Demand Response – Measurement and Verification of variable Economic DR resources

Problem / Opportunity Statement

The new economic DR market rules that went into effect on April 1 to comply with Order 745 require all economic DR resources to go through a CBL certification process. The CBL certification process uses the Relative Root Mean Square Error (“RRMSE”) calculation based on historic data to ensure the economic DR resource has a reasonably accurate CBL before the economic DR resource participates in the wholesale energy market. If the CBL receives an RRMSE below 20% the CBL is considered reasonably accurate. If the CBL receives an RRMSE above 20% the economic DR resource is considered variable and therefore a different CBL is considered/developed which will more accurately predict load and avoid load reduction estimates that do not reflect the specific load reduction activity done by the location based on participation in the PJM market. Many of the variable load customers are very large (Manufacturing, large university campus, etc) and more sophisticated measurement and verification measure may improve accuracy and foster participation.

Issue Source

PJM has reviewed several variable load customers with various CSPs since implementation of Order 745. There is a wide variety of variable customers where one customer may have an RRMSE score of 60% while another may have an RRMSE score of 30%.

Stakeholder Group Assignment

Demand Response Subcommittee

Key Work Activities

1. Review existing CBL certification market rules and associated administrative process.
2. Analyze variable economic DR participation to date in the energy market.
3. Review alternative CBLs utilized to date on variable load economic DR resources
4. Discuss and analyze alternative CBLs that will provide reasonably accurate CBL for variable economic DR resources while avoiding any free rider load reductions that may result from estimating variable loads.

Expected Deliverables

1. Analysis of existing variable DR economic resources and performance of alternative CBLs.
2. Potential modification to Manual 11 to include any alternative CBLs developed or other associated language/clarifications.

Expected Overall Duration of Work
Problem Statement/Charge

Feb – July, 2012: DRS – analyze and develop proposed solutions

Aug – Sept: MIC – proposed changes for endorsement

Oct – Nov: MRC – proposed changes for endorsement

Decision-Making Method

Tier 1, consensus (near-unanimity) on a single proposal (preferred,) or Tier 2, multiple alternatives.