

Load Management Testing Requirements

Problem / Opportunity Statement

The PJM DR Strategy, created and published about two years ago, identified testing as an area of focus for the medium term. The true DR/PRD capability on the PJM system is not really known since in recent years it has been dispatched on an infrequent basis. While customers commit to providing DR/PRD primarily to reduce electricity cost, it is not the primary business purpose of the customer.

Load Management events or required PRD response are of the low frequency, high impact type. There have been no events requiring mandatory response in the last five years (low frequency). The most recent (Load Management in 2013) involved reductions from 8,500 resources totaling 6,000MW across 15 transmission zones (high impact). In years when there are no mandatory events, performance is demonstrated by a 1 hour CSP scheduled test during the summer.

Current test requirements were developed when Load Management only had the Limited DR (“LDR”) availability requirements for availability, number of interruptions and duration. PRD adopted the existing Load Management test requirements. Load Management capability requirements have significantly changed with annual Capacity Performance (CP), for example:

- CP reductions can be called any day of the year vs. LDR only summer, non-holiday, weekdays,
- CP event duration can be up to 15 hours vs, LDR 6 hours,
- The maximum number of reductions for CP is unlimited vs. just ten for LDR.

Load Management Test performance scores are significantly higher than measured performance in actual mandatory events. Test performance has averaged approximately 123% vs. approximately 97% in actual events. This indicates that testing may not reflect performance during actual events. PRD has never had to respond and has not yet been tested.

Additional issues include: system changes, including electronic transmission of dispatch instructions over the web, that been implemented but are not tested under the current testing protocol; obtaining revenue for energy reductions during a test requires additional administrative setup in the economic energy market that is not an integral part of the current testing protocol and PJM’s need for better visibility and understanding of the capability of DR/PRD resources under various conditions.