400,393,230	90,661,552	1,491,054,782	1,539,093,244	90,661,552	1,448,431,693
2024	1,446,263,152	98,366,212	1,544,629,364	1,549,616,532	98,366,212	1,451,250,321
2025	1,470,647,189	108,445,624	1,579,092,813	1,552,087,411	108,445,624	1,443,641,788
2026				1,560,417,680	106,430,996	1,453,986,684
2027				1,568,893,729	98,970,453	1,469,923,276

Additional loads, as described further in Section 5Error! Reference source not found. below, are forecast and added to the weather normalized forecasts for 2026 and 2027.

Table 28 - Additional GS > 50 kWh Consumption

Year	Normalized	Additional Loads	Normalized with Additional Loads
	F	G	H = F + G
2026	1,453,986,684	304,054	1,454,290,738
2027	1,469,923,276	654,501	1,470,577,777

Figure 13 Actual vs Normalized GS > 50 kWh



The GS 50 – 4,999 kW customer count is forecast using the Geometric mean of the annual growth from 2021 to 2025 applied to 2025 counts. The following table includes the customer Actual / Forecast customer count on this basis:

Table 29 - Forecasted GS > 50 kW Customer Count

GS 50-4,999 kW		Percent of Prior Year
Year	Customers	
2017	1,605	
2018	1,622	101.09%
2019	1,579	97.33%
2020	1,541	97.60%
2021	1,522	98.76%
2022	1,468	96.44%
2023	1,464	99.76%
2024	1,497	102.23%
2025	1,520	101.54%
2026	1,519	99.97%
2027	1,519	99.97%

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 9-year average kW/kWh ratio from 2017 to 2025.

Table 30 - Forecasted GS > 50 kW

GS 50-4,999 kW				
	Actual kWh	Actual kW	Ratio	
	A	B	C = B / A	
2017	1,458,855,316	3,708,563	0.002542	
2018	1,485,117,370	3,744,566	0.002521	
2019	1,408,341,173	3,636,724	0.002582	
2020	1,365,678,434	3,426,345	0.002509	
2021	1,385,380,121	3,496,520	0.002524	
2022	1,424,708,526	3,574,257	0.002509	
2023	1,400,393,230	3,541,020	0.002529	
2024	1,446,263,152	3,656,086	0.002528	
2025	1,470,647,189	3,705,957	0.002520	
	kWh Normalized	kW Normalized	10-Year Avg. Ratio	Additional kW Loads
	D	E = D * F	F	G
2025	1,443,641,788	3,651,419	0.002529	
2026	1,453,986,684	3,677,584	0.002529	2,777
2027	1,469,923,276	3,717,893	0.002529	3,200
				Total Forecast
				H = E + G
				3,651,419
				3,680,361
				3,721,093

4.4 GS 1,000 to 4,999 kW Co-Generation

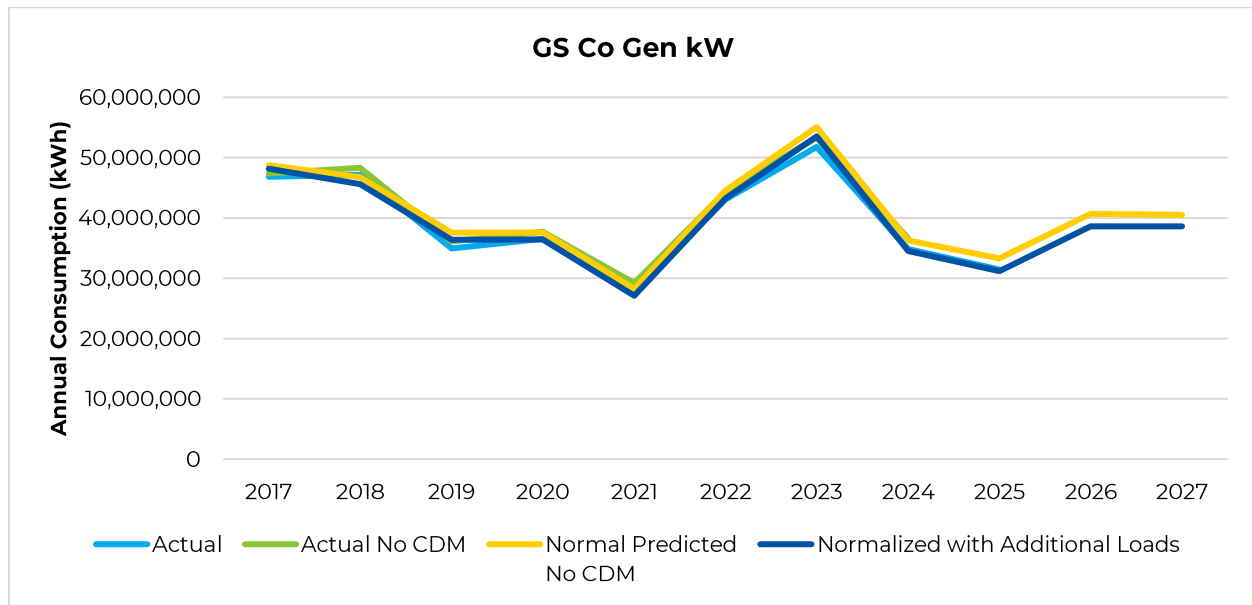
Incorporating the 10-year weather normal heating and cooling degree days, and calendar variables, the following weather corrected consumption and forecast values are calculated:

