Manual 19 Changes

Tom Falin

Manager – Resource Planning

Markets & Reliability Committee

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- Second read – endorsement requested
- This revision represents the required periodic review of the entire Manual.

- Extensive revisions to incorporate changes to the load forecast model to:
  - Add variables to account for trends in equipment/appliance saturation and efficiency
  - Revise weather variables
  - Update economic area/weather station assignments to zones
  - Revise weather normalization procedure
- General housekeeping changes identified as part of the periodic review.

End-Use Trends:

Measures of the stock and efficiency of various electrical equipment and appliances used in residential and commercial settings are included in the forecast models, grouped by heating, cooling, and other. End-use variables for each PJM zone are applied by Census Division, as presented in Exhibit 3. End-use variables are weighted by the Residential and Commercial sales of each zone, per FERC Form 1 filings.

- PJM will publish a white paper on the forecast model in 2016 providing background and greater detail on the new forecast model.

Weather Data:

Weather is included in the models using different variables for heating, cooling and shoulder seasons. Weather variables are specified as splines over defined ranges. For the heating season (December, January and February), the Winter Weather Parameter is defined as:

- Splines are customized for each zone for each season, allowing for different load response along different ranges of the weather distribution.

For non-coincident weather-normalized seasonal peaks, daily zonal peak loads on non-holiday weekdays for a three-year period (the study year and two prior years) are regressed against a seasonal weather variable. The seasonal weather variables are those used in the load forecast model (as described in Section 3.2). Regressions only include days in the heating/cooling range (summer > 74 WTHI, winter < 45 WWP). A binary adjustment is applied for each of the two earlier years, to allow for load growth. The resulting regression equation is solved at each zone's weather standard, which is the average of the extreme seasonal weather variable values on non-holiday weekdays for a period consistent with the load forecast.

To determine coincident zonal weather-normalized seasonal peaks, the results of the non-coincident process described above are adjusted by each zone's average annual diversity to the PJM RTO seasonal peak over available history. The zonal values are summed to determine the PJM RTO seasonal weather-normalized peak.

- ## Load Data Reporting (Section 1):

EDC ability to submit loads via Power Meter is subject to a reporting window that includes the current month and three previous months. For example, in April, values for April, March, February, and January can be freely edited. For updates to months older than three full months prior, the participant must have PJM make the submission on their behalf. PJM may be contacted at mrkt_settlement_ops@pjm.com to arrange for assistance.

- ## Load Drop Estimates (Attachment A):

Contractually Interruptible

The estimated load drop for Firm Service Level and Guaranteed Load Drop customers is calculated as follows unless it is for DR Capacity Performance, Base or Economic resource for non-summer period (October 1 through May 31 of following year). Non-summer capacity performance will be determined for such resources and time period based on the economic CBL as described in Manual 11, section 10.:

- The changes describing the treatment of distributed solar generation in the load forecast model were removed and will be considered for endorsement at the December MRC meeting.

- The PC had requested this delay so that the MW impact of the solar generation changes could be reviewed at the November 30 LAS meeting prior to endorsement.

Endorsement of the Manual 19 language changes red-lined in the Manual 19 posted for this meeting.