Review of Generator Interconnection Agreements and Procedures Technical Conference
Docket Nos. RM16-12-000 and RM15-21-000
May 13, 2016, Washington, DC

9:00 am – 9:20 am Welcome and Commission Staff Opening Remarks

9:20 am – 10:20 am The Current State of Generator Interconnection Queues

Panelists should be prepared to discuss the following topics:

1. How well generator interconnection queues are working, the metrics that are used to evaluate queue performance, and whether there are clear areas in which improvement is needed.
2. Whether projects in the queue contributing most significantly to queue backlogs are geographically dispersed or concentrated. Whether there are queue solutions that might adequately account for the geographic characteristics of projects contributing to queue congestion.
3. Queue management practices and whether there are best practices that should be incorporated across regions.
4. The extent to which regions have pursued changes to the generator interconnection process that could be implemented without requiring tariff changes, as noted by the Commission in the 2008 order on interconnection queue practices.[1]
5. The primary considerations that should be taken into account when developing solutions for each region's individual interconnection queue issues.

Panelists:

- **Tim Aliff, Director of Reliability Planning, Midcontinent Independent System Operator, Inc.**

[1] *Interconnection Queueing Practices,* 122 FERC ¶ 61,252, at P 10 (2008). As guidance in this order, the Commission stated that reforms made without tariff changes could include: increasing the staff available to work on interconnection studies; adopting more efficient modeling for feasibility studies or system impact studies; and performing a single system impact study for a cluster of interconnection requests.

- **David Gabbard, Director, Electric Generation Interconnection, Pacific Gas and Electric Company**
- **Dean Gosselin, Vice President of Business Management Transmission Services, NextEra Energy Resources LLC**
- **Alan McBride, Director, Transmission Strategy and Services, ISO New England, Inc.**
- **Steven Naumann, Vice President, Transmission and NERC Policy, Exelon Corporation**
- **Rick Vail, Vice President, Transmission, PacifiCorp**

10:20 am – 10:30 am: Break

10:30 am – 12:00 pm: Transparency and Timing in the Generator Interconnection Study Process

Panelists should be prepared to discuss the following topics:

1. The length of time it takes to complete the interconnection process, causes of variances in receiving study results, causes of variations in length of time in the queue, and how delays (and their causes) are reported to interconnection customers.
2. How study costs are determined, how consistent these costs are between markets and regions, whether (and how) interconnection customers are made aware of study costs in advance of requesting interconnection service.
3. The information (models, assumptions, cost estimates, etc.) to which interconnection customers currently have access and the stage in the interconnection process when such access is provided (pre-request, study stage, etc.). Whether additional information (historical and/or projected curtailment or pricing information, etc.) should be available to interconnection customers to assist them in planning projects, and the challenges and/or barriers to providing this information.
4. How the capacity factor used for variable generation modeling is determined (in general terms) and shared with interconnection customers.
5. The triggers for restudy, how they are determined, and whether they are stated in the tariff. The possible effect that limiting the number of restudies would have on reliability or cost estimates, allocations, or assignments.

Panelists:

- **David Angell, Manager of Customer Operations Planning, Idaho Power**
- **Jennifer Ayers-Brasher, Director, Transmission & Market Analysis, E.ON Climate & Renewables NA**

- **Joshua Bohach, Senior Development Manager, EDP Renewables North America**
- **David Egan, Manager, Interconnection Projects, PJM Interconnection, L.L.C.**
- **Charles Hendrix, Manager, Generation Interconnection Studies, Southwest Power Pool, Inc.**
- **Randall Oye, Transmission Access Analyst, Xcel Energy**
- **Stephen Rutty, Director of Grid Assets, California Independent System Operator, Inc.**
- **Kris Zadlo, Senior Vice President or Regulatory Affairs, Storage and Transmission, Invenergy LLC**

12:00 pm – 1:00pm **Break for Lunch**

1:00 pm – 2:10 pm **Certainty in Cost Estimates and Construction Time**

Panelists should be prepared to discuss the following topics:

1. The manner in which disputes regarding interconnection configurations or direct assignment and network upgrade costs are typically resolved and how such disputes could be avoided. The frequency of such disputes.
2. When cost and construction schedule estimates are provided to interconnection customers and the accuracy of these estimates compared to actual results. Whether early cost estimates are sufficient to allow customers to make decisions whether to move forward with a project. The process changes necessary to provide more accurate estimates earlier to interconnection customers.
3. The factors that affect accuracy of cost and schedule estimates and how estimate variances can be reduced.
4. How other queued facilities that may impact an interconnection customer's request are identified and when interconnection customers are made aware of such facilities (e.g., a lower-queued project being informed that the withdrawal of a specific higher-queued project may affect it). The challenges of identifying those facilities that may impact an interconnection request.

