



M&V for Residential DR in Energy and Capacity Markets

Demand Response
Subcommittee
May 16, 2014

- Problem statement endorsed at April MIC
- Issue charge endorsed at May MIC
- Expected duration
 - Manual changes only: 6 months
 - Tariff changes: 9 months before FERC filing

- Past
 - Direct load control (DLC)
 - Legacy DLC using radio controlled switches, one way communication, no AMI
 - All programs run by EDC
- Future
 - DLC (adaptive algorithm), thermostat controlled, behavioral programs
 - AMI
 - LSE and third party CSP participation
 - Dynamic management of customers that should be cycled



- Interval metered
 - M&V based on actual meter data
 - Must pass CBL test (like non-residential DR)
- Non-interval metered
 - M&V based on load research study using historic data
 - Deemed savings report – available for all PJM members
 - Load research study submitted by CSP
 - Switch operability study
- Interval metered sample
 - M&V based on actual meter data from a sample of customers

- Deemed savings report
 - Sunset or update?
 - Criteria for using
- Load research study
 - Methodology consistency
 - Criteria for using
 - Eliminate picking/choosing
- Switch operability study
 - Methodology consistency
 - When necessary

- Customer churn
- PLC
 - PLC for residential customers is sometimes class average
- Sample size
 - What level of error is acceptable

- **Tariff and Manual references**

- **Tariff**
 - Non-hourly metered customer pilot
 - Direct Load Control (DLC) – ... DLC programs are qualified based on load research and customer subscription data. Providers may rely on the results of load research studies identified in the PJM Manuals to set the per-participant load reduction for DLC programs.
 - Compliance for Direct Load Control programs will consider only the transmission of the control signal.

- Manual 19 Appendix B
 - Load Management Providers with Direct Load Control programs which employ a radio signal may elect to utilize the base per-participant impacts contained in the “Deemed Savings Estimates for Legacy Air Conditioning and Water Heating Direct Load Control Programs in PJM Region” report.