

DOCKETED

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4. Forecast Methods and Models

Demand Forecast Methodology

Glendale Water & Power (GWP) uses linear regression modeling to forecast peak load and total system energy consumption. The load forecast is based on normalized weather and generally shows no overall load growth, due to efficiency measures and solar installations, with the exception of forecasting potential Electric Vehicle use within the City and some new multi-use facilities being built. GWP is a community without a large industrial customer base. In fact, the customers that are listed in the industrial category are mostly large commercial customers such as the Glendale Community College and high-rise office buildings.

For 2015 and beyond, GWP relied on the long-term load forecast prepared by Pace Global for GWP's Integrated Resource Plan (still under development). Pace Global (Pace) developed a deterministic reference case load forecast for GWP. The proprietary load forecasting model takes into consideration the historical relationship between demand growth and weather and economic variables, which are the key drivers of load growth, as well as adjustments for other drivers including customer additions, energy efficiency and DSM penetration, and electric vehicle usage.

I. System Forecast

Monthly peak demand is estimated using the Pace approach. GWP's peak load forecast is normalized for weather and generally shows no overall load growth, due to aggressive efficiency measures and solar installations, with the exception of potential new Electric Vehicle (EV) use within the City. EV use potential is incorporated into the peak load forecast by Pace.

II. Customer Class Forecast

Pace also forecasted load by customer classification. The full report is not available currently, but is being finalized this summer. GWP has also completed a system-wide Smart Grid, which eventually will allow us to update forecasts by customer classification. More transparent load data will help us determine which customer classes are weather-sensitive, who might react better to notifications regarding peak loads, and will also help track the effects of load management and energy efficiency programs.

6. Demand Forecast Methodology- Energy Efficiency and Demand-Side Measures

GWP uses a separate forecast for energy efficiency (EE) and other demand-side measures, which is shown as a line item on the S-1/S-2 forms. Our Public Benefit Charge office provides this data on a Fiscal Year basis, not Calendar Year.

GWP's Public Benefit Charge Program office uses CEC AB 2021 information developed with SCPPA, NCPA, and Rocky Mountain for forecasting EE and DSM effects. The current version of what? was provided to CEC staff. The E3 software tool projects Demand and Energy Savings Targets based upon the various programs in place and new programs to be implemented. GWP currently does not have any interruptible demands or DCLM in place. Additional discussion regarding Glendale's Energy Efficiency programs can be found in the annual SB 1037 report provided each year to the CEC.

Glendale's Solar program details can be found in the SB 1 annual report to the CEC that is due on July 1 each year.

Because GWP uses historical energy usage by customer class in its forecast for future energy consumption, the historical energy usage reflects all energy efficiency programs that were implemented over the course of the last 10 years (with the most significant reductions occurring in the past few years). Growth within the City of Glendale has been offset by GWP's aggressive energy efficiency and solar incentive programs.