

# EXHIBIT 3

## CUSTOMER & LOAD FORECAST

*Festival Hydro* INC.



## 2.3 Exhibit 3: Customer and Load Forecast

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## 2.3.1 Load Forecasts

This Exhibit provides the details of Festival Hydro Inc.'s (FHI) Operating Revenue for 2015 Board Approved, 2015 - 2023 Actuals, the 2024 Bridge Year and the 2025 Test Year. This Exhibit also provides a detailed variance analysis by rate classification of the operating revenue components.

Distribution revenue excludes revenue from commodity sales.

FHI is proposing a total Service Revenue Requirement of \$17,377,042 for the 2025 Test Year. This amount includes a Base Revenue Requirement of \$16,210,710 plus Revenue Offsets of \$1,166,332 to be recovered through Other Revenue.

Other Revenue includes Late Payment Charges, Specific Service Charges, Rent from Electric Property, Miscellaneous Service Revenues, Standard Supply Service ("SSS") Administrative Charges and Interest Income.

The following Table 3-1 summarizes FHI's total Operating Revenue. Revenue for each of the actual years is from the Annual OEB Filings. The 2024 Bridge Year values are a projection of Distribution Revenue from existing distribution rates and other Distribution Revenue. The 2025 Test Year Distribution Revenue is provided based on both existing and proposed distribution rates. Revenue for the GS 50 to 4,999 kW and Large Use rate classes is net of transformer allowance credits to eligible customers within these rate classes.

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**Table 3-1 Summary of Operating Revenue**

Year	2015 Board Approved	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual
<b>Distribution Revenues</b>							
Residential	5,859,590	7,031,059	6,014,497	6,039,387	6,402,917	6,328,106	6,472,638
GS < 50 kW	1,721,856	2,040,970	1,854,315	1,883,559	1,921,813	1,922,998	1,894,467
GS > 50 kW	2,564,739	2,966,388	2,600,440	2,704,343	2,638,502	2,775,726	2,765,846
Large Use	5,278	163,546	192,906	144,039	306,042	313,461	313,283
Sentinel Lighting	126,983	6,332	5,967	5,639	4,898	4,475	4,925
Street Lighting	27,351	152,430	117,454	94,634	114,790	110,392	109,730
Unmetered Scattered Load	149,331	43,569	14,376	18,542	28,354	27,827	46,174
<b>Total Distribution Revenue</b>	<b>10,455,128</b>	<b>12,404,295</b>	<b>10,799,954</b>	<b>10,890,142</b>	<b>11,417,315</b>	<b>11,482,983</b>	<b>11,607,063</b>
<b>Other Revenue</b>							
Specific Service Charges	132,833	133,471	126,349	118,047	110,825	103,104	83,265
Late Payment Charges	118,090	144,654	145,304	139,279	121,054	112,697	97,900
Other Operating Revenues	277,117	277,133	308,762	337,829	539,966	521,057	444,586
Other Income or Deductions	227,660	63,627	232,677	354,833	826,632	405,650	384,799
<b>Total Other Operating Revenue</b>	<b>755,700</b>	<b>618,885</b>	<b>813,091</b>	<b>949,988</b>	<b>1,598,476</b>	<b>1,142,508</b>	<b>1,010,550</b>
<b>Total Operating Revenue</b>	<b>11,210,828</b>	<b>13,023,181</b>	<b>11,613,045</b>	<b>11,840,130</b>	<b>13,015,791</b>	<b>12,625,491</b>	<b>12,617,613</b>

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Year	2021 Actual	2022 Actual	2023 Actual	2024 Bridge	2025 Test - Existing Rates	2025 Test - Proposed Rates
<b>Distribution Revenues</b>						
Residential	6,747,899	7,080,570	7,344,125	7,618,853	7,927,314	9,759,676
GS < 50 kW	1,766,773	1,897,242	2,191,739	2,388,759	2,084,785	2,316,887
GS > 50 kW	2,623,176	2,722,650	3,318,219	3,172,276	2,997,154	3,626,564
Large Use	309,691	305,884	310,346	304,453	190,840	230,456
Sentinel Lighting	4,520	4,936	5,907	5,491	4,866	6,214
Street Lighting	111,568	112,277	103,646	121,340	126,082	196,758
Unmetered Scattered Load	46,975	50,525	53,578	56,904	66,212	74,155
<b>Total Distribution Revenue</b>	<b>11,610,603</b>	<b>12,174,085</b>	<b>13,327,558</b>	<b>13,668,077</b>	<b>13,397,254</b>	<b>16,210,710</b>
<b>Other Revenue</b>						
Specific Service Charges	91,814	91,133	80,873	75,729	70,801	70,801
Late Payment Charges	108,022	50,021	34,750	64,907	65,556	65,556
Other Operating Revenues	508,934	427,794	503,014	476,382	482,285	482,285
Other Income or Deductions	478,570	538,018	493,658	548,679	547,689	547,689
<b>Total Other Operating Revenue</b>	<b>1,187,340</b>	<b>1,106,966</b>	<b>1,112,296</b>	<b>1,165,697</b>	<b>1,166,332</b>	<b>1,166,332</b>
<b>Total Operating Revenue</b>	<b>12,797,942</b>	<b>13,281,051</b>	<b>14,439,855</b>	<b>14,833,774</b>	<b>14,563,586</b>	<b>17,377,042</b>

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### 2.3.1.1 Multivariate Regression Model

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The purpose of this evidence is to present the process used by FHI to prepare the weather normalized load and customer/connection forecast used to design the proposed 2025 distribution rates. A copy of the Load Forecast model has been filed in live Excel format (FHI\_2025\_Load\_Forecast\_20240426) and is included as Attachment 3-2 to this Exhibit.

1 In summary, as a starting point FHI used a consistent regression analysis methodology  
2 approved by the Ontario Energy Board (the “Board”) in its 2015 Cost of Service (“COS”)  
3 Application (EB-2014-0073) and updated the analysis for actual power purchases to the  
4 end of the 2023. The updated regression analysis removed Full Time Employment as an  
5 independent variable from the regression model, as the regional employment  
6 independent variable was not statistically significant. The updated regression analysis  
7 also substituted days in the month for peak days and included an impact from COVID 19  
8 flag, which increased the R Square value significantly.

9 The regression analysis used in this Application has been used by numerous distributors  
10 over the past two decades in COS Rate Applications to determine a prediction model.  
11 Regarding the overall process of load forecasting, FHI believes that conducting a  
12 regression analysis on historical electricity purchases to produce an equation that will  
13 predict purchases is appropriate. FHI has the data for electricity (in kWh) purchased from  
14 the IESO for use by FHI's customers. FHI customer demographics have been included in  
15 Attachment 3-3. With a regression analysis, these purchases can be related to other  
16 monthly explanatory variables such as heating degree days and cooling degree days  
17 which occur in the same month. The results of the regression analysis produce an  
18 equation that predicts purchases based on the explanatory variables. This prediction  
19 model is then used as the basis to forecast the total level of weather normalized GWh  
20 purchases for the Bridge Year and the Test Year, which subsequently is converted to  
21 billed kWh by rate class. A detailed explanation of the process is provided later in this  
22 evidence.

23 FHI has monthly purchased data from 2014 onward included in this Application which is  
24 consistent with its 2015 COS Filing and FHI believes conducting the regression analysis  
25 on GWh purchases provides credible results.

26 Based on the Board's approval of this methodology in several previous COS as well as  
27 the discussion that follows, FHI submits the load forecasting methodology is reasonable  
28 for the purposes of this Application.

1 FHI’s weather normalized load forecast is developed in a three-step process. First, a total  
 2 system weather normalized purchased energy forecast is developed based on a  
 3 multivariate regression model that incorporates historical load, weather, customer data,  
 4 and other relevant data. Second, the weather normalized purchased energy forecast is  
 5 adjusted by a historical loss factor to produce a weather normalized billed energy  
 6 forecast. Table 3-2 below provides a summary of the weather normalized load and  
 7 customer/connection forecast used in this Application.

8 **Table 3-2 Summary of Load and Customer/Connection Forecast**

Year	Billed Actual (GWh)	Growth (GWh)	Percent Change (%)	Billed Weather Normal (GWh)	Growth (GWh)	Percent Change (%)	Customer/ Connection Count	Growth (GWh)	Percent Change (%)
2015 Board Approved	593.7						27,375		
2014 Actual	601.8			603.0			27,093		
2015 Actual	605.4	3.7	0.6%	606.7	3.7	0.6%	27,298	205	0.8%
2016 Actual	607.6	2.1	0.4%	604.4	(2.4)	-0.4%	27,542	244	0.9%
2017 Actual	592.8	(14.8)	-2.4%	595.8	(8.6)	-1.4%	27,833	292	1.1%
2018 Actual	613.2	20.4	3.4%	607.0	11.2	1.9%	28,101	268	1.0%
2019 Actual	611.2	(2.0)	-0.3%	610.9	4.0	0.7%	28,205	104	0.4%
2020 Actual	585.3	(25.9)	-4.2%	583.3	(27.6)	-4.5%	28,277	72	0.3%
2021 Actual	596.8	11.6	2.0%	595.2	11.9	2.0%	28,558	281	1.0%
2022 Actual	614.8	17.9	3.0%	614.3	19.1	3.2%	28,919	361	1.3%
2023 Actual	603.6	(11.2)	-1.8%	611.8	(2.5)	-0.4%	29,267	348	1.2%
2024 Bridge - Normalized	606.9	3.3	0.5%	606.9	(4.9)	-0.8%	29,547	280	1.0%
2025 Test - Normalized	605.4	(1.4)	-0.2%	605.4	(1.4)	-0.2%	29,832	285	1.0%

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 10  
 11 Finally, the forecast of billed energy by rate class is developed based on a forecast of  
 12 customer numbers and historical usage patterns per customer. For the rate classes that  
 13 have weather sensitive load, their forecasted billed energy is adjusted to ensure that the  
 14 total billed energy forecast by rate class is equivalent to the total weather normalized  
 15 billed energy forecast that has been determined from the regression model.

16 The forecast of customers by rate class was determined using a trend analysis of  
 17 historical customer additions by rate class from 2014 to 2023 and using it to forecast the  
 18 number of customers. For those rate classes that use kW for the distribution volumetric  
 19 billing determinant an adjustment factor is applied to the class energy forecast based on  
 20 the historical relationship between kW and kWh. Table 3-3 and Table 3-4 below provide

1 a summary of total load, customer/connection count and annual usage per  
2 customer/connection. The following will explain the forecasting process in more detail.

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4 **Table 3-3 Summary of Load and Customer/Connection**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant	Total
<b>Number of Customer Connections</b>									
2015 Board Approved	18,224	2,029	226	1	41	6,626	227	1	27,375
2014 Actual	18,026	2,033	222	1	46	6,534	230	1	27,093
2015 Actual	18,197	2,052	218	1	44	6,558	229	1	27,298
2016 Actual	18,417	2,067	217	1	44	6,568	228	1	27,542
2017 Actual	18,678	2,081	219	1	43	6,582	230	1	27,833
2018 Actual	18,942	2,089	217	1	41	6,579	230	2	28,101
2019 Actual	19,073	2,082	220	1	38	6,560	229	2	28,205
2020 Actual	19,224	2,084	221	1	37	6,479	229	2	28,277
2021 Actual	19,481	2,095	215	1	36	6,390	338	2	28,558
2022 Actual	19,756	2,107	209	1	36	6,376	433	2	28,919
2023 Actual	20,059	2,125	210	1	36	6,400	435	2	29,267
2024 Bridge - Normalized	20,299	2,136	208	1	35	6,400	467	2	29,547
2025 Test - Normalized	20,541	2,146	207	1	34	6,400	501	2	29,832
<b>Billed Energy (GWh) - Actual</b>									
2014 Actual	140.8	64.5	364.1	23.4	0.1	4.4	0.7	3.8	601.8
2015 Actual	138.9	63.6	369.5	24.6	0.1	4.3	0.7	3.8	605.5
2016 Actual	139.2	63.1	373.2	25.2	0.1	2.7	0.7	3.4	607.6
2017 Actual	134.1	62.1	365.6	24.4	0.1	2.6	0.7	3.1	592.8
2018 Actual	146.2	64.4	368.6	26.9	0.1	2.5	0.6	3.9	613.2
2019 Actual	143.3	63.0	370.4	27.7	0.1	2.5	0.6	3.6	611.2
2020 Actual	151.2	58.2	341.9	27.5	0.1	2.4	0.7	3.3	585.3
2021 Actual	152.4	57.9	351.8	28.3	0.1	2.3	0.7	3.2	596.8
2022 Actual	154.0	61.1	363.6	29.5	0.1	2.5	0.7	3.3	614.8
2023 Actual	149.2	61.4	357.7	29.1	0.1	2.4	0.7	3.1	603.6
2024 Bridge - Normalized	152.5	62.3	356.7	29.1	0.1	2.4	0.8	3.1	606.9
2025 Test - Normalized	153.7	62.4	353.9	29.1	0.1	2.4	0.8	3.1	605.4
<b>Billed Energy (GWh) - Weather Normal</b>									
2015 Board Approved	140.4	64.1	357.2	22.7	0.1	4.5	0.7	4.0	593.7
2014 Actual	141.1	64.6	364.9	23.5	0.1	4.4	0.7	3.8	603.0
2015 Actual	139.2	63.7	370.3	24.7	0.1	4.3	0.7	3.8	606.9
2016 Actual	138.4	62.7	371.3	25.1	0.1	2.7	0.7	3.4	604.4
2017 Actual	134.7	62.4	367.5	24.5	0.1	2.6	0.7	3.2	595.8
2018 Actual	144.7	63.7	364.9	26.6	0.1	2.5	0.6	3.9	607.0
2019 Actual	143.2	63.0	370.2	27.7	0.1	2.5	0.6	3.6	610.9
2020 Actual	150.7	58.0	340.7	27.4	0.1	2.4	0.7	3.3	583.3
2021 Actual	152.0	57.8	350.8	28.3	0.1	2.3	0.7	3.2	595.2
2022 Actual	153.8	61.1	363.3	29.5	0.1	2.5	0.7	3.3	614.3
2023 Actual	151.2	62.2	362.5	29.5	0.1	2.4	0.7	3.1	611.8
2024 Bridge - Normalized	152.5	62.3	356.7	29.1	0.1	2.4	0.8	3.1	606.9
2025 Test - Normalized	153.7	62.4	353.9	29.1	0.1	2.4	0.8	3.1	605.4



1 **Table 3-4 Annual Usage per Customer/Connection by Rate Class**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant
<b>Energy Usage per Customer/Connection (kWh per Customer/Connection) - Actual</b>								
2014 Actual	7,809	31,718	1,640,122	23,431,959	2,891	670	2,890	3,798,224
2015 Actual	7,634	30,975	1,695,112	24,639,648	3,003	657	2,902	3,801,987
2016 Actual	7,556	30,508	1,721,946	25,183,382	3,045	414	2,924	3,410,848
2017 Actual	7,178	29,854	1,668,262	24,407,204	3,046	399	2,870	3,139,758
2018 Actual	7,716	30,818	1,695,956	26,894,138	2,688	377	2,804	1,965,908
2019 Actual	7,511	30,253	1,683,443	27,745,078	2,586	378	2,837	1,805,969
2020 Actual	7,866	27,904	1,546,948	27,495,994	2,600	370	2,932	1,673,527
2021 Actual	7,825	27,650	1,636,085	28,340,499	2,661	364	2,156	1,605,793
2022 Actual	7,793	29,014	1,739,579	29,487,369	2,796	399	1,623	1,631,966
2023 Actual	7,437	28,890	1,707,170	29,085,391	2,792	369	1,617	1,542,415
<b>Energy Usage per Customer/Connection (kWh per Customer/Connection) - Weather Normal</b>								
2015 Board Approved	7,704	31,602	1,580,465	22,706,506	3,641	684	2,895	3,988,503
2014 Actual	7,825	31,783	1,643,505	23,480,296	2,897	671	2,896	3,806,060
2015 Actual	7,651	31,043	1,698,808	24,693,369	3,009	658	2,909	3,810,276
2016 Actual	7,516	30,348	1,712,893	25,050,986	3,029	412	2,909	3,392,916
2017 Actual	7,214	30,007	1,676,759	24,531,513	3,062	401	2,884	3,155,749
2018 Actual	7,638	30,506	1,678,769	26,621,587	2,661	373	2,776	1,945,985
2019 Actual	7,508	30,240	1,682,764	27,733,889	2,585	378	2,836	1,805,241
2020 Actual	7,840	27,811	1,541,771	27,403,982	2,591	368	2,922	1,667,927
2021 Actual	7,803	27,574	1,631,601	28,262,823	2,653	363	2,151	1,601,391
2022 Actual	7,787	28,992	1,738,291	29,465,534	2,794	399	1,622	1,630,758
2023 Actual	7,538	29,282	1,730,322	29,479,842	2,830	374	1,639	1,563,333
2024 Bridge - Normalized	7,510	29,173	1,713,760	29,085,391	2,792	369	1,617	1,542,415
2025 Test - Normalized	7,483	29,066	1,711,254	29,085,391	2,792	369	1,617	1,542,415

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3 **Purchased kWh Load Forecast**

4 An equation to predict total system purchased energy is developed using a multivariate

5 regression model with the following independent variables: weather (heating and cooling

6 degree days), calendar variables (days in month, seasonal, and work days in the month),

7 and months significantly impacted by COVID 19. The regression model uses monthly

8 kWh and monthly values of independent variables from January 2014 to December 2023

9 to determine the monthly regression coefficients.

10 FHI is using total system load from 2014. This provides 120 monthly data points which

11 are a reasonable data set for use in a multiple regression analysis. The average weather

12 conditions over this period are applied in the prediction formula to determine a weather



1 normalized forecast for 2024 and 2025. This analysis assumes weather normal conditions  
2 are based on a ten-year average of weather data. This is consistent with the weather  
3 normalization methodology used to calculate weather normal actual historic values in  
4 Tables 3-2, 3-3 and 3-4.

5 FHI notes that Purchases from the IESO were adjusted by Long-Term Load Transfers  
6 (until cessation in 2017), Embedded Generation, and Wholesale Market Participant data.

7 The multivariate regression model has determined drivers of year-over-year changes in  
8 FHI's load growth are weather, "calendar" factors, and COVID 19 impacts. These factors  
9 are captured as independent variables within the multivariate regression model.

10 Weather impacts on loads are apparent in both the winter heating season, and in the  
11 summer cooling season. For that reason, both Heating Degree Days (i.e. a measure of  
12 coldness in winter) (HDD) and Cooling Degree Days (CDD) (i.e. a measure of summer  
13 heat) are modeled.

14 The second main factor determining energy use in the monthly model can be classified  
15 as "calendar factors". For example, the number of days and work days in a particular  
16 month will impact energy use. The modeling of purchased energy uses number of days  
17 in the month, work days in the month and a "flag" variable to capture the typically lower  
18 usage in the spring and fall months. This flag variable explains additional reductions in  
19 usage beyond what is captured through HDD and CDD.

20 A COVID 19 "flag" has also been used as an input variable for the regression model. This  
21 variable is used to capture the lower usage for FHI's commercial and industrial customers  
22 during March, April, and May of 2020.

23 The following outlines the predication model used by FHI to predict weather normalized  
24 purchases for 2024 and 2025.

