

















GREEN MOUNTAIN POWER FY 2026 BUDGET FORECAST REPORT



Green Mountain Power



20 Park Plaza

Boston, MA 02116-4399

www.itron.com/forecasting

April 2, 2025







TABLE OF CONTENTS

1	2026 FISCAL YEAR BUDGET FORECAST SUMMARY	1
2	BASELINE FORECAST	3
	RESIDENTIAL BASELINE FORECAST	3
	COMMERCIAL AND INDUSTRIAL BASELINE SALES FORECAST	8
	BASELINE FORECAST DRIVERS	14
	Economic Forecast	14
	End-Use Intensity Projections	16
	Weather	
		18
3	BILLED SALES AND REVENUE FORECAST	24
	TECHNOLOGY FORECAST	25
	Behind the Meter Solar	25
	Heat Pumps	29
	Electric Vehicles	30
	Other Load Adjustments	32
	Load Adjustments Summary	32
4	REVENUE FORECAST	34
	Derive Rate Class Monthly Sales Forecast	34
	Estimate Monthly Billing Determinants	
	Calculate Rate Schedule and Revenue Class Revenues	36
5	COMPARISON WITH FY2025 FORECAST	37

List of Figures



Figure 1: Residential SAE Average Use Model	4
Figure 2: Residential average use Model (kWh)	5
Figure 3: Residential Baseline Average Use	6
Figure 4: Residential customer model	7
Figure 5: Baseline residential sales	8
Figure 6: other use forecast	9
Figure 7: Commercial Sales Model	10
Figure 8: Commercial baseline sales model	11
Figure 9: Commercial baseline Sales	12
Figure 10: Large C&I Model	13
Figure 11: Baseline Large C&I Forecast	14
Figure 12: Residential End-Use Indices (kWh per Household)	16
Figure 13: Commercial Building Intensity	17
Figure 14: Cooling and heating degree-Days	19
Figure 15: Monthly CDD (2024)	20
Figure 16: Average annual temperature trend burlington international airport	21
Figure 17: Historical and Trended Monthly normal HDD	22
Figure 18: Historical and trended Monthly normal CDD	23
Figure 19: Baseline and adjusted forecast comparison	24
Figure 20: baseline vs adjusted sales	25
Figure 21: Solar Capacity FOrecast	26
Figure 22: BTM Solar Generation	28
Figure 23: Heat Pump SaLes Projection	30
Figure 24: Number of Electric Vehicles	31
Figure 25: Electric Vehicle Sales	31
Figure 26: Revenue Model	34
Figure 27: Residential Rate Class Share Forecast	35



Figure 28: Rate E65 Demand Customer - Sales Billing Block Forecast	36
Figure 29: Comparison with FY 2025 Forcast	37
List of Tables	
Table 1: Billed Sales Forecast (MWh)	1
Table 2: Fiscal Year Revenue Forecast (\$)	2
Table 3: Vermont Economic Projections (January 2025)	15
Table 4: Solar Load Factors	27
Table 5: Solar generation forecast	28
Table 6: Adjustments Summary	32

1 2026 FISCAL YEAR BUDGET FORECAST SUMMARY

This report presents the FY2026 Forecast. The report summarizes forecast results, discusses methodology and assumptions, and examines the technologies that are reshaping load and sales growth projections.

The forecast starts with the baseline sales and customer forecast. The baseline forecast captures customer growth, economic activity, weather trends, and end-use saturation (appliance and business equipment ownership) and efficiency (both standards and energy efficiency program impacts). The baseline forecast also includes embedded solar generation, installed heat pumps, and electric vehicles (EV). The baseline forecast is then adjusted for future solar capacity additions, heat pump installations, and EV purchases. The baseline forecast is flat. It is the technology adjustments that drive the forecast. Table 1 shows the billed sales forecast.

TABLE 1: BILLED SALES FORECAST (MWH)

	Residential	Chg	Small C&I	Chg	Large C&I	Chg	Other	Chg	Total	Chg
2025	1,612,784		1,472,386		1,043,114		3,625		4,131,909	
2026	1,647,446	2.1%	1,483,391	0.7%	1,061,451	1.8%	3,619	-0.2%	4,195,907	1.5%
2027	1,669,620	1.3%	1,481,430	-0.1%	730,708	-31.2%	3,619	0.0%	3,885,377	-7.4%
2028	1,701,131	1.9%	1,486,125	0.3%	731,633	0.1%	3,619	0.0%	3,922,508	1.0%
2029	1,739,755	2.3%	1,494,037	0.5%	731,774	0.0%	3,619	0.0%	3,969,186	1.2%
2030	1,779,684	2.3%	1,501,462	0.5%	731,973	0.0%	3,619	0.0%	4,016,738	1.2%
2031	1,828,436	2.7%	1,509,455	0.5%	730,904	-0.1%	3,619	0.0%	4,072,415	1.4%
2032	1,883,481	3.0%	1,519,862	0.7%	729,821	-0.1%	3,619	0.0%	4,136,783	1.6%
2033	1,942,328	3.1%	1,531,622	0.8%	727,951	-0.3%	3,619	0.0%	4,205,520	1.7%
2034	2,010,010	3.5%	1,544,667	0.9%	726,150	-0.2%	3,619	0.0%	4,284,446	1.9%
2035	2,065,249	2.7%	1,556,299	0.8%	723,950	-0.3%	3,619	0.0%	4,349,116	1.5%
25-30		2.0%		0.4%		-5.8%		0.0%		-0.5%
30-35		3.0%		0.7%		-0.2%		0.0%		1.6%

There is a significant drop in 2027 Large C&I sales as Global Foundries switches to self-managed utility.

The revenue forecast is generated by a set of rate schedule and billing determinant models that allocate the revenue class forecast (i.e., Residential, Small Commercial, and Large C&I) to rate schedules and then billing determinants (e.g., on and off-peak sales, billing demand, demand blocks). Revenues are then calculated by multiplying the billing determinants with



the current tariff rates (*Revenues = Billing Determinants * Rates*). Table 2 shows the revenue forecast rolled back up to revenue classes.

TABLE 2: FISCAL YEAR REVENUE FORECAST (\$)

Year	Residential	Chg	Small C&I	Chg	Large C&I	Chg	Other	Chg	Total	Chg
2025	368,790,435		290,946,560		117,513,092		3,000,881		780,250,968	
2026	375,117,041	1.7%	293,087,786	0.7%	120,785,291	2.8%	2,993,375	-0.3%	791,983,493	1.5%
2027	378,749,569	1.0%	292,815,414	-0.1%	103,450,627	-14.4%	2,993,375	0.0%	778,008,984	-1.8%
2028	384,203,947	1.4%	293,645,913	0.3%	103,487,500	0.0%	2,993,375	0.0%	784,330,734	0.8%
2029	390,624,307	1.7%	295,345,151	0.6%	103,601,327	0.1%	2,993,375	0.0%	792,564,159	1.0%
2030	397,173,956	1.7%	296,830,587	0.5%	103,629,374	0.0%	2,993,375	0.0%	800,627,291	1.0%
2031	405,189,761	2.0%	298,427,574	0.5%	103,478,230	-0.1%	2,993,375	0.0%	810,088,940	1.2%
2032	414,319,304	2.3%	300,338,723	0.6%	103,231,298	-0.2%	2,993,375	0.0%	820,882,700	1.3%
2033	423,699,384	2.3%	302,770,999	0.8%	103,060,557	-0.2%	2,993,375	0.0%	832,524,314	1.4%
2034	434,818,827	2.6%	305,300,375	0.8%	102,805,702	-0.2%	2,993,375	0.0%	845,918,278	1.6%
2035	443,460,041	2.0%	307,559,768	0.7%	102,494,515	-0.3%	2,993,375	0.0%	856,507,699	1.3%
25-30		1.5%		0.4%		-2.3%		-0.1%		0.5%
30-35		2.2%		0.7%		-0.2%		0.0%		1.4%

