Load Forecast Adjustment Guidelines

**Issue Identification**

PJM annually solicits information from its member Electric Distribution Companies (EDC) for large load shifts (either positive or negative) which are known to the EDC but may be unknown to PJM. PJM will send the request in mid-July with responses expected in time for any proposed adjustments to be reviewed with the Load Analysis Subcommittee in October/November.

Baltimore Gas & Electric requested that PJM consider reducing their zonal forecast to reflect a Conservation Voltage Reduction (CVR) program. The program was initiated by a State of Maryland Public Service Commission Order in December 2011 and the equipment installation began to come online in early 2014 with planned completion in 2021.

**Issue Verification – verify that identified issue is real and significant, using the following methods:**

Determine if the load change has been publically acknowledged through the media, press release, regulatory process, etc.

Verify that requesting EDC has adjusted its own financial/planning forecast

Ascertain that the load shift is related to a single site or a limited number of related sites (not a systemic cause)

Discuss with economic forecast vendor(s) whether or not the load shift is reflected in its/their economic forecast(s). Also, determine if the requested load adjustment’s load impact is consistent with its economic impact. Additionally, determine if the requested load adjustment is tied to any of the metro areas that PJM uses to define the economic variable of a zone.

Verify that any behind-the-meter generation adjustment has complied with PJM’s behind-the-meter process.

Determine adjustment’s significance, either by sheer magnitude or percentage of a zone’s load.

It is a systemic impact, but is independent of economic activity. It also is of significant magnitude.

**Adjustment Estimation- for each identified and verified issue, estimate its impact on peak load using the following methods (which may be combined):**

Acquire load history for the load that has/will change and produce analysis to isolate the impact (e.g., forecast runs with and without the load involved, trend analysis)

Acquire any contracted amounts of load changes

For any after-the-fact adjustments, review the zone’s forecast model’s residual pattern

Review any available independent analysis of the impact of the load change.

BGE provided historical and future peak reduction amounts due to CVR along with program documentation. This program started to come online in 2014 and its reduction capability has rapidly increased through recent history, reaching over 40MW this past summer. To formulate
an appropriate forecast adjustment, PJM first had to determine the amount already embedded in the forecast. To arrive at this amount, a forecast was run with peak reductions from the historical period added back and this was compared with an as-is forecast. The difference between these two forecasts provides an embedded amount (see green line in graph below). PJM then examined residual patterns over the period since the program’s inception and detected some relationship indicating that what has been installed to date is not completely embedded. As a result, no revision was made to the initially calculated embedded amount. The forecast adjustment is then determined as the difference of the forecasted amount and the embedded amount. The forecast adjustment grows to 50 MW in 2020 and then remains constant.

Adjustment Review – Each proposed load forecast adjustment will be reviewed with the Load Analysis Subcommittee prior to inclusion in the load forecast. The final decision on any load adjustment is made by PJM.

PJM has determined it appropriate to make a discrete forecast adjustment to the BGE transmission zone load.

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