25

26

1 FHI Monthly Predicted kWh Purchases  
2 = Heating Degree Days \* 8,314  
3 + Cooling Degree Days \* 68,679  
4 + Number of Days in the Month \* 826,524  
5 + Spring Fall Flag \* (938,541)  
6 + Number of Work Day in the Month \* 640,660  
7 + Impacts of COVID 19 Flag \* (8,347,930)  
8 + Constant of 9,390,419.

9 The following historical monthly data were used as inputs in the regression model:

- 10 • Monthly total system purchased energy data from January 2014 to December  
11 2023 from wholesale meter and billing system data.
- 12 • Weather data: heating degree-days (HDD) and cooling degree-days (CDD). FHI  
13 uses the degree-days count for the London International Airport data point as  
14 published by Environment Canada which is calculated with respect to a base  
15 degree of 18° C.
- 16 • Number of days in the month.
- 17 • Number of work days in the month (accounting for holidays based on Ontario's  
18 Statutory Holiday calendar).
- 19 • Spring fall flag (1 for Spring and Fall, and 0 for Summer and Winter).
- 20 • Impacts of Covid-19 flag (1 for March-May 2020, 0 for all other months).

21 The monthly data used in the regression model and the resulting monthly prediction for  
22 the actual and forecasted years are provided in Attachment 3-2.

23 The prediction formula has the following statistical results (Table 3-5) which generally  
24 indicate all the variable coefficients above have intuitive relationships with purchases.

1 However, the multivariate regression underpinning FHI’s load forecast yields a relatively  
 2 a lower R Square value of 80%. A large proportion of FHI’s consumption is driven by the  
 3 GS 50 to 4,999 kW and Large Use rate classes. This creates challenges in achieving a  
 4 high R Square value through regression due to the drivers of large customer load being  
 5 largely internal, and not easily explained by external factors. Similar challenges were seen  
 6 in FHI’s 2015 Application. FHI ran a load forecast which separated GS 50 to 4,999 kW  
 7 and Large Use from the remainder of the customers. The result of this was a load forecast  
 8 for GS 50 to 4,999 kW and Large Use with an R Square value of 62.7% and a load  
 9 forecast for the Residential, GS < 50kW, lighting, and Unmetered Scattered Load rate  
 10 classes with a higher R Square value of 90.8%.

11 Stated differently, the result of this exercise was a load forecast for GS 50 to 4,999 kW  
 12 and Large User with a very low R Square value, and a result for the remainder of  
 13 customers with a high R Square value. The midpoint of the two separate forecasts was  
 14 highly proximate to the R Square result achieved in FHI’s combined forecast, leading to  
 15 FHI’s determination that a combined load forecast was the appropriate path forward.

16

**Table 3-5 Statistical Results**

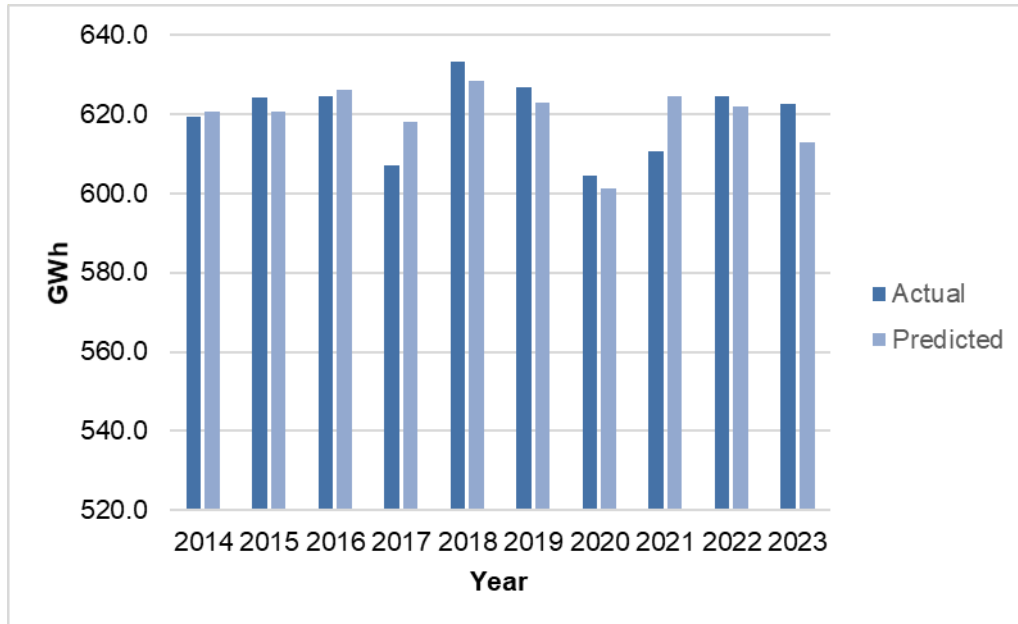
Statistic	Value
R Square	80%
Adjusted R Square	79%
F Test	74.7
MAPE (monthly)	2.10%
T-stats by Coefficient Intercept	1.9
Heating Degree Days	8.7
Cooling Degree Days	10.0
Number of Days in Month	4.6
Spring/Fall Flag	- 2.5
Number of Work Days in Month	4.6
COVID 19 Flag	- 9.9

17

18 The annual results of the above prediction formula compared to the actual annual  
 19 purchases from 2014 to 2023 are shown in Figure 3-1 below.

1

**Figure 3-1 Actual vs Predicted Purchases (Millions of kWh)**



2

3 Table 3-6 below outlines the data that supports the above chart. In addition, the predicted  
 4 total system purchases for FHI are provided for 2024 and 2025 on a weather-normalized  
 5 basis.

6

**Table 3-6 Total System Purchases (GWh)**

Year	Actual	Predicted	% Difference	Predicted Weather Normal	Weather Normal Conversion Factor	Actual Weather Normalized
2014	619.3	620.7	0.2%	622.0	1.0021	620.6
2015	624.2	620.7	-0.6%	622.0	1.0022	625.5
2016	624.5	626.0	0.2%	622.7	0.9947	621.3
2017	607.2	618.1	1.8%	621.3	1.0051	610.3
2018	633.2	628.4	-0.8%	622.0	0.9899	626.8
2019	626.7	623.0	-0.6%	622.7	0.9996	626.5
2020	604.5	601.3	-0.5%	599.3	0.9967	602.5
2021	610.7	624.5	2.2%	622.7	0.9973	609.1
2022	624.6	621.7	-0.5%	621.3	0.9993	624.2
2023	622.4	613.0	-1.5%	621.3	1.0136	630.8
2024 Bridge - Normalized		623.5		623.5	1.0000	
2025 Test - Normalized		622.0		622.0	1.0000	

7

1 The weather normalized amount for 2025 is determined by using 2025 independent  
2 variables in the prediction formula monthly along with the 10-year average monthly  
3 heating degree days and cooling degree days which have occurred from January 2014  
4 to December 2023.

#### 5 **Billed kWh Load Forecast**

6 To determine the total weather normalized energy billed forecast, the total system  
7 weather normalized purchases forecast is adjusted by a historical loss factor. The  
8 historical loss factor used is 2.74% which represents the average loss factor from 2014  
9 to 2023. This loss factor is slightly different from the loss factor of 2.63% that is calculated  
10 in Exhibit 8 Table 8-14 (Board App. 2-R). This is due to a difference in the calculation  
11 methodology used in Exhibit 8 which considers wholesale meters points separately and  
12 is only based on the previous 5 years. The difference in factors is not material and both  
13 are trending similarly. With this average loss factor the total weather normalized billed  
14 energy before adjustment discussed below will be 606.9 GWh for 2024 and 605.4 GWh  
15 for 2025 (i.e. Predicted GWh forecast divided by the historical loss factor).

16

#### 17 **Billed kWh Load Forecast and Customer/Connection Forecast by Rate Class**

18 Since the total weather normalized billed energy amount is known, this amount needs to  
19 be distributed by rate class for rate design purposes taking into consideration the  
20 customer/connection forecast and expected usage per customer by rate class.

21 The next step in the forecasting process is to determine a customer/connection forecast.  
22 The customer/connections forecast is based on reviewing historical  
23 customer/connections data that is available as shown in the following Table 3-7. The  
24 annual customer/connections data is based on the average count opposed to the end of  
25 year count.

26

27

1

**Table 3-7 Historical Customer/Connection Data**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant	Total
<b>Number of Customers/Connections</b>									
2014	18,026	2,033	222	1	46	6,534	230	1	27,093
2015	18,197	2,052	218	1	44	6,558	229	1	27,298
2016	18,417	2,067	217	1	44	6,568	228	1	27,542
2017	18,678	2,081	219	1	43	6,582	230	1	27,833
2018	18,942	2,089	217	1	41	6,579	230	2	28,101
2019	19,073	2,082	220	1	38	6,560	229	2	28,205
2020	19,224	2,084	221	1	37	6,479	229	2	28,277
2021	19,481	2,095	215	1	36	6,390	338	2	28,558
2022	19,756	2,107	209	1	36	6,376	433	2	28,919
2023	20,059	2,125	210	1	36	6,400	435	2	29,267

2

3 From the historical customer/connection data the growth rate in customer/connection can  
 4 be determined which is provided In the following Table 3-8.

5

**Table 3-8 Growth Rate in Customer/Connections**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant
<b>Growth Rate in Customer/Connections</b>								
2014								
2015	0.9%	0.9%	-1.8%	0.0%	-5.3%	0.4%	-0.5%	0.0%
2016	1.2%	0.7%	-0.6%	0.0%	-0.2%	0.2%	-0.4%	0.0%
2017	1.4%	0.7%	1.1%	0.0%	-2.3%	0.2%	1.0%	0.0%
2018	1.4%	0.4%	-0.8%	0.0%	-3.5%	0.0%	-0.1%	100.0%
2019	0.7%	-0.3%	1.2%	0.0%	-7.7%	-0.3%	-0.4%	0.0%
2020	0.8%	0.1%	0.5%	0.0%	-3.3%	-1.2%	0.2%	0.0%
2021	1.3%	0.5%	-2.7%	0.0%	-1.6%	-1.4%	47.6%	0.0%
2022	1.4%	0.6%	-2.8%	0.0%	-1.2%	-0.2%	28.0%	0.0%
2023	1.5%	0.9%	0.2%	0.0%	1.2%	0.4%	0.4%	0.0%
Geo-Mean	1.2%	0.5%	-0.6%	0.0%	-2.7%	-0.2%	7.3%	8.0%

6

7

8 The growth factor resulting from the Geo-Mean analysis from 2014 to 2023 is applied to  
 9 the 2023 customer numbers to determine the forecast of customer/connections for 2024.  
 10 The factor is then applied again to the 2024 forecast to determine the 2025 forecast. The  
 11 exception is Street Lighting and Wholesale Market Participant where the customer  
 12 forecast has been held constant. The Street Lighting connection count decreased  
 13 historically, however, FHI expects the connection count to remain constant going forward.

1 Table 3-9 outlines the forecast of customers by rate class for 2024 and 2025.

2 **Table 3-9 Customer/Connection Forecast**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant	Total
<b>Forecast number of Customers/Connections</b>									
2024 Bridge - Normalized	20,299	2,136	208	1	35	6,400	467	2	29,547
2025 Test - Normalized	20,541	2,146	207	1	34	6,400	501	2	29,832

3  
 4 The next step in the process is to review the historical customer/connection usage and to  
 5 reflect this usage per customer in the forecast. Table 3-10 below provides the average  
 6 annual usage per customer by rate class for 2023.

7 **Table 3-10 2023 Actual Annual Usage per Customer**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant
<b>Annual kWh Usage Per Customer/Connection</b>								
2023	7,437	28,890	1,707,170	29,085,391	2,792	369	1,617	1,542,415

8  
 9 The 2024 and 2025 forecast of usage per customer/connection have been held constant  
 10 at the 2023 level since usage per customer/connection has generally been declining in  
 11 most rate classes since 2014. The resulting usage forecast is as follows in Table 3-11.

12 From the historical usage per customer/connection data the growth rate in usage per  
 13 customer/connection can be reviewed which is provided in Table 3-11.

14 **Table 3-11 Forecast Annual kWh Usage per Customer/Connection**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant
<b>Forecast Annual kWh Usage per Customers/Connections</b>								
7437.295171	28,890	1,707,170	2,792	1,542,415	369	1,617	29,085,391	1,542,415
7437.295171	28,890	1,707,170	2,792	1,542,415	369	1,617	29,085,391	1,542,415

15  
 16 The preceding information is used to determine the non-normalized weather billed energy  
 17 forecast by applying the forecast amount of customer/connection from Table 3-9 by the  
 18 forecast of annual usage per customer/connection from Table 3-11. The resulting non-  
 19 normalized weather billed energy forecast is shown in the following Table 3-12.



**Table 3-12 Non-Normalized Weather Billed Energy Forecast**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant	Total
<b>Non-Normalized Weather Billed Energy Forecast (GWh)</b>									
2024 Bridge (Not Normalized)	151.0	61.7	355.4	29.1	0.1	2.4	0.8	3.1	603.4
2025 Test (Not Normalized)	152.8	62.0	353.1	29.1	0.1	2.4	0.8	3.1	603.3

The non-normalized amounts are then adjusted based on weather sensitivity factors (Table 3-13) to obtain the weather normalized forecast for 2024 and 2025 displayed in Table 3-14. To determine the weather sensitivity of the various rate classes, FHI utilized the Hydro One Networks Inc. weather sensitivity data prepared in the 2006 Load Profile Study for FHI.

**Table 3-13 Weather Sensitivity by Rate Class**

Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant
<b>Weather Sensitivity</b>							
62%	62%	24%	0%	0%	0%	0%	0%

The difference between the non-normalized and normalized forecast has been allocated based on a pro-rata basis to each rate class based on the above level of weather sensitivity. The Following Table 3-14 outlines how the classes have been adjusted to align to the non-normalized forecast with the normalized forecast.

**Table 3-14: Alignment of Non-normal to Weather Normal Forecast**

Year	Residential	General Service < 50 kW	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Unmetered Scattered Loads	Wholesale Market Participant	Total
<b>Non-normalized Weather Billed Energy Forecast (GWh)</b>									
2024 Bridge	151.0	61.7	355.4	29.1	0.1	2.4	0.8	3.1	603.4
2025 Test	152.8	62.0	353.1	29.1	0.1	2.4	0.8	3.1	603.3
<b>Weather Adjustment (GWh)</b>									
2024 Bridge	1.5	0.6	1.4	0.0	0.0	0.0	0.0	0.0	3.5
2025 Test	0.9	0.4	0.8	0.0	0.0	0.0	0.0	0.0	2.2
<b>Weather Normalized Billed Energy Forecast (GWh)</b>									
2024 Bridge	152.5	62.3	356.7	29.1	0.1	2.4	0.8	3.1	606.9
2025 Test	153.7	62.4	353.9	29.1	0.1	2.4	0.8	3.1	605.4

1 **Billed kW Load Forecast**

2 The volumetric revenue components for General Service 50 to 4,999 kW, Large Use,  
 3 Sentinel Lighting, and Street Lighting are calculated based on billed kW demand. Since  
 4 the load forecast is calculated based on kWh, forecasted kW for these classes must be  
 5 correlated with the forecasted kWh for each class. The following Table 3-15 outlines the  
 6 historical annual demand units by applicable rate class.

7 **Table 3-15 Historical Annual kW per Applicable Rate Class**

Year	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Wholesale Market Participant
<b><i>Billed Annual kW</i></b>					
2014	934,817	36,390	369	11,116	6,721
2015	946,403	39,140	364	11,103	6,663
2016	911,298	38,848	368	7,006	6,317
2017	894,837	36,858	360	6,205	5,724
2018	912,782	43,546	306	6,104	41,919
2019	918,770	41,926	272	6,667	52,613
2020	866,278	41,219	264	6,381	28,559
2021	878,372	41,849	267	6,226	28,641
2022	881,049	44,238	276	6,245	10,175
2023	876,527	43,002	279	5,749	10,024

8  
 9 The following Table 3-16 shows the historical ratio of kW/kWh as well as the trend ratios  
 10 used in calculating the forecasted 2024 Bridge and 2025 Test Years.

11  
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**Table 3-16 Historical kW/kWh Ratio per Applicable Rate Class**

Year	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Wholesale Market Participant
<b>Ratio of kW to kWh</b>					
2014	0.2567%	0.1553%	0.2775%	0.2540%	0.1770%
2015	0.2561%	0.1588%	0.2778%	0.2578%	0.1752%
2016	0.2442%	0.1543%	0.2779%	0.2574%	0.1852%
2017	0.2447%	0.1510%	0.2781%	0.2366%	0.1823%
2018	0.2476%	0.1619%	0.2776%	0.2459%	1.0662%
2019	0.2481%	0.1511%	0.2780%	0.2685%	1.4566%
2020	0.2534%	0.1499%	0.2778%	0.2665%	0.8532%
2021	0.2497%	0.1477%	0.2784%	0.2673%	0.8918%
2022	0.2423%	0.1500%	0.2778%	0.2453%	0.3117%
2023	0.2451%	0.1478%	0.2778%	0.2432%	0.3250%
<b>Ratios used in kW Forecasts</b>					
0	0.2778%	0.5624%	0.2542%	0.1528%	0.5624%

2

3 FHI has utilized the trend of growth to forecast kW for all rate classes for which this value  
 4 is used as a billing determinant. The trend analysis includes all years back to 2014,  
 5 consistent with the methodology applied to forecast customer/connection growth. The  
 6 following Table 3-17 outlines the forecast of kW for the applicable rate classes.

7

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**Table 3-17 kW Forecast by Applicable Rate Class**

Year	General Service 50 to 4,999 kW	Large Use	Sentinel Lighting	Street Lighting	Wholesale Market Participant	Total
<b>Predicted Billed kW</b>						
2024 Bridge - Normalized	887,533	44,439	272	6,011	17,350	955,605
2025 Test - Normalized	880,547	44,439	264	6,011	17,350	948,612

9

10

11 Table 3-18 provides a summary of the total load forecast on a power purchased and billed  
 12 level, as well as forecast billing determinants by rate class.

