

EXHIBIT 3 – LOAD AND CUSTOMER
FORECAST
2025 Cost of Service

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3.1 LOAD AND CUSTOMER FORECAST

3.1.1 Introduction

H2000s exhibit describes the proposed load forecast methodology and assumptions used to determine the rates and rate riders for H2000's customer classes.

Table 1 – Proposed Customer Count vs Previously Approved

	Year	2020BA	2025	Var
Residential	Cust/Conn	1113	1145	32
General Service < 50 kW	Cust/Conn	141	139	-2
General Service 50 to 4999 kW	Cust/Conn	13	15	2
Unmetered Scattered Load	Cust/Conn	4	21	18
Street Lighting	Cust/Conn	370	370	0
Total	Cust/Conn	1641	1690	49

Table 2 – Proposed Consumption Count vs Previously Approved

	Year	20208BA	2025	Var
Residential	kWh	12,657,112	11,782,231	-874,880
General Service < 50 kW	kWh	4,049,207	3,672,224	-376,983
General Service 50 to 4999 kW	kWh	4,111,838	3,610,880	-500,958
	kW	11,013	9,698	-1,315
Unmetered Scattered Load	kWh	17,280	16,511	-769
		0	0	
Street Lighting	kWh	153,000	152,620	-380
	kW	421	423	
Total	kWh	20,988,437	19,234,467	-1,753,970
	kW	11,434	10,121	-1,313

H2000 notes that it is not proposing any changes to the below customer class composition.

Table 3 – Customer Class Composition and billing determinants

Customer Class Name	Existing/ Proposed	MSC Metric	Usage Metric
Residential	Existing	Customer	kWh
GS<50	Existing	Customer	kWh
GS 500-4999kW	Existing	Connection	kW
USL	Existing	Customer	kWh
Street Lighting	Existing	Connection	kW

To facilitate the understanding of the load forecast, H2000 has completed the table below summarizing characteristics unique to the service area of Cooperative Hydro Embrun.

Table 4 – Identifiers Unique to the LDC

	Factor	Unique to LDC
1	Customer growth or decline (historical or future)– residential	No
2	Customer growth or decline (historical or future)– business	No
3	Increased / Reduced kW Demand (historic or future)	No
4	Weather abnormality	No
5	Infrastructure growth / decline	No
6	Change in Demographics	No
7	Customer composite (e.g., 85% residential accounts making up 50% of annual kWh consumption)	No
8	Growth in net-metered accounts, electric vehicles, battery-storage	No
9	Growth in energy conservation	No
10	Etc.	No

The utility doesn't believe there are any specific factors that would be unique to them or would have caused a significant change in how it determines its load forecast compared to the last board-approved cost of service.

Demographics and Socioeconomic Profile

Alfred, Ontario, is a small, rural community with a population of around 9,200 (including the larger Alfred and Plantagenet township). The township of Alfred and Plantagenet was officially formed in 1997, when the municipalities of Alfred, Plantagenet, and nearby areas were amalgamated. The history of Alfred as a community, though, goes back about 200 years, reflecting its roots in Ontario's early rural settlement. The area has a predominantly Francophone population, with French as the primary language for most residents. The population is made up of a mix of retirees, middle-aged individuals, and young families.

The local economy centers on agriculture, especially dairy farming and cash crops, alongside small businesses and tourism. Many residents commute to nearby cities for work. Housing is affordable, with most homes being single-family on larger lots.

The community is close-knit, with a rich Francophone heritage and a focus on agriculture, nature, and local culture.

3.1.2 Proposed Methodology

H2000's load forecast methodology has not changed since its last Cost of Service in 2020. The forecast is prepared in two phases. The first phase, a billed energy forecast by customer class for 2025, is developed using a total purchase (Wholesale) basis regression analysis. The methodology proposed in H2000's application predicts wholesale consumption (Predicted) using a multiple regression analysis that relates historical monthly wholesale kWh usage to carefully selected variables. The one-way analysis of variance (ANOVA) is used to determine any statistically significant differences between the means of three or more independent (unrelated) groups. The ANOVA compares the means between the groups you are interested in and determines whether any means are statistically significantly different. The utility did not test the NAC method because NAC is generally seen as an alternative when sound historical data is not available.