Table 31 - Actual vs Normalized GS 1,000 to 4,999 kW Co-Generation

Year	GS 1,000 to 4,999 kW Co-Generation					
	Actual	Cumulative Persisting CDM	Actual No CDM	Normal Predicted No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2017	46,826,076	547,034	47,373,110	40,524,521	547,034	39,977,487
2018	47,167,618	1,139,921	48,307,539	40,524,521	1,139,921	39,384,600
2019	34,966,868	1,138,566	36,105,434	40,690,753	1,138,566	39,552,187
2020	36,542,442	1,138,566	37,681,008	40,690,753	1,138,566	39,552,187
2021	28,072,542	1,138,566	29,211,108	40,192,056	1,138,566	39,053,490
2022	43,045,721	1,288,201	44,333,922	40,192,056	1,288,201	38,903,855
2023	51,773,686	1,539,668	53,313,354	40,358,288	1,539,668	38,818,620
2024	34,855,427	1,779,502	36,634,929	40,856,986	1,779,502	39,077,484
2025	31,417,818	2,093,689	33,511,508	40,690,753	2,093,689	38,597,064
2026				40,690,753	2,083,111	38,607,643
2027				40,524,521	1,934,101	38,590,419

No additional EV or heating loads are added to the GS 1,000 to 4,999 kW Co-Generation forecast.

Figure 14 Actual vs Normalized GS 1,000 to 4,999 kW Co-Generation



The rate class has had 7 customers since 2021, and this is forecast to continue to the test year. The following table includes the customer Actual / Forecast customer count on this basis:

Table 32 - Forecasted GS 1,000 to 4,999 kW Co-Generation Customer Count

GS 3,000-4,999 kW		Percent of Prior Year
Year	Customers	
2017	4	
2018	5	125.00%
2019	5	100.00%
2020	5	100.00%
2021	7	140.00%
2022	7	100.00%
2023	7	100.00%
2024	7	100.00%
2025	7	100.00%
2026	7	100.00%
2027	7	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 9-year average kW/kWh ratio from 2017 to 2025.

Table 33 - Forecasted GS 1,000 to 4,999 kW Co-Generation

GS 1,000 to 4,999 kW Co-Generation kW				
	Actual kWh	Actual kW	Ratio	
	A	B	C = B / A	
2017	46,826,076	74,119	0.001583	
2018	47,167,618	88,638	0.001879	
2019	34,966,868	55,791	0.001596	
2020	36,542,442	60,972	0.001669	
2021	28,072,542	50,766	0.001808	
2022	43,045,721	72,459	0.001683	
2023	51,773,686	81,017	0.001565	
2024	34,855,427	69,036	0.001981	
2025	31,417,818	70,644	0.002249	
	kWh Normalized	kW Normalized	Avg. Ratio	Additional kW Loads
	D	E = D * F	F	G
2025	38,597,064	68,668	0.001779	
2026	38,607,643	68,687	0.001779	-
2027	38,590,419	68,656	0.001779	-
				Total Forecast
				H = E + G

4.5 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 34 - Actual vs Normalized Large Use kWh