13

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**Table 3-18 Summary of Total Load Forecast**

Year	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Bridge	2025 Test
Actual kWh Purchases	624,159,352	624,543,695	607,172,998	633,220,675	626,711,582	604,483,597	610,737,932	624,627,795	622,407,594		
Predicted kWh Purchases	620,652,687	626,030,371	618,123,675	628,373,961	622,991,159	601,329,176	624,451,396	621,732,226	612,959,004	623,479,098	622,011,914
% Difference between Actual and Predicted Purchases	(0.6%)	0.2%	1.8%	(0.8%)	(0.6%)	(0.5%)	2.2%	(0.5%)	(1.5%)		
Loss Factor										1.0274	1.0274
Total Billed										606,861,805	605,433,725
<b>By Class</b>											
<b>Residential</b>											
Customers	18,197	18,417	18,678	18,942	19,073	19,224	19,481	19,756	20,059	20,299	20,541
kWh	138,916,796	139,158,722	134,065,184	146,158,990	143,256,844	151,219,360	152,437,380	153,959,248	149,185,943	152,450,631	153,701,712
<b>General Service &lt; 50 kW</b>											
Customers	2,052	2,067	2,081	2,089	2,082	2,084	2,095	2,107	2,125	2,136	2,146
kWh	63,555,664	63,059,837	62,117,168	64,384,300	62,985,946	58,159,694	57,918,968	61,132,367	61,400,428	62,309,194	62,385,122
<b>General Service &gt; 50 to 4999 kW</b>											
Customers	218	217	219	217	220	221	215	209	210	208	207
kWh	369,534,512	373,231,715	365,627,458	368,587,747	370,357,504	341,875,528	351,758,215	363,572,115	357,652,061	356,728,281	353,920,347
kW	946,403	911,298	894,837	912,782	918,770	866,278	878,372	881,049	876,527	887,533	880,547
<b>Large Use</b>											
Customers	1	1	1	1	1	1	1	1	1	1	1
kWh	24,639,648	25,183,382	24,407,204	26,894,138	27,745,078	27,495,994	28,340,499	29,487,369	29,085,391	29,085,391	29,085,391
kW	39,140	38,848	36,858	43,546	41,926	41,219	41,849	44,238	43,002	44,439	44,439
<b>Sentinel Lighting</b>											
Connections	44	44	43	41	38	37	36	36	36	35	34
kWh	130,859	132,438	129,472	110,217	97,846	95,110	95,778	99,494	100,504	97,803	95,176
kW	364	368	360	306	272	264	267	276	279	272	264
<b>Street Lighting</b>											
Connections	6,558	6,568	6,582	6,579	6,560	6,479	6,390	6,376	6,400	6,400	6,400
kWh	4,307,271	2,722,097	2,622,813	2,481,816	2,482,833	2,394,908	2,328,792	2,546,051	2,364,162	2,364,162	2,364,162
kW	11,103	7,006	6,205	6,104	6,667	6,381	6,226	6,245	5,749	6,011	6,011
<b>Unmetered Scattered Load</b>											
Connections	229	228	230	230	229	229	338	433	435	467	501
kWh	663,213	665,566	659,309	643,588	648,488	671,398	728,877	702,388	702,928	754,577	810,020
<b>Wholesale Market Participant</b>											
Customers	1	1	1	2	2	2	2	2	2	2	2
kWh	3,801,987	3,410,848	3,139,758	3,931,816	3,611,938	3,347,054	3,211,585	3,263,932	3,084,831	3,084,831	3,084,831
kW	6,663	6,317	5,724	41,919	52,613	28,559	28,641	10,175	10,024	17,350	17,350
<b>Total</b>											
Customer/Connections	27,298	27,542	27,833	28,101	28,205	28,277	28,558	28,919	29,267	29,547	29,832
kWh	605,549,950	607,564,604	592,768,367	613,192,612	611,186,477	585,259,047	596,820,094	614,762,964	603,576,249	606,874,871	605,446,761
kW from applicable classes	1,003,671	963,836	943,984	1,004,657	1,020,248	942,702	955,354	941,983	935,582	955,605	948,612

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4 **2.3.1.2 Normalized Average Use per Customer Module**

5 FHI used a regression analysis to complete the Load Forecast, thus this methodology  
 6 was not utilized.

7

1 **2.3.1.3 CDM Adjustment for the Load Forecast for**  
2 **Distributors**

3 **CDM Adjustment and LRAMVA**

4 Given the long-term presence of CDM, FHI's load forecast inherently incorporates CDM  
5 impacts into the regression through the historical data in the dependent and independent  
6 variables.

7

8 **2.3.2 Accuracy of Load Forecast and Variance Analyses**

9 Table 3-19 provides a summary of the load forecast on a billing determinant basis by rate  
10 class. This table is also consistent with Appendix 2-IB which provides a variance analysis  
11 between each year and the last Board approved values. The customer count is based on  
12 average annual values. Consistent with data provided in Tables 3-3 to 3-6, weather  
13 normalized values are based on a 10-year average of heating degree days and cooling  
14 degree days.

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1 **Table 3-19 Summary of Billing Determinants with Average Consumption with**  
2 **Variance of Actual and Forecast Data Consistent with Appendix-IB**

Year	2015 Board Approved	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual
<b>Residential</b>						
<b># of Customers</b>	18,224	18,197	18,417	18,678	18,942	19,073
<b>kWh - Actuals</b>	140,396,363	138,916,796	139,158,722	134,065,184	146,158,990	143,256,844
<b>kWh - Weather Normalized</b>	140,396,363	139,219,672	138,427,127	134,747,992	144,677,782	143,199,069
<b>Consumption (kWh) per Customer - Actual</b>	7,704	7,634	7,556	7,178	7,716	7,511
<b>Consumption (kWh) per Customer - Weather Norm</b>	7,704	7,651	7,516	7,214	7,638	7,508
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		-0.15%	1.21%	1.41%	1.42%	0.69%
<b>kWh - Actuals</b>		-1.05%	0.17%	-3.66%	9.02%	-1.99%
<b>kWh - Weather Normalized</b>		-0.84%	-0.57%	-2.66%	7.37%	-1.02%
<b>GS &lt; 50 kW</b>						
<b># of Customers</b>	2,029	2,052	2,067	2,081	2,089	2,082
<b>kWh - Actuals</b>	64,120,602	63,555,664	63,059,837	62,117,168	64,384,300	62,985,946
<b>kWh - Weather Normalized</b>	64,120,602	63,694,233	62,728,315	62,433,537	63,731,815	62,960,544
<b>Consumption (kWh) per Customer - Actual</b>	31,602	30,975	30,508	29,854	30,818	30,253
<b>Consumption (kWh) per Customer - Weather Norm</b>	31,602	31,043	30,348	30,007	30,506	30,240
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		1.13%	0.74%	0.66%	0.41%	-0.34%
<b>kWh - Actuals</b>		-0.88%	-0.78%	-1.49%	3.65%	-2.17%
<b>kWh - Weather Normalized</b>		-0.66%	-1.52%	-0.47%	2.08%	-1.21%
<b>GS &gt; 50 to 4,999 kW</b>						
<b># of Customers</b>	226	218	217	219	217	220
<b>kWh - Actuals</b>	357,185,184	369,534,512	373,231,715	365,627,458	368,587,747	370,357,504
<b>kWh - Weather Normalized</b>	357,185,184	370,340,198	371,269,536	367,489,638	364,852,396	370,208,141
<b>kW - Actuals</b>	936,133	946,403	911,298	894,837	912,782	918,770
<b>Consumption (kWh) per Customer - Actual</b>	1,580,465	1,695,112	1,721,946	1,668,262	1,695,956	1,683,443
<b>Consumption (kWh) per Customer - Weather Norm</b>	1,580,465	1,698,808	1,712,893	1,676,759	1,678,769	1,682,764
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		-3.54%	-0.57%	1.11%	-0.84%	1.23%
<b>kWh - Actuals</b>		3.46%	1.00%	-2.04%	0.81%	0.48%
<b>kWh - Weather Normalized</b>		3.68%	0.25%	-1.02%	-0.72%	1.47%
<b>kW - Actuals</b>		1.10%	-3.71%	-1.81%	2.01%	0.66%

<b>Large Use</b>						
<b># of Customers</b>	1	1	1	1	1	1
<b>kWh - Actuals</b>	22,706,506	24,639,648	25,183,382	24,407,204	26,894,138	27,745,078
<b>kWh - Weather Normalized</b>	22,706,506	24,693,369	25,050,986	24,531,513	26,621,587	27,733,889
<b>kW - Actuals</b>	35,166	39,140	38,848	36,858	43,546	41,926
<b>Consumption (kWh) per Customer - Actual</b>	22,706,506	24,639,648	25,183,382	24,407,204	26,894,138	27,745,078
<b>Consumption (kWh) per Customer - Weather Norm</b>	22,706,506	24,693,369	25,050,986	24,531,513	26,621,587	27,733,889
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		0.00%	0.00%	0.00%	0.00%	0.00%
<b>kWh - Actuals</b>		8.51%	2.21%	-3.08%	10.19%	3.16%
<b>kWh - Weather Normalized</b>		8.75%	1.45%	-2.07%	8.52%	4.18%
<b>kW - Actuals</b>		11.30%	-0.75%	-5.12%	18.14%	-3.72%
<b>Sentinel Lighting</b>						
<b># of Customers</b>	41	44	44	43	41	38
<b>kWh - Actuals</b>	149,276	130,859	132,438	129,472	110,217	97,846
<b>kWh - Weather Normalized</b>	149,276	131,145	131,741	130,131	109,100	97,807
<b>kW - Actuals</b>	353	364	368	360	306	272
<b>Consumption (kWh) per Customer - Actual</b>	3,641	3,003	3,045	3,046	2,688	2,586
<b>Consumption (kWh) per Customer - Weather Norm</b>	3,641	3,009	3,029	3,062	2,661	2,585
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		6.30%	-0.19%	-2.30%	-3.53%	-7.72%
<b>kWh - Actuals</b>		-12.34%	1.21%	-2.24%	-14.87%	-11.22%
<b>kWh - Weather Normalized</b>		-12.15%	0.46%	-1.22%	-16.16%	-10.35%
<b>kW - Actuals</b>		2.97%	1.24%	-2.17%	-15.00%	-11.11%
<b>Street Lighting</b>						
<b># of Customers</b>	6,626	6,558	6,568	6,582	6,579	6,560
<b>kWh - Actuals</b>	4,532,631	4,307,271	2,722,097	2,622,813	2,481,816	2,482,833
<b>kWh - Weather Normalized</b>	4,532,631	4,316,662	2,707,786	2,636,171	2,456,665	2,481,832
<b>kW - Actuals</b>	11,925	11,103	7,006	6,205	6,104	6,667
<b>Consumption (kWh) per Customer - Actual</b>	684	657	414	399	377	378
<b>Consumption (kWh) per Customer - Weather Norm</b>	684	658	412	401	373	378
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		-1.03%	0.15%	0.22%	-0.04%	-0.28%
<b>kWh - Actuals</b>		-4.97%	-36.80%	-3.65%	-5.38%	0.04%
<b>kWh - Weather Normalized</b>		-4.76%	-37.27%	-2.64%	-6.81%	1.02%
<b>kW - Actuals</b>		-6.90%	-36.90%	-11.43%	-1.63%	9.22%
<b>Unmetered Scattered Load</b>						
<b># of Customers</b>	227	229	228	230	230	229
<b>kWh - Actuals</b>	657,094	663,213	665,566	659,309	643,588	648,488
<b>kWh - Weather Normalized</b>	657,094	664,659	662,067	662,667	637,066	648,226
<b>Consumption (kWh) per Customer - Actual</b>	2,895	2,902	2,924	2,870	2,804	2,837
<b>Consumption (kWh) per Customer - Weather Norm</b>	2,895	2,909	2,909	2,884	2,776	2,836
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		0.66%	-0.40%	0.95%	-0.11%	-0.40%
<b>kWh - Actuals</b>		0.93%	0.35%	-0.94%	-2.38%	0.76%
<b>kWh - Weather Normalized</b>		1.15%	-0.39%	0.09%	-3.86%	1.75%



Wholesale Market Participant						
<b># of Customers</b>	1	1	1	1	2	2
<b>kWh - Actuals</b>	3,988,503	3,801,987	3,410,848	3,139,758	3,931,816	3,611,938
<b>kWh - Weather Normalized</b>	3,988,503	3,810,276	3,392,916	3,155,749	3,891,970	3,610,481
<b>kW - Actuals</b>	6,590	6,663	6,317	5,724	41,919	52,613
<b>Consumption (kWh) per Customer - Actual</b>	3,988,503	3,801,987	3,410,848	3,139,758	1,965,908	1,805,969
<b>Consumption (kWh) per Customer - Weather Norm</b>	3,988,503	3,810,276	3,392,916	3,155,749	1,945,985	1,805,241
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>		0.00%	0.00%	0.00%	100.00%	0.00%
<b>kWh - Actuals</b>		-4.68%	-10.29%	-7.95%	25.23%	-8.14%
<b>kWh - Weather Normalized</b>		-4.47%	-10.95%	-6.99%	23.33%	-7.23%
<b>kW - Actuals</b>		1.10%	-5.19%	-9.39%	632.38%	25.51%
<b>Totals</b>						
<b>Customers/Connections</b>	27,375	27,298	27,542	27,833	28,101	28,205
<b>kWh - Actuals</b>	593,736,159	605,549,950	607,564,604	592,768,367	613,192,612	611,186,477
<b>kWh - Weather Normalized</b>	593,736,159	606,870,212	604,370,476	595,787,399	606,978,380	610,939,990
<b>kW From Applicable Classes</b>	990,167	1,003,671	963,836	943,984	1,004,657	1,020,248
<b>Totals - Variance (Year-Over-Year)</b>						
<b>Customers/Connections</b>		-0.28%	0.89%	1.06%	0.96%	0.37%
<b>kWh - Actuals</b>		1.99%	0.33%	-2.44%	3.45%	-0.33%
<b>kWh - Weather Normalized</b>		2.21%	-0.41%	-1.42%	1.88%	0.65%
<b>kW From Applicable Classes</b>		1.36%	-3.97%	-2.06%	6.43%	1.55%

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Year	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Bridge	2025 Test
<b>Residential</b>						
<b># of Customers</b>	19,224	19,481	19,756	20,059	20,299	20,541
<b>kWh - Actuals</b>	151,219,360	152,437,380	153,959,248	149,185,943	152,450,631	153,701,712
<b>kWh - Weather Normalized</b>	150,713,326	152,019,582	153,845,244	151,209,177	152,450,631	153,701,712
<b>Consumption (kWh) per Customer - Actual</b>	7,866	7,825	7,793	7,437	7,510	7,483
<b>Consumption (kWh) per Customer - Weather Norm</b>	7,840	7,803	7,787	7,538	7,510	7,483
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	0.79%	1.34%	1.41%	1.54%	1.19%	1.19%
<b>kWh - Actuals</b>	5.56%	0.81%	1.00%	-3.10%	2.19%	0.82%
<b>kWh - Weather Normalized</b>	5.25%	0.87%	1.20%	-1.71%	0.82%	0.82%
<b>GS &lt; 50 kW</b>						
<b># of Customers</b>	2,084	2,095	2,107	2,125	2,136	2,146
<b>kWh - Actuals</b>	58,159,694	57,918,968	61,132,367	61,400,428	62,309,194	62,385,122
<b>kWh - Weather Normalized</b>	57,965,071	57,760,224	61,087,099	62,233,130	62,309,194	62,385,122
<b>Consumption (kWh) per Customer - Actual</b>	27,904	27,650	29,014	28,890	29,173	29,066
<b>Consumption (kWh) per Customer - Weather Norm</b>	27,811	27,574	28,992	29,282	29,173	29,066
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	0.11%	0.50%	0.58%	0.87%	0.49%	0.49%
<b>kWh - Actuals</b>	-7.66%	-0.41%	5.55%	0.44%	1.48%	0.12%
<b>kWh - Weather Normalized</b>	-7.93%	-0.35%	5.76%	1.88%	0.12%	0.12%

<b>GS &gt; 50 to 4,999 kW</b>						
<b># of Customers</b>	221	215	209	210	208	207
<b>kWh - Actuals</b>	341,875,528	351,758,215	363,572,115	357,652,061	356,728,281	353,920,347
<b>kWh - Weather Normalized</b>	340,731,490	350,794,122	363,302,896	362,502,475	356,728,281	353,920,347
<b>kW - Actuals</b>	866,278	878,372	881,049	876,527	887,533	880,547
<b>Consumption (kWh) per Customer - Actual</b>	1,546,948	1,636,085	1,739,579	1,707,170	1,713,760	1,711,254
<b>Consumption (kWh) per Customer - Weather Norm</b>	1,541,771	1,631,601	1,738,291	1,730,322	1,713,760	1,711,254
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	0.45%	-2.71%	-2.79%	0.24%	-0.64%	-0.64%
<b>kWh - Actuals</b>	-7.69%	2.89%	3.36%	-1.63%	-0.26%	-0.79%
<b>kWh - Weather Normalized</b>	-7.96%	2.95%	3.57%	-0.22%	-1.59%	-0.79%
<b>kW - Actuals</b>	-5.71%	1.40%	0.30%	-0.51%	1.26%	-0.79%
<b>Large Use</b>						
<b># of Customers</b>	1	1	1	1	1	1
<b>kWh - Actuals</b>	27,495,994	28,340,499	29,487,369	29,085,391	29,085,391	29,085,391
<b>kWh - Weather Normalized</b>	27,403,982	28,262,823	29,465,534	29,479,842	29,085,391	29,085,391
<b>kW - Actuals</b>	41,219	41,849	44,238	43,002	44,439	44,439
<b>Consumption (kWh) per Customer - Actual</b>	27,495,994	28,340,499	29,487,369	29,085,391	29,085,391	29,085,391
<b>Consumption (kWh) per Customer - Weather Norm</b>	27,403,982	28,262,823	29,465,534	29,479,842	29,085,391	29,085,391
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>kWh - Actuals</b>	-0.90%	3.07%	4.05%	-1.36%	0.00%	0.00%
<b>kWh - Weather Normalized</b>	-1.19%	3.13%	4.26%	0.05%	-1.34%	0.00%
<b>kW - Actuals</b>	-1.69%	1.53%	5.71%	-2.79%	3.34%	0.00%
<b>Sentinel Lighting</b>						
<b># of Customers</b>	37	36	36	36	35	34
<b>kWh - Actuals</b>	95,110	95,778	99,494	100,504	97,803	95,176
<b>kWh - Weather Normalized</b>	94,792	95,516	99,421	101,867	97,803	95,176
<b>kW - Actuals</b>	264	267	276	279	272	264
<b>Consumption (kWh) per Customer - Actual</b>	2,600	2,661	2,796	2,792	2,792	2,792
<b>Consumption (kWh) per Customer - Weather Norm</b>	2,591	2,653	2,794	2,830	2,792	2,792
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	-3.30%	-1.59%	-1.16%	1.17%	-2.69%	-2.69%
<b>kWh - Actuals</b>	-2.80%	0.70%	3.88%	1.01%	-2.69%	-2.69%
<b>kWh - Weather Normalized</b>	-3.08%	0.76%	4.09%	2.46%	-3.99%	-2.69%
<b>kW - Actuals</b>	-2.87%	0.93%	3.65%	1.02%	-2.66%	-2.69%
<b>Street Lighting</b>						
<b># of Customers</b>	6,479	6,390	6,376	6,400	6,400	6,400
<b>kWh - Actuals</b>	2,394,908	2,328,792	2,546,051	2,364,162	2,364,162	2,364,162
<b>kWh - Weather Normalized</b>	2,386,894	2,322,410	2,544,166	2,396,224	2,364,162	2,364,162
<b>kW - Actuals</b>	6,381	6,226	6,245	5,749	6,011	6,011
<b>Consumption (kWh) per Customer - Actual</b>	370	364	399	369	369	369
<b>Consumption (kWh) per Customer - Weather Norm</b>	368	363	399	374	369	369
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	-1.24%	-1.38%	-0.22%	0.37%	0.00%	0.00%
<b>kWh - Actuals</b>	-3.54%	-2.76%	9.33%	-7.14%	0.00%	0.00%
<b>kWh - Weather Normalized</b>	-3.83%	-2.70%	9.55%	-5.81%	-1.34%	0.00%
<b>kW - Actuals</b>	-4.29%	-2.44%	0.30%	-7.93%	4.55%	0.00%