The most significant variables used in weather-related regressions are monthly historical heating degree days and cooling degree days. Heating degree-days provide a measure of how much (in degrees), and for how long (in days), the outside temperature was below that base temperature. The most readily available heating degree days come with a base temperature of 18°C. Cooling degree-day figures also come with a base temperature and measure how much, and for how long, the outside temperature was above that base temperature.

For degree days, daily observations as reported in Ottawa are used. The regression model also uses other variables which are tested to see their relationship and contribution to the fluctuating wholesale purchases. Each variable is discussed in detail later in H2000s section.

3.1.3 Historical Forecast vs. Actual

H2000 purchases electricity from Hydro One, and embedded generation (MicroFit). In preparing for the Cost-of-Service application, the utility proposes to use a 10-year historical regression.

The following table summarizes the annual wholesale purchases for the ten years 2014 to 2023 as reported to OEB in RRR annual filing "2.1.5 Supply & Delivery Information".

3.1.3.1 Overview of Wholesale Purchases

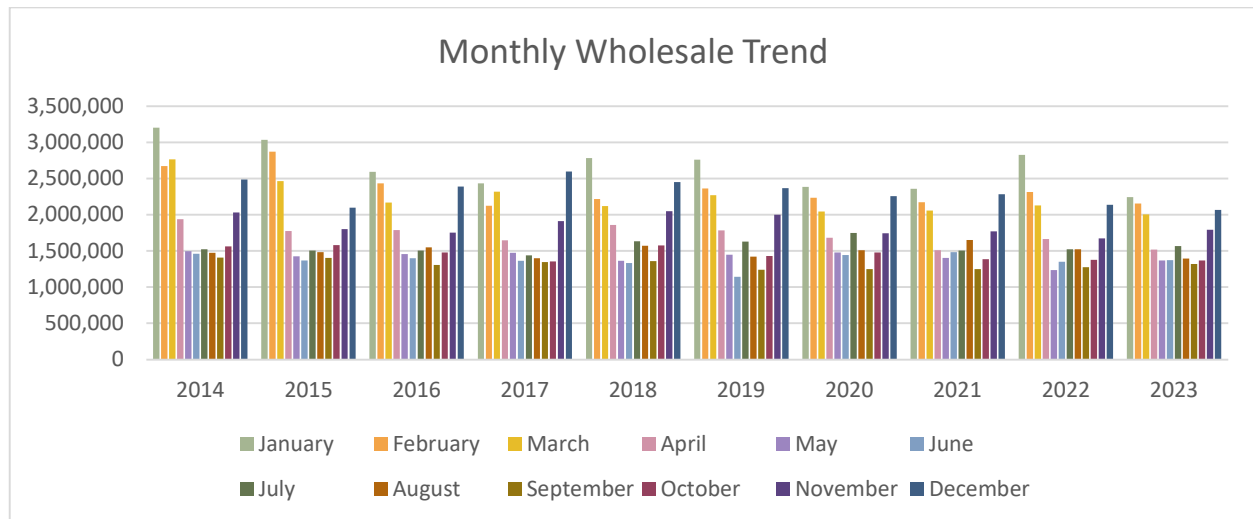
H2000 purchases electricity from Hydro One and embedded generation (MicroFit).

Table 5 – Historical Monthly Wholesale (2014-2023)

	2014	2015	2016	2017	2018
January	3,204,744	3,036,791	2,590,879	2,435,278	2,784,143
February	2,674,609	2,870,547	2,434,314	2,125,449	2,215,308
March	2,764,407	2,465,488	2,170,505	2,320,633	2,121,288
April	1,940,314	1,774,323	1,786,825	1,647,935	1,857,442
May	1,494,578	1,425,737	1,458,408	1,474,072	1,365,168
June	1,460,615	1,368,363	1,398,730	1,364,676	1,332,794
July	1,521,756	1,506,729	1,504,828	1,437,222	1,634,233
August	1,471,888	1,484,864	1,550,560	1,397,740	1,570,665
September	1,408,058	1,401,687	1,304,709	1,347,496	1,361,042
October	1,562,660	1,578,629	1,479,876	1,354,464	1,574,267
November	2,030,947	1,800,601	1,753,902	1,910,301	2,047,331
December	2,486,007	2,098,892	2,388,233	2,596,405	2,450,234
Total	24,020,582	22,812,651	21,821,769	21,411,671	22,313,915