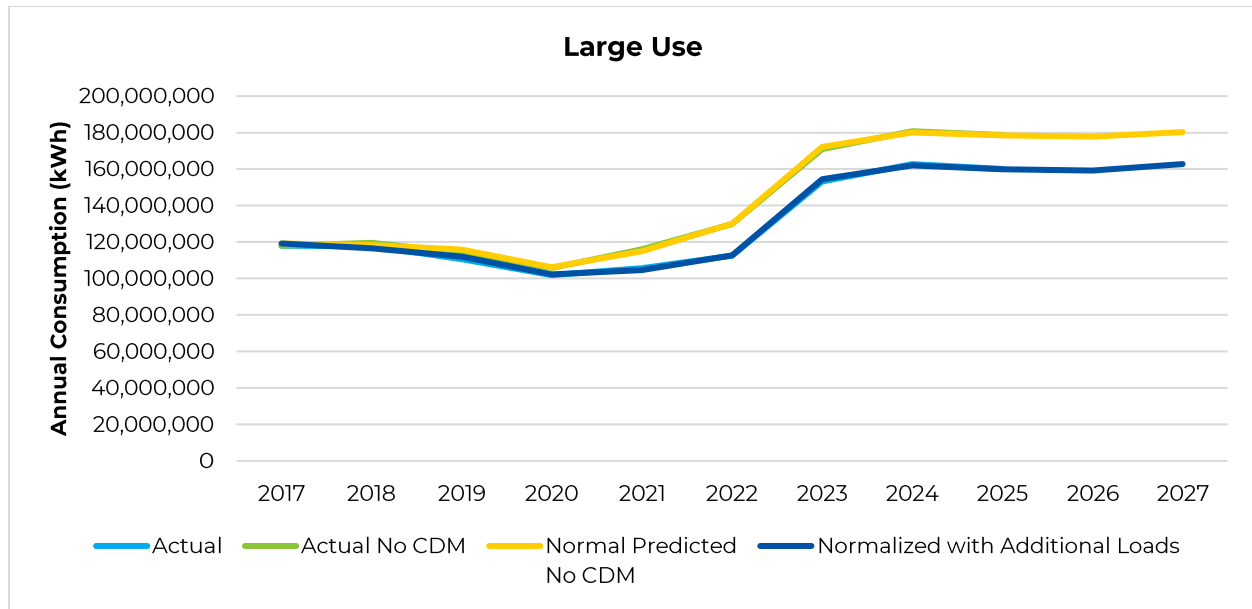
Year	Large Use kWh					
	Actual	Cumulative Persisting CDM	Actual No CDM	Normal Predicted No CDM	Cumulative Persisting CDM	Normalized
	A	B	C = A + B	D	E = B	F = D - E
2017	117,991,437	33,107	118,024,544	113,514,637	33,107	113,481,530
2018	117,777,486	1,803,127	119,580,613	115,994,373	1,803,127	114,191,245
2019	110,589,768	3,734,992	114,324,760	118,474,108	3,734,992	114,739,116
2020	101,893,892	3,913,093	105,806,985	115,357,266	3,913,093	111,444,173
2021	105,654,509	10,442,881	116,097,390	117,498,857	10,442,881	107,055,976
2022	112,464,987	17,373,269	129,838,257	133,445,954	17,373,269	116,072,685
2023	153,160,750	17,805,319	170,966,069	170,393,050	17,805,319	152,587,731
2024	162,734,022	18,039,966	180,773,988	173,210,931	18,039,966	155,170,965
2025	160,084,660	18,624,225	178,708,885	175,352,522	18,624,225	156,728,298
2026				177,832,258	18,556,243	159,276,015
2027				180,311,994	17,585,722	162,726,272

Additional loads, as described further in Section 5Error! Reference source not found. below, are forecast and added to the weather normalized forecasts for 2026 and 2027.

Table 35 - Additional Large Use kWh Consumption

Year	Normalized	Additional Loads	Normalized with Additional Loads
	F	G	H = F + G
2026	159,276,015	18,210	159,294,225
2027	162,726,272	40,355	162,766,627

Figure 15 Actual vs Normalized Large Use kWh



The Large Use rate class has had 2 customers since 2023, and this is forecast to continue to 2027.

Table 36 - Forecasted Large Use Customer Count

Large Use		Percent of Prior Year
Year	Customers	
2017	1	
2018	1	100.00%
2019	1	100.00%
2020	1	100.00%
2021	1	100.00%
2022	1	100.00%
2023	2	200.00%
2024	2	100.00%
2025	2	100.00%
2026	2	100.00%
2027	2	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 9-year average kW/kWh ratio from 2017 to 2025.

Table 37 - Forecasted Large Use kW

Large Use				
	Actual kWh	Actual kW	Ratio	
	A	B	C = B / A	
2017	117,991,437	227,423	0.001927	
2018	117,777,486	221,471	0.001880	
2019	110,589,768	216,189	0.001955	
2020	101,893,892	189,814	0.001863	
2021	105,654,509	194,965	0.001845	
2022	112,464,987	213,690	0.001900	
2023	153,160,750	298,642	0.001950	
2024	162,734,022	311,836	0.001916	
2025	160,084,660	310,224	0.001938	
	kWh Normalized	kW Normalized	Avg. Ratio	Additional kW Loads
	D	E = D * F	F	G
2025	156,728,298	299,089	0.001908	
2026	159,276,015	303,950	0.001908	166
2027	162,726,272	310,535	0.001908	166
				Total Forecast
				H = E + G
2025				299,089
2026				304,117
2027				310,701