<b>Unmetered Scattered Load</b>						
<b># of Customers</b>	229	338	433	435	467	501
<b>kWh - Actuals</b>	671,398	728,877	702,388	702,928	754,577	810,020
<b>kWh - Weather Normalized</b>	669,151	726,879	701,868	712,461	754,577	810,020
<b>Consumption (kWh) per Customer - Actual</b>	2,932	2,156	1,623	1,617	1,617	1,617
<b>Consumption (kWh) per Customer - Weather Norm</b>	2,922	2,151	1,622	1,639	1,617	1,617
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	0.18%	47.60%	28.03%	0.42%	7.35%	7.35%
<b>kWh - Actuals</b>	3.53%	8.56%	-3.63%	0.08%	7.35%	7.35%
<b>kWh - Weather Normalized</b>	3.23%	8.63%	-3.44%	1.51%	5.91%	7.35%
<b>Wholesale Market Participant</b>						
<b># of Customers</b>	2	2	2	2	2	2
<b>kWh - Actuals</b>	3,347,054	3,211,585	3,263,932	3,084,831	3,084,831	3,084,831
<b>kWh - Weather Normalized</b>	3,335,854	3,202,783	3,261,515	3,126,667	3,084,831	3,084,831
<b>kW - Actuals</b>	28,559	28,641	10,175	10,024	17,350	17,350
<b>Consumption (kWh) per Customer - Actual</b>	1,673,527	1,605,793	1,631,966	1,542,415	1,542,415	1,542,415
<b>Consumption (kWh) per Customer - Weather Norm</b>	1,667,927	1,601,391	1,630,758	1,563,333	1,542,415	1,542,415
<b>Variance Analysis (Year-Over-Year)</b>						
<b># of Customers</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>kWh - Actuals</b>	-7.33%	-4.05%	1.63%	-5.49%	0.00%	0.00%
<b>kWh - Weather Normalized</b>	-7.61%	-3.99%	1.83%	-4.13%	-1.34%	0.00%
<b>kW - Actuals</b>	-45.72%	0.29%	-64.47%	-1.48%	73.08%	0.00%
<b>Totals</b>						
<b>Customers/Connections</b>	28,277	28,558	28,919	29,267	29,547	29,832
<b>kWh - Actuals</b>	585,259,047	596,820,094	614,762,964	603,576,249	606,874,871	605,446,761
<b>kWh - Weather Normalized</b>	583,300,559	595,184,339	614,307,743	611,761,843	606,874,871	605,446,761
<b>kW From Applicable Classes</b>	942,702	955,354	941,983	935,582	955,605	948,612
<b>Totals - Variance (Year-Over-Year)</b>						
<b>Customers/Connections</b>	0.25%	0.99%	1.26%	1.20%	0.96%	0.96%
<b>kWh - Actuals</b>	-4.24%	1.98%	3.01%	-1.82%	0.55%	-0.24%
<b>kWh - Weather Normalized</b>	-4.52%	2.04%	3.21%	-0.41%	-0.80%	-0.24%
<b>kW From Applicable Classes</b>	-7.60%	1.34%	-1.40%	-0.68%	2.14%	-0.73%

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**Table 3-20 Summary of Distribution Revenue**

Year	2015 Board Approved	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual
<b><i>Distribution Revenues</i></b>						
Residential	5,941,615	7,031,059	6,014,497	6,039,387	6,402,917	6,328,106
GS < 50 kW	1,745,959	2,040,970	1,854,315	1,883,559	1,921,813	1,922,998
GS 50 to 4,999 kW	2,601,906	2,966,388	2,600,440	2,704,343	2,638,502	2,775,726
Large Use	151,421	163,546	192,906	144,039	306,042	313,461
Sentinel Lighting	5,204	6,332	5,967	5,639	4,898	4,475
Street Lighting	127,855	152,430	117,454	94,634	114,790	110,392
Unmetered Scattered Load	27,525	43,569	14,376	18,542	28,354	27,827
<b>Total Operating Revenue</b>	<b>10,601,485</b>	<b>12,404,295</b>	<b>10,799,954</b>	<b>10,890,142</b>	<b>11,417,315</b>	<b>11,482,983</b>

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Year	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Bridge	2025 Test
<b><i>Distribution Revenues</i></b>						
Residential	6,472,638	6,747,899	7,080,570	7,344,125	7,618,853	9,759,676
GS < 50 kW	1,894,467	1,766,773	1,897,242	2,191,739	2,388,759	2,316,887
GS 50 to 4,999 kW	2,765,846	2,623,176	2,722,650	3,318,219	3,172,276	3,626,564
Large Use	313,283	309,691	305,884	310,346	304,453	230,456
Sentinel Lighting	4,925	4,520	4,936	5,907	5,491	6,214
Street Lighting	109,730	111,568	112,277	103,646	121,340	196,758
Unmetered Scattered Load	46,174	46,975	50,525	53,578	56,904	74,155
<b>Total Operating Revenue</b>	<b>11,607,063</b>	<b>11,610,603</b>	<b>12,174,085</b>	<b>13,327,558</b>	<b>13,668,077</b>	<b>16,210,710</b>

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4

5 The following discussion provides a year over year variance analysis on FHI's Distribution  
 6 Revenue, Billing Determinants and Average Consumption per Customer/Connection. The  
 7 variance analysis will compare 2015 Actual to 2015 Board Approved; 2016 Actual to 2015  
 8 Actual; 2017 Actual to 2016 Actual; 2018 Actual to 2017 Actual; 2019 Actual to 2018  
 9 Actual; 2020 Actual to 2019 Actual; 2021 Actual to 2020 Actual; 2022 Actual to 2021  
 10 Actual; 2023 Actual to 2022 Actual; 2024 Bridge to 2023 Actual and 2025 Test Year to  
 11 2024 Bridge Year. The Distribution Revenue variance analysis is based on information  
 12 provided in Table 3-20. The Billing Determinant and Average Consumption variance  
 13 analysis is based on data outlined in Table 3-20. The overall variance analysis has been  
 14 provided based on FHI's materiality of \$80,000 as calculated in Exhibit 1, Table 1-13 of  
 15 this Application.

1 **2015 Actual vs 2015 Board Approved**

2 **Table 3-21 Distribution Revenue – 2015 Actual vs 2015 Board Approved**

Distribution Revenues	2015 Board Approved	2015 Actual	2015 Actual vs 2015 Board Approved
Residential	5,941,615	7,031,059	1,089,444
GS < 50 kW	1,745,959	2,040,970	295,011
GS 50 to 4,999 kW	2,601,906	2,966,388	364,482
Large Use	151,421	163,546	12,125
Sentinel Lighting	5,204	6,332	1,128
Street Lighting	127,855	152,430	24,575
Unmetered Scattered Load	27,525	43,569	16,044
<b>Total</b>	<b>10,601,485</b>	<b>12,404,295</b>	<b>1,802,810</b>

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4 Table 3-21 compares Distribution Revenues for the 2015 Board Approved to 2015  
5 Actuals. 2015 Actual Distribution revenue was \$1.8M higher than 2015 Board Approved,  
6 principally due to the inclusion of the recovery of the ICM rate rider, a 1592 variance  
7 adjustment, and the recovery of the LRAM rate rider that is not included in 2015 Board  
8 Approved Revenue. Without the inclusion of these three adjustments, the variance is  
9 (\$42K) and not material.

10 **Table 3-22 Billing Determinants – 2015 Board Approved vs 2015 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Weather Normal Conversion Factor 1.0022			
	2015 Board Approved	2015 Actual		2015 Board Approved	2015 Actual	2015 Board Approved	2015 Actual	Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
								2015 Board Approved	2015 Actual	2015 Board Approved	2015 Actual
Residential	18,224	18,197	kWh	140,396,363	138,916,796	140,396,363	139,219,672	7,704	7,634	7,704	7,651
GS < 50 kW	2,029	2,052	kWh	64,120,602	63,555,664	64,120,602	63,694,233	31,602	30,975	31,602	31,043
GS 50 to 4,999 kW	226	218	kW	936,133	946,403	936,133	946,403	4,142	4,341	4,142	4,341
Sentinel Lighting	41	44	kW	353	364	353	364	9	8	9	8
Street Lighting	6,626	6,558	kW	11,925	11,103	11,925	11,103	2	2	2	2
Unmetered Scattered Load	227	229	kWh	657,094	663,213	657,094	664,659	2,895	2,902	2,895	2,909
Large Use	1	1	kW	35,166	39,140	35,166	39,140	35,166	39,140	35,166	39,140
Wholesale Market Participant*	1	1	kW	6,590	6,663	6,590	6,663	6,590	6,663	6,590	6,663
<b>Total</b>	<b>27,375</b>	<b>27,298</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	- 28	-0.2%	kWh	- 1,479,567	-1.1%	- 1,176,691	-0.8%	- 70	-0.9%	- 53	-0.7%
GS < 50 kW	23	1.1%	kWh	- 564,938	-0.9%	- 426,369	-0.7%	- 627	-2.0%	- 559	-1.8%
GS 50 to 4,999 kW	- 8	-3.5%	kW	10,270	1.1%	10,270	1.1%	199	4.8%	199	4.8%
Sentinel Lighting	3	6.3%	kW	11	3.0%	11	3.0%	0	-3.1%	0	-3.1%
Street Lighting	- 69	-1.0%	kW	- 822	-6.9%	- 822	-6.9%	0	-5.9%	0	-5.9%
Unmetered Scattered Load	2	0.7%	kWh	6,119	0.9%	7,565	1.2%	8	0.3%	14	0.5%
Large Use	-	0.0%	kW	3,974	11.3%	3,974	11.3%	3,974	11.3%	3,974	11.3%
Wholesale Market Participant*	-	0.0%	kW	72	1.1%	72	1.1%	72	1.1%	72	1.1%
<b>Total</b>	<b>- 77</b>	<b>-0.3%</b>									

\* The 2015 Load Forecast did not contain a separate rate classification for Wholesale Market Participant (WMP). Counts and volumes for WMP are displayed for comparison purposes

1 Table 3-22 compares the billing determinants (customers/connection and volumes) for  
 2 2015 Board Approved to 2015 Actuals. The customer count totals for 2015 were  
 3 relatively close to Board Approved. FHI saw a decrease in the Residential GS 50 to  
 4 4,999 kW and Street Lighting rate classes. FHI also had an increase in customer count  
 5 for GS < 50 kW, Sentinel Lighting and Unmetered Scattered Load rate classes.  
 6 Variances in volumes are minimal, except for the higher than forecasted volumes in the  
 7 Large Use rate class and the 6.9% shortfall in the Street Lighting rate class. The  
 8 shortfall was due to an LED conversion project that began in 2015.

9 **2016 Actual vs 2015 Actual**

10 **Table 3-23 Distribution Revenue – 2016 vs 2015**

Distribution Revenues	2015 Actual	2016 Actual	2016 Actual vs 2015 Actual
Residential	7,031,059	6,014,497	-1,016,563
GS < 50 kW	2,040,970	1,854,315	-186,656
GS 50 to 4,999 kW	2,966,388	2,600,440	-365,948
Large Use	163,546	192,906	29,360
Sentinel Lighting	6,332	5,967	-365
Street Lighting	152,430	117,454	-34,976
Unmetered Scattered Load	43,569	14,376	-29,194
<b>Total</b>	<b>12,404,295</b>	<b>10,799,954</b>	<b>- 1,604,341</b>

11  
 12 Table 3-23 shows material differences in 2016 from 2015 for the Residential, GS < 50 kW  
 13 and GS 50 to 4,999 kW rate classes. FHI ceased collecting the ICM rate rider after 2015,  
 14 explaining the material differences.

15

1 **Table 3-24 Billing Determinants – 2016 Actual vs 2015 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2015 Actual	2016 Actual		2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual	2015 Actual	2016 Actual
	Weather Normal Conversion Factor: 0.9947										
Residential	18,197	18,417	kWh	138,916,796	139,158,722	139,219,672	138,427,127	7,634	7,556	7,651	7,516
GS < 50 kW	2,052	2,067	kWh	63,555,664	63,059,837	63,694,233	62,728,315	30,975	30,508	31,043	30,348
GS 50 to 4,999 kW	218	217	kW	946,403	911,298	946,403	911,298	4,341	4,204	4,341	4,204
Large Use	1	1	kW	39,140	38,848	39,140	38,848	39,140	38,848	39,140	38,848
Sentinel Lighting	44	44	kW	364	368	364	368	8	8	8	8
Street Lighting	6,558	6,568	kW	11,103	7,006	11,103	7,006	2	1	2	1
Unmetered Scattered Load	229	228	kWh	663,213	665,566	664,659	662,067	2,902	2,924	2,909	2,909
Wholesale Market Participant	1	1	kW	6,663	6,317	6,663	6,317	6,663	6,317	6,663	6,317
<b>Total</b>	<b>27,298</b>	<b>27,542</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	221	1.2%	kWh	241,926	0.2%	- 792,545	-0.6%	- 78	-1.0%	- 135	-1.8%
GS < 50 kW	15	0.7%	kWh	- 495,827	-0.8%	- 965,918	-1.5%	- 467	-1.5%	- 695	-2.2%
GS 50 to 4,999 kW	- 1	-0.6%	kW	- 35,105	-3.7%	- 35,105	-3.7%	- 137	-3.2%	- 137	-3.2%
Large Use	-	0.0%	kW	- 292	-0.7%	- 292	-0.7%	- 292	-0.7%	- 292	-0.7%
Sentinel Lighting	- 0	-0.2%	kW	- 4	1.2%	- 4	1.2%	- 0	1.4%	- 0	1.4%
Street Lighting	10	0.2%	kW	- 4,097	-36.9%	- 4,097	-36.9%	- 1	-37.0%	- 1	-37.0%
Unmetered Scattered Load	- 1	-0.4%	kWh	2,353	0.4%	- 2,592	-0.4%	22	0.8%	0	0.0%
Wholesale Market Participant	-	0.0%	kW	- 346	-5.2%	- 346	-5.2%	- 346	-5.2%	- 346	-5.2%
<b>Total</b>	<b>244</b>	<b>0.9%</b>									

2

3 Table 3-24 does not show any significant variances for customer count and volumes in  
 4 2016 from 2015 except for a 36.9% shortfall in Street Lighting volumes. The LED  
 5 conversion project from 2015 continued in 2016 and explains the difference in volumes  
 6 without a decrease in connections.

7 **2017 Actual vs 2016 Actual**

8 **Table 3-25 Distribution Revenue – 2017 Actual vs 2016 Actual**

Distribution Revenues	2016 Actual	2017 Actual	2017 Actual vs 2016 Actual
<b><i>Distribution Revenues</i></b>			
Residential	6,014,497	6,039,387	24,890
GS < 50 kW	1,854,315	1,883,559	29,244
GS 50 to 4,999 kW	2,600,440	2,704,343	103,903
Large Use	192,906	144,039	-48,867
Sentinel Lighting	5,967	5,639	-328
Street Lighting	117,454	94,634	-22,821
Unmetered Scattered Load	14,376	18,542	4,166
<b>Total</b>	<b>10,799,954</b>	<b>10,890,142</b>	<b>90,187</b>

9



- 1 Table 3-25 has no material variances for 2017 from 2016 except for the GS 50 to 4,999
- 2 kW rate class. This \$100K variance is due to an increase in customer count and a 1.45%
- 3 price cap index adjustment in 2017.

4 **Table 3-26 Billing Determinants – 2017 Actual vs 2016 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2016 Actual	2017 Actual		2016 Actual	2017 Actual	2016 Actual	2017 Actual	2016 Actual	2017 Actual	2016 Actual	2017 Actual
	Weather Normal Conversion Factor 1.0051										
Residential	18,417	18,678	kWh	139,158,722	134,065,184	138,427,127	134,747,992	7,556	7,178	7,516	7,214
GS < 50 kW	2,067	2,081	kWh	63,059,837	62,117,168	62,728,315	62,433,537	30,508	29,854	30,348	30,007
GS 50 to 4,999 kW	217	219	kW	911,298	894,837	911,298	894,837	4,204	4,083	4,204	4,083
Large Use	1	1	kW	38,848	36,858	38,848	36,858	38,848	36,858	38,848	36,858
Sentinel Lighting	44	43	kW	368	360	368	360	8	8	8	8
Street Lighting	6,568	6,582	kW	7,006	6,205	7,006	6,205	1	1	1	1
Unmetered Scattered Load	228	230	kWh	665,566	659,309	662,067	662,667	2,924	2,870	2,909	2,884
Wholesale Market Participant	1	1	kW	6,317	5,724	6,317	5,724	6,317	5,724	6,317	5,724
<b>Total</b>	<b>27,542</b>	<b>27,833</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	260	1.4%	kWh	- 5,093,538	-3.7%	- 3,679,135	-2.7%	- 378	-5.0%	- 302	-4.0%
GS < 50 kW	14	0.7%	kWh	- 942,669	-1.5%	- 294,777	-0.5%	- 653	-2.1%	- 341	-1.1%
GS 50 to 4,999 kW	2	1.1%	kW	- 16,461	-1.8%	- 16,461	-1.8%	- 121	-2.9%	- 121	-2.9%
Large Use	-	0.0%	kW	- 1,990	-5.1%	- 1,990	-5.1%	- 1,990	-5.1%	- 1,990	-5.1%
Sentinel Lighting	- 1	-2.3%	kW	- 8	-2.2%	- 8	-2.2%	0	0.1%	0	0.1%
Street Lighting	14	0.2%	kW	- 801	-11.4%	- 801	-11.4%	0	-11.6%	0	-11.6%
Unmetered Scattered Load	2	1.0%	kWh	- 6,257	-0.9%	- 600	0.1%	- 55	-1.9%	- 25	-0.9%
Wholesale Market Participant	-	0.0%	kW	- 593	-9.4%	- 593	-9.4%	- 593	-9.4%	- 593	-9.4%
<b>Total</b>	<b>292</b>	<b>1.1%</b>									

- 5 Table 3-26 does not show any significant variances for customer count and volumes in
- 6 2017 from 2016 except for an 11.4% shortfall in Street Lighting volumes. The LED
- 7 conversion project from 2015 and 2016 continued in 2017 and explains the difference in
- 8 volumes without a decrease in connections.

9 **2018 Actual vs 2017 Actual**

10 **Table 3-27 Distribution Revenue – 2018 Actual vs 2017 Actual**

Distribution Revenues	2017 Actual	2018 Actual	2018 Actual vs 2017 Actual
<b><i>Distribution Revenues</i></b>			
Residential	6,039,387	6,402,917	363,530
GS < 50 kW	1,883,559	1,921,813	38,254
GS 50 to 4,999 kW	2,704,343	2,638,502	-65,842
Large Use	144,039	306,042	162,002
Sentinel Lighting	5,639	4,898	-740
Street Lighting	94,634	114,790	20,156
Unmetered Scattered Load	18,542	28,354	9,812
<b>Total</b>	<b>10,890,142</b>	<b>11,417,315</b>	<b>527,173</b>

1 Table 3-27 shows a material difference for the Residential and Large Use rate classes in  
 2 2018 from 2017. The increase in Residential distribution revenue is largely due to a 1.4%  
 3 increase in customer count and FHI receiving a price cap index adjustment of 1.2% in  
 4 2018. The material increase in Large Use distribution revenue is due to the addition of a  
 5 Wholesale Market Participant customer in 2018 that was billed with Large Use distribution  
 6 rates.

