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Docket Number:	17-IEPR-03
Project Title:	Electricity and Natural Gas Demand Forecast
TN #:	217103-1
Document Title:	Marin Clean Energy 2017 Demand Forecast Narrative
Description:	N/A
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Organization:	Marin Clean Energy
Submitter Role:	Public Agency
Submission Date:	4/17/2017 2:44:43 PM
Docketed Date:	4/17/2017

Marin Clean Energy ("MCE") utilizes its load forecasting model/methodology for three primary purposes: (1) for portfolio management and procurement; (2) for the development of financial projections; and (3) for Resource Adequacy compliance with the California Public Utilities Commission ("CPUC") and the California Independent System Operator ("CAISO"). Due to the nature of MCE's business as a rapidly growing Community Choice Aggregator which has experienced a constantly changing customer base since its inception in 2010, the adopted load forecasting methodology focuses primarily on the projected customer counts within the MCE service territory and incorporates historical per capita usage data to derive the load forecast. At present, the MCE service territory includes all of Marin and Napa Counties and parts of Contra Costa and Solano Counties.

The load forecast is developed for each of the fourteen major customer class served by MCE. These classifications correspond with the customer categories for which statistical hourly class load profiles are published by Pacific Gas & Electric ("PG&E"). These include the following customer classes:

Load Profile Group	**Classification**
E-1	Residential
E-7	Residential (TOU)
A-1	Small Commercial
A-6	Small Commercial
A-10	Medium Commercial
E-19-S	Large Commercial – Secondary Voltage
E-19-P	Large Commercial – Primary Voltage
E-19-T	Large Commercial – Transmission Voltage
E-20-S	Industrial – Secondary Voltage
E-20-P	Industrial – Primary Voltage
E-20-T	Industrial – Transmission Voltage
Ag	Agricultural and Pumping
TC	Traffic Control
SL	Street Lighting

MCE's load forecasting methodology utilizes three sources of data: (1) Pacific Gas & Electric ("PG&E") "Item 16" monthly usage data for customers that have been served by MCE for less than twelve months; (2) MCE historical usage data for customers that have been served by MCE for at least twelve months; (3) and PG&E dynamic and static hourly load profiles as published on PG&E's website. Each time MCE expands into a new territory, PG&E provides MCE with monthly historical usage data for every eligible customer (Item 16), which is adjusted for assumed customer opt-outs and utilized for MCE's load forecast until MCE has twelve months of historical information on the new group of customers. MCE aggregates individual customer monthly usage by customer class and then applies hourly load profiles to the monthly class values. MCE utilizes the PG&E class hourly load profiles to translate the monthly usage data into hourly values (PG&E class profiles are used due to the constant MCE customer base expansion and to consistently align with CAISO settlements requiring use of load profiles for specified customer classes) in order to develop peak demand forecasts for Resource Adequacy and Congestion Revenue Rights obligations. Furthermore, MCE utilizes a four-year rolling average for the PG&E hourly load profiles in order to normalize for weather or other short-term events and anomalies that impact the hourly load profiles.

The final input to MCE's load forecast is the assumed opt-out rate for the portion of the customer base that has been served by MCE for less than twelve months. Throughout its history beginning in 2010, MCE has experienced a wide range of customer opt-outs associated with each of its major customer enrollment phases. Early phases resulted in opt out rates in the 20% to 25% range, while for MCE's most recent expansion in September 2016, an opt-out rate of 10% was realized.

MCE utilizes historical consumption data to calibrate and adjust its load forecast. However, due to several service territory expansions that has significantly changed MCE's customer base, there is very limited year-over-year steady-state data to use in calibration of the load forecast. The calibration process is run monthly and compares the most recent monthly KWh and peak KW usage data to the forecast values. The forecast is tracked relative to both the initial usage estimates (T+3) reported to the CAISO as well as the final reported usage (T+55). To the extent that the monthly forecast error exceeds a 5% threshold, MCE evaluates the potential causes of the variance and, if such error is deemed likely to persist, adjusts the forecast going forward.

With respect to how MCE's monthly peak demand and usage forecasts have compared to actual recorded values, the below chart illustrates MCE's forecasting variances (both monthly peak demand as well as usage) for each month of calendar year 2016.

Peak Demand Comparison	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
MCE RA Peak Demand (MW)	311	299	270	299	291	339	309	310	507	453	470	477
MCE Actual Peak Demand (MW)	321	304	281	299	344	362	351	325	567	436	482	492
% Difference	3.03%	1.50%	3.72%	-0.12%	15.32%	6.40%	11.85%	4.68%	10.48%	-3.84%	2.33%	3.09%

Usage Comparison	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
MCE RA Usage (MWh)	172,800	154,218	155,556	151,329	154,863	154,372	159,978	160,214	203,880	254,534	250,925	273,921
MCE Actual Usage (MWh)	176,170	152,842	160,187	149,558	154,198	162,791	164,367	164,723	214,294	246,495	242,780	277,024
% Difference	1.91%	-0.90%	2.89%	-1.18%	-0.43%	5.17%	2.67%	2.74%	4.86%	-3.26%	-3.36%	1.12%

The values from the above chart were extracted from both MCE's year-ahead and month-ahead load forecasts due to MCE's September 2016 expansion. The monthly peak demand and usage variances experienced during 2016 is primarily driven by MCE's 2015 and 2016 expansions, which drives a dynamic opt-out rate and a lack of steady-state history to recalibrate the load forecast prior to the next expansion.

For load projections beyond the current year, MCE assumes a long term annual growth rate of 0.5%, which reflects the estimated net increase in customer consumption less estimated impacts from energy efficiency and behind the meter generation. MCE does not have a long term history for its current customer base with which to compare the reasonableness of the projected long term growth rate. However, MCE believes that it is generally consistent with the net growth rate in the PG&E service area as a whole.