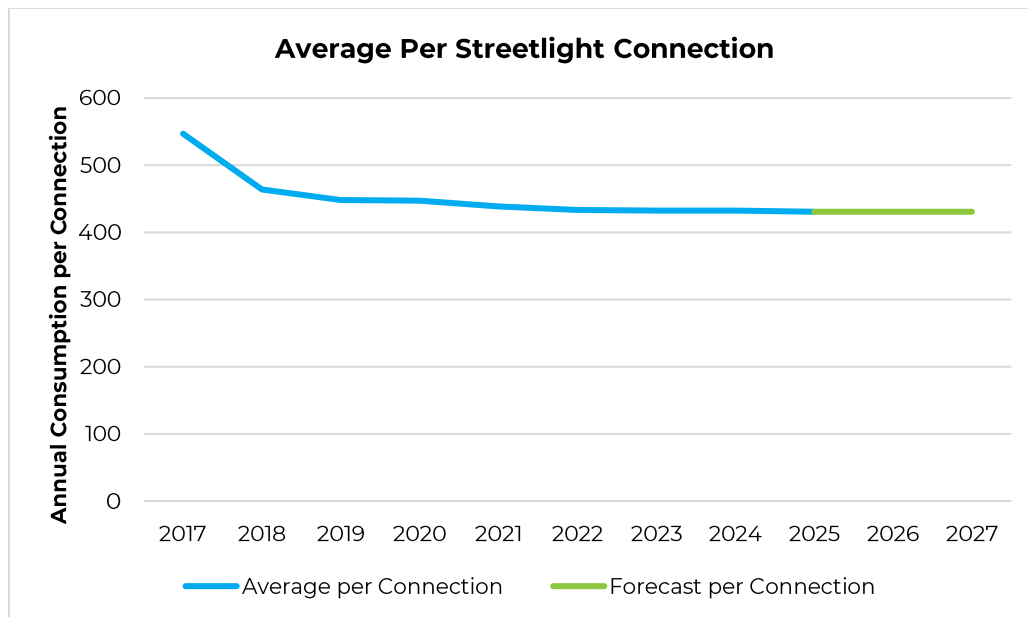
4.6 Street Lighting

The table below summarizes the historical and forecast annual energy consumption for the Street Light class. The 2025 consumption per connection is used as the average consumption per connection for 2026 and 2027.

Table 38 - Street Light Consumption Forecast

Year	Street Light			
	Actual	Connections	Average per Connection	Normal Forecast
	A	B	$C = A / B$	$D = B * C$
2017	19,787,896	36,184	547	19,787,896
2018	17,086,179	36,831	464	17,086,179
2019	16,623,912	37,111	448	16,623,912
2020	16,908,317	37,807	447	16,908,317
2021	16,882,809	38,502	438	16,882,809
2022	17,000,378	39,232	433	17,000,378
2023	17,184,524	39,733	432	17,184,524
2024	17,401,184	40,244	432	17,401,184
2025	17,445,300	40,504	431	17,445,300
2026		41,020	431	17,667,701
2027		41,543	431	17,892,936

Figure 16 Street Light kWh per Connection



The Street Light connection count is forecast using the geometric mean of the annual growth from 2021 to 2025 applied to 2025 counts.

Table 39 - Forecasted Street Light Connection Count

Street Lights		Percent of Prior Year
Year	Lights	
2017	36,184	
2018	36,831	101.79%
2019	37,111	100.76%
2020	37,807	101.87%
2021	38,502	101.84%
2022	39,232	101.89%
2023	39,733	101.28%
2024	40,244	101.28%
2025	40,504	100.65%
2026	41,020	101.27%
2027	41,543	101.27%

The 9-year average of the kW/kWh ratio from 2017 to 2025 is applied to normalized consumption to forecast kW demand.

Table 40 - Forecasted Street Light kW

Street Lights			
	Actual kWh	Actual kW	Ratio
	A	B	C = B / A
2017	19,787,896	55,753	0.002818
2018	17,086,179	47,864	0.002801
2019	16,623,912	46,619	0.002804
2020	16,908,317	47,272	0.002796
2021	16,882,809	47,348	0.002805
2022	17,000,378	47,685	0.002805
2023	17,184,524	48,192	0.002804
2024	17,401,184	48,655	0.002796
2025	17,445,300	48,927	0.002805
	kWh Normalized	kW Normalized	Avg. Ratio
	D	E = D * F	F
2025	17,445,300	48,912	0.002804
2026	17,667,701	49,535	0.002804
2027	17,892,936	50,167	0.002804