7 **Table 3-28 Billing Determinants – 2018 Actual vs 2017 Actuals**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2017 Actual	2018 Actual		2017 Actual	2018 Actual	2017 Actual	2018 Actual	2017 Actual	2018 Actual	2017 Actual	2018 Actual
	Weather Normal Conversion Factor 0.9899										
Residential	18,678	18,942	kWh	134,065,184	146,158,990	134,747,992	144,677,782	7,178	7,716	7,214	7,638
GS < 50 kW	2,081	2,089	kWh	62,117,168	64,384,300	62,433,537	63,731,815	29,854	30,818	30,007	30,506
GS 50 to 4,999 kW	219	217	kW	894,837	912,782	894,837	912,782	4,083	4,200	4,083	4,200
Large Use	1	1	kW	36,858	43,546	36,858	43,546	36,858	43,546	36,858	43,546
Sentinel Lighting	43	41	kW	360	306	360	306	8	7	8	7
Street Lighting	6,582	6,579	kW	6,205	6,104	6,205	6,104	1	1	1	1
Unmetered Scattered Load	230	230	kWh	659,309	643,588	662,667	637,066	2,870	2,804	2,884	2,776
Wholesale Market Participant	1	2	kW	5,724	41,919	5,724	41,919	5,724	20,960	5,724	20,960
<b>Total</b>	<b>27,833</b>	<b>28,101</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	264	1.4%	kWh	12,093,806	9.0%	9,929,790	7.4%	538	7.5%	424	5.9%
GS < 50 kW	9	0.4%	kWh	2,267,132	3.6%	1,298,278	2.1%	964	3.2%	499	1.7%
GS 50 to 4,999 kW	-2	-0.8%	kW	17,945	2.0%	17,945	2.0%	117	2.9%	117	2.9%
Large Use	-	0.0%	kW	6,688	18.1%	6,688	18.1%	6,688	18.1%	6,688	18.1%
Sentinel Lighting	-2	-3.5%	kW	54	-15.0%	54	-15.0%	1	-11.9%	1	-11.9%
Street Lighting	-3	0.0%	kW	101	-1.6%	101	-1.6%	0	-1.6%	0	-1.6%
Unmetered Scattered Load	0	-0.1%	kWh	15,721	-2.4%	25,601	-3.9%	65	-2.3%	108	-3.8%
Wholesale Market Participant	1	100.0%	kW	36,196	632.4%	36,196	632.4%	15,236	266.2%	15,236	266.2%
<b>Total</b>	<b>268</b>	<b>1.0%</b>									

8  
 9 Table 3-28 shows a 632.4% increase in volumes for Wholesale Market Participant in 2018  
 10 from 2017. This increase is due to the addition of a Wholesale Market Participant  
 11 Customer. Sentinel Lighting experienced a 15% shortfall due to a 3.5% reduction in  
 12 customer count. The Residential and Large Use rate classes experienced increased  
 13 volumes in 2018 from 2017. Comparing the 2017 and 2018 variances between Actual  
 14 and Weather Normalized in Table 3-28 suggests that weather was a contributing factor  
 15 in the increase in volumes.

16  
 17  
 18  
 19

1 **2019 Actual vs 2018 Actual**

2 **Table 3-29 Distribution Revenue – 2019 Actual vs 2018 Actual**

Distribution Revenues	2018 Actual	2019 Actual	2019 Actual vs 2018 Actual
<b><i>Distribution Revenues</i></b>			
Residential	6,402,917	6,328,106	-74,811
GS < 50 kW	1,921,813	1,922,998	1,185
GS 50 to 4,999 kW	2,638,502	2,775,726	137,225
Large Use	306,042	313,461	7,419
Sentinel Lighting	4,898	4,475	-423
Street Lighting	114,790	110,392	-4,398
Unmetered Scattered Load	28,354	27,827	-527
<b>Total</b>	<b>11,417,315</b>	<b>11,482,983</b>	<b>65,668</b>

3  
 4 Table 3-29 shows a material difference for the GS 50 to 4,999 kW rate class in 2018 from  
 5 2017. The material increase is due to an increase in customer count and volumes, and  
 6 FHI receiving a price cap index adjustment of 1.5% in 2019.

7 **Table 3-30 Billing Determinants – 2019 Actual vs 2018 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2018 Actual	2019 Actual		2018 Actual	2019 Actual	2018 Actual	2019 Actual	2018 Actual	2019 Actual	2018 Actual	2019 Actual
	Residential	18,942		19,073	kWh	146,158,990	143,256,844	144,677,782	143,199,069	7,716	7,511
GS < 50 kW	2,089	2,082	kWh	64,384,300	62,985,946	63,731,815	62,960,544	30,818	30,253	30,506	30,240
GS 50 to 4,999 kW	217	220	kW	912,782	918,770	912,782	918,770	4,200	4,176	4,200	4,176
Large Use	1	1	kW	43,546	41,926	43,546	41,926	43,546	41,926	43,546	41,926
Sentinel Lighting	41	38	kW	306	272	306	272	7	7	7	7
Street Lighting	6,579	6,560	kW	6,104	6,667	6,104	6,667	1	1	1	1
Unmetered Scattered Load	230	229	kWh	643,588	648,488	637,066	648,226	2,804	2,837	2,776	2,836
Wholesale Market Participant	2	2	kW	41,919	52,613	41,919	52,613	20,960	26,306	20,960	26,306
<b>Total</b>	<b>28,101</b>	<b>28,205</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	131	0.7%	kWh	- 2,902,146	-2.0%	- 1,478,712	-1.0%	- 205	-2.7%	- 130	-1.7%
GS < 50 kW	- 7	-0.3%	kWh	- 1,398,354	-2.2%	- 771,271	-1.2%	- 566	-1.8%	- 265	-0.9%
GS 50 to 4,999 kW	3	1.2%	kW	5,988	0.7%	5,988	0.7%	24	-0.6%	24	-0.6%
Large Use	-	0.0%	kW	- 1,620	-3.7%	- 1,620	-3.7%	- 1,620	-3.7%	- 1,620	-3.7%
Sentinel Lighting	- 3	-7.7%	kW	- 34	-11.1%	- 34	-11.1%	0	-3.7%	0	-3.7%
Street Lighting	- 19	-0.3%	kW	563	9.2%	563	9.2%	0	9.5%	0	9.5%
Unmetered Scattered Load	- 1	-0.4%	kWh	4,900	0.8%	11,161	1.8%	33	1.2%	60	2.2%
Wholesale Market Participant	-	0.0%	kW	10,693	25.5%	10,693	25.5%	5,347	25.5%	5,347	25.5%
<b>Total</b>	<b>104</b>	<b>0.4%</b>									

8 Table 3-30 shows an 11.1% decrease in Sentinel Lighting volumes, which was caused  
 9 by the 7.7% decrease in connection count. The Wholesale Market Participant rate class  
 10 experienced a 25.5% increase in volumes due to a new customer ramping up.

11

1 **2020 Actual vs 2019 Actual**

2 **Table 3-31 Distribution Revenue – 2020 Actual vs 2019 Actual**

Distribution Revenues	2019 Actual	2020 Actual	2020 Actual vs 2019 Actual
<b><i>Distribution Revenues</i></b>			
Residential	6,328,106	6,472,638	144,532
GS < 50 kW	1,922,998	1,894,467	-28,531
GS 50 to 4,999 kW	2,775,726	2,765,846	-9,881
Large Use	313,461	313,283	-178
Sentinel Lighting	4,475	4,925	450
Street Lighting	110,392	109,730	-661
Unmetered Scattered Load	27,827	46,174	18,347
<b>Total</b>	<b>11,482,983</b>	<b>11,607,063</b>	<b>124,080</b>

3  
 4 Table 3-31 shows no material differences in distribution revenue in 2020 from 2019  
 5 except for the Residential rate class. This material increase is due to an increase in  
 6 customer count and FHI receiving a 2.00% price cap index adjustment in 2020.

7 **Table 3-32 Billing Determinants – 2020 Actual vs 2019 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2019 Actual	2020 Actual		2019 Actual	2020 Actual	2019 Actual	2020 Actual	2019 Actual	2020 Actual	2019 Actual	2020 Actual
	Weather Normal Conversion Factor			0.9967							
Residential	19,073	19,224	kWh	143,256,844	151,219,360	143,199,069	150,713,326	7,511	7,866	7,508	7,840
GS < 50 kW	2,082	2,084	kWh	62,985,946	58,159,694	62,960,544	58,136,238	30,253	27,904	30,240	27,893
GS 50 to 4,999 kW	220	221	kW	918,770	866,278	918,770	866,278	4,176	3,920	4,176	3,920
Large Use	1	1	kW	41,926	41,219	41,926	41,219	41,926	41,219	41,926	41,219
Sentinel Lighting	38	37	kW	272	264	272	264	7	7	7	7
Street Lighting	6,560	6,479	kW	6,667	6,381	6,667	6,381	1	1	1	1
Unmetered Scattered Load	229	229	kWh	648,488	671,398	648,226	671,127	2,837	2,932	2,836	2,931
Wholesale Market Participant	2	2	kW	52,613	28,559	52,613	28,559	26,306	14,279	26,306	14,279
<b>Total</b>	<b>28,205</b>	<b>28,277</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	150	0.8%	kWh	7,962,516	5.6%	7,514,256	5.2%	356	4.7%	332	4.4%
GS < 50 kW	2	0.1%	kWh	- 4,826,252	-7.7%	- 4,824,306	-7.7%	- 2,348	-7.8%	- 2,347	-7.8%
GS 50 to 4,999 kW	1	0.5%	kW	- 52,492	-5.7%	- 52,492	-5.7%	- 256	-6.1%	- 256	-6.1%
Large Use	-	0.0%	kW	- 707	-1.7%	- 707	-1.7%	- 707	-1.7%	- 707	-1.7%
Sentinel Lighting	- 1	-3.3%	kW	- 8	-2.9%	- 8	-2.9%	0	0.4%	0	0.4%
Street Lighting	- 81	-1.2%	kW	- 286	-4.3%	- 286	-4.3%	0	-3.1%	0	-3.1%
Unmetered Scattered Load	0	0.2%	kWh	22,910	3.5%	22,901	3.5%	95	3.3%	95	3.3%
Wholesale Market Participant	-	0.0%	kW	- 24,054	-45.7%	- 24,054	-45.7%	- 12,027	-45.7%	- 12,027	-45.7%
<b>Total</b>	<b>72</b>	<b>0.3%</b>									

8 Table 3-32 shows no significant changes in the customer count. The onset of the COVID-  
 9 19 pandemic in 2020 is understood to have driven some of the trends seen in Table 3-  
 10 33; notably positive variances in total and average volumes in the Residential class, and

1 negative variances in total and average volumes in the GS <50kW, GS 50 to 4,999kW  
 2 and Wholesale Market Participant classes.

3 **2021 Actual vs 2020 Actual**

4 **Table 3-33 Distribution Revenue – 2021 Actual vs 2020 Actual**

Distribution Revenues	2020 Actual	2021 Actual	2021 Actual vs 2020 Actual
<b><i>Distribution Revenues</i></b>			
Residential	6,472,638	6,747,899	275,261
GS < 50 kW	1,894,467	1,766,773	-127,694
GS 50 to 4,999 kW	2,765,846	2,623,176	-142,670
Large Use	313,283	309,691	-3,591
Sentinel Lighting	4,925	4,520	-405
Street Lighting	109,730	111,568	1,838
Unmetered Scattered Load	46,174	46,975	801
<b>Total</b>	<b>11,607,063</b>	<b>11,610,603</b>	<b>3,540</b>

5  
 6 Table 3-33 shows a material increase in distribution revenue for the Residential rate  
 7 class of \$280K. This is the result of a 258 customer count increase and FHI receiving a  
 8 2.20% price cap index adjustment in 2021. The GS < 50 kW and GS 50 to 4,999 kW  
 9 rate classes both saw material decreases in distribution revenue. The GS < 50 kW rate  
 10 class saw a decrease in volumes, while the GS 50 to 4,999 kW rate class saw a 2.7%  
 11 decrease in customer count in 2021.

12 **Table 3-34 Billing Determinants – 2021 Actuals vs 2020 Actuals**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2020 Actual	2021 Actual		2020 Actual	2021 Actual	2020 Actual	2021 Actual	2020 Actual	2021 Actual	2020 Actual	2021 Actual
	Count	%		Volume	%	Volume	%	Average	%	Average	%
Residential	19,224	19,481	kWh	151,219,360	152,437,380	150,713,326	152,019,582	7,866	7,825	7,840	7,803
GS < 50 kW	2,084	2,095	kWh	58,159,694	57,918,968	58,136,238	57,760,224	27,904	27,650	27,893	27,574
GS 50 to 4,999 kW	221	215	kW	866,278	878,372	866,278	878,372	3,920	4,085	3,920	4,085
Large Use	1	1	kW	41,219	41,849	41,219	41,849	41,219	41,849	41,219	41,849
Sentinel Lighting	37	36	kW	264	267	264	267	7	7	7	7
Street Lighting	6,479	6,390	kW	6,381	6,226	6,381	6,226	1	1	1	1
Unmetered Scattered Load	229	338	kWh	671,398	728,877	671,127	728,879	2,932	2,156	2,931	2,151
Wholesale Market Participant	2	2	kW	28,559	28,641	28,559	28,641	14,279	14,320	14,279	14,320
<b>Total</b>	<b>28,277</b>	<b>28,558</b>									
	<b>Variance</b>										
Residential	258	1.3%	kWh	1,218,020	0.8%	1,306,257	0.9%	42	-0.5%	37	-0.5%
GS < 50 kW	11	0.5%	kWh	-240,726	-0.4%	-376,014	-0.6%	-255	-0.9%	-319	-1.1%
GS 50 to 4,999 kW	-6	-2.7%	kW	12,094	1.4%	12,094	1.4%	166	4.2%	166	4.2%
Large Use	-	0.0%	kW	629	1.5%	629	1.5%	629	1.5%	629	1.5%
Sentinel Lighting	-1	-1.6%	kW	2	0.9%	2	0.9%	0	2.6%	0	2.6%
Street Lighting	-89	-1.4%	kW	-156	-2.4%	-156	-2.4%	0	-1.1%	0	-1.1%
Unmetered Scattered Load	109	47.6%	kWh	57,479	8.6%	55,752	8.3%	775	-26.4%	780	-26.6%
Wholesale Market Participant	-	0.0%	kW	82	0.3%	82	0.3%	41	0.3%	41	0.3%
<b>Total</b>	<b>281</b>	<b>1.0%</b>									

13

1 Table 3-34 does not show a significant change in customer/connection count except for  
 2 the Unmetered Scattered Load rate class which experienced a 47.6% increase in  
 3 connection count. This was primarily driven by the re-classification of several Street  
 4 Lighting accounts being reclassified as Unmetered Scattered Load. This increase in  
 5 customer count explains the 8.6% increase in volumes for the Unmetered Scattered  
 6 Load rate class in 2021.

7 **2022 Actuals vs 2021 Actuals**

8 **Table 3-35 2022 Actuals vs 2021 Actuals**

Distribution Revenues	2021 Actual	2022 Actual	2022 Actual vs 2021 Actual
<b><i>Distribution Revenues</i></b>			
Residential	- 6,747,899	7,080,570	13,828,469
GS < 50 kW	- 1,766,773	1,897,242	3,664,015
GS 50 to 4,999 kW	- 2,623,176	2,722,650	5,345,826
Large Use	- 309,691	305,884	615,576
Sentinel Lighting	- 4,520	4,936	9,456
Street Lighting	- 111,568	112,277	223,845
Unmetered Scattered Load	- 46,975	50,525	97,501
<b>Total</b>	<b>- 11,610,603</b>	<b>12,174,085</b>	<b>23,784,688</b>

9  
 10 Table 3-35 shows a material increases in distribution revenue for the total and the  
 11 Residential, GS < 50 kW and GS 50 to 4,999 kW rates classes in 2022 from 2021. The  
 12 Residential rate class experienced a 1.4% increase in customer count while the GS < 50  
 13 kW rate class experienced a 5.5% increase in volumes in 2022. These factors coupled  
 14 with FHI receiving a 3.30% price cap index adjustment in 2022 explain the material  
 15 increases in distribution revenue.

1 **Table 3-36 Billing Determinants – 2022 Actuals vs 2021 Actuals**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2021 Actual	2022 Actual		2021 Actual	2022 Actual	2021 Actual	2022 Actual	2021 Actual	2022 Actual	2021 Actual	2022 Actual
	Weather Normal Conversion Factor									0.9993	
Residential	19,481	19,756	kWh	152,437,380	153,959,248	152,019,582	153,845,244	7,825	7,793	7,803	7,787
GS < 50 kW	2,095	2,107	kWh	57,918,968	61,132,367	57,760,224	61,087,099	27,650	29,014	27,574	28,992
GS 50 to 4,999 kW	215	209	kW	878,372	881,049	878,372	881,049	4,085	4,216	4,085	4,216
Large Use	1	1	kW	41,849	44,238	41,849	44,238	41,849	44,238	41,849	44,238
Sentinel Lighting	36	36	kW	267	276	267	276	7	8	7	8
Street Lighting	6,390	6,376	kW	6,226	6,245	6,226	6,245	1	1	1	1
Unmetered Scattered Load	338	433	kWh	728,877	702,388	726,879	701,868	2,156	1,623	2,151	1,622
Wholesale Market Participant	2	2	kW	28,641	10,175	28,641	10,175	14,320	5,087	14,320	5,087
<b>Total</b>	<b>28,558</b>	<b>28,919</b>									
<b>Variance</b>	<b>Count</b>	<b>%</b>		<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>
Residential	275	1.4%	kWh	1,521,868	1.0%	1,825,661	1.2%	32	-0.4%	16	-0.2%
GS < 50 kW	12	0.6%	kWh	3,213,399	5.5%	3,326,875	5.8%	1,364	4.9%	1,419	5.1%
GS 50 to 4,999 kW	6	-2.8%	kW	2,677	0.3%	2,677	0.3%	130	3.2%	130	3.2%
Large Use	-	0.0%	kW	2,389	5.7%	2,389	5.7%	2,389	5.7%	2,389	5.7%
Sentinel Lighting	0	-1.2%	kW	10	3.6%	10	3.6%	0	4.9%	0	4.9%
Street Lighting	14	-0.2%	kW	19	0.3%	19	0.3%	0	0.5%	0	0.5%
Unmetered Scattered Load	95	28.0%	kWh	26,489	-3.6%	25,011	-3.4%	533	-24.7%	529	-24.6%
Wholesale Market Participant	-	0.0%	kW	18,466	-64.5%	18,466	-64.5%	9,233	-64.5%	9,233	-64.5%
<b>Total</b>	<b>361</b>	<b>1.3%</b>									

2  
 3 Table 3-36 shows changes in customer/connection count in 2022 that are in line with  
 4 previous years, except for the Unmetered Scattered Load rate class that saw a similar  
 5 connection increase as 2021 from 2020. The other rate classes experienced a moderate  
 6 increase in volumes, while the Wholesale Market Participant rate class experienced a  
 7 64.5% decrease in volumes in 2022. A Wholesale Market Participant customer reduced  
 8 its annual load by 18,750 kW explaining the significant decrease in volumes.

9  
 10 **2023 Actual vs 2022 Actual**

11 **Table 3-37 Distribution Revenue – 2023 Actual vs 2022 Actual**

Distribution Revenues	2022 Actual	2023 Actual	2023 Actual vs 2022 Actual
<b>Distribution Revenues</b>			
Residential	7,080,570	7,344,125	263,555
GS < 50 kW	1,897,242	2,191,739	294,497
GS 50 to 4,999 kW	2,722,650	3,318,219	595,569
Large Use	305,884	310,346	4,462
Sentinel Lighting	4,936	5,907	971
Street Lighting	112,277	103,646	-8,632
Unmetered Scattered Load	50,525	53,578	3,052
<b>Total</b>	<b>12,174,085</b>	<b>13,327,558</b>	<b>1,153,474</b>

1 Similar to 2022, Table 3-37 shows a material increase in distribution revenue for the total  
 2 and the Residential, GS < 50 kW and GS 50 to 4,999 kW rates classes in 2023 from 2022.  
 3 This is the result in increases in customer count for all three rate classes. The GS < 50  
 4 kW rate class also experienced a 0.4% increase in volumes in 2023. Finally, FHI received  
 5 a 3.70% price cap index adjustment in 2023. All these factors explain the material  
 6 increases in distribution revenue for 2023.