Panelists:

- **Tim Aliff, Director of Reliability Planning, Midcontinent Independent System Operator, Inc.**
- **Dean Gosselin, Vice President of Business Management Transmission Services, NextEra Energy Resources LLC**
- **Paul Kelly, Director, Federal Regulatory Policy, Northern Indiana Public Service Company (on behalf of MISO Transmission Owners)**
- **Omar Martino, Director, Transmission, EDF Renewable Energy**

- **Alan McBride, Director, Transmission Strategy and Services, ISO New England, Inc.**
- **Stephen Rutty, Director of Grid Assets, California Independent System Operator, Inc.**
- **Rick Vail, Vice President, Transmission, PacifiCorp**

2:10 pm – 2:20 pm **Break**

2:20 pm – 3:30 pm **Other Interconnection Queue Coordination and Management Issues**

Panelists should be prepared to discuss the following topics:

1. Coordinating interconnection requests with affected systems[2] and the challenges associated with affected system coordination and areas for improvement.
2. The types of changes to a project that should be allowed without changing the project's position in the queue, i.e., determining an appropriate threshold for modifications to a project before it should lose its place in the queue.
3. How to manage the effects of project withdrawals from the interconnection queue and possible best practices to keep the queue moving despite project withdrawal. The appropriate balance between attempts to prevent speculative projects from entering the queue and the recognition that the study process is designed to iteratively provide information that project developers will use to decide whether to proceed or withdraw (possibly causing restudies).
4. How transmission providers, transmission owners, and interconnection customers coordinate during the interconnection process, and possible areas for improvement.
5. Technologies, tools, or administrative processes that could improve the accuracy of cost and time estimates, reduce the processing time, or increase the efficiency of the interconnection queue process.

Panelists:

- **Tim Aliff, Director of Reliability Planning, Midcontinent Independent System Operator, Inc.**

[2] As defined in the *pro forma* LGIA and *pro forma* LGIP, Affected System refers to an electric system other than the transmission provider's transmission system that may be affected by the proposed interconnection. Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 at App. 6 (Standard Large Generator Interconnection Agreement), art. 1, *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1230 (2008).

- **David Angell, Manager of Customer Operations Planning, Idaho Power**
- **Jennifer Ayers-Brasher, Director, Transmission & Market Analysis, E.ON Climate & Renewables NA**
- **Daniel Barr, Principal Engineer, ITC Holdings**
- **Charles Hendrix, Manager, Generation Interconnection Studies, Southwest Power Pool, Inc.**
- **Paul Kelly, Director, Federal Regulatory Policy, Northern Indiana Public Service Company**
- **Omar Martino, Director, Transmission, EDF Renewable Energy**
- **Steven Naumann, Vice President, Transmission and NERC Policy, Exelon Corporation**

3:30 pm – 4:45 pm Interconnection of Electric Storage Resources

Panelists should be prepared to discuss the following topics:

1. Whether existing small and large *pro forma* interconnection agreements and procedures are sufficient to accommodate the interconnection of electric storage resources.
2. Modeling of electric storage resources for interconnection studies, including potential means for interconnection studies to better reflect the intended operation of electric storage devices.
3. Interconnection of combined storage and generation facilities, including (i) the appropriate level of interconnection service for the combined facility; (ii) the operational understanding, telemetry, and metering of the combined facility; and (iii) the appropriate interconnection process for adding storage to an existing generation facility.
4. Potential processes to facilitate the interconnection of electric storage resources.
5. Interconnection of distribution-level and aggregated electric storage resources that participate in the RTO and ISO markets.

Panelists:

- **David Egan, Manager – Interconnection Projects, PJM Interconnection, L.L.C.**
- **Mason Emnett, Senior Attorney, NextEra Energy, Inc.**
- **John Fernandes, Director, Policy & Market Development, RES Americas**
- **David Gabbard, Director, Electric Generation Interconnection, Pacific Gas and Electric Company**
- **Alan McBride, Director, Transmission Strategy and Services, ISO New England, Inc.**
- **Stephen Rutty, Director of Grid Assets, California Independent System Operator, Inc.**

4:45 pm – 4:55 pm **Closing Remarks**