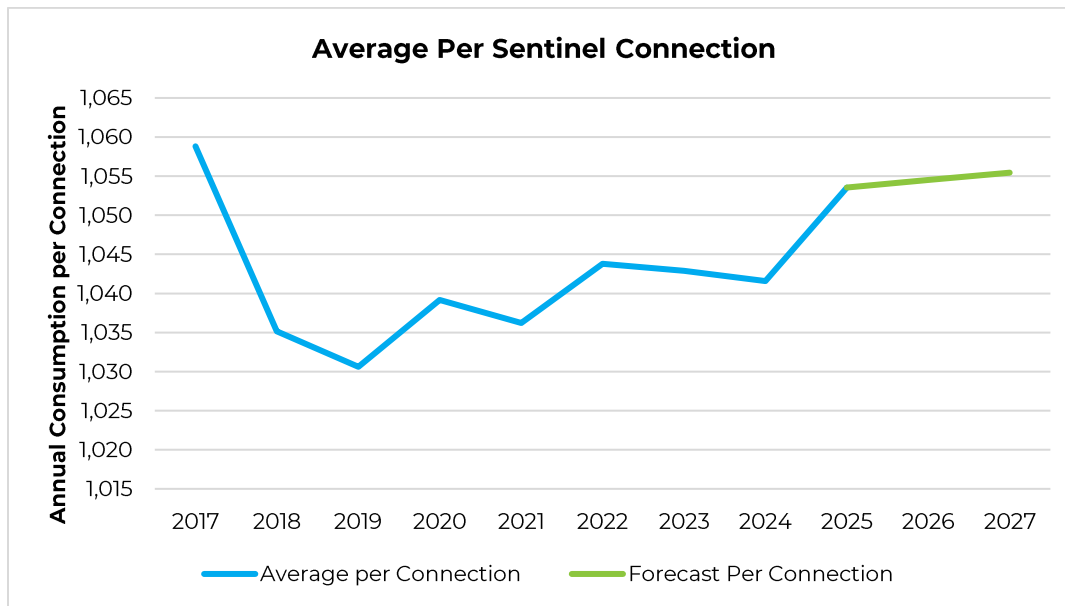
4.7 Sentinel Lighting

The table below summarizes the historical and forecast annual energy consumption for the Sentinel Lighting class. Consumption per Sentinel Lighting connection has increases since 2019. Consumption per connection in 2027 is forecast using a trend from 2019 to 2025.

Table 41 - Sentinel Lighting Consumption Forecast

Year	Sentinel Light			
	Actual	Connections	Average per Connection	Normal Forecast
	A	B	$C = A / B$	$D = B * C$
2017	580,141	548	1,059	580,141
2018	548,885	530	1,035	548,885
2019	541,072	525	1,031	541,072
2020	535,958	516	1,039	535,958
2021	528,906	510	1,036	528,906
2022	527,895	506	1,044	527,895
2023	522,311	501	1,043	522,311
2024	512,976	493	1,042	512,976
2025	506,226	481	1,054	506,226
2026		473	1,054	499,090
2027		466	1,055	492,053

Figure 17 Sentinel Lighting kWh per Connection



The Sentinel Light connection count is forecast using the geometric mean of the annual growth from 2021 to 2025 applied to 2025 counts.

Table 42 - Forecasted Sentinel Lighting Connection Count

Sentinel Lights		Percent of Prior Year
Year	Lights	
2017	548	
2018	530	96.78%
2019	525	99.01%
2020	516	98.24%
2021	510	98.97%
2022	506	99.09%
2023	501	99.03%
2024	493	98.34%
2025	481	97.56%
2026	473	98.50%
2027	466	98.50%

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 9-year average kW/kWh ratio from 2017 to 2025 was used.

Table 43 - Forecasted Sentinel Lighting kW

Sentinel Lights			
	Actual kWh	Actual kW	Ratio
	A	B	C = B / A
2017	580,141	1,579	0.002722
2018	548,885	1,490	0.002714
2019	541,072	1,467	0.002712
2020	535,958	1,446	0.002698
2021	528,906	1,433	0.002710
2022	527,895	1,427	0.002704
2023	522,311	1,416	0.002711
2024	512,976	1,395	0.002719
2025	506,226	1,371	0.002709
	kWh Normalized	kW Normalized	Avg. Ratio
	D	E = D * F	F
2025	506,226	1,372	0.002711
2026	499,090	1,353	0.002711
2027	492,053	1,334	0.002711