	2019	2020	2021	2022	2023
January	2,762,873	2,386,676	2,357,996	2,826,448	2,243,866
February	2,363,914	2,236,608	2,172,446	2,315,827	2,155,695
March	2,269,499	2,045,359	2,055,698	2,130,067	2,005,903
April	1,782,927	1,682,105	1,507,271	1,664,677	1,519,655
May	1,447,177	1,477,520	1,401,411	1,233,288	1,367,097
June	1,140,434	1,442,433	1,484,569	1,349,322	1,371,020
July	1,630,187	1,746,198	1,504,255	1,522,999	1,566,169
August	1,422,814	1,509,057	1,649,422	1,521,855	1,396,173
September	1,240,359	1,248,264	1,248,909	1,273,763	1,321,032
October	1,428,945	1,480,205	1,384,418	1,378,798	1,366,123
November	1,999,819	1,742,073	1,768,989	1,674,399	1,793,258
December	2,368,865	2,258,590	2,285,477	2,135,462	2,068,035
Total	21,857,813	21,255,087	20,820,862	21,026,903	20,174,026

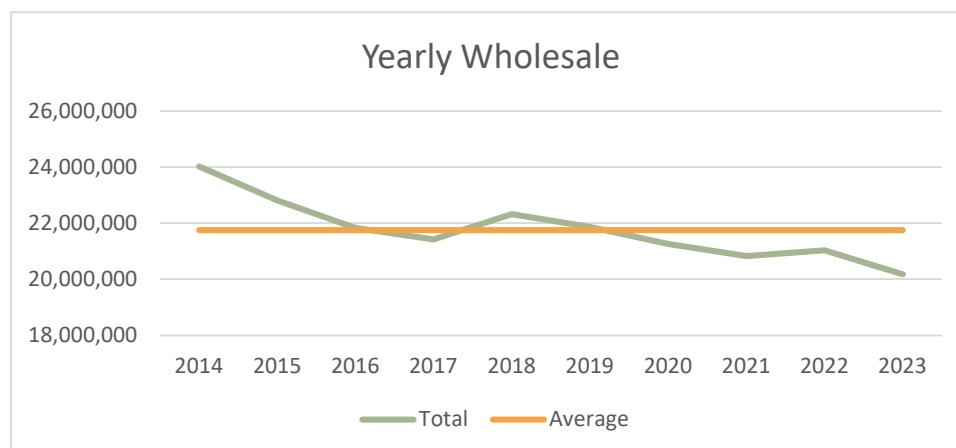
Table 6 – Trend in Historical Monthly Wholesale (2014-2023)



The wholesale values show an overall downward trend from 2014 to 2023, with periodic fluctuations. While there was an increase in 2018 and a minor increase in 2022, the general pattern is a decline.

Table 7 – Trend in Historical Yearly Wholesale Purchases

Year	Wholesale	year over year
2014	24,020,582	
2015	22,812,651	-5.03%
2016	21,821,769	-4.34%
2017	21,411,671	-1.88%
2018	22,313,915	4.21%
2019	21,857,813	-2.04%
2020	21,255,087	-2.76%
2021	20,820,862	-2.04%
2022	21,026,903	0.99%
2023	20,174,026	-4.06%



3.1.3.2 Overview of Variable Used

Heating and Cooling:

Monthly weather observations detailing the amount of heating or cooling required during the month are required to establish the correlation between observed weather and energy use.

The number of degrees Celsius that the mean temperature falls below 18°C on a given day is known as the heating degree-days. The number of Celsius degrees on a given day with a mean temperature above 18°C is known as the cooling degree-day. The HDD and CDD reported monthly at Ottawa International Airport were used for H2000. Environment Canada publishes monthly observations on heating degree days (HDD) and cooling degree days (CDD) for selected weather stations across Canada.

H2000 has adopted the ten-year average from 2014 to 2023 as the definition of weather normal. The following table outlines the monthly weather data used in the regression analysis.

On their own, these two variables account for an Adjusted R-Square of 92.23%, indicating that heating and cooling degree days are highly significant predictors of the dependent variable.