2 BASELINE FORECAST

Baseline Sale Forecast. The forecast starts with estimating baseline sales and customers for each of the primary customer classes. The baseline forecast represents expected sales before adjustments for additional solar, heat pumps, and electric vehicles. The forecast is derived from a set of monthly customer class regression models that relate customer use (average use in the residential model and total sales in the commercial models) to economic activity, weather, and end-use energy intensity trends. The residential sales forecast is a product of the average use forecast and monthly customer forecast where the customer forecast is generated from a linear regression model that relates customers to state population and economic growth as reflected by state gross domestic product (GDP).

Models are estimated over the period January 2011 to December 2024. Separate forecasts are derived for four customer classes that include Residential, Small Commercial and Industrial, Large Commercial and Industrial, and Other Sales; Other is primarily street lighting. While the focus is on FY 2026 (October 2025 to September 2026), the forecast includes expected sales, customers, and revenues through 2035.

Adjusted Forecast. The Adjusted Forecast is discussed in Section 3.1. The forecast entails adjusting the baseline forecast for projected behind-the-meter (BTM) solar (additional solar starting in 2025), heat pumps, and electric vehicles. Forecasts for these technologies were developed by the GMP Resource Planning Group as part of the recent Integrated Resource Plan. Most of the adjustments impact residential sales. Solar has little impact on commercial billed sales and revenues as most of the commercial solar generation is treated as a power purchase cost. Heat pump and EV charging sales primarily impact the residential sector and are expected to have a significant impact on future residential sales and revenues.

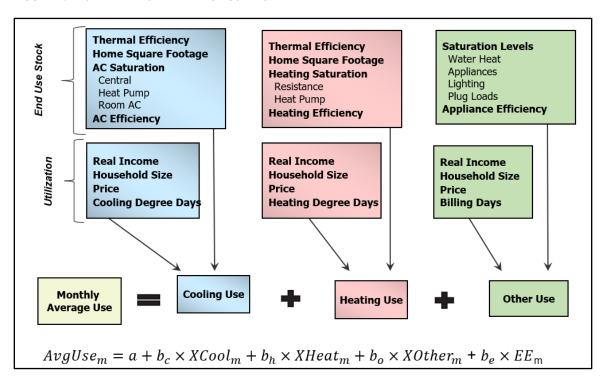
RESIDENTIAL BASELINE FORECAST

The residential forecast is derived as the product of the customer forecast and average use forecast. The average use model is based on a Statistically Adjusted End-Use (SAE) specification that defines average monthly use in terms of heating requirements (XHeat), cooling requirements (XCool), and other use (XOther). The SAE model integrates end-use



saturation and efficiency trends with weather conditions, price, and economic activity. Figure 1 shows the model framework.

FIGURE 1: RESIDENTIAL SAE AVERAGE USE MODEL



Linear regression is used to estimate the model coefficients - b_c , b_h , and b_0 . Forecasts of cooling, heating, and base usage then drive the monthly average use forecast. The model is estimated with sales data that includes own-use solar generation (reconstituted sales) as we want to model customer total use, not just what is purchased from the utility. Billed sales (what is purchased from the utility) are then derived by subtracting out the solar adjustment. Figure 2Figure 2: Residential average use Model (kWh) shows the estimated model.



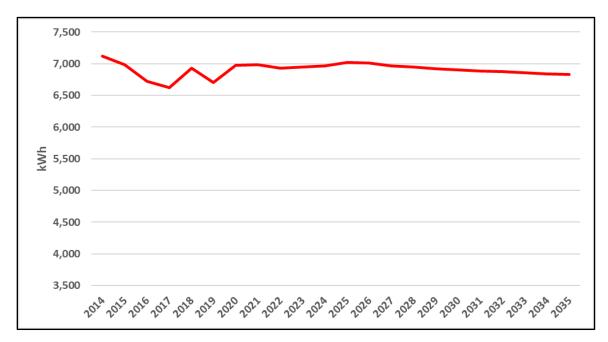
FIGURE 2: RESIDENTIAL AVERAGE USE MODEL (KWH)

Variable	Coefficient	StdErr	T-Stat	P-Value	Model Statistics	
mStructRevRes.XHeat	1.143	0.046	24.896	0.00%	Iterations	31
mStructRevRes.XCool	1.110	0.064	17.422	0.00%	Adjusted Observations	156
mStructRevRes.XOther	0.966	0.013	74.363	0.00%	Deg. of Freedom for Error	144
mBin.Feb	-22.707	5.908	-3.843	0.02%	R-Squared	0.963
mBin.Mar	-25.933	6.948	-3.732	0.03%	Adjusted R-Squared	0.960
mBin.Apr	-29.021	6.765	-4.290	0.00%	AIC	5.677
mBin.May	-30.150	7.191	-4.193	0.01%	BIC	5.911
mBin.Jun	-27.161	5.476	-4.960	0.00%	F-Statistic	#NA
mBin.Oct	-10.442	5.724	-1.824	7.02%	Prob (F-Statistic)	#NA
mBin.Nov	-13.314	5.612	-2.373	1.90%	Log-Likelihood	-652.15
mBin.Apr14	118.737	13.726	8.650	0.00%	Model Sum of Squares	1,005,651.37
MA(1)	0.663	0.072	9.188	0.00%	Sum of Squared Errors	39,059.48
					Mean Squared Error	271.25
1000					Std. Error of Regression	16.47
					Mean Abs. Dev. (MAD)	12.03
750					Mean Abs. % Err. (MAPE)	1.98%
	AAAAAA	AAAA	11111	8 8 8	Durbin-Watson Statistic	1.683
250 0 Jan-11 Jan-13 Jan-15 Jan-17	Jan-19 Jan-21 J	n-31 Jan-33				

The model explains historical usage well with an Adjusted R-Squared of 0.960 and a Mean Absolute Percent Error of 1.98%. The heating, cooling, and other use variables are highly statistically significant. Figure 3 shows the annual baseline average use; the forecast begins in 2025.







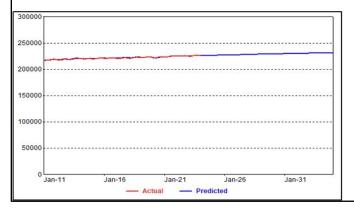
By 2025 average use reaches the same level as it was in 2015 at roughly 7,000 kWh per year due to the COVID work at home "bump" and strong heat pump adoption. The baseline forecast holds heat pump saturation constant as new heat pump loads are added to baseline sales as a separate adjustment. Forecasted baseline use declines 0.2% per year as end-use efficiency and thermal shell integrity continue to improve.