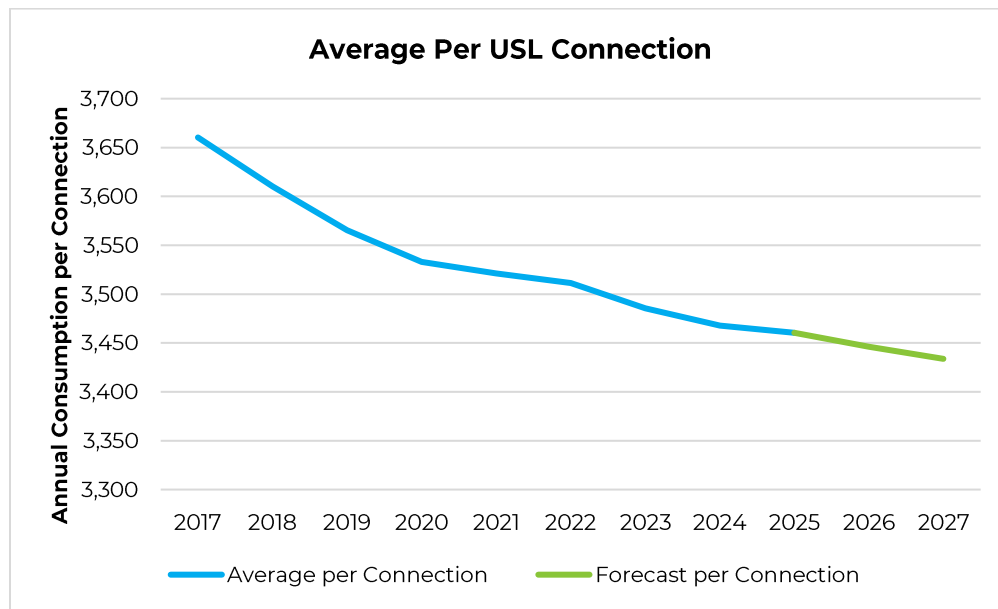
4.8 Unmetered Scattered Load

The following table summarizes historical and forecast annual energy consumption for the USL class. Consumption per USL connection has decreased since 2017. Consumption per connection in 2027 is forecast using a trend from 2023 to 2025.

Table 44 - USL Consumption Forecast

Year	USL			
	Actual	Connections	Average per Connection	Normal Forecast
	A	B	C = A / B	D = B * C
2017	5,547,494	1,516	3,660	5,547,494
2018	5,495,625	1,522	3,610	5,495,625
2019	5,503,096	1,544	3,565	5,503,096
2020	5,418,853	1,534	3,533	5,418,853
2021	5,433,334	1,543	3,521	5,433,334
2022	5,441,494	1,550	3,511	5,441,494
2023	5,450,501	1,564	3,485	5,450,501
2024	5,428,927	1,566	3,468	5,428,927
2025	5,436,604	1,571	3,460	5,436,604
2026		1,578	3,446	5,438,761
2027		1,585	3,434	5,443,581

Figure 18 USL kWh per Connection



The Geometric mean of the annual growth from 2021 to 2025 is used to forecast the USL connection growth rate from 2025 to 2027.

Table 45 - Forecasted USL Connections

USL		Percent of Prior Year
Year	Connections	
2017	1,516	
2018	1,522	100.44%
2019	1,544	101.40%
2020	1,534	99.37%
2021	1,543	100.60%
2022	1,550	100.44%
2023	1,564	100.91%
2024	1,566	100.11%
2025	1,571	100.35%
2026	1,578	100.45%
2027	1,585	100.45%

5. ADDITIONAL LOADS

London Hydro'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. Forecast amounts are layered onto the top-down forecast that is based on historical loads.

5.1 Electric Vehicles

Electric vehicle consumption is forecast based on delayed Canada's zero-emission vehicle sales targets, 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 London Hydro's service area and the number of EVs sold in Ontario by type of vehicle. Statistics Canada provides data for the type of vehicle at the municipal level. EVs are forecast separately by battery EVs and plug-in hybrid EVs.

The total number of battery EVs in London Hydro's service area and by type and the number of battery EVs in Ontario are provided in the table below.

Table 46 - Ontario and London Battery EV Statistics

	2020	2021	2022	2023	2024	2025
LH BEVs	139	256	528	652	821	742
ON BEVs	8,161	14,821	32,783	38,635	41,659	42,588
LH % of ON BEVs	1.70%	1.73%	1.61%	1.69%	1.97%	1.74%
LH Passenger BEVs	139	256	499	604	728	596
LH Vans BEVs	-	-	6	13	8	57
LH Pickup Truck BEVs	-	-	23	35	85	89
Passenger BEV %	100.0%	100.0%	97.6%	95.8%	93.6%	90.7%
Van BEV %	0.0%	0.0%	0.5%	1.0%	1.0%	2.5%
Pickup Truck BEV %	0.0%	0.0%	1.9%	3.1%	5.4%	6.8%

Passenger EVs includes what is labeled by Statistics Canada as "Passenger" and "Multi-Purpose Vehicle" EVs. Multi-Purpose Vehicles are vehicles such as SUVs and crossovers. The share of Passenger and Multi-Purpose Vehicles have each changed significantly over the past nine years, but jointly the share has been reasonably consistent over time.

The total number of battery EVs in London from 2026 and 2027 is forecast based on the number of vehicles sold in Ontario, the share of Ontario battery EVs sold London, and the latest target number of EVs sold in Canada. The revised target percentage of total vehicles that are ZEV is 75% by 2035.

Table 47 - Forecast of Battery EVs by Type 2026-27

	2026	2027
All Vehicles in Ontario	716,593	718,575
New Battery EV Target	7.4%	9.3%
LH EVs as % of Ontario EVs	1.80%	1.80%
Total New LH BEVs	959	1,200
Passenger BEVs	896	1,121
Van BEVs	14	18
Pickup Truck BEVs	49	61

The number of vehicles sold is assumed to grow by according to population forecasts from the Ministry of Finance. The share of total Ontario battery EVs sold in London is first based on the three-year average share of 2.85% from 2023 to 2025 persisting to 2027. The total number of battery EVs sold in London in each year is calculated as the total number of vehicles sold in Ontario multiplied by the target share of battery EVs sold multiplied by London's share of total battery EVs. The forecast of new EVs by type is calculated based on the total new battery EVs in London multiplied by the 2025 share of each type from Table 47.

