

Load Analysis and Load Forecasting - 2019 IRP Variance Requests

I. Forecast by Major Class

Various Chapter 22 Rules identify that the data and forecast should be performed by “major class.” Commission Rule 4 CSR 240-22.020(37) defines “major class” as a cost-of-service class for the utility. Commission Rule 4 CSR 240-22.030(7)(A) provides that “(t)he utility shall produce forecasts of monthly energy usage and demands at the time of the summer and winter system peaks by major class for each year of the planning horizon, and shall describe and document those forecasts in its triennial compliance filings.”

Empire is requesting a variance from the requirement of Commission Rule 4 CSR 240-22.030(7)(A) to forecast by cost-of-service class. Instead, Empire requests that the IRP forecast be developed by the following revenue classes:

- Residential
- Commercial
- Industrial
- Wholesale
- Street & Highway
- Interdepartmental
- Public Authority

The revenue class approach aggregates similar customers into larger groups that offer data stability and align with economic drivers. These two factors are important as statistical models are used to identify correlations between historical sales, economic drivers, and end-use information. Unstable data generally results in a weaker model fit and difficulty in identifying the correct economic drivers. In 2013 and 2016, Empire filed its IRP triennial compliance filings using revenue class data.

II. End-Use Information for the Industrial Class

Commission Rule 4 CSR 240-22.030(4)(A)(1) requires that analysis for each major class include information by end-use to the extent possible. While Empire plans to use the Statistically Adjusted End-Use (SAE) method for the Residential and Commercial classes, as it did with its 2013 and 2016 filings, no end-use information is available for the Industrial class.

The SAE method is applicable to the Residential and Commercial classes because end-use data developed by the Energy Information Administration (EIA) and Itron exist for these classes. EIA and Itron do not maintain end-use information for the Industrial class. Likewise, Empire does not maintain end-use data for the Industrial class.