The customer forecast is derived from a monthly regression model that relates customers to population and GDP. Figure 4 shows the residential customer model.



FIGURE 4: RESIDENTIAL CUSTOMER MODEL

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	44870.376	14179.484	3.164	0.19%
mEcon.GDP	0.992	0.154	6.438	0.00%
mEcon.Pop	225.573	28.262	7.981	0.00%
MA(1)	0.547	0.070	7.856	0.00%
MA(2)	0.517	0.070	7.406	0.00%



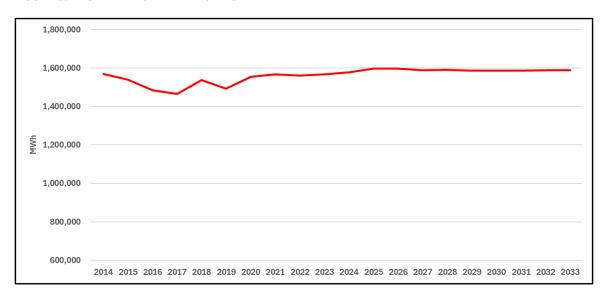
Model Statistics	
Iterations	32
Adjusted Observations	156
Deg. of Freedom for Error	151
R-Squared	0.945
Adjusted R-Squared	0.943
AIC	12.742
BIC	12.840
F-Statistic	647.470
Prob (F-Statistic)	0.0000
Log-Likelihood	-1,210.25
Model Sum of Squares	858,011,704.75
Sum of Squared Errors	50,025,356.86
Mean Squared Error	331,293.75
Std. Error of Regression	575.58
Mean Abs. Dev. (MAD)	438.51
Mean Abs. % Err. (MAPE)	0.20%
Durbin-Watson Statistic	1.500

Both GDP and population are statistically significant. In past forecasts we only included households. We found that households alone underpredicted the more recent customer growth. We believe the household variable was not adequately accounting for the second home market; adding GDP along with replacing households with population improved the model fit and helped calibrate it into the recent customer growth. The annual customer forecast growth is 0.2% per year; this translates into approximately 500 new customers each year. The forecast is consistent with actual customer growth beginning in 2017.

With 0.2% customer growth and a 0.2% decline in baseline use, forecasted baseline residential sales growth is flat at approximately 1,600 GWh per year. Figure 5 shows the residential baseline sales forecast.



FIGURE 5: BASELINE RESIDENTIAL SALES



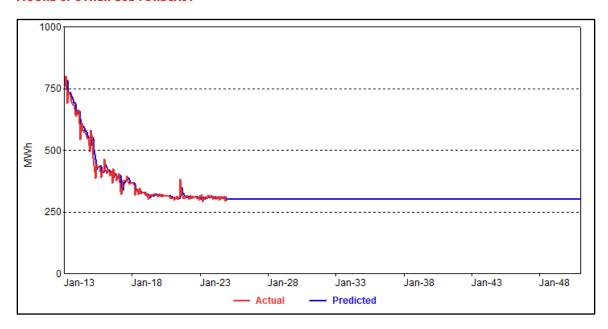
COMMERCIAL AND INDUSTRIAL BASELINE SALES FORECAST

Separate sales forecast models are estimated for the Small and Large C&I customers. Small commercial sales are also based on an SAE specification, while Large commercial sales are derived from a more generic econometric model.

Other Use is primarily street lighting which have basically been flat since 2021. Sales are modeled using an exponential smoothing model that bases the forecast on past and current trends. Figure 6 shows actual and predicted Other Use.





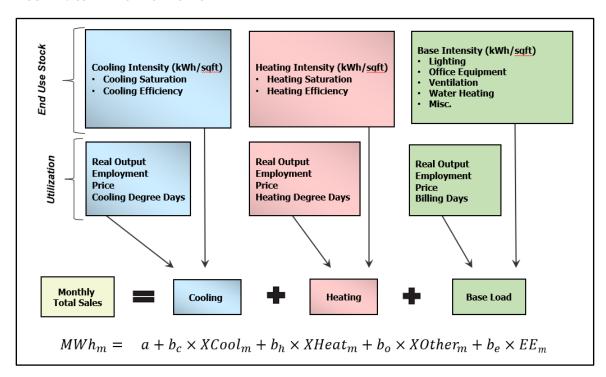


Between 2013 and 2019, there was a significant decline in street lighting sales as lamps were upgraded with LEDs.

Small commercial sales are also estimated using an SAE model where sales are specified as a function of commercial heating (XHeat), cooling (XCool), and base-use energy requirements (XOther). Figure 7 shows the commercial SAE model.



FIGURE 7: COMMERCIAL SALES MODEL



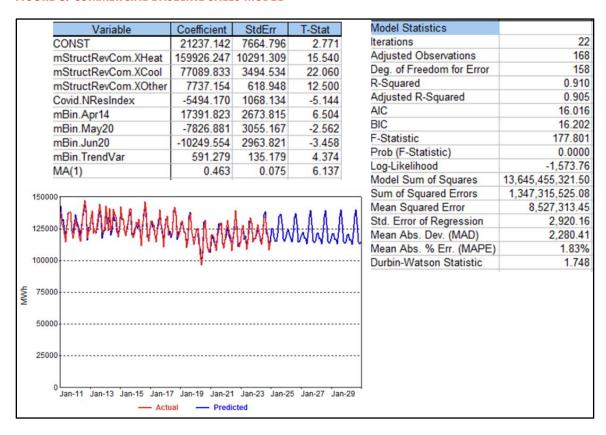
Commercial end-use intensities are measured on a kWh per square foot basis. There are nine commercial end-uses that are mapped to heating, cooling, and base use. Intensities are weighted across ten building types based on building square footage. Intensity projections are based on the Energy Information Administration 2023 New England Census Division and calibrated to Vermont based on the NREL (National Renewable Energy Laboratory) commercial building simulation data set for Vermont. This calibration work was completed as part of the recent VELCO long-term forecast. As depicted above, end-use heating, cooling, and base-use intensities are combined with weather (XHeat and XCool), billing days (XOther), price, and an economic driver designed to capture business activity. Commercial economic variable is a weighted concept that combines state GDP with number of households with 80% of the weight is on GDP and 20% on number of households. The economic weights are determined by evaluating the model out-sample statistics for various weight combinations; 80% GDP/20% households gave the lowest out-of-sample mean absolute percent error (Forecast MAPE). In past forecasts, we have included employment as



one of the economic drivers; this year we elected to exclude employment as total employment is forecasted to decline. This seems unreasonable given positive GDP growth and slow but positive household growth.

The Small Commercial sales model is estimated using a linear regression model with billed sales data from January 2011 to December 2024. The initial model also includes an energy efficiency variable (EE) that when combined with the estimated coefficient (b_e) measures the EE not captured in the structured model variables. The final model drops the EE variable as the end-use intensities are adjusted to account for the additional EE program savings. Figure 8 shows the estimated commercial sales model.