Table 48 - Ontario and London Plug-in Hybrid EV Statistics

	2020	2021	2022	2023	2024	2025
LH PHEVs	69	137	145	297	435	485
ON PHEVs	2,356	4,989	5,879	11,497	14,934	15,957
LH % of ON PHEVs	2.93%	2.75%	2.47%	2.58%	2.91%	3.04%
ON Passenger PHEVs	66	128	132	277	424	481
ON Vans PHEVs	3	9	13	20	11	4
ON Pickup Truck PHEVs	-	-	-	-	-	-
Passenger PHEV %	90.8%	91.4%	91.3%	91.8%	93.4%	94.8%
Van PHEV %	9.2%	8.6%	8.7%	8.2%	6.6%	5.2%
Pickup Truck PHEV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 49 - Forecast of Plug-in Hybrid EVs by Type 2026-27

	2026	2027
All Vehicles in Ontario	716,593	718,575
New Plug-in Hybrid EV Target	2.8%	3.5%
LH EVs as % of Ontario EVs	2.85%	2.85%
Total New LH PHEVs	568	711
Passenger PHEVs	530	663
Van PHEVs	38	47
Pickup Truck PHEVs	-	-

Calculations for the average consumption per type of vehicle is provided in Table 50. 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 Guides⁷ and Plug n' Drive's summary of EVs available in Canada. This figure is adjusted to account for the difference between battery electric vehicles and plug-in hybrid electric vehicles.

Table 50 - Consumption by EV Type

Vehicle Type	Average Distance	Average Efficiency	Total Consumption per Vehicle	
	km	kWh/ 100 km	Battery EV	Plug-in Hybrid
Passenger	14,235	20	2,847	1,708
Van	20,000	25	5,000	3,000
Pick-Up Truck	20,000	30	6,000	3,600

Cumulative and incremental kWh from EVs are calculated based on the number of EVs multiplied by the average consumption per vehicle.

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.

Table 51 –Forecast EVs and MWh Consumption by EV Type

	Passenger EVs		Van EVs		Pick-Up Truck EVs	
	2026	2027	2026	2027	2026	2027
New EVs	1,426	1,784	52	65	49	61
Incremental MWh	13,834	17,724	831	1,039	1,539	1,869
Cumulative EVs	6,449	8,233	242	308	281	342
Cumulative MWh	3,456	4,324	185	232	293	367

The allocation of incremental consumption is estimated based on the customer counts in each rate class and a review of allocations used by other LDCs. Judgement is required as London Hydro does not have these details by rate class. The allocations and allocated incremental consumption by EV type to each class is provided in Table 52.

Table 52 –Allocations to Rate Classes

Rate Class	Passenger	Van	Pick-up Truck
Residential	80.0%	65.0%	60.0%
GS<50	12.5%	20.0%	25.0%
GS 50 - 4,999	7.0%	14.5%	14.5%
Large Use	0.5%	0.5%	0.5%
Total	100.0%	100.0%	100.0%

Finally, Table 53 provides a summary of EV consumption and demand by rate class. Incremental billed demands are forecast using an estimated 15% load factor.

Table 53 –EV Forecast Summary

	2026	2027
Incremental kWh		
Residential	2,063,037	2,547,375
GS<50	404,552	457,590
GS 50 – 4,999	234,507	260,574
Large Use	13,578	16,410
Incremental kW		
GS 50 - 4,999	2,142	2,380
Large Use	124	150

5.2 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 GS < 50 kW customer are calculated using the consumption of average Enbridge customers multiplied by m³/kWh conversion factors as per Natural Resources Canada.

Table 54 - Heating Consumption per Customer

	Residential	GS<50	Measure	Source
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
Consumption	6,662	25,914	Adjusted Consumption	kWh/Customer divided by Heat Pump Efficiency

Residential and GS<50 kW heating loads are forecast for both existing connections and new customers. The share of new customers that are estimated to have electric heat pumps is based on data from NRCAN of the share of new home heating stock that is heat pump equipment. This produces a forecast of 15% of new Residential and GS<50 kW customers having heat pumps in 2027. The share of existing customers converting from natural gas to electric heat pumps is forecast is 5% (1/20th) of the share of new customers. The 5% factor is based on the typical useful life of a natural gas home heating system. Annual forecast heating loads for the Residential and GS<50 kW classes are provided below.

