PJM’s Implementation of Order 845

Susan McGill
Manager, Interconnection Analysis
• Ten reforms accepted by the Commission
  – Effective on July 23, 2018
  – Compliance deadline November 5, 2018 – TBD (90 days after order for rehearing)

• Adopted reforms:
  • Interconnection Customer’s Option to Build
  • Dispute Resolution
  • Identification and Definition of Contingent Facilities
  • Transparency Regarding Study Models and Assumptions
  • Definition of Generating Facility
  • Interconnection Study Deadlines
  • Requesting Interconnection Service below Generation Facility Capacity
  • Provisional Interconnection Service
  • Utilization of Surplus Interconnection Service
  • Material Modification and Incorporate of Advanced Technologies
Special Planning Committee Sessions

- August 20, 2018 – Initial proposed changes
- October 16, 2018 – Follow up and response to stakeholder questions
- [https://www.pjm.com/committees-and-groups/committees/pc.aspx](https://www.pjm.com/committees-and-groups/committees/pc.aspx)
## Improving Certainty for Interconnection Customers

<table>
<thead>
<tr>
<th>Reform Proposed in the NOPR</th>
<th>Status in the Order</th>
<th>PJM’s Implementation Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled periodic restudies</td>
<td>Not adopted</td>
<td></td>
</tr>
<tr>
<td>Interconnection Customer’s Option to Build</td>
<td>Adopted</td>
<td>Tariff changes drafted</td>
</tr>
<tr>
<td>Self-funding by the Transmission Owner</td>
<td>Not adopted</td>
<td></td>
</tr>
<tr>
<td>Dispute Resolution</td>
<td>Adopted</td>
<td>Tariff changes drafted</td>
</tr>
<tr>
<td>Capping Costs for Network Upgrades</td>
<td>No action</td>
<td></td>
</tr>
</tbody>
</table>
## Reform Proposed in the NOPR

<table>
<thead>
<tr>
<th>Reform Proposed</th>
<th>Status in the Order</th>
<th>PJM’s Implementation Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification and Definition of Contingent Facilities</td>
<td>Adopted</td>
<td>Tariff changes drafted</td>
</tr>
<tr>
<td>Transparency Regarding Study Models and Assumptions</td>
<td>Adopted</td>
<td>Tariff changes drafted</td>
</tr>
<tr>
<td>Congestion and Curtailment Information</td>
<td>Not Adopted</td>
<td></td>
</tr>
<tr>
<td>Definition of Generating Facility</td>
<td>Adopted</td>
<td>Tariff changes drafted</td>
</tr>
<tr>
<td>Interconnection Study Deadlines</td>
<td>Adopted</td>
<td>Tariff changes drafted</td>
</tr>
<tr>
<td>Improving Coordination with Affected Systems</td>
<td>No action</td>
<td></td>
</tr>
</tbody>
</table>
## Enhancing Interconnection Processes

<table>
<thead>
<tr>
<th>Reform Proposed in the NOPR</th>
<th>Status in the Order</th>
<th>PJM’s Implementation Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requesting Interconnection Service below Generation Facility Capacity</td>
<td>Adopted</td>
<td>PJM work in progress</td>
</tr>
<tr>
<td>Provisional Interconnection Service</td>
<td>Adopted</td>
<td>PJM work in progress</td>
</tr>
<tr>
<td>Utilization of Surplus Interconnection Service</td>
<td>Adopted</td>
<td>PJM work in progress</td>
</tr>
<tr>
<td>Material Modification and Incorporate of Advanced Technologies</td>
<td>Adopted</td>
<td>PJM work in progress</td>
</tr>
<tr>
<td>Modeling of Electric Storage Resources for Interconnection Studies</td>
<td>Not Adopted</td>
<td></td>
</tr>
</tbody>
</table>
PJM’s Proposed Implementation for the 10 Adopted Reforms
Interconnection Customer’s Option to Build

• Requires:
  – Interconnection Customer (IC) to request Option to Build at its discretion
  – Applicable to Transmission Owner (TO) interconnection facilities and stand alone network upgrades

• Current process
  – IC may request Option to Build through mutual agreement with TO or when TO cannot meet the IC’s schedule
  – All network upgrades listed in the System Impact Study are available for Option to Build
Interconnection Customer’s Option to Build

• Changes
  – OATT: CSA Section 3.2.3:
    • Allow IC to elect Option to Build for Direct Connection Network Upgrades or Transmission Owner Attachment Facilities. The TO and IC must agree on which network upgrades fall into these categories.
    • IC will have no rights for Option to Build on Non-Direct Network Upgrades or Local Upgrades.

  – OATT: CSA Section 3.2.2:
    • If the Interconnected Transmission Owner cannot meet Interconnection Customers in-service date for the work the Interconnected Transmission Owner and the Interconnection Customer may mutually agree to a Negotiated Contract Option.
Dispute Resolution

• Requires the ability for a party making an Interconnection Request to unilaterally request non-binding dispute resolution.

• The current dispute resolution process contained in OATT, section 12.1 remains unchanged.

• Changes:
Identification and Definition of Contingent Facilities

• Requires definition and methodology to identify contingent facilities.

• PJM currently identifies all constraints and contingent facilities in the System Impact Study Reports including Baseline, Network, and Supplemental projects that may impact the Interconnection Request.

• Changes:
  – OATT: New definition, changes to section 205.2 (Scope of Studies)
  – M14A: Clarification to existing language
Transparency Regarding Study Models and Assumptions

• Requires increased transparency of the network models and underlying assumptions.

• PJM currently published all base case models on a protection section of the website for customers with CEII access.

• Assumptions for each TO zone are presented during the TEAC meetings and published with the meeting materials on PJM’s website.

• Changes:
  – OATT: clarification of existing processes, changes to section 36.1.7 (Base Case Data)
• Requires the definition of a Generating Facility to include storage facilities.

• PJM already treats storage resources as generation facilities for the Interconnection Process.

• Changes:
  – OATT: New definition. Updates to existing definitions as needed
Interconnection Study Deadlines

- Requires quarterly, public reporting on study report performance statistics for a rolling 3-year period.
  - Feasibility Study performance and backlog
  - System Impact Study performance and backlog
  - Facilities Study performance and backlog
  - Withdrawn projects
  - Hours spent by all parties working on Interconnection studies

- Greater that 25% of projects issued after the study deadline will initiate a formal report to the Commission for at least 1 years
Interconnection Study Deadlines

• Changes that will be requested by PJM:
  – Extend reporting period to 6-months consistent with the 6-month queue cycle
  – Include a count of non-backlogged projects
  – Modification to the late issuance rate calculation
  – Include categories for all points when a project withdraws

• Changes for Transmission Owners:
  – All TOs provide invoices to PJM for reimbursement by the Interconnection Customer.
  – TOs must now also provide employee and contractor hours associated with Interconnection studies

• OATT Changes
  – New OATT section to document requirements and metrics
• Requesting Interconnection Service below Generating Facility Capacity
• Provisional Interconnection Service
• Utilization of Surplus Service
• Material Modification and Incorporation of Advanced Technologies