PJM Demand Response Communication Manual Revisions

March 2013
SOS
Background

- Electronic communication requirements in tariff
  - FERC Order 745
  - Shortage Pricing
- Manual revisions to incorporate the tariff requirements
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<th>Events</th>
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<th>Present</th>
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<tr>
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Objectives:

1. Get off of email as primary means of communication (not reliable, one way, no acknowledgement)
2. Standardize on an two way electronic method that has acknowledging feedback capability
3. For emergency events, to have the ability to specify specific registrations needed to respond
4. Leverage existing eLRS system infrastructure
5. Keep implementation and ongoing operational costs reasonable for CSPs
Event Notification – end state

• Emergency DR
  – Primary Channel: Web Service
  – Reinforcing Channel: All Call
  – Reinforcing Channel: Emergency Messages Website

• Economic DR in energy market
  – Primary Channel: Web Service
  – Backup Channel: email

• Economic DR in Synchronized Reserve market
  – Primary Channel: Web Service
  – Alternate Channel: ARCOM
  – Reinforcing Channel: All Call
• Emergency DR
  – Same as past summers
  – Will begin phase in of Web Service notification

• Economic DR
  – Same as present, Web Service and email from eLRS
  – Moving away from email (end of year)

• Synchronized Reserve DR
  – Same as present, All Call and ARCOM
  – Moving toward adding Web Service
Manual 1 Proposed Language Key Points

• Events
  – Real time dispatch instructions
  – Emergency events
  – Synch reserve events

• CSPs poll on a one minute basis
  – Via web services

• Communication link via web services
  – Continuous check for event notifications and instructions
  – Acknowledgement of receipt
  – PJM can provide software client to perform polling and acknowledgement
Channels

• **Primary Channel**
  - Official notification
    • Contain times and instructions

• **Backup Channel**
  - Implemented when Primary Channel not available

• **Reinforcing Channel**
  - A message sent separately that echoes the primary message
    • May not contain the same level of detail as the primary channel
    • Needed for emergency related messages
    • Serves as backup channel

• **Alternate Channel**
  - A message sent in parallel with the primary message to specific device

• **Beta Channel**
  - First implementation of future primary channel
– PJM Tariff - Section 1.5A.4 *Metering and Electronic Dispatch Signal.*

  • b) Curtailment Service Providers shall be responsible for maintaining, or ensuring that Economic Load Response Participants maintain, the capability to receive and act upon an electronic dispatch signal from the Office of the Interconnection in accordance with any standards and specifications contained in the PJM Manuals.

– PJM Tariff - PJM Emergency Load Response Program, Section *Emergency Operations*

  • PJM will initiate an electronic message to Curtailment Service Providers notifying them of the Load Management event; Curtailment Service Providers are required to have the capability to retrieve this electronic message as described in the PJM Manuals.
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Resources

– Electronic Notification Training document:
  • http://www.pjm.com/training/~media/training/core-curriculum/ip-dsr/order-745-electronic-notification-technical-training.ashx

– eLRS Web Services Guide (see Section 7):
  • http://www.pjm.com/markets-and-operations/etools/elrs/~media/etools/elrs/elrs-web-services-guide.ashx

– Daily simulated dispatches in Sandbox
  • CSPs can gain experience

– Generic polling and acknowledgement client available