PJM proposed sub-zonal dispatch for ‘12/’13 Delivery Year and beyond

DRS (Demand Response Subcommittee)
9/27/2011
• Current market rules allow zonal, lead time and sub-zonal dispatch:
  – Key limitation based on use of ALL CALL technology
• Successful implementation of sub-zonal dispatch summer 2010 and summer 2011.
• Existing sub zonal procedure documented and communicated to stakeholders to eliminate any confusion
Leverage existing process & enhance to make easier to execute
Improve transparency and expand language in Manual(s)
Balance system need for granularity/flexibility with CSP concerns
Continue to expect zonal dispatch by lead time to be typical action and sub zonal event to be atypical
<table>
<thead>
<tr>
<th>Identified interest</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Sub zones defined in advance to enable CSP to easily dispatch their customers.</td>
<td>Subzones created 1 day in advance AND PJM will send electronic notification with list of all registrations that must comply to enable CSP downstream notification of customers.</td>
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<td>Transparency of rules from Dispatch to Settlements (clear communication for customer expectations)</td>
<td>Clearly documented rules that will remain fairly consistent with existing process (no significant transition for customer)</td>
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<td>Flexibility to manage the system based on unpredictable conditions</td>
<td>Enables PJM flexibility to effectively manage system when under emergency conditions &amp; understand what will show up for operators</td>
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<td>No mandatory compliance for sub zonal event</td>
<td>Does not change existing responsibility of resource and therefore must respond during emergency event</td>
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<td>More effective notification solution</td>
<td>Implement electronic notification system that will provide CSP list of registrations that must respond to event and enable CSP downstream notification of customers</td>
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<td>Electronic message instead of ALL CALL</td>
<td>Yes – see above</td>
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<td>Operational feasibility for DLC</td>
<td>Residential DLC deployment will be based on operational feasibility of CSP at time of deployment. If not capability to deploy zonally then PJM to provide explicit instruction</td>
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<td>Normally all included on 1 registration</td>
<td>Yes – PJM will dispatch at the registration level to avoid confusion and eliminate complexity of developing prorate location level nomination</td>
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<td>Minimize member administration (eg: pnode identification and maintenance)</td>
<td>PJM will base on zip codes and not require pnodes by CSP and EDC. See electronic message above.</td>
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<td>More effective test plans since only part of zone may actually get dispatched</td>
<td>Similar situation to zonal dispatch. Since CSP does not know if zone will be dispatched or not until after September 30 there is no significant difference between test plans for a zone or a subzone.</td>
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• Compliance process
• Test process
• Governing Documents and expected impact
Sub Zonal Dispatch: Current Compliance Process

• Number of events used to determine event multiplier based on number of events the registration has been dispatched
  – PEPCO DC dispatched twice
  – PEPCO zone dispatched once
  – 33% for PEPCO DC registrations (since they were actually dispatched 3 times) and 50% for non DC PEPCO resources (since they were actually only dispatched once and need to take min of 50% or 1/# events)

• Sub-zonal commitment based on registrations that were dispatched:
  – ILR = nominated capacity of registrations dispatched
  – DR = DR commitment * (nominated value of DR registrations dispatched/Total nominated value of DR registrations in zone).
  – CSP may not use other zonal registrations to substitute sub-zonal registrations that are dispatched.
  – Registrations dispatched based information submitted by CSP for location in eLRS.
    • PJM will use zip codes in eLRS just prior to event to determine exactly which registrations are required to respond.
Sub zonal Dispatch: Current Test Process

• If registrations not dispatched then still required to perform annual test.
  – For example in 2010:
    • APS (WV, VA and MD) dispatched and therefore not required to Test
    • APS (PA) NOT dispatched and therefore required to Test
      – If test already conducted it is not necessary for CSP to submit the results.

• Sub-zonal commitment based on registrations that were NOT dispatched:
  – ILR = nominated capacity of registrations NOT dispatched
  – DR = DR commitment * (nominated value of DR registrations NOT dispatched/Total nominated value of DR registrations in zone).
  – CSP may not use other zonal registrations that were dispatched to substitute registrations that are required to test.
Governning Documents

- OATT
  - Market Operations
  - Attachment DD
  - Attachment DD-1
- OA
- RAA
- M13
- M18
- M10

Updates Expected to be required