Demand resource emergency energy measurement and verification

MIC

6/4/14
Existing Process – Emergency Energy settlements

- Emergency Full DR registrations receive compensation for real time energy load reductions when dispatched
- Real time energy load reductions based on:
  - If only an emergency registration then hour before event is CBL
  - If there is economic registration at time of settlement submission then use economic CBL

Current rules established to balance administration with load reduction accuracy
• High volume of PJM dispatches
  – 11 days in 13/14 DY to date
  – $86.5 mm (March tbd)
• DR dispatch during non-summer months
• DR dispatch during early morning hours
• Multiple dispatches in same day
• DR dispatch of several hours
1. Accuracy of the hour before CBL methodology
2. Cumbersome administrative process to use an economic CBL which requires an EDC review.
3. After the fact selection of CBL to use for settlements and process used to determine which registrations require settlement.
4. Use of economic CBL from economic registration when customer primarily participates in ancillary service market and economic CBL is conservative ("max base load").
Issue 1: Accuracy of Hour Before CBL

- Rational for existing market rules
  - Economic CBL is more accurate approach and therefore use when available.
    - Accuracy demonstrated through RRMSE test
    - Conclusion from prior extensive empirical analysis
  - Administrative effort to collect historic meter data for RRMSE may not be worth the effort for CSP
    - DR resource may never be dispatched for emergency
  - Allow CSP to make decision on administrative effort after event but before submission deadline (60 days after the event).
Issue 1: Accuracy of Hour Before CBL

- Potential solution: Use current default economic CBL as emergency energy CBL
- Impact:
  - Load reduction will be more accurate (mornings, afternoons, winter/summer)
  - More hourly data will be required to complete emergency settlement.
Issue 2: Cumbersome administrative process to use an economic CBL which requires an EDC review.

- Potential Solution: If we use proposed solution for issue 1 then this may no longer be an issue
Issue 3: After the fact selection of CBL to use for settlements and process used to determine which registrations require settlement.

• Potential Solutions:
  – Proposed solution for number 1 will help
  – Only use CBL on economic registration if economic registration in place prior to emergency event
    • This will eliminate picking and choosing after the fact
  – Develop guidelines for when settlements may be submitted
    • Voluntary event – CSP receives confirmation from registration that they reduced load during event
    • Mandatory event – submit when capacity compliance records are also submitted
Issue4: Use of economic CBL from economic registration when customer primarily participates in ancillary service market and economic CBL is conservative ("max base load").

- Potential Solutions:
  - Use Emergency CBL if Economic CBL is Max Base Load.