Days per month:

H2000 evaluated and included a "Days per month" variable. Although the variables did not yield particularly significant results, they did slightly improve the R-Square, (92.23% to 92.37%) and therefore H2000 opted to keep it as a variable.

Spring and Fall Flag:

H2000 tested and included a spring and fall flag to identify the spring and fall months. In H2000s case, April, May, September, October, and November are set at "1". Summer and winter months are set at "0". The results without H2000s variable increases to 92.71% therefore, the utility opted to include the variable in its regression analysis.

Customer Count:

H2000 tested and included a "Customer Count" variable. The rationale for testing H2000s particular variable is that hypothetically, the load is expected to grow due to more customers being added to the distribution system. In H2000's case, significantly improved the regression analysis results to 92.81%; therefore, the utility opted to keep it.

Origin of variables

- HDD: Stats Canada
- CDD : Stats Canada
- Days per month Computed by the utility
- Customer Count Computed by the utility
- Spring Fall Flag Computed by the utility

The rationale for including and excluding variables.

During the process of testing the regression analysis, many different variables and times periods are tested to arrive at the best R-Squared. The utility's rationale behind selecting or dropping certain variables involves a "no-worst" rationale. In other words, if a variable is justified and does not worsen the results, it is generally kept as one of the regression variables. In H2000's case, the Days per Month only slightly improved the R-Square. However, the utility still opted to keep them as part of the regression analysis.

Table 8 – Results without individual variables

Customer Class Name	Proposed Adjusted R-Square
HDD	92.23%
CDD	92.23%
+	
Days per Month	92.37%
+	
Spring Fall	93.71%
+	
Customer Count	94.81%;

3.1.3.3 Regression Results

The table below displays the R-squared for the multiple regression equation. The table also shows the equation's standard error margin and tests the analysis for statistical significance at a 95% confidence interval. In simple terms, 92.81% of the change in wholesale can be explained by the difference in 5 independent variables. The adjusted R-square of 94.81% is slightly better than the 92.87% adjusted R-Square approved in its 2020 load forecast.

Table 9 – Equation Parameters

R Squared	0.9503
Adjusted R Squared	0.9481
Standard Error	107270.7578
F - Statistic	435.8958

The table below summarizes the individual equation coefficient components with corresponding error margins. The sum of these error margins will differ from the overall standard error of the equation due to the offsetting effect between the components. The t Stat represents a ratio of the estimated coefficient to its standard error. The t Stat can be interpreted as a measure of predictability of the variable, with the higher being better. The p-Value represents the probability that the t Stat can be outside of the extremities of the standard error. The p-Value can be interpreted as the probability that the error margin is due to chance rather than a real difference with lower being better.

Table 10 – Multiple Regression Equation

	Coefficients	Standard Error	t Stat	p-Value
Intercept	3,525,682.955	644,505.318	5.470	0.00%
HDD	1,499.029	61.416	24.408	0.00%
CDD	1,849.428	364.014	5.081	0.00%
Days in month	9,366.501	12,511.580	0.749	45.56%
Spring/Fall	-173,687.985	28,440.439	-6.107	0.00%
Customer Number	-1,994.028	395.322	-5.044	0.00%

The table below displays a simple linear regression analysis of each independent variable against the dependent variable. The independent R-squared results help determine which independent variables should be included in the analysis.

Table 11 – Independent Analysis

	R Squared	R Squared	Coefficient	Intercept
HDD	85.70%		1442.70	1297361.50
CDD	15.85%		-4086.55	1922766.50
Days in month	1.45%		-68491.93	3897065.00
Spring/Fall	38.55%		-582381.01	2103817.75
Customer Number	3.02%		-3236.63	5864840.50

The Durbin-Watson statistic determines if sequential (adjacent) residuals are correlated. One of the regression analysis assumptions is that the residuals (errors) are independent of each other. Sometimes, however, the data set may unknowingly contain an 'order effect,' meaning that a previous measurement could influence the outcome of the successive observations. If the residuals are not correlated, the Durbin-Watson statistic should be close to 2. Critical values displayed to the right of the statistic are based on the sample and the number of independent variables. Based on the position of the Durbin-Watson statistic relative to these values, the following assumptions can be made:

Table 12 – Confidence (95%)

	Durbin-Watson Statistic
1.000	
1.63 - 1.77	Positive autocorrelation detected
2.290	Critical F-Statistic - 95% Confidence
89.62%	Confidence to which analysis holds

Once H2000 calculated its preferred Regression Results, the Load Forecast model then uses the coefficients from the regression results to adjust the wholesale purchases. Table 14, as seen below, demonstrates the results of H2000s adjustment. The table shows a comparison of the actual and predicted wholesale purchases.