7 **Table 3-38 Billing Determinants – 2023 Actual vs 2022 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2022 Actual	2023 Actual		2022 Actual	2023 Actual	2022 Actual	2023 Actual	2022 Actual	2023 Actual	2022 Actual	2023 Actual
	Weather Normal Conversion Factor: 1.0136										
Residential	19,756	20,059	kWh	153,959,248	149,185,943	153,845,244	151,209,177	7,793	7,437	7,787	7,538
GS < 50 kW	2,107	2,125	kWh	61,132,367	61,400,428	61,087,099	62,233,130	29,014	28,890	28,992	29,282
GS 50 to 4,999 kW	209	210	kW	881,049	876,527	881,049	876,527	4,216	4,184	4,216	4,184
Large Use	1	1	kW	44,238	43,002	44,238	43,002	44,238	43,002	44,238	43,002
Sentinel Lighting	36	36	kW	276	279	276	279	8	8	8	8
Street Lighting	6,376	6,400	kW	6,245	5,749	6,245	5,749	1	1	1	1
Unmetered Scattered Load	433	435	kWh	702,388	702,928	701,868	712,461	1,623	1,617	1,622	1,639
Wholesale Market Participant	2	2	kW	10,175	10,024	10,175	10,024	5,087	5,012	5,087	5,012
<b>Total</b>	<b>28,919</b>	<b>29,267</b>									
Variance	Count	%		Volume	%	Volume	%	Average	%	Average	%
Residential	303	1.5%	kWh	- 4,773,304	-3.1%	- 2,636,067	-1.7%	- 356	-4.6%	- 249	-3.2%
GS < 50 kW	18	0.9%	kWh	268,062	0.4%	1,146,031	1.9%	124	-0.4%	289	1.0%
GS 50 to 4,999 kW	1	0.2%	kW	- 4,522	-0.5%	- 4,522	-0.5%	32	-0.8%	32	-0.8%
Large Use	-	0.0%	kW	- 1,236	-2.8%	- 1,236	-2.8%	- 1,236	-2.8%	- 1,236	-2.8%
Sentinel Lighting	0	1.2%	kW	3	1.0%	3	1.0%	0	-0.2%	0	-0.2%
Street Lighting	24	0.4%	kW	- 495	-7.9%	- 495	-7.9%	0	-8.3%	0	-8.3%
Unmetered Scattered Load	2	0.4%	kWh	540	0.1%	10,593	1.5%	6	-0.3%	18	1.1%
Wholesale Market Participant	-	0.0%	kW	- 151	-1.5%	- 151	-1.5%	- 75	-1.5%	- 75	-1.5%
<b>Total</b>	<b>348</b>	<b>1.2%</b>									

8  
 9 Table 3-38 shows moderate increases in customer/connection count for all the rate  
 10 classes except for the Large Use and Wholesale Market Participant rate classes, which  
 11 saw no change. The Residential rate class experienced a 3.1% decrease in volumes in  
 12 2023 from 2022. The variance in Weather normal volumes supports cooler weather,  
 13 explaining the decrease in volumes. The Street Lighting rate class experienced a 7.9%  
 14 decrease in volumes, similar to the decrease in 2022.

15  
 16  
 17  
 18  
 19



1 **2024 Bridge vs 2023 Actual**

2 **Table 3-39 Distribution Revenue – 2024 Bridge vs 2023 Actual**

Distribution Revenues	2023 Actual	2024 Bridge	2024 Bridge vs 2023 Actual
<b><i>Distribution Revenues</i></b>			
Residential	7,346,608	7,618,853	272,244
GS < 50 kW	2,192,538	2,388,759	196,221
GS 50 to 4,999 kW	3,319,429	3,172,276	-147,153
Large Use	310,459	304,453	-6,006
Sentinel Lighting	5,909	5,491	-417
Street Lighting	103,683	121,340	17,657
Unmetered Scattered Load	53,596	56,904	3,308
<b>Total</b>	<b>13,332,222</b>	<b>13,668,077</b>	<b>335,855</b>

3  
4 Table 3-39 shows material increases in distribution revenues for the total and for  
5 Residential and GS < 50 kW rate classes in the 2024 Bridge year from 2023. Both rate  
6 classes are forecasted to have increased customer counts in the 2024 Bridge year and  
7 the GS < 50 kW rate class is forecasted to experience a 1.5% increase in volumes. Also,  
8 FHI received a 4.80% price cap index adjustment for the 2024 Bridge year. Conversely,  
9 the GS 50 to 4,999 kW rate class is forecasted to see a material decrease in distribution  
10 revenue of \$147K. This is a result in a decrease in the LRAM rate rider.

11 **Table 3-40 Billing Determinants – 2024 Bridge vs 2023 Actual**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)			
	2023 Actual	2024 Bridge		2023 Actual	2024 Bridge	2023 Actual	2024 Bridge	2023 Actual	2024 Bridge	2023 Actual	2024 Bridge		
Residential	20,059	20,299	kWh	149,185,943	152,450,631	151,209,177	152,450,631	7,437	7,510	7,538	7,510		
GS < 50 kW	2,125	2,136	kWh	61,400,428	62,309,194	62,233,130	62,309,194	28,890	29,173	29,282	29,173		
GS 50 to 4,999 kW	210	208	kW	876,527	887,533	876,527	887,533	4,184	4,264	4,184	4,264		
Large Use	1	1	kW	43,002	44,439	43,002	44,439	43,002	44,439	43,002	44,439		
Sentinel Lighting	36	35	kW	279	272	279	272	8	8	8	8		
Street Lighting	6,400	6,400	kW	5,749	6,011	5,749	6,011	1	1	1	1		
Unmetered Scattered Load	435	467	kWh	702,928	754,577	712,461	754,577	1,617	1,617	1,639	1,617		
Wholesale Market Participant	2	2	kW	10,024	17,350	10,024	17,350	5,012	8,675	5,012	8,675		
<b>Total</b>	<b>29,267</b>	<b>29,547</b>											
<b>Variance</b>	<b>Count</b>	<b>%</b>	<b>Units</b>	<b>Volume</b>	<b>%</b>	<b>Volume</b>	<b>%</b>	<b>Average</b>	<b>%</b>	<b>Average</b>	<b>%</b>		
Residential	240	1.2%	kWh	3,264,688	2.2%	1,241,455	0.8%	73	1.0%	-	28	-0.4%	
GS < 50 kW	10	0.5%	kWh	908,766	1.5%	76,064	0.1%	284	1.0%	-	108	-0.4%	
GS 50 to 4,999 kW	-	-0.6%	kW	11,006	1.3%	11,006	1.3%	80	1.9%	-	80	1.9%	
Large Use	-	0.0%	kW	1,437	3.3%	1,437	3.3%	1,437	3.3%	-	1,437	3.3%	
Sentinel Lighting	-	-2.7%	kW	-	-7	-	-7	-	0	0.0%	-	0	0.0%
Street Lighting	1	0.0%	kW	262	4.6%	262	4.6%	0	4.5%	-	0	4.5%	
Unmetered Scattered Load	32	7.3%	kWh	51,649	7.3%	42,116	5.9%	-	0.0%	-	22	-1.3%	
Wholesale Market Participant	-	0.0%	kW	7,325	73.1%	7,325	73.1%	3,663	73.1%	-	3,663	73.1%	
<b>Total</b>	<b>280</b>	<b>1.0%</b>											

1 Table 3-40 forecasts a change in customer/connection count in line with previous years  
 2 for all rate classes in the 2024 Bridge year. All rate classes are forecasted to have  
 3 moderate increases in volume except for the Sentinel Lights rate class similar to historical  
 4 years. The Wholesale Market Participant rate class is forecasted to experience a 73.1%  
 5 increase in volumes in the 2024 Bridge year. This is due to the volatile swings in volumes  
 6 year over year for one Wholesale Market Participant customer.

7 **2025 Test vs 2024 Bridge**

8 **Table 3-41 Distribution Revenue – 2025 Test vs 2024 Bridge**

Distribution Revenues	2024 Bridge	2025 Test	2025 Test vs 2024 Bridge
<b><i>Distribution Revenues</i></b>			
Residential	7,618,853	9,759,676	2,140,824
GS < 50 kW	2,388,759	2,316,887	-71,873
GS 50 to 4,999 kW	3,172,276	3,626,564	454,288
Large Use	304,453	230,456	-73,997
Sentinel Lighting	5,491	6,214	723
Street Lighting	121,340	196,758	75,419
Unmetered Scattered Load	56,904	74,155	17,251
<b>Total</b>	<b>13,668,077</b>	<b>16,210,710</b>	<b>2,542,633</b>

9  
 10 Table 3-41 shows that material revenue variances are forecasted for the Residential, GS  
 11 < 50 kW and GS 50 to 4,999 kW rate classes. The changes are due to the impact of  
 12 rebasing and changes in the Residential customer count.

1 **Table 3-42 Billing Determinants – 2025 Test vs 2024 Bridge**

Billing Determinants	Customer/Connections		Units	Volume		Volume (Weather Normal)		Annual Usage Per Customer / Connection		Annual Usage Per Customer / Connection (Weather Normal)	
	2024 Bridge	2025 Test		2024 Bridge	2025 Test	2024 Bridge	2025 Test	2024 Bridge	2025 Test	2024 Bridge	2025 Test
Residential	20,299	20,541	kWh	152,450,631	153,701,712	152,450,631	153,701,712	7,510	7,483	7,510	7,483
GS < 50 kW	2,136	2,146	kWh	62,309,194	62,385,122	62,309,194	62,385,122	29,173	29,066	29,173	29,066
GS 50 to 4,999 kW	208	207	kW	887,533	880,547	887,533	880,547	4,264	4,258	4,264	4,258
Large Use	1	1	kW	44,439	44,439	44,439	44,439	44,439	44,439	44,439	44,439
Sentinel Lighting	35	34	kW	272	264	272	264	8	8	8	8
Street Lighting	6,400	6,400	kW	6,011	6,011	6,011	6,011	1	1	1	1
Unmetered Scattered Load	467	501	kWh	754,577	810,020	754,577	810,020	1,617	1,617	1,617	1,617
Wholesale Market Participant	2	2	kW	17,350	17,350	17,350	17,350	8,675	8,675	8,675	8,675
<b>Total</b>	<b>29,547</b>	<b>29,832</b>									
Variance	Count	%		Volume	%	Volume	%	Average	%	Average	%
Residential	243	1.2%	kWh	1,251,081	0.8%	1,251,081	0.8%	28	-0.4%	28	-0.4%
GS < 50 kW	11	0.5%	kWh	75,927	0.1%	75,927	0.1%	108	-0.4%	108	-0.4%
GS 50 to 4,999 kW	-	-0.6%	kW	6,986	-0.8%	6,986	-0.8%	6	-0.1%	6	-0.1%
Large Use	-	0.0%	kW	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Sentinel Lighting	-	-2.7%	kW	7	-2.7%	7	-2.7%	-	0.0%	-	0.0%
Street Lighting	-	0.0%	kW	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Unmetered Scattered Load	34	7.3%	kWh	55,444	7.3%	55,444	7.3%	-	0.0%	-	0.0%
Wholesale Market Participant	-	0.0%	kW	-	0.0%	-	0.0%	-	0.0%	-	0.0%
<b>Total</b>	<b>285</b>	<b>1.0%</b>									

2

3 Table 3-42 shows moderate changes in customer/connection count in line with historical  
 4 years. The largest increase was Residential with 243 customers. When determining the  
 5 billed energy forecast as described in 2.3.1.2, non normalized consumption per  
 6 customer/connection was held constant between 2024 and 2025. Moreover, the same  
 7 10-year averages for HDD and CDD were used in the regression model. Therefore, the  
 8 only differences between 2024 and 2025 forecasted average consumption per  
 9 customer/connection occur due to the other regression variables, namely the calendar.

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## **Attachment 3 - 1**

Required OEB Appendices

## Appendix 2-IA Instructions on Customer, Connections, Load Forecast and Revenues Data and Analysis

This sheet requires no inputs, but serves as a summary of the historical and forecasted data to be provided with respect to:

- 1) Customers and connections
- 2) Consumption (kWh)
- 3) Demand (kW or kVA) as applicable for demand-billed customer classes
- 4) Revenues

The spreadsheet summarizes the data provided and the analyses (variance or year-over-year) that are required. Data are required to be provided on a customer class level. Consumption (kWh) must also be provided on a total distribution system level.

Appendix 2-IB (formerly 2-IA) is the appendix spreadsheet that the distributor populates, and the spreadsheet is laid out for inputting the necessary data. The spreadsheet also calculates necessary statistics such as average consumption per customer/connection per year, and variances and % annual changes, as necessary.

The distributor is required to provide suitable documentation in Exhibit 3 of its Application, in accordance with section 2.3.2 of Chapter 2 of the Filing Requirements. This would include explanations for material variations or of trends in the data.

The distributor is also required to input its test year customer/connection and load forecast in Sheet 10 - Load Forecast of the Revenue Requirement Work Form. This sheet should also be updated to reflect changes in the load forecast made through the stages of processing of the rates application.

The applicant must demonstrate the historical accuracy of its load forecast approach for at least the past 5 years. Such analysis will cover both customer/connections and consumption (kWh) and demand (kW or kVA) by providing the following, as shown in the following table:

Customers/Connections

Rate Class	Historical 2015	Historical 2016	Historical 2017	Historical 2018	Historical 2019	Historical 2020	Historical 2021	Historical 2022	Historical 2023	Bridge Year 2024	Test Year 2025
Residential	18,197	18,417	18,678	18,942	19,073	19,224	19,481	19,756	20,059	20,299	20,541
General Service < 50 kW	2,052	2,067	2,081	2,089	2,082	2,084	2,095	2,107	2,125	2,136	2,146
General Service >= 50 kW	218	217	219	217	220	221	215	209	210	208	207
Large User	1	1	1	1	1	1	1	1	1	1	1
Unmetered Scattered Load Connections	229	228	230	230	229	229	338	433	435	467	501
Sentinel Lighting Connections	44	44	43	41	38	37	36	36	36	35	34
Street Lighting Connections	6,558	6,568	6,582	6,579	6,560	6,479	6,390	6,376	6,400	6,400	6,400
Wholesale Market Participants	1	1	1	1	2	2	2	2	2	2	2
Embedded Distributor(s)	-	-	-	-	-	-	-	-	-	-	-
Sub Transmission Customers	-	-	-	-	-	-	-	-	-	-	-

Customers/Connections Variance Analysis

Rate Class	Historical 2015	Historical 2016	Historical 2017
Residential			1%
General Service < 50 kW			1%
General Service >= 50 kW			-1%
Large User			0%
Unmetered Scattered Load Connections			0%
Sentinel Lighting Connections			0%
Street Lighting Connections			0%
Wholesale Market Participants			0%
Embedded Distributor(s)			0%
Sub Transmission Customers			0%

**Notes:**

- <sup>(1)</sup> "Weather-normalized actuals" are estimated by replacing the actual weather-related values (typically Heating Degree Days (HDD) and Cooling Degree Days (CDD)) by the "typical" or "weather-normalized" values. These "weather-normalized HDD and CDD values would be the same as used to estimate the Bridge Year and Test Year forecasts.
- <sup>(2)</sup> For 2025 Cost of Service rebasers, the typical situation is that 2021 would have been the most recent cost of service rebasing application. If the most recent rebasing application was for a rate year other than 2021, that year should be used. An applicant must provide historical information back to the greater of: a) at least five (5) historical actual years; or b) to its last cost of service application.
- <sup>(3)</sup> Consumption must be provided on a total distribution system basis as well as at a customer class level.
- <sup>(4)</sup> Revenues exclude commodity charges.





## **Attachment 3 - 2**

Load Forecast

Table with columns: Date, Residential, General Service < 80 kW, General Service > 80 to 4999 kW, Sewer Lighting, Street Lighting, Unmetered Scattered Load, Large Use, Wholesale Market Participant. Data rows from 2014 to 2022.

Consumption

Main data table with multiple columns categorized under Wholesale and Retail Consumption. Includes sub-headers for Residential, General Service < 80 kW, General Service > 80 to 4999 kW, Sewer Lighting, Street Lighting, Unmetered Scattered Load, Large Use, and Wholesale Market Participant. Data rows from 2014 to 2022.



