

FPL's Responses to Staff's Fourth Set of
Interrogatories Nos. 26-31.

QUESTION:

Fuel Price Forecasting

Please describe the steps the Company took to prepare its fuel price forecast for 2017. Discuss in your response whether any of the steps took to prepare this forecast were new or different from steps used in 2016, or in other prior periods.

RESPONSE:

For natural gas commodity prices, the forecast methodology relies upon the NYMEX Natural Gas Futures contract prices (forward curve). For light and heavy fuel oil prices, FPL utilizes Over-The-Counter (OTC) forward market prices. Projections for the price of coal are based on actual coal purchases and price forecasts developed by J.D. Energy. Forecasts for the availability of natural gas are developed internally at FPL and are based on contractual commitments and market experience. The forward curves for both natural gas and fuel oil represent expected future prices at a given point in time. The basic assumption made with respect to using the forward curves is that all available data that could impact the price of natural gas and fuel oil in the short-term is incorporated into the curves by market participants at all times. FPL utilized forward curve prices from the close of business on August 1, 2016 for its 2017 projection filing, which was the most current information that could be incorporated into FPL's schedule for calculating the 2017 Fuel Cost Recovery Clause factors. The steps described are consistent with the steps taken in previous forecasts; no new or different steps were included.

QUESTION:

Fuel Price Forecasting

List the “inputs” or sources of information the Company relied upon in order to prepare its fuel price forecast for 2017.

- a. Identify each source of information the Company relied upon to prepare its fuel price forecast for 2017 and whether the source was internal or external.
- b. Discuss whether each source of information the Company relied upon to prepare its fuel price forecast for 2017 used public or proprietary information.
- c. Discuss whether each source of information the Company relied upon to prepare its fuel price forecast for 2017 was new or different from sources used in preparing the fuel price forecast for 2016, or in other prior periods

RESPONSE:

- a. FPL used the following sources of information to prepare its fuel price forecast for 2017:
 - Natural Gas – August 1, 2016 NYMEX forward curve prices, external source
 - Light and Heavy fuel oil prices – OTC forward market prices, external source
 - Coal – Price forecasts developed by J.D. Energy, external source
- b. The sources of information listed in subpart (a.) for both natural gas and fuel oil are publically available. J.D. Energy provides proprietary coal price forecasts. J.D. Energy is a consulting firm retained by many utilities and coal suppliers to provide its expertise in all aspects of the coal and petroleum coke industry.
- c. The sources of information FPL relied upon to prepare its fuel price forecast for 2017 were the same as those used in prior periods, including 2016. There were no new or different sources used to prepare FPL's fuel price forecast for 2017.

QUESTION:

Fuel Price Forecasting

Is the Company planning on introducing any new steps or sources of information it will rely upon to prepare its fuel price forecast for the projected year 2018? If so, please provide a detailed description of each new steps and/or sources.

RESPONSE:

No, the company is not expecting to introduce new steps or sources of information to prepare its 2018 fuel price forecast.

QUESTION:

Forecasting megawatt-hour sales

Please describe the steps the Company used to prepare its forecast of megawatt-hour sales for 2017. Discuss in your response whether any of the steps used to prepare this forecast for 2017 were new or different from steps used in 2016, or in other prior periods.

RESPONSE:

The forecast of megawatt-hours for 2017 is the same forecast developed for FPL's 2017 Ten Year Site Plan. FPL begins the forecasting process by updating its databases with the most recent actual data for variables which may be considered or used in the Net Energy for Load (NEL) model. Next, FPL reviews the previous year's weather normalized forecast variance in order to evaluate the prior year's model. Drivers which may affect NEL such as population growth, weather, codes and standards, and the economy, among others, are considered. Variables are developed from these drivers which are likely to affect NEL. Any variables considered must be consistently measurable over the model calibration period and there must be a reasonable forecast available from a reliable third party source for each variable considered for use in the model. A potential NEL per customer model is then developed with the variables identified. A review of the model statistics, including the R^2 , Mean Absolute Percent Error (MAPE), and Durbin-Watson statistic are evaluated, along with ensuring that the coefficients are significant and have the correct signs and that there is no observable pattern in the residuals. Modifications to the model are made as dictated by the model statistics. The model output is then multiplied by the forecast number of customers to develop a preliminary NEL forecast. Next, factors that may affect the forecast, but are not included in the historical data and therefore not picked up in the econometric model, such as plug-in electric vehicles, distributed solar generation, changes in wholesale contracts, and the impact of the Economic Development riders are developed and included in the forecast. The NEL forecast is evaluated for reasonableness by looking at historical trends and comparisons with the prior forecast. FPL also develops forecasts of billed sales by revenue class which is reconciled to the NEL forecast.

These are the same steps FPL used in developing the forecast of megawatt-hour sales in 2016 and in fact are the same steps that FPL has been using for many years in developing our sales forecasts.

QUESTION:

Forecasting megawatt-hour sales

List the “inputs” or sources of information the Company relied upon to prepare its megawatt-hour sales forecast for 2017.

- a. Identify each source of information the Company relied upon to prepare its megawatt-hour sales forecast for 2017 and whether the source was internal or external.**
- b. Discuss whether each source of information the Company relied upon to prepare its megawatt-hour sales forecast for 2017 used public or proprietary information.**
- c. Discuss whether each source of information the Company relied upon to prepare the its megawatt-hour sales forecast for 2017 was new or different from sources used in preparing the megawatt-hour sales forecast for 2016, or in other prior periods.**

RESPONSE:

The forecast being used in this proceeding is FPL's 2017 TYSP forecast. The responses below are in regards to this forecast.

- a. Weather Services International (WSI) for weather data. WSI is part of The Weather Company; External source
IHS Global Insight for economic data and population; External source
Itron for Codes & Standards impacts; External source
Electric price data; Internal source
Electric vehicle data; Internal and external sources
Private solar data; Internal and external sources
- b. WSI data are proprietary
IHS Global Insight data are proprietary
Itron study on the impact of Codes & Standards is proprietary
Electric price is proprietary
Electric vehicle data uses both public and proprietary sources
Private solar data uses both public and proprietary sources
- c. Sources used in developing the 2017 MWh sales forecast are the same sources used to develop the 2016 MWh sales forecast. In developing the 2016 MWh sales forecast, FPL changed its source for population data from the Florida Legislature's Office of Economic and Demographic Research (EDR) to IHS Global Insight.

QUESTION:

Forecasting megawatt-hour sales

Is the Company planning on introducing any new steps or sources of information it will rely upon to prepare its megawatt-hour sales forecast for the projected year 2018? If so, please provide a detailed description of each new steps and/or sources.

RESPONSE:

There are currently no plans to update the megawatt-hour sales forecast prior to the projection filing. There are also no plans to change either the steps or sources of information used when FPL begins development of its next megawatt-hour sales forecast.