Table 13 – Trend in Historical Yearly Wholesale Purchases

kWh Purchased VS Weather Adjusted						
Year	Wholesale	year over year	Predicted	year over year	Wholesale vs Predicted	
2014	24,020,582		22,621,398		-5.82%	5.82%
2015	22,812,651	-5.03%	22,215,292	-1.80%	-2.62%	2.62%
2016	21,821,769	-4.34%	22,207,800	-0.03%	1.77%	1.77%
2017	21,411,671	-1.88%	21,972,454	-1.06%	2.62%	2.62%
2018	22,313,915	4.21%	22,467,632	2.25%	0.69%	0.69%
2019	21,857,813	-2.04%	22,416,179	-0.23%	2.55%	2.55%
2020	21,255,087	-2.76%	21,521,351	-3.99%	1.25%	1.25%
2021	20,820,862	-2.04%	20,927,614	-2.76%	0.51%	0.51%
2022	21,026,903	0.99%	21,219,061	1.39%	0.91%	0.91%
2023	20,174,026	-4.06%	19,946,499	-6.00%	-1.13%	1.13%
					<i>Mean</i>	1.99%
					<i>Median</i>	1.51%

3.1.3.4 Determination of Weather Normalized Forecast

Similar to the load forecasting approved by the Board in 2020, the allocation to certain rate classes that are susceptible to weather conditions (Residential, GS<50, GS>50-4999) is determined by the percentage share of each class's actual retail kilowatt-hours (excluding distribution losses) and a portion of actual wholesale kilowatt-hours.

The weather-normalized wholesale kilowatt-hours (kWh) for previous years are distributed across these categories according to their respective historical proportions. Projected values for 2023 and 2024 are determined by averaging data from the past 10 years. The historical volumetric relationship between kWh and kW is then used to convert sales for these customer classes to kW for those rate classes that use kW consumption as a billing criterion.

The average demand per customer is then calculated by the utility using a relevant historical average.

The following tables illustrate the methodology as described above for each of H2000's classes.

Table 14 – Residential Forecast

Residential						
Year	Residential Actual kWh	Total Actual Wholesale	Ratio%	Predicted Wholesale	Residential Weather Normal	Per customer
2014	13,907,110	24,020,582	57.90%	22,621,398	13,097,030	12,219
2015	13,022,914	22,812,651	57.09%	22,215,292	12,681,904	11,798
2016	12,346,401	21,821,769	56.58%	22,207,800	12,564,811	11,769
2017	12,078,410	21,411,671	56.41%	21,972,454	12,394,750	11,447
2018	12,791,618	22,313,915	57.33%	22,467,632	12,879,737	11,868
2019	12,775,525	21,857,813	58.45%	22,416,179	13,101,881	12,051
2020	12,923,176	21,255,087	60.80%	21,521,351	13,085,065	11,845
2021	12,543,831	20,820,862	60.25%	20,927,614	12,608,146	11,288
2022	12,596,447	21,026,903	59.91%	21,219,061	12,711,561	11,238
2023	12,220,982	20,174,026	60.58%	19,946,499	12,083,151	10,619
2024			58.53%	20,354,118	11,912,794	10,469
2025		Avg	58.59%	20,109,358	11,782,231	10,293

Table 15 – GS < 50kW Forecast.