2022	September	49816560	321242	289983	50427785	19816	2111	208	36	6384	434	1	2													
2022	October	49728420	252950	297350	49278519	19841	2112	207	36	6387	434	1	2													
2022	November	51086490	143710	298593	51388703	19865	2114	207	36	6390	435	1	2													
2022	December	52531720	294270	298680	53032670	153959248	19889	61132367	2115	363572115	881049	206	99494	278	36	2546051	6245	6393	702388	435	29487369	44238	1	3283932	10175	2
2023	January	55128344	78699	299584	55497297	19915	2117	207	36	6394	435	1	2													
2023	February	50278742	158027	248665	50883434	19941	2118	207	36	6395	435	1	2													
2023	March	54309717	253361	299371	54572669	19966	2120	208	36	6396	435	1	2													
2023	April	48180533	331827	299647	48752007	19994	2121	208	36	6397	435	1	2													
2023	May	50040988	455888	257293	50753299	20020	2123	209	36	6398	435	1	2													
2023	June	50995435	423542	263492	51062470	20046	2125	209	36	6399	435	1	2													
2023	July	53476981	412902	297315	54186278	20072	2126	210	36	6400	435	1	2													
2023	August	53495035	371942	281564	54058541	20098	2128	210	36	6401	434	1	2													
2023	September	50086988	300264	293290	50499522	20125	2129	211	36	6402	434	1	2													
2023	October	49783927	194726	236573	50214326	20151	2131	211	36	6403	434	1	2													
2023	November	51092694	134728	221545	51448967	20177	2132	212	36	6404	434	1	2													
2023	December	48514142	27565	236038	49003945	20203	61400428	2134	357652061	876527	212	100504	279	36	2364162	5749	6405	702928	434	29085391	43002	1	3084831	10024	2	

	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Actual	Weather Normal	Weather Normal
<b>Actual kWh Purchases</b>	619,303,843	624,159,352	624,543,695	607,172,998	633,220,675	626,711,582	604,483,597	610,737,932	624,627,795	622,407,594		
<b>Predicted kWh Purchases</b>	620,725,408	620,652,687	626,030,371	618,123,675	628,373,961	622,991,159	601,329,176	624,451,396	621,732,226	612,959,004	623,479,098	622,011,914
<b>% Difference</b>	0.2%	-0.6%	0.2%	1.8%	-0.8%	-0.6%	-0.5%	2.2%	-0.5%	-1.5%		
<b>Total Billed</b>	601,764,596	605,549,950	607,564,604	592,768,367	613,192,612	611,186,477	585,259,047	596,820,094	614,762,964	603,576,249	606,874,871	605,446,761
<b>By Class</b>												
<b>Residential</b>												
Customers	18,026	18,197	18,417	18,678	18,942	19,073	19,224	19,481	19,756	20,059	20,299	20,541
kWh	140,764,991	138,916,796	139,158,722	134,065,184	146,158,990	143,256,844	151,219,360	152,437,380	153,959,248	149,185,943	152,450,631	153,701,712
<b>General Service &lt; 50 kW</b>												
Customers	2,033	2,052	2,067	2,081	2,089	2,082	2,084	2,095	2,107	2,125	2,136	2,146
kWh	64,490,147	63,555,664	63,059,837	62,117,168	64,384,300	62,985,946	58,159,694	57,918,968	61,132,367	61,400,428	62,309,194	62,385,122
<b>General Service &gt; 50 to 4999 kW</b>												
Customers	222	218	217	219	217	220	221	215	209	210	208	207
kWh	364,107,050	369,534,512	373,231,715	365,627,458	368,587,747	370,357,504	341,875,528	351,758,215	363,572,115	357,652,061	356,728,281	353,920,347
kW	934,817	946,403	911,298	894,837	912,782	918,770	866,278	878,372	881,049	876,527	887,533	880,547
<b>Sentinel Lighting</b>												
Connections	46	44	44	43	41	38	37	36	36	36	35	34
kWh	132,993	130,859	132,438	129,472	110,217	97,846	95,110	95,778	99,494	100,504	97,803	95,176
kW	369	364	368	360	306	272	264	267	276	279	272	264
<b>Street Lighting</b>												
Connections	6,534	6,558	6,568	6,582	6,579	6,560	6,479	6,390	6,376	6,400	6,400	6,400
kWh	4,375,776	4,307,271	2,722,097	2,622,813	2,481,816	2,482,833	2,394,908	2,328,792	2,546,051	2,364,162	2,364,162	2,364,162
kW	11,116	11,103	7,006	6,205	6,104	6,667	6,381	6,226	6,245	5,749	6,011	6,011
<b>Unmetered Scattered Load</b>												
Connections	230	229	228	230	230	229	229	338	433	435	467	501
kWh	663,456	663,213	665,566	659,309	643,588	648,488	671,398	728,877	702,388	702,928	754,577	810,020
<b>Large Use</b>												
Customers	1	1	1	1	1	1	1	1	1	1	1	1
kWh	23,431,959	24,639,648	25,183,382	24,407,204	26,894,138	27,745,078	27,495,994	28,340,499	29,487,369	29,085,391	29,085,391	29,085,391
kW	36,390	39,140	38,848	36,858	43,546	41,926	41,219	41,849	44,238	43,002	44,439	44,439
<b>Wholesale Market Participant - GS &gt; 50</b>												
Customers	1	1	1	1	2	2	2	2	2	2	2	2
kWh	3,798,224	3,801,987	3,410,848	3,139,758	3,931,816	3,611,938	3,347,054	3,211,585	3,263,932	3,084,831	3,084,831	3,084,831
kW	6,721	6,663	6,317	5,724	41,919	52,613	28,559	28,641	10,175	10,024	17,350	17,350
<b>Total</b>												
Customer/Connections	27,093	27,298	27,542	27,833	28,101	28,205	28,277	28,558	28,919	29,267	29,547	29,832
kWh	601,764,596	605,549,950	607,564,604	592,768,367	613,192,612	611,186,477	585,259,047	596,820,094	614,762,964	603,576,249	606,874,871	605,446,761
kW from applicable classes	989,413	1,003,671	963,836	943,984	1,004,657	1,020,248	942,702	955,354	941,983	935,582	955,605	948,612

	Power Purchased	Heating Degree Days	Cooling Degree Days	Days in Month	Spring Fall Flag	Work Days in Month	COVID Flag	Predicted Purchases	Residual (kWh)	% Residual
Jan-14	57,678,356	852	0	31	0	22	0	56,190,617	-1,487,739	-2.6%
Feb-14	51,337,154	800	0	28	0	19	0	51,356,743	19,589	0.0%
Mar-14	55,152,408	726	0	31	0	21	0	54,502,407	-650,001	-1.2%
Apr-14	48,414,879	361	0	30	1	21	0	49,702,773	1,287,894	2.7%
May-14	48,827,445	148	10	31	1	21	0	49,445,225	617,780	1.3%
Jun-14	50,325,598	21	66	30	0	21	0	52,347,377	2,021,779	4.0%
Jul-14	51,024,636	28	45	31	0	22	0	52,430,509	1,405,873	2.8%
Aug-14	51,572,735	19	50	31	0	20	0	51,417,757	-154,977	-0.3%
Sep-14	49,731,852	93	16	30	1	21	0	48,573,508	-1,158,344	-2.3%
Oct-14	51,093,871	254	0	31	1	22	0	50,280,371	-813,500	-1.6%
Nov-14	52,157,592	510	0	30	0	20	0	51,239,424	-918,168	-1.8%
Dec-14	51,987,317	574	0	31	0	21	0	53,238,697	1,251,379	2.4%
Jan-15	56,566,937	829	0	31	0	21	0	55,358,738	-1,208,199	-2.1%
Feb-15	53,088,515	884	0	28	0	19	0	52,055,109	-1,033,405	-1.9%
Mar-15	54,798,805	651	0	31	0	22	0	54,519,525	-279,279	-0.5%
Apr-15	49,118,825	341	0	30	1	21	0	49,536,495	417,671	0.9%
May-15	50,076,107	107	35	31	1	20	0	50,180,660	104,553	0.2%
Jun-15	50,430,698	34	24	30	0	22	0	50,211,618	-219,080	-0.4%
Jul-15	53,685,776	11	70	31	0	22	0	54,006,136	320,360	0.6%
Aug-15	53,380,335	20	55	31	0	20	0	51,769,464	-1,610,871	-3.0%
Sep-15	52,633,190	37	50	30	1	21	0	50,443,001	-2,190,189	-4.2%
Oct-15	50,724,463	262	0	31	1	21	0	49,706,223	-1,018,240	-2.0%
Nov-15	50,208,550	359	0	30	0	21	0	50,624,687	416,136	0.8%
Dec-15	49,447,152	454	0	31	0	21	0	52,241,030	2,793,879	5.7%
Jan-16	54,711,199	699	0	31	0	20	0	53,637,273	-1,073,926	-2.0%
Feb-16	51,213,110	604	0	29	0	20	0	51,194,405	-18,705	0.0%
Mar-16	51,795,720	467	0	31	0	22	0	52,989,770	1,194,050	2.3%
Apr-16	49,108,894	391	0	30	1	21	0	49,952,190	843,296	1.7%
May-16	49,179,033	149	26	31	1	21	0	50,552,396	1,373,362	2.8%
Jun-16	51,408,195	43	43	30	0	22	0	51,591,336	183,140	0.4%
Jul-16	54,344,266	5	108	31	0	20	0	55,284,719	940,453	1.7%
Aug-16	58,840,045	1	123	31	0	22	0	57,562,961	-1,277,085	-2.2%
Sep-16	51,928,186	41	40	30	1	21	0	49,789,471	-2,138,714	-4.1%
Oct-16	50,650,362	226	3	31	1	20	0	48,972,299	-1,678,063	-3.3%
Nov-16	50,228,537	365	0	30	0	22	0	51,315,229	1,086,692	2.2%
Dec-16	51,136,147	645	0	31	0	20	0	53,188,323	2,052,176	4.0%
Jan-17	53,909,280	627	0	31	0	21	0	53,679,333	-229,948	-0.4%
Feb-17	47,656,774	508	0	28	0	19	0	48,929,068	1,273,314	2.7%
Mar-17	53,122,089	589	0	31	0	23	0	54,478,446	1,356,357	2.6%
Apr-17	46,005,147	257	0	30	1	19	0	47,556,810	1,551,663	3.4%
May-17	48,960,217	195	7	31	1	22	0	50,270,602	1,310,385	2.7%
Jun-17	50,540,730	38	59	30	0	22	0	52,648,623	2,107,893	4.2%
Jul-17	50,787,730	1	78	31	0	20	0	53,191,107	2,403,377	4.7%
Aug-17	52,613,917	24	43	31	0	22	0	52,259,896	-354,020	-0.7%
Sep-17	50,111,686	72	53	30	1	20	0	50,299,363	187,678	0.4%
Oct-17	49,891,529	185	5	31	1	21	0	49,409,446	-482,083	-1.0%
Nov-17	51,543,879	465	0	30	0	22	0	52,146,618	602,740	1.2%
Dec-17	52,031,021	730	0	31	0	19	0	53,254,344	1,223,322	2.4%
Jan-18	56,929,800	765	0	31	0	22	0	55,467,308	-1,462,492	-2.6%
Feb-18	49,965,011	585	0	28	0	19	0	49,569,257	-395,754	-0.8%
Mar-18	53,126,962	592	0	31	0	21	0	53,388,346	261,385	0.5%
Apr-18	50,172,062	455	0	30	1	21	0	50,484,279	312,217	0.6%
May-18	50,712,909	84	37	31	1	22	0	51,408,117	695,208	1.4%
Jun-18	51,681,945	23	46	30	0	21	0	50,990,434	-691,511	-1.3%
Jul-18	55,291,320	4	91	31	0	21	0	54,749,529	-541,791	-1.0%
Aug-18	57,810,413	4	107	31	0	22	0	56,489,046	-1,321,368	-2.3%
Sep-18	52,112,270	69	58	30	1	19	0	49,977,155	-2,135,115	-4.1%
Oct-18	52,312,105	295	9	31	1	22	0	51,239,348	-1,072,758	-2.1%
Nov-18	52,457,315	527	0	30	0	22	0	52,662,079	204,764	0.4%
Dec-18	50,648,564	573	0	31	0	19	0	51,949,063	1,300,500	2.6%
Jan-19	55,386,209	779	0	31	0	22	0	55,583,703	197,494	0.4%
Feb-19	50,848,513	636	0	28	0	19	0	49,993,265	-855,248	-1.3%
Mar-19	53,877,739	617	0	31	0	21	0	53,596,194	-281,545	-0.5%
Apr-19	48,736,107	360	0	30	1	21	0	49,694,459	958,352	2.0%
May-19	50,136,269	185	2	31	1	22	0	49,844,070	-292,199	-0.6%
Jun-19	49,951,964	40	32	30	0	20	0	49,529,611	-422,354	-0.8%
Jul-19	57,269,021	0	127	31	0	22	0	57,829,361	560,340	1.0%
Aug-19	55,376,196	11	66	31	0	22	0	53,731,422	-1,644,774	-3.0%
Sep-19	50,358,868	49	23	30	1	20	0	48,047,788	-2,311,080	-4.6%
Oct-19	51,254,689	249	4	31	1	22	0	50,513,516	-741,173	-1.4%
Nov-19	52,414,869	527	0	30	0	21	0	52,021,419	-393,450	-0.8%
Dec-19	51,301,136	575	0	31	0	20	0	52,696,351	1,395,215	2.5%
Jan-20	55,319,781	602	0	31	0	22	0	54,112,145	-1,207,636	-2.2%
Feb-20	51,578,396	627	0	29	0	19	0	50,744,965	-833,431	-1.6%
Mar-20	49,542,935	464	0	31	0	22	1	44,616,899	-4,926,036	-9.9%
Apr-20	36,359,392	382	0	30	1	21	1	41,529,435	5,170,044	14.2%
May-20	42,142,181	214	23	31	1	20	1	41,898,174	-244,008	-0.6%
Jun-20	51,382,664	34	60	30	0	22	0	52,684,046	1,301,382	2.5%
Jul-20	59,324,552	0	159	31	0	22	0	60,027,075	102,522	0.2%
Aug-20	55,125,895	6	75	31	0	21	0	53,667,300	-1,458,595	-2.6%
Sep-20	49,774,917	92	11	30	1	21	0	48,221,802	-1,553,115	-3.1%
Oct-20	50,531,025	286	0	31	1	21	0	49,905,756	-625,269	-1.2%
Nov-20	50,731,819	355	0	30	0	21	0	50,591,431	-140,388	-0.3%
Dec-20	52,070,040	585	0	31	0	21	0	53,330,149	1,260,109	2.4%
Jan-21	53,928,911	652	0	31	0	20	0	53,246,520	-682,391	-1.3%
Feb-21	50,334,251	693	0	28	0	20	0	51,107,816	773,565	1.5%
Mar-21	52,709,819	456	0	31	0	23	0	53,538,977	829,158	1.6%
Apr-21	45,922,625	304	0	30	1	21	0	49,228,882	3,306,257	7.2%
May-21	46,317,013	189	24	31	1	20	0	50,106,935	3,789,922	8.2%
Jun-21	52,106,465	21	94	30	0	22	0	54,911,036	2,804,571	5.4%

	Power Purchased	Heating Degree Days	Cooling Degree Days	Days in Month	Spring Fall Flag	Work Days in Month	COVID Flag	Predicted Purchases	Residual (kWh)	% Residual
Jul-21	52,967,289	6	76	31	0	21	0	53,735,979	768,690	1.5%
Aug-21	56,186,412	3	121	31	0	22	0	57,442,231	1,255,820	2.2%
Sep-21	47,302,369	59	12	30	1	21	0	48,016,122	713,753	1.5%
Oct-21	49,653,391	158	10	31	1	20	0	48,887,704	-765,687	-1.5%
Nov-21	51,989,334	448	0	30	0	22	0	52,005,282	15,948	0.0%
Dec-21	51,320,054	529	0	31	0	20	0	52,223,912	903,858	1.8%
Jan-22	56,132,413	824	0	31	0	20	0	54,676,509	-1,455,904	-2.6%
Feb-22	50,802,176	656	0	28	0	19	0	50,159,543	-642,634	-1.3%
Mar-22	54,764,467	539	0	31	0	23	0	54,229,030	-535,438	-1.0%
Apr-22	48,181,068	373	0	30	1	20	0	49,161,880	980,212	2.0%
May-22	49,299,898	121	24	31	1	21	0	50,182,250	882,352	1.8%
Jun-22	51,904,078	43	45	30	0	22	0	51,728,693	-175,385	-0.3%
Jul-22	53,598,463	1	87	31	0	20	0	53,809,214	210,750	0.4%
Aug-22	55,816,954	2	89	31	0	22	0	55,236,204	-580,750	-1.0%
Sep-22	50,427,785	70	27	30	1	21	0	49,137,753	-1,290,032	-2.6%
Oct-22	49,278,519	255	0	31	1	20	0	49,007,366	-271,153	-0.6%
Nov-22	51,388,703	402	0	30	0	22	0	51,622,843	234,140	0.5%
Dec-22	53,032,670	596	0	31	0	20	0	52,780,942	-251,728	-0.5%
Jan-23	55,497,237	591	0	31	0	21	0	53,380,033	-2,117,205	-3.8%
Feb-23	50,683,434	544	0	28	0	19	0	49,228,388	-1,455,047	-2.9%
Mar-23	54,872,469	566	0	31	0	23	0	54,370,366	-502,103	-0.9%
Apr-23	48,752,007	292	3	30	1	19	0	48,053,831	-698,175	-1.4%
May-23	50,753,269	159	9	31	1	22	0	50,108,659	-644,610	-1.3%
Jun-23	51,682,470	36	36	30	0	22	0	51,052,389	-630,081	-1.2%
Jul-23	54,186,278	3	80	31	0	20	0	53,345,092	-841,186	-1.6%
Aug-23	54,058,541	20	36	31	0	22	0	51,745,891	-2,312,650	-4.3%
Sep-23	50,649,652	54	29	30	1	20	0	48,501,428	-2,148,224	-4.2%
Oct-23	50,214,326	221	9	31	1	21	0	49,983,460	-230,866	-0.5%
Nov-23	51,448,967	448	0	30	0	22	0	52,005,282	556,316	1.1%
Dec-23	49,608,945	481	0	31	0	19	0	51,184,186	1,575,241	3.2%
Jan-24		722	0	31	0	22	0	55,109,811		
Feb-24		654	0	29	0	20	0	51,607,605		
Mar-24		564	0	31	0	20	0	52,512,404		
Apr-24		352	0	30	1	22	0	50,285,886		
May-24		155	20	31	1	22	0	50,811,095		
Jun-24		33	51	30	0	20	0	50,744,461		
Jul-24		6	92	31	0	22	0	55,481,532		
Aug-24		11	77	31	0	21	0	53,811,887		
Sep-24		64	32	30	1	20	0	48,780,409		
Oct-24		239	4	31	1	22	0	50,431,209		
Nov-24		441	0	30	0	21	0	51,303,100		
Dec-24		574	0	31	0	20	0	52,599,700		
Jan-25		722	0	31	0	22	0	55,109,811		
Feb-25		654	0	28	0	19	0	50,140,421		
Mar-25		564	0	31	0	21	0	53,153,063		
Apr-25		352	0	30	1	21	0	49,645,226		
May-25		155	20	31	1	21	0	50,170,436		
Jun-25		33	51	30	0	21	0	51,385,120		
Jul-25		6	92	31	0	22	0	55,481,532		
Aug-25		11	77	31	0	20	0	53,171,228		
Sep-25		64	32	30	1	21	0	49,421,069		
Oct-25		239	4	31	1	22	0	50,431,209		
Nov-25		441	0	30	0	20	0	50,662,440		
Dec-25		574	0	31	0	21	0	53,240,359		

10-year average  
 Geomean Monthly Escalation

7,442,860,076

2014	619,303,843	620,725,408
2015	624,159,352	620,652,687
2016	624,543,695	626,030,371
2017	607,172,998	618,123,675
2018	633,220,675	628,373,961
2019	626,711,582	622,991,159
2020	604,483,597	601,329,176
2021	610,737,932	624,451,396
2022	624,627,795	621,732,226
2023	622,407,594	612,959,004
2024		623,479,098
2015		622,011,914

