Two distinct methods are used for forecasting kWh. Both methods are statistically based, but use different time horizons and inputs. The results of both methods are used as inputs to forecast kW demand.

First, regression models with time series error terms were used to forecast kWh sales up to 18 months ahead (short-term). These models use the most recent customer count, kWh sales data, weather data (in the form of degree days), trend variable and indicator (dummy) variables where needed. These models use the latest available sales and weather information to represent the variation in kWh sales on a monthly basis, and produce forecasts in the short run.

The long-term process starts with an economic forecast provided by Moody's Analytics for the United States as a whole, each state, and regions within each state. These forecasts include forecasts of employment, population, income, gross regional product and other variables. The long-term kWh forecast for residential and commercial kWh uses statistically adjusted end-use (SAE) models that combine end-use and economic characteristics to produce a forecast of annual kWh sales. The long-term kWh forecast for the other revenue classes uses econometric models incorporating the economic forecast. Inputs such as regional and national economic and demographic conditions, energy prices, appliance saturations, efficiency trends and programs, weather data, and customer-specific information are all utilized in producing the forecasts. These models explicitly tie electricity consumption to economic, efficiency, and demographic factors at least 10 years into the future. Post model adjustments are made to the retail energy forecast to reflect the effects of company sponsored DSM programs.

To forecast peak, revenue class sales is combined with class level and end-use level load shapes. These shapes are modeled and simulated with actual and forecast temperatures to provide hourly load shapes by revenue class and end-use. Each of the end-use shapes is aggregated to form an overall system shape. The system shape is evaluated against historic peaks and load factors and adjusted if necessary.