LaaR Participation in RPRS

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March 3, 2006 Demand Side Working Group Meeting

RPRS – Definition

- Replacement Reserve Service - A service that is procured from Generation Resource units planned to be off-line and Load acting as a Resource that are available for interruption during the period of requirement. (Protocols 2)

- Security Constrained Unit Commitment (SCUC) Program

- Capacity used for
  - Local Congestion
  - Zonal Congestion
  - System Capacity

– Step 1: Local Congestion **(LaaRs not eligible)**
  - Generic Cost Based

– Step 2: Zonal Congestion & System Balance
  - Bid Based

– Step 3: MCPC Calculation

- Generators
  - Offline and available in the Resource Plan
  - RPRS bid not necessary

- LaaR
  - **Online, available, but not active in the Resource Plan**
  - **RPRS bid required**

- Day Ahead RPRS
  - Between 1600 and 1800

- Adjustment Period
  - At least 3 hours before end of the Adjustment Period
  - Protocol 4.5.6 contains a typical timeline which may be altered in a future PRR

RPRS – QSE Responsibilities

- What does the QSE do when RPRS is Procured from the QSE?
  - Receives an XML message
  - Updates Resource Plan accordingly
  - **Adds Entire Capacity from RPRS resource into Up Balancing Bid Stack**
  - Brings specified resource online at minimum, ready for dispatch for specified hours

Current Status Of LaaRs and RPRS

ERCOT has Identified 3 problems within our network model that are due to our LaaR modeling and its relationship to other loads or generation

1.LaaRs located/mapped to substations with telemetered load.

2.LaaRs located/mapped to substations without telemetered load

3.LaaRs located on Private Networks

Temporary solution is to not select LaaRs in RPRS until these 3 problems are solved.

LaaRs located/mapped to substations with telemetered load

Problem: LaaR load is already included in the station schedule resulting in a double counting of the LaaR load

Solution: Simply subtract the LaaR schedule created in SFT with the station load schedule also created in SFT. This will eliminate the double counting of the LaaR Load at the station.

Current Status Of LaaRs and RPRS

LaaRs located/mapped to substations without telemetered load

Problem: LaaR load is already included in the station schedule resulting in a double counting of the LaaR load

Solution: ERCOT is in the process of working with various TDSP's to obtain a percent breakdown of the LaaR load versus the firm load at each of these stations. ERCOT will use the LaaR % of firm load to calculate the remaining non-LaaR load at each station.

LaaRs located on Private Networks

Problem: LaaR load scheduled without and generation scheduled to serve the load results in a power flow into the PN in SFT

Solution: Require PN's with LaaRs to schedule at least enough generation to cover the LaaR load