Total 6,197,369,063 6,197,369,063 0 ck - must be z  
 7,442,860,076 0

	Power Purchased	Heating Degree Days	Cooling Degree Days	Days in Month	Spring Fall Flag	Work Days in Month	COVID Flag	Predicted Purchases	Residual (kWh)	% Residual
Jan-14	57,678,356	722	0	31	0	22	0	55,378,043	-2,300,313	-4.0%
Feb-14	51,337,154	654	0	28	0	19	0	50,272,037	-1,065,118	-2.1%
Mar-14	55,152,408	564	0	31	0	21	0	53,012,221	-2,140,187	-3.9%
Apr-14	48,414,879	352	0	30	1	21	0	49,778,518	1,363,639	2.8%
May-14	48,827,445	155	20	31	1	21	0	50,144,086	1,316,641	2.7%
Jun-14	50,325,598	33	51	30	0	21	0	51,126,989	801,391	1.6%
Jul-14	51,024,636	6	92	31	0	22	0	55,866,829	4,842,193	9.5%
Aug-14	51,572,735	11	77	31	0	20	0	53,118,222	1,545,487	3.0%
Sep-14	49,731,852	64	32	30	1	21	0	49,510,163	-221,690	-0.4%
Oct-14	51,093,871	239	4	31	1	22	0	50,402,351	-691,520	-1.4%
Nov-14	52,157,592	441	0	30	0	20	0	50,275,963	-1,881,630	-3.6%
Dec-14	51,987,317	574	0	31	0	21	0	53,120,457	1,133,140	2.2%
Jan-15	56,566,937	722	0	31	0	21	0	54,644,009	-1,922,927	-3.4%
Feb-15	53,088,515	654	0	28	0	19	0	50,272,037	-2,816,478	-5.3%
Mar-15	54,798,805	564	0	31	0	22	0	53,746,254	-1,052,551	-1.9%
Apr-15	49,118,825	352	0	30	1	21	0	49,778,518	659,693	1.3%
May-15	50,076,107	155	20	31	1	20	0	49,410,053	-666,054	-1.3%
Jun-15	50,430,698	33	51	30	0	22	0	51,861,022	1,430,324	2.8%
Jul-15	53,685,776	6	92	31	0	22	0	55,866,829	2,181,053	4.1%
Aug-15	53,380,335	11	77	31	0	20	0	53,118,222	-262,113	-0.5%
Sep-15	52,633,190	64	32	30	1	21	0	49,510,163	-3,123,028	-5.9%
Oct-15	50,724,463	239	4	31	1	21	0	49,668,317	-1,056,146	-2.1%
Nov-15	50,208,550	441	0	30	0	21	0	51,009,996	801,445	1.6%
Dec-15	49,447,152	574	0	31	0	21	0	53,120,457	3,673,306	7.4%
Jan-16	54,711,199	722	0	31	0	20	0	53,909,976	-801,223	-1.5%
Feb-16	51,213,110	654	0	29	0	20	0	51,739,355	526,245	1.0%
Mar-16	51,795,720	564	0	31	0	22	0	53,746,254	1,950,534	3.8%
Apr-16	49,108,894	352	0	30	1	21	0	49,778,518	669,624	1.4%
May-16	49,179,033	155	20	31	1	21	0	50,144,086	965,053	2.0%
Jun-16	51,408,195	33	51	30	0	22	0	51,861,022	452,827	0.9%
Jul-16	54,344,266	6	92	31	0	20	0	54,398,763	54,497	0.1%
Aug-16	58,840,045	11	77	31	0	22	0	54,586,288	-4,253,757	-7.2%
Sep-16	51,928,186	64	32	30	1	21	0	49,510,163	-2,418,023	-4.7%
Oct-16	50,650,362	239	4	31	1	20	0	48,934,284	-1,716,077	-3.4%
Nov-16	50,228,537	441	0	30	0	22	0	51,744,029	1,515,491	3.0%
Dec-16	51,136,147	574	0	31	0	20	0	52,386,424	1,250,277	2.4%
Jan-17	53,909,280	722	0	31	0	21	0	54,644,009	734,729	1.4%
Feb-17	47,656,774	654	0	28	0	19	0	50,272,037	2,616,263	5.5%
Mar-17	53,122,089	564	0	31	0	23	0	54,480,287	1,358,198	2.6%
Apr-17	46,005,147	352	0	30	1	19	0	48,310,452	2,305,305	5.0%
May-17	48,960,217	155	20	31	1	22	0	50,878,120	1,917,902	3.9%
Jun-17	50,540,730	33	51	30	0	22	0	51,861,022	1,320,292	2.6%
Jul-17	50,787,730	6	92	31	0	20	0	54,398,763	3,611,033	7.1%
Aug-17	52,613,917	11	77	31	0	22	0	54,586,288	1,972,372	3.7%
Sep-17	50,111,686	64	32	30	1	20	0	48,776,130	-1,335,556	-2.7%
Oct-17	49,891,529	239	4	31	1	21	0	49,668,317	-223,212	-0.4%
Nov-17	51,543,879	441	0	30	0	22	0	51,744,029	200,150	0.4%
Dec-17	52,031,021	574	0	31	0	19	0	51,652,391	-378,630	-0.7%
Jan-18	56,929,800	722	0	31	0	22	0	55,378,043	-1,551,758	-2.7%
Feb-18	49,965,011	654	0	28	0	19	0	50,272,037	307,026	0.6%
Mar-18	53,126,962	564	0	31	0	21	0	53,012,221	-114,741	-0.2%
Apr-18	50,172,062	352	0	30	1	21	0	49,778,518	-393,544	-0.8%
May-18	50,712,909	155	20	31	1	22	0	50,878,120	165,211	0.3%
Jun-18	51,681,945	33	51	30	0	21	0	51,126,989	-554,956	-1.1%
Jul-18	55,291,320	6	92	31	0	21	0	55,132,196	-159,124	-0.3%
Aug-18	57,810,413	11	77	31	0	22	0	54,586,288	-3,224,125	-5.6%
Sep-18	52,112,270	64	32	30	1	19	0	48,042,096	-4,070,173	-7.8%
Oct-18	52,312,105	239	4	31	1	22	0	50,402,351	-1,909,755	-3.7%
Nov-18	52,457,315	441	0	30	0	22	0	51,744,029	-713,286	-1.4%
Dec-18	50,648,564	574	0	31	0	19	0	51,652,391	1,003,827	2.0%
Jan-19	55,386,209	722	0	31	0	22	0	55,378,043	-8,166	0.0%
Feb-19	50,848,513	654	0	28	0	19	0	50,272,037	-376,477	-0.7%
Mar-19	53,877,739	564	0	31	0	21	0	53,012,221	-865,518	-1.6%
Apr-19	48,736,107	352	0	30	1	21	0	49,778,518	1,042,411	2.1%
May-19	50,136,269	155	20	31	1	22	0	50,878,120	741,850	1.5%
Jun-19	49,951,964	33	51	30	0	20	0	50,392,956	440,992	0.9%
Jul-19	57,269,021	6	92	31	0	22	0	55,866,829	-1,402,192	-2.4%
Aug-19	55,376,196	11	77	31	0	22	0	54,586,288	-789,908	-1.4%
Sep-19	50,358,868	64	32	30	1	20	0	48,776,130	-1,582,738	-3.1%
Oct-19	51,354,689	239	4	31	1	22	0	50,402,351	-852,339	-1.7%
Nov-19	52,414,869	441	0	30	0	21	0	51,009,996	-1,404,874	-2.7%
Dec-19	51,301,136	574	0	31	0	20	0	52,386,424	1,085,288	2.1%
Jan-20	55,319,781	722	0	31	0	22	0	55,378,043	58,262	0.1%
Feb-20	51,578,396	654	0	29	0	19	0	51,005,322	-573,074	-1.1%
Mar-20	49,542,935	564	0	31	0	22	1	45,449,482	-4,093,453	-8.3%
Apr-20	36,359,392	352	0	30	1	21	1	41,481,746	5,122,354	14.1%
May-20	42,142,181	155	20	31	1	20	1	41,113,281	-1,028,901	-2.4%
Jun-20	51,382,664	33	51	30	0	22	0	51,861,022	478,358	0.9%
Jul-20	59,324,552	6	92	31	0	22	0	55,866,829	-4,057,723	-6.8%
Aug-20	55,125,895	11	77	31	0	21	0	53,852,255	-1,273,640	-2.3%
Sep-20	49,774,917	64	32	30	1	21	0	49,510,163	-264,754	-0.5%
Oct-20	50,531,025	239	4	31	1	21	0	49,668,317	-862,707	-1.7%
Nov-20	50,731,819	441	0	30	0	21	0	51,009,996	278,176	0.5%
Dec-20	52,070,040	574	0	31	0	21	0	53,120,457	1,050,417	2.0%
Jan-21	53,928,911	722	0	31	0	20	0	53,909,976	-18,934	0.0%
Feb-21	50,334,251	654	0	28	0	20	0	51,006,070	671,819	1.3%
Mar-21	52,709,819	564	0	31	0	23	0	54,480,287	1,770,468	3.4%
Apr-21	45,922,625	352	0	30	1	21	0	49,778,518	3,855,893	8.4%
May-21	46,317,013	155	20	31	1	20	0	49,410,053	3,093,040	6.7%
Jun-21	52,106,465	33	51	30	0	22	0	51,861,022	-245,443	-0.5%

	Power Purchased	Heating Degree Days	Cooling Degree Days	Days in Month	Spring Fall Flag	Work Days in Month	COVID Flag	Predicted Purchases	Residual (kWh)	% Residual
Jul-21	52,967,289	6	92	31	0	21	0	55,132,798	2,165,507	4.1%
Aug-21	56,186,412	11	77	31	0	22	0	54,586,288	-1,600,123	-2.8%
Sep-21	47,302,369	64	32	30	1	21	0	49,510,163	2,207,793	4.7%
Oct-21	49,653,391	239	4	31	1	20	0	48,934,284	-719,107	-1.4%
Nov-21	51,989,334	441	0	30	0	22	0	51,744,029	-245,305	-0.5%
Dec-21	51,320,054	574	0	31	0	20	0	52,386,424	1,066,370	2.1%
Jan-22	56,132,413	722	0	31	0	20	0	53,909,976	-2,222,436	-4.0%
Feb-22	50,802,176	654	0	28	0	19	0	50,272,037	-530,140	-1.0%
Mar-22	54,764,467	564	0	31	0	23	0	54,480,287	-284,180	-0.5%
Apr-22	48,181,068	352	0	30	1	20	0	49,044,485	862,816	1.8%
May-22	49,299,898	155	20	31	1	21	0	50,144,086	844,188	1.7%
Jun-22	51,904,078	33	51	30	0	22	0	51,861,022	-43,056	-0.1%
Jul-22	53,598,463	6	92	31	0	20	0	54,398,763	800,300	1.5%
Aug-22	55,816,954	11	77	31	0	22	0	54,586,288	-1,230,665	-2.2%
Sep-22	50,427,785	64	32	30	1	21	0	49,510,163	-917,622	-1.8%
Oct-22	49,278,519	239	4	31	1	20	0	48,934,284	-344,235	-0.7%
Nov-22	51,388,703	441	0	30	0	22	0	51,744,029	355,325	0.7%
Dec-22	53,032,670	574	0	31	0	20	0	52,386,424	-646,246	-1.2%
Jan-23	55,497,237	722	0	31	0	21	0	54,644,009	-853,228	-1.5%
Feb-23	50,683,434	654	0	28	0	19	0	50,272,037	-411,397	-0.8%
Mar-23	54,872,469	564	0	31	0	23	0	54,480,287	-392,181	-0.7%
Apr-23	48,752,007	352	0	30	1	19	0	48,310,452	-441,555	-0.9%
May-23	50,753,269	155	20	31	1	22	0	50,878,120	124,850	0.2%
Jun-23	51,682,470	33	51	30	0	22	0	51,861,022	178,552	0.3%
Jul-23	54,186,278	6	92	31	0	20	0	54,398,763	212,485	0.4%
Aug-23	54,058,541	11	77	31	0	22	0	54,586,288	527,748	1.0%
Sep-23	50,649,652	64	32	30	1	20	0	48,776,130	-1,873,523	-3.7%
Oct-23	50,214,326	239	4	31	1	21	0	49,668,317	-546,009	-1.1%
Nov-23	51,448,967	441	0	30	0	22	0	51,744,029	295,062	0.6%
Dec-23	49,608,945	574	0	31	0	19	0	51,652,391	2,043,446	4.1%
Jan-24		722	0	31	0	22	0	55,378,043		
Feb-24		654	0	29	0	20	0	51,739,355		
Mar-24		564	0	31	0	20	0	52,278,188		
Apr-24		352	0	30	1	22	0	50,512,551		
May-24		155	20	31	1	22	0	50,878,120		
Jun-24		33	51	30	0	20	0	50,392,956		
Jul-24		6	92	31	0	22	0	55,866,829		
Aug-24		11	77	31	0	21	0	53,852,255		
Sep-24		64	32	30	1	20	0	48,776,130		
Oct-24		239	4	31	1	22	0	50,402,351		
Nov-24		441	0	30	0	21	0	51,009,996		
Dec-24		574	0	31	0	20	0	52,386,424		
Jan-25		722	0	31	0	22	0	55,378,043		
Feb-25		654	0	28	0	19	0	50,272,037		
Mar-25		564	0	31	0	21	0	53,012,221		
Apr-25		352	0	30	1	21	0	49,778,518		
May-25		155	20	31	1	21	0	50,144,086		
Jun-25		33	51	30	0	21	0	51,126,989		
Jul-25		6	92	31	0	22	0	55,866,829		
Aug-25		11	77	31	0	20	0	53,118,222		
Sep-25		64	32	30	1	21	0	49,510,163		
Oct-25		239	4	31	1	22	0	50,402,351		
Nov-25		441	0	30	0	20	0	50,275,963		
Dec-25		574	0	31	0	21	0	53,120,457		

10-year average  
Geomean Monthly Escalation

7,442,848,137

2014	619,303,843
2015	624,159,352
2016	624,543,695
2017	607,172,998
2018	633,220,675
2019	626,711,582
2020	604,483,597
2021	610,737,932
2022	624,627,795
2023	622,407,594
2024	
2015	

	Weather Non
622,005,878	620,725,408
622,005,878	620,652,687
622,739,163	626,030,371
621,271,845	618,123,675
622,005,878	628,373,961
622,739,911	622,991,159
599,316,912	601,329,176
622,739,911	624,451,396
621,271,845	621,732,226
621,271,845	612,959,004
623,473,136	623,479,098
622,005,878	622,011,914

Total 6,197,369,063

6,197,369,063

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7,442,848,137

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	Purchases	Modeled Purchases	Difference	% Difference	Loss Factor	Total Billed	Residential	General Service < 50 kW	eral Service > 50 to 4999	Sentinel Lighting	Street Lighting	Unmetered Scattered Load	Large Use	Wholesale Market Participant	
2014	619,303,843	620,725,408	1,421,565	0.2%	1.0291	601,764,596	140,764,991	64,490,147	364,107,050	132,993	4,375,776	663,456	23,431,959	3,795,224	373,336,499
2015	624,159,352	620,652,667	(3,506,686)	-0.6%	1.0307	605,549,950	138,916,796	63,555,664	369,534,512	130,859	4,307,271	663,213	24,639,648	3,801,987	376,642,563
2016	624,543,695	626,030,371	1,486,676	0.2%	1.0279	607,564,604	139,158,722	63,059,837	373,231,715	132,438	2,722,097	665,566	25,163,382	3,410,848	368,767,217
2017	607,172,998	618,123,675	10,950,677	1.8%	1.0243	592,768,367	134,065,184	62,117,168	365,627,458	129,472	2,622,813	659,309	24,407,204	3,139,758	372,519,563
2018	633,220,675	628,373,961	(4,846,714)	-0.8%	1.0327	613,192,612	146,158,990	64,384,300	368,587,747	110,217	2,481,816	643,588	26,894,138	3,611,938	373,969,442
2019	626,711,582	622,991,159	(3,720,423)	-0.6%	1.0254	611,186,477	143,256,844	62,985,946	370,357,504	97,846	2,482,833	648,488	27,745,078	3,611,938	345,222,583
2020	604,493,597	601,329,176	(3,154,420)	-0.5%	1.0328	595,259,047	151,219,360	58,159,694	341,975,528	85,110	2,394,908	671,399	27,495,994	3,347,054	354,969,800
2021	610,737,932	624,451,396	13,713,464	2.2%	1.0233	596,820,094	152,437,380	57,918,968	351,758,215	95,778	2,328,792	728,877	28,340,499	3,211,585	366,836,047
2022	624,627,795	621,732,226	(2,895,569)	-0.5%	1.0160	614,762,964	153,959,248	61,132,367	363,572,115	99,494	2,546,051	702,388	29,487,369	3,263,932	360,736,892
2023	622,407,594	612,959,004	(9,448,591)	-1.5%	1.0312	603,576,249	149,185,943	61,400,428	357,652,061	100,504	2,364,162	702,928	29,085,391	3,084,831	
2024		623,479,058				606,874,871									
2025		622,011,914				605,446,761									
<b>Average</b>					Last 10 years	1.0274									
<b>Usage Per Customer</b>		623.5				606.9									
		622.0				605.4									
2023							7,437	28,890	1,707,170	2,792	369	1,617	29,085,391	1,542,415	
2024							7,437	28,890	1,707,170	2,792	369	1,617	29,085,391	1,542,415	
2025							7,437	28,890	1,707,170	2,792	369	1,617	29,085,391	1,542,415	
<b>Non Weather Corrected Forecast</b>															
2024						603,414,882	150,968,331	61,703,353	355,356,433	97,803	2,364,162	754,577	29,085,391	3,084,831	
2025						603,294,907	152,772,014	62,007,772	353,075,541	95,176	2,364,162	810,020	29,085,391	3,084,831	
<b>Weather Corrected Forecast</b>															
2024						606,874,871	152,450,631	62,309,194	356,728,281	97,803	2,364,162	754,577	29,085,391	3,084,831	606,874,871
2025						605,446,761	153,701,712	62,385,122	353,920,347	95,176	2,364,162	810,020	29,085,391	3,084,831	605,446,761
<b>% Weather Sensitive</b>							62%	62%	24%	0%	0%	0%	0%	0%	
2024						3,459,989	93,954,736	38,400,916	86,953,812	0	0	0	0	0	219,309,464
2025						2,151,854	95,077,253	38,590,371	86,395,690	0	0	0	0	0	220,063,314
<b>Allocation of Weather Sensitive Amount</b>															
2024						3,459,989	1,482,300	605,841	1,371,848	0	0	0	0	0	
2025						2,151,854	929,698	377,350	844,806	0	0	0	0	0	





	General Service > 50 to 4999 kW	Sentinel Lighting	Street Lighting	Large Use	Wholesale Market Participant	Total	
2014	934,817	369	11,116	36,390	6,721	989,413	Demand only
2015	946,403	364	11,103	39,140	6,663	1,003,671	
2016	911,298	368	7,006	38,848	6,317	963,836	
2017	894,837	360	6,205	36,858	5,724	943,984	
2018	912,782	306	6,104	43,546	41,919	1,004,657	
2019	918,770	272	6,667	41,926	52,613	1,020,248	
2020	866,278	264	6,381	41,219	28,559	942,702	
2021	878,372	267	6,226	41,849	28,641	955,354	
2022	881,049	276	6,245	44,238	10,175	941,983	
2023	876,527	279	5,749	43,002	10,024	935,582	
2024	887,533	272	6,011	44,439	17,350	955,605	
2025	880,547	264	6,011	44,439	17,350	948,612	

**kW/kWh**

2014	0.2567%	0.2775%	0.2540%	0.1553%	0.1770%
2015	0.2561%	0.2778%	0.2578%	0.1588%	0.1752%
2016	0.2442%	0.2779%	0.2574%	0.1543%	0.1852%
2017	0.2447%	0.2781%	0.2366%	0.1510%	0.1823%
2018	0.2476%	0.2776%	0.2459%	0.1619%	1.0662%
2019	0.2481%	0.2780%	0.2685%	0.1511%	1.4566%
2020	0.2534%	0.2778%	0.2665%	0.1499%	0.8532%
2021	0.2497%	0.2784%	0.2673%	0.1477%	0.8918%
2022	0.2423%	0.2778%	0.2453%	0.1500%	0.3117%
2023	0.2451%	0.2778%	0.2432%	0.1478%	0.3250%

Used                    0.2488%            0.2778%            0.2542%            0.1528%            0.5624%

Average                0.2488%            0.2778%            0.2542%            0.1528%            0.5624%



## **Attachment 3 - 3**

Customer Demographics

## FHI Customer Demographics

### Customer Locations

Municipality	Percent of Customers (%)
Stratford	69.5%
Brussels	2.7%
Dshwood	1.0%
Hensall	2.3%
St. Marys	16.7%
Seaforth	5.6%
Zurich	2.1%

### Census Population Data

	Stratford*	Perth South*	Huron East*	Ontario*
Population in 2016	31,470	3,805	9,138	13,448,494
Population in 2021	33,232	3,776	9,512	14,223,942
Population Percentage Change 2016-2021	5.6%	-0.8%	4.1%	5.8%

\*Statistics Canada. 2023. (table). *Census Profile*. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released November 15, 2023. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed April 25, 2024).