



AESP Energy Awards February 9, 2010

Outstanding Achievement Pricing and Demand Response

PARTICIPATING LOAD PILOT (PLP)

Objective: Over the course of 2009, Southern California Edison (SCE) conducted a “Participating Load Pilot” (PLP) to examine the feasibility of using demand response aggregated from residential air conditioner loads as non-spinning reserve in the California Independent System Operator’s (CAISO) wholesale ancillary services market.

Description: SCE’s principal innovation in this pilot was the utilization of a small sampling of loads (around 15% of the total number of aggregated loads) could be equipped with telemetry to serve as a telemetry proxy to gauge the availability of the total load aggregation.

Key Results: The initial results reveal that relatively small statistical sampling of loads can be equipped with telemetry to serve as a telemetry proxy for the total load aggregation with approximately 95% accuracy. The second encouraging finding is that aggregated load drops can be disabled utilizing higher level load monitoring SCADA systems currently in place to support grid control. The anticipated benefits include the potential for small aggregated demand response resources to competitively serve as ancillary services in the California wholesale market. This participation of small loads could eventually pave the way for, among other things, successful integration of intermittent renewable resources onto the grid.

For more information: Jeremy Laundergan, Sr. Project Manager, SCE 626-633-4807 Jeremy.laundergan@sce.com