FIGURE 8: COMMERCIAL BASELINE SALES MODEL

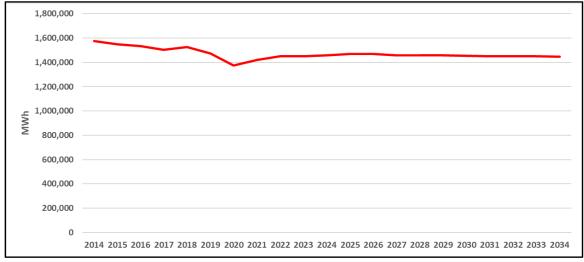




The model also includes a COVID impact variable to account for the sudden drop in commercial sales as businesses shut down beginning in March 2020. There was strong growth coming out of COVID which is captured by the GDP growth. Sales, however, flattened out in 2022 as the new normal settled in with a large share of the workforce continuing to work at home; baseline sales never get back to pre-COVID levels. Figure 9 shows the annual baseline forecast.



FIGURE 9: COMMERCIAL BASELINE SALES

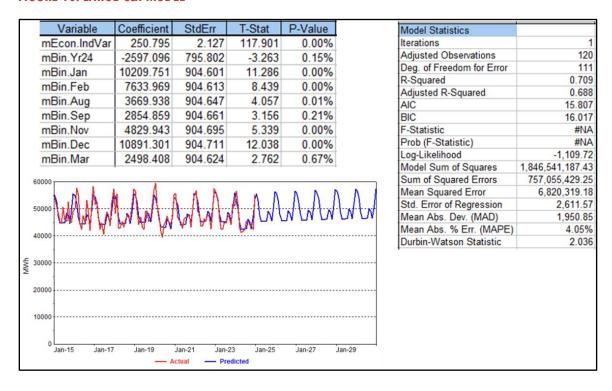


The baseline forecast averages 0.2% annual decline as end-use intensity trends decline slightly faster than the growth contributions from economic activity and increasing cooling requirements.

Large C&I includes GMP's largest commercial and industrial customers; there are 73 Large C&I customers. The Large C&I sales forecast is based on a generalized econometric model that relates monthly consumption to economic activity, weather, and seasonal use captured by monthly binary variables. The model is estimated over the period January 2015 through December 2024. The model excludes GMP's two largest customers. Figure 10 shows the Large C&I model.



FIGURE 10: LARGE C&I MODEL



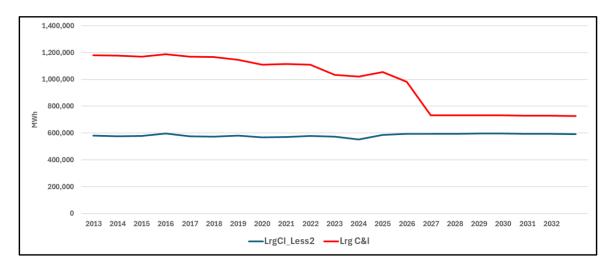
The model fit as indicated by the Adjusted R-Squared is not nearly as strong as that in the Small Commercial model. This is largely due to the "noise" in the monthly billing data. The primary model variable IndVar is highly significant, indicating that the primary model variable is a strong predictor of future growth. IndVar is an economic driver that is equally weighted between state GDP and manufacturing employment. Large C&I customers also saw a drop in sales in 2020, but it was not nearly as severe as Small Commercial sales. Large C&I sales have for the most part recovered from the COVID impact.

In 2027 there is a significant drop in Large C&I sales as GMP's largest customer has elected to switch to self-managed utility. There is also a small increase in loads in October 2025 (7,884 MWh) resulting from expected customer onsite expansion activity. Baseline Large C&I sales are largely flat after 2027. Figure 11 shows the Large C&I baseline sales forecast for both modeled sales (*LrgCI_Less2*) and total sales witch include the addition of GMPs two largest customers.



Sales excluding the largest two customers are consistent with historical sales level.

FIGURE 11: BASELINE LARGE C&I FORECAST



BASELINE FORECAST DRIVERS

As discussed above, the baseline models reflect the current level of embedded technologies (i.e., solar generation and heat pumps), current and expected changes in end-use intensities/efficiency, economic outlook, expected weather conditions, and price.

Economic Forecast

The sales and customer forecasts are based on Moody's Analytics' January 2025 state economic projections. The primary economic drivers include households, real personal income, GDP, and in past forecasts employment. Table 3 shows the state economic forecast.



TABLE 3: VERMONT ECONOMIC PROJECTIONS (JANUARY 2025)

	Households		RPI		GDP		Emp	
Year	(Thou)	Chg	(Mil \$)	Chg	(Mil \$)	Chg	(Thou)	Chg
2015	272.9		31,425		32,090		312.1	
2016	275.1	0.8%	31,632	0.7%	32,296	0.6%	313.3	0.4%
2017	276.6	0.5%	31,921	0.9%	32,586	0.9%	315.0	0.5%
2018	277.5	0.3%	32,524	1.9%	32,846	0.8%	316.1	0.3%
2019	276.0	-0.5%	33,647	3.5%	33,202	1.1%	315.4	-0.2%
2020	271.3	-1.7%	35,860	6.6%	32,389	-2.5%	289.3	-8.3%
2021	271.2	0.0%	35,855	0.0%	33,690	4.0%	294.5	1.8%
2022	272.7	0.5%	35,393	-1.3%	34,664	2.9%	304.1	3.3%
2023	273.6	0.3%	35,994	1.7%	35,219	1.6%	309.5	1.8%
2024	275.0	0.5%	36,892	2.5%	35,974	2.1%	314.2	1.5%
2025	276.0	0.3%	37,672	2.1%	36,603	1.8%	316.6	0.8%
2026	276.7	0.3%	38,312	1.7%	37,052	1.2%	317.1	0.2%
2027	277.2	0.2%	38,879	1.5%	37,518	1.3%	316.8	-0.1%
2028	277.5	0.1%	39,441	1.4%	38,069	1.5%	316.5	-0.1%
2029	277.7	0.1%	40,165	1.8%	38,683	1.6%	316.4	0.0%
2030	278.3	0.2%	40,935	1.9%	39,321	1.7%	316.2	-0.1%
2031	278.8	0.2%	41,681	1.8%	39,941	1.6%	315.9	-0.1%
2032	279.3	0.2%	42,429	1.8%	40,568	1.6%	315.7	-0.1%
2033	279.6	0.1%	43,154	1.7%	41,200	1.6%	315.4	-0.1%
2034	279.8	0.1%	43,821	1.5%	41,779	1.4%	315.1	-0.1%
15-24		0.1%		1.8%		1.3%		0.1%
24-34		0.2%		1.7%		1.5%		0.0%

Over the next ten years Vermont is expected to experience moderate economic growth and slow population and household growth. On average, this is not significantly different (other than during the COVID and recovery period) from the past ten years. One difference, however, is, Moody's is projecting flat to declining employment growth. In our view this seems inconsistent with GDP and real income growth; not all GDP and income growth can be tied to productivity growth alone. For this reason, we did not use the employment forecast in the baseline sales and customer forecast. Another interesting note is that Moody's is not projecting any near-term recession.



