PJM SEASONAL CAPACITY TECHNICAL CONFERENCE

Docket Nos. EL17-32-000 and EL17-36-000
April 24, 2018

The purpose of this Commission staff-led technical conference is to examine issues related to the procurement of capacity in PJM Interconnection, L.L.C. (PJM), including peak shaving practices within the context of PJM's transition to 100 percent Capacity Performance Resources, the calculation of loss of load expectation (LOLE), the distribution of LOLE over the year in setting capacity procurement requirements, and the possibility of procuring different amounts of capacity in different seasons.

9:30 AM – 9:40 AM Welcoming Remarks

9:40 AM – 11:00 AM Peak Shaving Panel

The objective of the Peak Shaving panel is to review current practices to account for customer peak shaving efforts in the PJM footprint and possible alternatives. Specifically, this panel will review how PJM currently accounts for peak shaving in its load forecasting methodology, with a focus on reducing a specific Locational Deliverability Area's (LDA) capacity obligation to maintain reliability, and advantages and disadvantages of the current practices. Additionally, this panel will examine alternatives to PJM's peak shaving practices, including modifications to PJM's load forecasting methodologies, again focusing on satisfying a specific LDA's capacity obligation to maintain reliability, the advantages and disadvantages of alternative methodologies, and obstacles to implementing those alternative methods. To examine these issues, Commission staff expects to explore the following questions:

1. What is the role of peak shaving where demand can alternatively reflect its peak needs via Demand Response, Energy Efficiency, and Price Responsive Demand? Further, how does PJM account for the effect of these products in its capacity market given their impacts in the energy market?

2. Are there reasonable modifications to these products that could be alternatives to modifying PJM's load forecasting methodology?

3. Does the seasonal nature of most customer peak shaving efforts negatively impact their ability to provide Demand Response, Energy Efficiency, and Price Responsive Demand in PJM's markets?

- **Majorie Philips, Direct Energy Business Marketing, LLC**
- **Bruce Campbell, CPower**
- **Tom Falin, PJM Interconnection, L.L.C.**
- **William Fields, Maryland Office of People's Counsel**
- **Joseph Bowring, Monitoring Analytics**

11:00 AM – 11:15 AM Break

11:15 AM – 12:30 PM Loss Of Load Expectation Panel

The objective of the Loss of Load Expectation (LOLE) panel is to review PJM's current LOLE risk allocation practices. Specifically, this panel will examine whether PJM's existing practice of placing the majority of LOLE risk in the 10 peak-summer weeks while holding a near-zero LOLE risk in the remaining 42 (non-summer) weeks of the year accurately reflects the relative values of reliability in the two seasons . This panel will also review how PJM accounts for outage-related factors in its LOLE calculations. To examine these issues, Commission staff expects to explore the following questions:

1. What are the underlying assumptions and calculations that support PJM's current LOLE risk allocation? What seasonal, economic, or operational characteristics are accounted for in PJM's LOLE risk allocation calculations?

2. Given PJM's procurement of additional reserves above the required reserve margin, how does maintaining the current LOLE risk allocation reflect the value of generation supply in the summer months vs. winter months? How does PJM account for its additional reserves procured above its required reserve margin in its current LOLE assumptions and calculations?

3. Considering that the Polar Vortex of 2014 was a contributing factor in the creation and implementation of Capacity Performance, what is the justification for maintaining a LOLE risk allocation that emphasizes summer-period outages?

4. Based on the evidence PJM provided to its stakeholders showing alternate LOLE allocations, what is the ideal or correct LOLE risk allocation? If PJM were to use an alternate LOLE risk allocation methodology, how would the corresponding differences in summer vs. winter resource procurement affect the Variable Resource Requirement Curve?

- **Michael Cocco, Old Dominion Electric Cooperative**
- **Tom Rutigliano, Advanced Energy Management Alliance**
- **Tom Falin, PJM Interconnection, L.L.C.**
- **Michael Jacobs, Union of Concerned Scientists**
- **Joseph Bowring, Monitoring Analytics**

12:30 PM – 1:30 PM Lunch Break

1:30 PM – 4:15 PM Seasonality Panel

The objective of this panel is to discuss the value and feasibility of alternatives to PJM's current LOLE practices that may better account for seasonal patterns in PJM's capacity needs. Specifically, this panel will examine the advantages and disadvantages of procuring capacity under alternate LOLE allocations (e.g., 2-8 allocation, which allocates a two percent risk in the 42 non-summer weeks and an eight percent risk in the 10 peak-summer weeks) while retaining the existing 10 percent annual LOLE. This panel will also discuss possibilities for shifting capacity procurement to a seasonal-based construct. The panel will explore alternative ways of procuring different amounts of capacity in different parts of the year, e.g., PJM's past practice of procuring both annual and seasonal resources in the same auction, versus creating two distinct auctions to separately procure capacity in the summer and capacity in the rest of the year. To further examine this issue, Commission staff expects to explore the following questions:

1. Are there feasible alternatives to PJM's current LOLE practices that may better account for the seasonal needs of PJM's system? If so, what are they and what benefits would each provide? What transition costs would they entail?

2. What are the implementation challenges to adopting a seasonal capacity market construct? Specifically, what assumptions would PJM have to modify to facilitate a seasonal capacity market construct? What new assumptions would PJM have to make for a seasonal capacity market construct?

3. Under a seasonal capacity market construct, what LOLE risk allocation across summer and winter periods would appropriately reflect PJM's summer peaking

nature? If PJM explores this possibility, what criteria should be used to determine a reasonable LOLE risk allocation between the seasons?

- **Steven Lieberman, American Municipal Power**
- **Tom Rutigliano, Advanced Energy Management Alliance**
- **Stu Bresler, PJM Interconnection, L.L.C.**
- **Sam Newell, The Brattle Group**
- **Andrew Place, Pennsylvania Public Utility Commission**
- **Roy Shanker, Independent Consultant**
- **James Wilson, Wilson Energy Economics**
- **Rob Gramlich, Grid Strategies, LLC**