General Service < 50 kW						
Year	Actual kWh	Total Wholesale	Ratio%	Predicted Wholesale	Weather Normal	Per customer
2014	4,287,878	24,020,582	17.85%	22,621,398	4,038,112	28,529
2015	4,333,237	22,812,651	18.99%	22,215,292	4,219,769	29,839
2016	4,261,434	21,821,769	19.53%	22,207,800	4,336,819	30,327
2017	3,971,545	21,411,671	18.55%	21,972,454	4,075,562	28,684
2018	4,062,996	22,313,915	18.21%	22,467,632	4,090,985	29,014
2019	3,995,372	21,857,813	18.28%	22,416,179	4,097,435	29,163
2020	3,657,490	21,255,087	17.21%	21,521,351	3,703,308	26,547
2021	3,643,620	20,820,862	17.50%	20,927,614	3,662,302	26,443
2022	3,866,088	21,026,903	18.39%	21,219,061	3,901,419	28,408
2023	3,578,035	20,174,026	17.74%	19,946,499	3,537,681	25,375
2024			18.22%	20,354,118	3,709,326	26,651
2025		Avg	18.26%	20,109,358	3,672,224	26,429

Table 16 – GS 50-499kW Forecast (kWh)

General Service > 50 to 499 kW						
Year	Actual kWh	Total Wholesale	Ratio%	Predicted Wholesale	Weather Normal	Per customer
2014	4,359,419	24,020,582	18.15%	22,621,398	4,105,486	381,020
2015	4,194,222	22,812,651	18.39%	22,215,292	4,084,395	360,388
2016	3,976,846	21,821,769	18.22%	22,207,800	4,047,197	367,927
2017	4,195,330	21,411,671	19.59%	21,972,454	4,305,207	363,820
2018	4,274,766	22,313,915	19.16%	22,467,632	4,304,214	353,331
2019	4,084,117	21,857,813	18.68%	22,416,179	4,188,447	318,110
2020	3,672,872	21,255,087	17.28%	21,521,351	3,718,882	286,068
2021	3,541,424	20,820,862	17.01%	20,927,614	3,559,582	273,814
2022	3,529,289	21,026,903	16.78%	21,219,061	3,561,542	255,919
2023	3,322,490	20,174,026	16.47%	19,946,499	3,285,018	234,644
2024			17.97%	20,354,118	3,658,391	253,821
2025		Avg	17.96%	20,109,358	3,610,880	243,341

Table 17 – GS 50-499kW Forecast (kW)

General Service > 50 to 499 kW			
Year	kWh	kW	KW/kWh Ratio
2014	4,359,419	11,224	0.00257
2015	4,194,222	10,151	0.00242
2016	3,976,846	13,326	0.00335
2017	4,195,330	12,007	0.00286
2018	4,274,766	10,589	0.00248
2019	4,084,117	10,286	0.00252
2020	3,672,872	9,249	0.00252
2021	3,541,424	8,924	0.00252
2022	3,529,289	8,754	0.00248
2023	3,322,490	10,419	0.00314
2024	3,658,391	9,826	0.00269
2025	3,610,880	9,698	0.00269
Avg			0.00269

Table 18 – USL Forecast

Year	kWh	Customer	kWh per customer
2014	17,280	4	4,320
2015	17,280	4	4,320
2016	17,280	4	4,320
2017	17,280	4	4,320
2018	17,280	4	4,320
2019	17,280	4	4,320
2020	17,912	4	4,215
2021	17,787	5	3,557
2022	1,634	2	676
2023	16,708	21	786
2024	16,511	21	786
2025	16,511	21	786
Avg		21	786

Table 19 – Streetlighting Forecast

Street Lighting						
Year	kWh	kW	Connection	kWh per connection	KW per connection	KW/kWh Ratio
2014	179,624	512	369	487	1.3891	0.00285
2015	152,105	420	370	411	1.1351	0.00276
2016	152,560	420	370	412	1.1351	0.00275
2017	153,257	420	370	414	1.1351	0.00274
2018	153,342	420	370	414	1.1351	0.00274
2019	152,106	420	370	411	1.1351	0.00276
2020	152,559	425	370	412	1.1486	0.00279
2021	152,161	425	370	411	1.1486	0.00279
2022	152,161	425	370	411	1.1486	0.00279
2023	152,161	425	370	411	1.1486	0.00279
2024	152,555	422	370	412	1.1401	0.00277
2025	152,620	423	370	412	1.1423	0.00277
9 Yr. Avg			370	412	1.1411	0.00277

3.1.3.5 Final Load Forecast

The table 22 below shows the final forecast.