End-Use Intensity Projections

End-use intensities capture the appliance and building equipment in place and stock energy efficiency (energy input per measure of work output). Over the long term, customer use changes with increases in appliance purchases (saturation) and improvements in stock efficiency. For residential, end-use energy intensities are measured in kWh per customer and for commercial use in terms of kWh per square foot. In general, end-use intensities have been declining as efficiency gains (due to standards and energy efficiency programs) have been increasing faster than new purchases. The exception is heat-pumps where there has been significant heat pump adoption because of the state heat pump incentive program. The current set of end-use intensities were developed as part of the VELCO IRP forecast. The end-use intensities reflect Vermont residential household saturations (based on the recent residential saturation survey) and projected state EE program savings.

End-use intensities are aggregated into heating, cooling, and base use (all other end-uses) Figure 12 shows historical and projected end-use intensities.

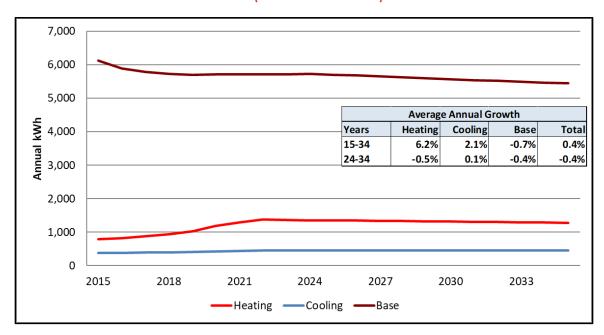


FIGURE 12: RESIDENTIAL END-USE INDICES (KWH PER HOUSEHOLD)



Base-use intensity declines over time as there is little saturation growth in the non-weather sensitive end-uses and stock efficiency continues to improve with continued EE program savings. Though base-use intensities decline, intensities decline at a much slower rate; the strong historical decline captures the early year lighting savings. The heating intensity, and to a lesser extent cooling, ramp up significantly between 2019 and 2024 because of the sharp increase in the number of heat pumps. Forecasted baseline heating intensity declines 0.5% as the baseline heat pump saturation is held constant; declining heating intensity is primarily due to the decline in resistant heating saturation. Projected cooling intensities are flat, increasing just 0.1% per year. Total intensities adjusted for future EE program impacts are projected to decline 0.4% per year before accounting for additional heat pump adoption.

Over the last ten years, Commercial building intensity has averaged 1.7% annual decline when adjusted for EE program savings. The rate of decline is slightly faster in the forecast period largely because of EIA's projection of the strong lighting and ventilation efficiency gains. Figure 13 shows commercial building intensity trend.

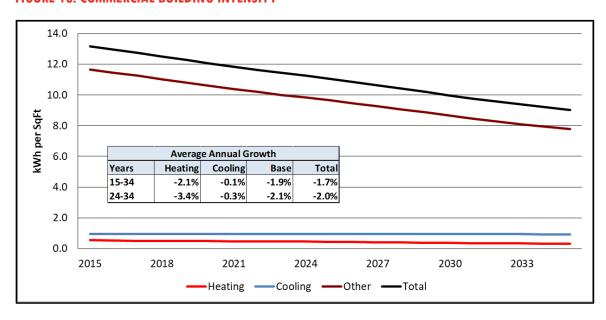


FIGURE 13: COMMERCIAL BUILDING INTENSITY



The updated commercial model indicates that the intensity decline may be too strong. The updated model includes a positive trend variable that is statistically significant and partly offsets the decline in the building energy intensity.

Weather

Temperatures are the primary factor that drives month-to-month sales variation; typically heating loads are captured with heating degree-days (HDD), and cooling loads with cooling degree-days (CDD). HDD and CDD are known as spline variables as they only take on a positive value when conditions are met and our zero otherwise. For example, HDD with a 65-degree temperature base is calculated as:

HDD65 = 65 - temperature if temperatures < 65, and 0 if temperatures > =65

A CDD with 65-degree base only takes on a positive value when the average temperature is above 65 degrees:

CDD5 = temperature - 65 if temperatures > 65, and 0 if temperatures < =65

In GMP sales model, we found we could improve on the model fit using HDD with 55-degree base temperature and CDD with a 60-degree base temperature. Figure 14 shows monthly HDD and CDD.



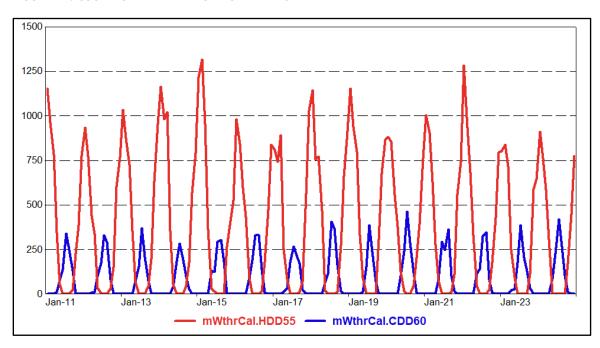
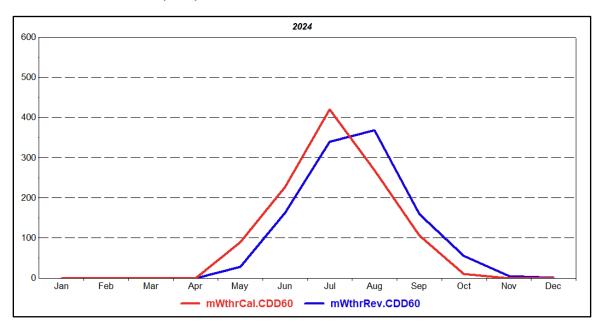


FIGURE 14: COOLING AND HEATING DEGREE-DAYS

One of the complicating factors in modeling customer billing data is that reported sales in any given month include sales from the first half of the current month and second half of the prior month. Cycle-weighted or revenue-month degree-days are generated so that the degree-days align with the billed sales. Cycle-weighted degrees are calculated by combining daily degrees with the meter read schedule and then summing over the month. Figure 15 compares calendar month HDD (in red) with cycle-weighted or revenue-month CDD (in blue).







Calendar CDD peaks in July while the revenue-month CDD peaks in August; the revenue month CDD aligns with reported sales. The sum of the calendar-month and revenue-month HDD over the year will be about the same; there will be some differences in that a revenue-month calendar often has slightly more or less than 365 days.

Normal CDD and HDD drive the forecast; normal degree-days represent expected weather conditions in the forecast period. Typically, normal degree-days are calculated by averaging degree-days over a defined historical period. Most utilities use either a 30-year or 20-year period. The problem, however, is averages based on a long history miss the temperature trend; average temperature has been increasing. This is depicted in Figure 16 which shows a trend model of average annual temperature for Burlington International Airport.