Table 55 – Residential Heating Summary

Residential	2026	2027
Forecast Customer Count	154,970	156,277
Increase in customers/year	1,296	1,307
Existing Conversions %	0.75%	0.75%
New Connection %	15.0%	15.0%
Existing Connections #	1,153	1,162
New Connections #	194	196
Total Connections	1,347	1,358
kWh/Customer	6,662	6,662
Total kWh	8,973,695	9,049,396

Table 56 – GS<50 kW Heating Summary

GS<50 kW	2026	2027
Forecast Customer Count	13,632	13,764
Increase in customers/year	131	132
Existing Conversions %	0.75%	0.75%
New Connection %	15.0%	15.0%
Existing Connections #	101	102
New Connections #	20	20
Total Connections	121	122
kWh/Customer	25,914	25,914
Total kWh	3,131,552	3,161,833

Table 57 - Seasonal Heating Calculation

Heating Profile			
January	683.1	18.9%	63.93%
February	589.9	16.3%	
March	522.2	14.4%	
April	343.2	9.5%	
May	146.2	4.0%	
June	29.3	0.8%	
July	1.7	0.0%	
August	7.2	0.2%	36.07%
September	56.2	1.6%	
October	229.2	6.3%	
November	422.1	11.7%	
December	592.0	16.3%	
Total	3,622.0	100.0%	

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 2027, for example, is 63.93% of 2026 consumption plus 36.07% of 2027 consumption.

Table 58 summarizes the seasonally additional heating loads added to the forecast for each rate class.

Table 58 - Seasonally Adjusted Heating kWh

	2026	2027
Residential kWh	8,973,695	9,049,396
Winter	4,908,551	5,736,704
Summer	3,236,991	3,264,298
Seasonally Adjusted kWh	8,145,542	9,001,002
GS < 50 kWh	3,131,552	3,161,833
Winter	1,677,521	2,001,939
Summer	1,129,613	1,140,536
Seasonally Adjusted kWh	2,807,134	3,142,475

6. EDSM ADJUSTMENT TO LOAD FORECAST

On January 23, 2025, the IESO released the 2025-2027 Electricity Demand Side Management (eDSM) Program Plan. eDSM programs undertaken as part of the 2025-2027 plan will put downward pressure on London Hydro's billing determinants for the General Service < 50 kW, General Service > 50 kW, General Service 1,000 to 4,999 kW Co-Generation, and Large Use rate classes. An eDSM adjustment has been made to reflect the impact of planned eDSM activities that are expected to be implemented from 2025 to 2027.

eDSM activities have been forecast based on London Hydro's share of consumption within the province and planned kWh savings from the 2025-2027 plan. The table below provides a summary of eDSM savings and London Hydro's allocation of savings.

Table 59 – 2025-2027 eDSM Forecast and London Hydro Allocation

Program	2025-27 eDSM Plan			LH Share
	2025	2026	2027	
Retrofit	446	519	476	2.88%
Small Business	14	15	16	2.95%
Energy Performance				2.95%
Energy Management	52	59	64	2.95%
Industrial Energy Efficiency	133	160	195	2.95%
New Construction			106	2.93%
Home Renovation Savings	61	66	66	2.70%
Local Initiatives	641	693	750	0.00%
Energy Affordability Program	27	30	44	3.82%
First Nations Program	1	1	1	
Total	1,375	1,543	1,718	

London Hydro's share of kWh is calculated as a 5-year average by the total provincial supplied kWh as per the OEB's open data source (2.1.5.4). The share is calculated separately for each rate class. The Energy Affordability Program allocation is based on the number of households in London as counted by Statistics Canada within the Low-Income Measure.

Total GWh savings figures are then adjusted by the share attributable to London Hydro, yearly weighting factors, and converted to kWh savings. Total eDSM savings by program are then allocated to London Hydro'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 eDSM activities on the class's billing determinants.

The cumulative eDSM savings from 2025 to 2027 are summarized for each rate class in the following table. A half-year adjustment is applied to first-year savings. Cumulative savings begin with a half-year of forecast 2025 savings as savings from those programs are not fully realized in 2025 actual consumption figures.

Table 60 – Cumulative 2025-2027 eDSM

	2025	2026	2027
kWh			
Residential	1,339,657	2,804,170	6,000,936
GS < 50	1,966,670	4,251,805	8,910,395
GS 50-4,999	5,272,549	11,413,042	24,813,470
GS Co-Gen	142,368	308,367	631,732
Large Use	284,810	616,238	1,251,634
Total kWh	9,006,054	19,393,621	41,608,167
kW			
GS 50-4,999	13,336	28,867	62,761
GS Co-Gen	253	549	1,124
Large Use	544	1,176	2,388
Total kW	14,133	30,592	66,273

It should be noted that the load forecast methodology accounts for the loss of persistence of previous CDM programs. After historical cumulative CDM is added for the purpose of forecasting monthly rate class consumption, the amount of cumulative CDM that is removed is lower.

APPENDIX 3-2:

POWER ADVISORY: LONDON HYDRO LOAD FORECAST MODEL (LIVE EXCEL)

APPENDIX 3-3:
OEB APP.2-IB ACTUAL AND FORECAST LOAD
(LIVE EXCEL)