Table 20 – Final Load and Customer Forecast

	Year	2020BA	2020	2021	2022	2023	2024	2025
Residential	Cust/Conn	1,113	1,105	1,112	1,117	1,131	1,138	1,145
	kWh	12,657,112	12,923,176	12,543,831	12,596,447	12,220,982	11,912,794	11,782,231
General Service < 50 kW	Cust/Conn	141	140	139	137	139	139	139
	kWh	4,049,207	3,657,490	3,643,620	3,866,088	3,578,035	3,709,326	3,672,224
	kW							
General Service > 50 to 4999 kW	Cust/Conn	13	13	13	14	14	14	15
	kWh	4,111,838	3,672,872	3,541,424	3,529,289	3,322,490	3,658,391	3,610,880
	kW	11,013	9,249	8,924	8,754	10,419	9,826	9,698
USL	Cust/Conn	4	4	5	2	21	21	21
	kWh	17,280	17,912	17,787	1,634	16,708	16,511	16,511
	kW			0	0	0	0	0
Streetlights	Cust/Conn	370	370	370	370	370	370	370
	kWh	153,000	152,559	152,161	152,161	152,161	152,555	152,620
	kW	421	425	425	425	425	422	423
Total	Cust/Conn	1,641	1,631	1,639	1,641	1,676	1,683	1,690
	kWh	20,988,437	20,424,009	19,898,823	20,145,619	19,290,376	19,449,577	19,234,467
	kW	11,434	9,674	9,349	9,179	10,844	10,248	10,121

3.1.4 Accuracy of Load Forecast

The customer count has been consistent over the past three cost of service applications which is correlated with the proposed customer count in 2025 Cost of Service.

To come up with the best Adjusted R-Square, H2000 did an in-depth analysis of its wholesale to better understand the trend in its monthly load as it relates to the variables selected for the regression analysis.

The table below summarizes the year over year variance in each category.

Table 21 – Year over Year load variance

	Year	2020BA	2,020	2,021	2,022	2,023	2,024	2,025	2020-2025
Residential	Cust/Conn	1,113	-8	8	5	14	7	7	32
	kWh	12,657,112	266,064	-379,345	52,616	-375,465	-308,188	-130,562	-874,880
General Service < 50 kW	Cust/Conn	141	-2	-1	-1	2	-0	-0	-2
	kWh	4,049,207	-391,717	-13,870	222,468	-288,053	131,291	-37,102	-376,983
	kW								
General Service > 50 to 4999 kW	Cust/Conn	13	-0	0	1	0	0	0	2
	kWh	4,111,838	-438,966	-131,448	-12,135	-206,799	335,901	-47,511	-500,958
	kW	11,013	-1,764	-325	-170	1,665	-594	-128	-1,315
USL	Cust/Conn	4	1	1	-3	19	0	0	18
	kWh	17,280	632	-125	-16,153	15,074	-197	0	-769
Streetlights	Cust/Conn	370	-0	0	0	0	0	0	-0
	kWh	153,000	-441	-398	0	0	394	65	-380
	kW	421	4	0	0	0	-3	1	2
Total	Cust/Conn	1,641	-9	7	2	35	7	7	49
	kWh	20,988,437	-564,428	-525,186	246,796	-855,243	159,201	-215,110	-1,753,970
	kW	11,434	-1,760	-325	-170	1,665	-597	-127	-1,313

Residential Service:

- Overall, there's a net increase of 32 residential customers/connections between 2020 and 2025.
- The kWh consumption shows a net decline of 874,880 kWh over this period, indicating a drop in residential consumption.

General Service < 50 kW:

- A net decrease of 2 customers/connections is observed.

- The kWh consumption has also decreased by 376,983 kWh over the same period.

General Service > 50 to 4999 kW:

- There is a small net increase of 2 customers/connections.
- The kWh consumption decreases significantly by 500,958 kWh.
- The kW demand slightly decreases by 1,315 kW over the same period.

Unmetered Scattered Load (USL):

- The USL category sees a net increase of 18 connections.
- However, the kWh consumption sees a slight net decrease of 769 kWh.

Streetlights:

- The number of streetlight connections remains unchanged.
- The kWh consumption for streetlights has a minor net decrease of 380 kWh.
- The kW demand sees a minor increase of 2 kW over the period.