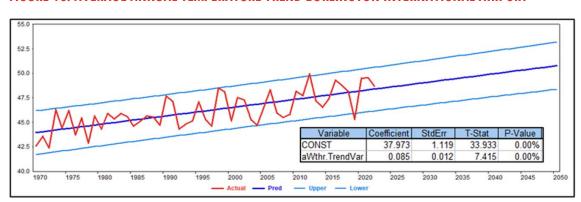
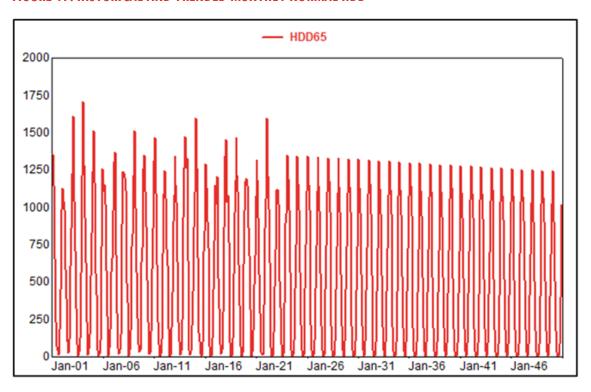


FIGURE 16: AVERAGE ANNUAL TEMPERATURE TREND BURLINGTON INTERNATIONAL AIRPORT

The model shows that since 1970, the average annual temperature has been increasing .085 degrees per year or 0.85 degrees per decade; the trend variable is highly statistically significant. Basing the forecast on a 30-year and even a 20-year normal will overestimate winter heating use and underestimate summer cooling loads. To address this issue, the forecast incorporates trended normal HDD and CDD that are derived from the predicted temperature trend. Figure 17 and Figure 18 show historical actual degree-days with trended normal degree-days.

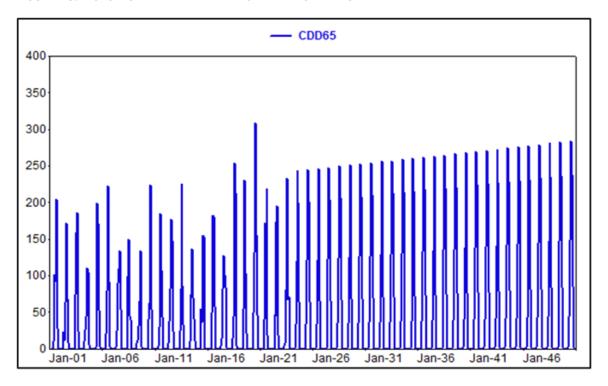


FIGURE 17: HISTORICAL AND TRENDED MONTHLY NORMAL HDD









The degree-day trends result in a decline in heating requirements and an increase in cooling requirements.

3 BILLED SALES AND REVENUE FORECAST

As baseline loads are effectively flat, billed sales and revenue are driven by expected adoption of electric vehicles and heat pumps that are somewhat mitigated by continuing adoption of behind-the meter (BTM) solar. Figure 19 compares baseline and adjusted sales excluding Large C&I.

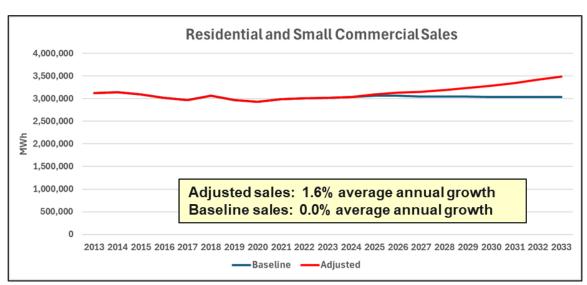


FIGURE 19: BASELINE AND ADJUSTED FORECAST COMPARISON

As depicted, all the Residential and Small C&I sales growth comes from the technology adjustments.

Figure 20 shows total sales comparison which also includes Large C&I and street lighting.



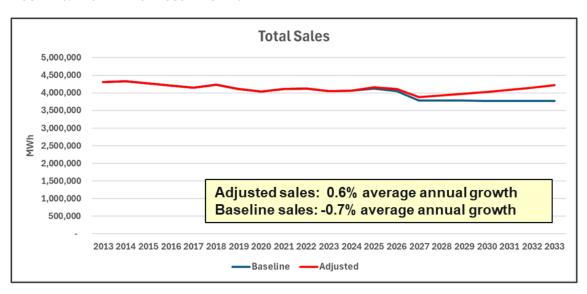


FIGURE 20: BASELINE VS ADJUSTED SALES

On a total sales basis, baseline sales decline 0.7% per year largely as result of the sharp decline in Large C&I sales in 2027. Adjusted sales growth averages 0.6% per year. On a total sales basis, the technology adjustments contribute 1.3% to annual sales growth.

TECHNOLOGY FORECAST

The technology forecasts were developed by GMP's resource planning group as part of the 2025 IRP. Forecasts include solar capacity, expected new electric vehicle adoptions and charging requirements, and building electrification sales which the most significant end-use are heat pumps.

Behind the Meter Solar

Solar Capacity Forecast. Behind the meter (BTM) solar capacity forecast is developed by GMP based on interconnection application queues and historical trends. As of December 2024, there was 307MW of installed solar capacity; this includes traditional, customer owned or leased roof-top systems, and larger community/group-based systems. This is somewhat lower than last year's forecast for December 2024 which was 315 MW. GMP expects BTM solar to continue to increase but at a slower rate than in prior forecasts; GMP



estimates 15 MW annual average additions over the next three years dropping to 11 MW per year after that; by 2034 there is nearly 440 MW of installed solar capacity. Figure 21 shows the solar capacity forecast.

Year-End Capacity

500.0

450.0

400.0

350.0

200.0

150.0

100.0

2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034

FIGURE 21: SOLAR CAPACITY FORECAST

Solar Generation. Solar generation (MWh) is derived by applying monthly solar load factors to the capacity forecast; load factors are based on typical solar generation patterns developed by GMP. Table 4 shows the solar generation load factors.



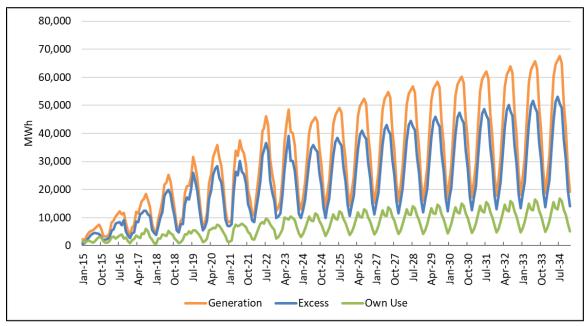
TABLE 4: SOLAR LOAD FACTORS

Month	Load Factor
Jan	7.7%
Feb	10.8%
Mar	14.1%
Apr	18.8%
May	19.5%
Jun	20.6%
Jul	20.3%
Aug	19.5%
Sep	15.7%
Oct	12.5%
Nov	8.4%
Dec	5.7%

Solar Own-Use. Solar generation is either consumed by the customer (*own-use*) or returned to the connected power-grid (*excess*); own-use reduces billed revenues, while excess is treated as power purchase cost. Solar own-use negatively impacts billed sales; new solar own-use is subtracted from the baseline sales forecast. The share of own-use generation (vs what is delivered back to the grid) varies by revenue class and month. Own-use generation is typically smaller in the summer months with a larger percentage of the generation sent to the grid (excess generation). Figure 22 shows total, own use, and excess solar generation. Excess is significantly higher than own use. One reason is that most of small C&I solar generation are purchases from large offsite solar installations that do not directly impact the customer's usage.







The baseline forecast is adjusted beginning in 2025 (the first year of the forecast). Table 5 summarizes the incremental solar adjustments. Adjustments are shown on a calendar-year basis.

TABLE 5: SOLAR GENERATION FORECAST

Year	Capacity (MW)	Generation (MWh)	OwnUse (MWh)	Excess (MWh)
2025	15.4	(5,460.6)	(823.9)	(4,636.6)
2026	30.1	13,507.1	4,107.9	9,399.1
2027	53.8	30,897.2	8,624.8	22,272.4
2028	65.2	46,919.7	12,806.5	34,113.1
2029	76.6	60,509.0	16,322.2	44,186.8
2030	88.1	75,011.2	20,092.8	54,918.5
2031	99.5	89,513.4	23,863.3	65,650.2
2032	110.9	105,047.4	27,921.8	77,125.6
2033	122.3	118,517.9	31,404.3	87,113.6
2034	133.8	133,020.1	35,174.8	97,845.3



In 2025, while we are expected to add 15 MW of new capacity, generation output declines. This is because 2025 is coming off actual 2024 generation; 2024 had more sunny days than that based on the typical solar generation profile. Over 90% of the own-use generation is residential and reduces residential billed sales and associated revenues. In commercial, own use is relatively small (and has a small impact on revenues) as most commercial solar generation is treated as a power purchase cost; commercial customers receive a credit on their bill for their solar generation.

Heat Pumps

Heat pump sales drive most of the near-term residential sales growth. Heat pumps are being promoted through state heat pump incentives and are part of the state's building electrification strategy designed to reduce CO2 emissions. To date, the state heat pump program has been highly successful with over 70,000 heat pumps installed through 2024. The heat pump forecast was developed as part of GMP's recent IRP filing. GMP projects annual heat pump sales of 8,300 units per year. This is consistent with VEIC reported sales data which shows heat pump sales leveling out at roughly 11,000 units per year. With each home installing approximately 1.8 units (much of the market are auxiliary mini-split units), estimated heat pump saturation increases from approximately 15.0% in 2024 to 35% of all homes by 2034.

Translation to Sales. Electricity sales are derived by multiplying the unit forecast by annual combined unit energy consumption (UEC) of roughly 2,100-2,200 kWh/unit over a year. Average heat pump use declines over time with projected heat pump efficiency improvements. Annual heating and cooling are allocated to months based on heating and cooling estimated load profiles. Ninety percent of heat pump sales are residential, and ten percent are commercial. Figure 23 shows additional heat pumps sales starting in 2025.



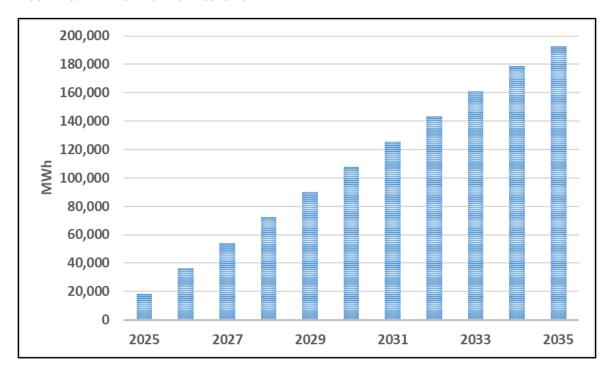


FIGURE 23: HEAT PUMP SALES PROJECTION

Electric Vehicles

In 2024, there were nearly 5,200 electric vehicles sold in Vermont; 70% were all battery electric (BEV) and 30% were plug-in hybrid electric (PHEV). In total there are approximately 17,200 BEV and PHEV vehicles representing 4% of state vehicle stock. The state has seen a significant increase in electric vehicles with the number of new electric vehicles up 50%. Electric vehicles (both BEV and PHEV) accounted for nearly 15% of vehicle sales. The EV mandate requires that 35% of all vehicles sold must be BEV, PHEV, of hydrogen fuel in 2026; this translates into close to 14,000 new electric vehicles. Assuming the EV mandates are achieved, GMP estimates there will be nearly 20,000 EVs in the GMP service area by the end of 2026. Figure 24 shows the GMP EV forecast.





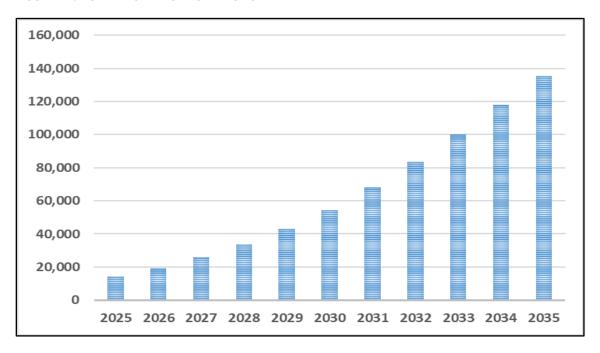


Figure 25 shows forecasted EV sales.

Figure 25EV electric sales are based on the number of vehicles, average annual miles driven, efficiency (miles per kWh), and mix of BHEV and PHEV. Figure 25 shows forecasted EV sales.



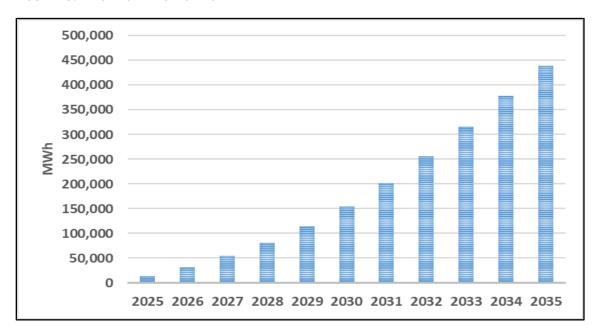


FIGURE 25: ELECTRIC VEHICLE SALES

Based on studies by NREL, 80% of the charging load will be at home, impacting residential sales, and 20% will be away from home, adding to commercial sales.

Other Load Adjustments

The Large C&I customer class is also adjusted for large load changes due to customer-specific business activity that would not necessarily be captured by the sales regression model. Customer-specific adjustments are made based on discussions with GMP C&I business team. There is a small positive adjustment of 7,884 MWh for expected expansion at one of the Large C&I customers.

The largest load adjustment is for the loss of sales due to Global Foundries' move to a self-managed utility. Global Foundries will be classified as their own electric utility, consistent with the Vermont Public Utility Commission's Order in Case Nos. 21-1107-PET and 21-1109-PET. GMP is currently serving GlobalFoundries' load under a transitional power purchase agreement (PPA), which represents a third of the Large C&I class sales. This PPA expires in October 2026, at which time Global Foundries load is removed from the sales forecast.



Load Adjustments Summary

Table 6 shows a breakdown of the forecast by load adjustments. out of the summarizes load adjustments applied to the baseline forecast. Electrification programs and increasing penetration of electric vehicles outweigh efficiency and solar impacts after 2026. The large drop in 2027 sales reflects the loss of a large customer to transmission only service.