Total Across All Categories:

- The total number of connections across all categories increases by 49.
- The overall kWh consumption declines by 1,753,970 kWh, while the kW demand decreases by 1,313 kW over the 2020-2025 period.

3.1.5 Determination of Customer Forecast

H2000 has used a simple geometric mean function to determine the forecasted customers for 2024 and 2025. The geometric mean is more appropriate when dealing with percentages and rates of change. Although the formula is somewhat simplistic, it reasonably represents H2000's natural customer growth. H2000 notes that MicroFit related consumption is included in the Wholesale Purchases. Historical customer counts and projected customer counts for 2014 and 2023 are presented in Table 24 below. A variance analysis of customer counts and projections is shown in the following table. H2000 notes that a 12-month average was used to determine the yearly customer/connection count to determine the bridge and test year forecast.

Table 22 – Customer Count Forecast

Residential			General Service < 50 kW		General Service > 50 to 4999 kW		USL		Streetlights	
Date	Cust. or Conn.	Growth Rate	Cust. or Conn.	Growth Rate	Cust. or Conn.	Growth Rate	Cust. or Conn.	Growth Rate	Cust. or Conn.	Growth Rate
2014	1072		142		11		4		369	
2015	1075	1.0028	141	0.9991	11	1.0518	4	1.0000	370	1.0038
2016	1068	0.9932	143	1.0112	11	0.9706	4	1.0000	370	1.0000
2017	1083	1.0142	142	0.9936	12	1.0758	4	1.0000	370	1.0000
2018	1085	1.0023	141	0.9924	12	1.0294	4	1.0000	370	1.0000
2019	1087	1.0017	141	0.9965	13	1.0808	4	1.0000	370	1.0000
2020	1105	1.0161	140	0.9929	13	0.9873	4	1.0625	370	1.0000
2021	1112	1.0069	139	0.9928	13	1.0000	5	1.1765	370	1.0000
2022	1117	1.0042	137	0.9916	14	1.0705	2	0.4833	370	1.0000
2023	1131	1.0126	139	1.0152	14	1.0060	21	8.7931	370	1.0000
Geomean		1.0060		0.9983		1.0295		1.0000		1.0004
2024	1138		139		14		21		370	
2025	1145		139		15		21		370	

3.1.6 Accuracy and Variance Analysis of the Customer/Connection Forecast

The table below focuses on customer and connection count variances for different service classes over the years from 2020 through 2025.

Table 23 – Year over Year Variance Analysis

Customer Count Variance analysis									
	Year	2020BA	2020	2021	2022	2023	2024	2025	2020-2025
Residential	Cust	1,113	-8	8	5	14	7	7	32
General Service < 50 kW	Cust	141	-2	-1	-1	2	-0	-0	-2
General Service > 50 to 4999 kW	Cust	13	-0	0	1	0	0	0	2
USL	Conn	4	1	1	-3	19	0	0	18
Streetlights	Conn	370	-0	0	0	0	0	0	-0
Total	Cust/Conn	1,641	-9	7	2	35	7	7	49

Residential Customers: A slight decline of 8 customers in 2020 followed by consistent gains through 2025, ending with a cumulative increase of 32 customers by 2025.

General Service < 50 kW: A decrease in customers for 2020 (-2) and 2021 (-1) with minor recovery in 2023 (+2). However, by 2025, there is still a slight cumulative decrease of 2 customers.

General Service > 50 to 4999 kW: Minimal changes, with no variance from 2020-2023. An increase of 2 customers is expected by 2025.

USL (Unmetered Scattered Load): Fluctuations occur with a decline in 2021 and 2022, but a substantial increase (+18) in 2025, ending with a total gain of 18 connections.

Streetlights: No significant change across the entire period, maintaining the same number of connections (370) from 2020 to 2025.

3.2 CDM ADJUSTMENT TO LOAD FORECAST

3.2.1 CDM Adjustments

H2000's persisting effects of CDM projects are embedded in the utility wholesale; therefore, no adjustment was made to the load forecast to account for CDM.

H2000 confirms that it was not contractually obligated to complete programs delivered by the distributor after April 2019. H2000 is not planning for or aware of any new CDM programs initiated in the Test Year (2025). Consequently, no manual CDM adjustment is required for the Load Forecast.