TABLE 6: ADJUSTMENTS SUMMARY

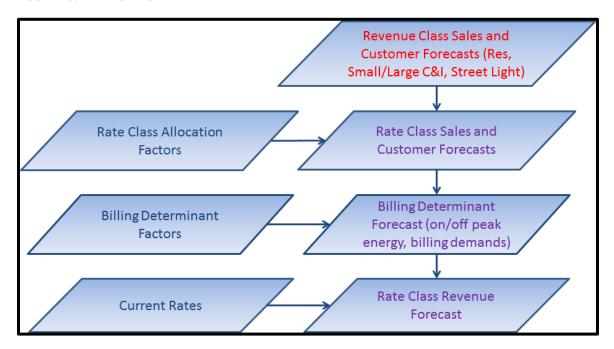
	NoEE(1)	EE(2)	Solar(3)	Tier3(4)	EV(5)	SpotLds(6)	TtlAdj	Forecast
2026	4,156,850	-23,004	-6,449	35,435	25,191	7,884	39,057	4,195,907
2027	3,830,885	-45,876	-10,968	56,110	47,341	7,884	54,491	3,885,377
2028	3,849,452	-70,102	-14,924	76,374	73,823	7,884	73,056	3,922,508
2029	3,868,948	-94,536	-18,596	100,715	104,771	7,884	100,238	3,969,186
2030	3,890,498	-120,728	-22,292	118,314	143,063	7,884	126,240	4,016,738
2031	3,910,787	-145,563	-25,988	136,638	188,657	7,884	161,627	4,072,415
2032	3,932,289	-168,543	-29,754	153,687	241,219	7,884	204,494	4,136,783
2033	3,950,278	-189,491	-33,381	170,743	299,487	7,884	255,243	4,205,520
2034	3,967,086	-210,841	-37,077	196,222	361,172	7,884	317,360	4,284,446
2035	3,981,393	-227,562	-40,773	205,040	423,134	7,884	367,723	4,349,116

- 1. No EE forecast assumes no efficiency improvements after 2024.
- 2. Efficiency includes impacts of new standards, naturally occurring, and EE program-based efficiency improvements.
- 3. Solar is derived from GMP solar capacity forecast and is allocated to classes.
- 4. Tier 3 heat pump forecast includes residential CCHP forecast and commercial building electrification projections.
- 5. GMP IRP EV forecast.
- 6. Customer specific spot load adjustments.

REVENUE FORECAST

The revenue forecast is derived at the rate schedule level. The billed sales forecasts are allocated to rate schedules and within rate schedules to billing determinants (i.e., customer, on and off-peak use, and billing demands). Revenues are then generated by multiplying rate schedule billing determinants by the current tariff rates. Figure 26 provides an overview of the revenue model.

FIGURE 26: REVENUE MODEL



Derive Rate Class Monthly Sales Forecast

Revenue class sales and customer forecasts are allocated to the underlying rate schedules based on projected monthly allocation factors. The allocation factors are derived from historical billing data and simple regression models that capture any share trends and seasonal variation. Residential class sales, for example, are allocated to rate schedules - E01, RE03, and E11 rate classes. Figure 27 shows 2024 historical and forecasted residential rate class sales shares.



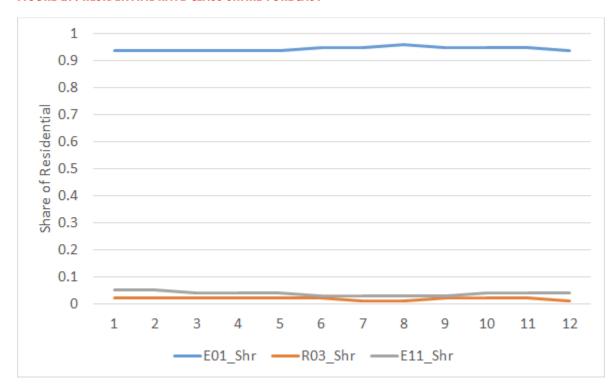


FIGURE 27: RESIDENTIAL RATE CLASS SHARE FORECAST

Approximately 95% of residential sales are billed under rate E01. The percentage is slightly lower in the winter months as the electric time-of-use rate (E11) is higher in these months.

Estimate Monthly Billing Determinants

In the next step, rate class sales (and customers counts for some rates) are allocated to billing blocks, time-of-use billing periods, and on and off-peak billing demand blocks. Billing block and demand factors are derived from historical billing data. For example, residential rate E11 has on peak and off-peak energy billing periods that are priced differently. Rate E11 monthly sales are allocated to TOU periods based on historical on-peak and off-peak sales data.



Some of the rates are complex. The small C&I rate E65, for example, includes non-demand and demand billed sales and customers, load factor kWh blocks (for demand customers), and different demand charges for demand for on/off peak, which are scheduled to replace block rates within the next two years. Figure 28 shows the resulting sales block 2025 forecasts for rate E65 Customers.

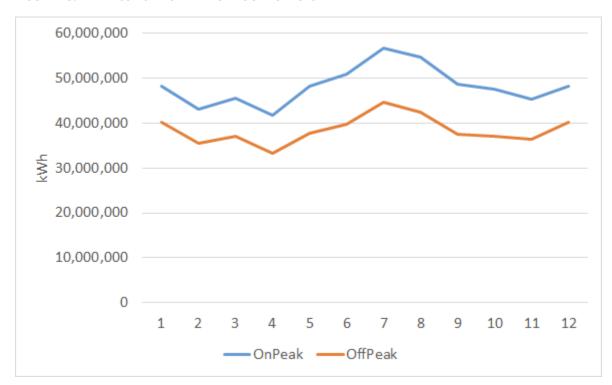


FIGURE 28: RATE E65 - SALES BILLING BLOCK FORECAST

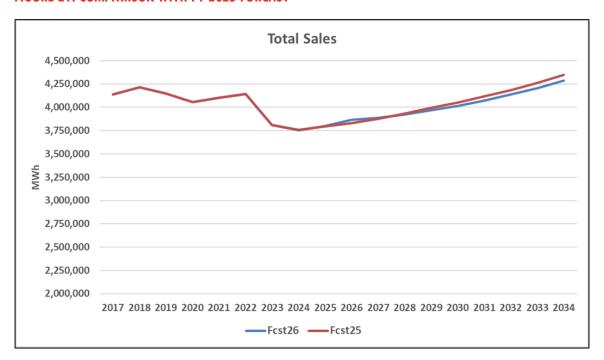
Calculate Rate Schedule and Revenue Class Revenues

Once the billing determinants are derived, revenues are generated by multiplying the forecasted billing determinants by the current customer, energy, and demand charges. Revenues are aggregated by rate schedule and month. Rate schedule revenues are then mapped back to the customer classes residential, small C&I, large C&I, and street lighting as reported in the Summary Table 2.

COMPARISON WITH FY2025 FORECAST

Overall, the difference between the FY26 forecast and the FY25 forecast is small; the FY26 forecast was completed March 2025 and the FY25 forecast in March 2024. Figure 29 shows the long-term forecast comparison.

FIGURE 29: COMPARISON WITH FY 2025 FORCAST



Through 2027 the FY26 forecast is slightly higher than the FY25 forecast. For fiscal year 2026 the FY 26 forecast is 0.8% higher than the FY25 forecast (+32,300 MWh). In the outer years, the FY25 forecast is higher largely because of lower out-year heat pump sales.