UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Old Dominion Electric Cooperative v. PJM Interconnection, L.L.C.	Docket Nos. EL17-32-000
Advanced Energy Management Alliance v. PJM Interconnection, L.L.C.	EL17-36-000

NOTICE INVITING POST-TECHNICAL CONFERENCE COMMENTS

(June 13, 2018)

On April 24, 2018, Federal Energy Regulatory Commission (Commission) staff convened a technical conference to obtain further information concerning the above referenced proceedings pursuant to a February 23, 2018 Commission order.[1]

All interested persons are invited to file post-technical conference comments on issues raised during the conference that they believe would benefit from further discussion. In addition, parties are invited to provide comments on the questions listed below, as well as the questions featured on the Supplement Notice of Technical Conference and Technical Conference Agenda issued on April 18, 2018.[2] Commenters need not respond to all topics or questions asked.

Commenters may reference material previously filed in this docket, including the technical conference transcript, but are encouraged to avoid repetition or replication of previous material. In addition, commenters are encouraged, when possible, to provide examples in support of their answers. Comments must be submitted on or before 30 days from the date of this notice and should not exceed 30 pages.

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[1] *Old Dominion Elec. Coop. v. PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,160 (2018).

[2] *Supplemental Notice of Technical Conference*, Docket No. EL17-32-000 and EL17-36-000 (Apr. 18, 2018).

For more information about this technical conference, please contact:

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Post-Technical Conference Questions for Comment

Seasonal Load Variation & Alternate Market Designs

In these proceedings, parties argue that the move to a single, annual capacity product has pushed valuable summer-only resources out of the capacity market and thereby increased capacity costs with little to no reliability benefit, given that PJM is a summer-peaking system. These parties assert that procuring a portion of capacity as summer-only allows PJM to procure significantly less capacity during non-summer periods and provides equivalent reliability at lower total capacity costs. In addition, intervenors have proposed alternate market designs in PJM to better facilitate seasonal resource participation and account for seasonal load variation. These proposed alternative market designs include, but are not limited to: a re-introduction of a seasonal product,[3] a two-season market construct,[4] a three-season market construct,[5] and a supplemental seasonal ticket scheme approach for summer-period resources.[6] Based on these proposed alternate market designs, please answer the following questions.

1. Some panelists indicated that the current annual construct and existing aggregation rules result in a barrier to entry. Please comment on whether or not there are barriers to entry and provide any supporting information, such as unmatched MWs of capacity. Could this be fully addressed by improving or modifying aggregation rules? If not, what other changes would be required? What would be the downside of modifying such rules?

2. According to the 2021/2022 Reliability Pricing Model (RPM) Base Residual Auction (BRA) report,[7] cleared megawatt quantities of wind, solar, demand

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[3] Preliminary Technical Conference Comments of Complainants Old Dominion Electric Cooperative, Direct Energy Business, LLC, and American Municipal Power, Inc. at 11-14.

[4] Pre-Technical Conference Comments of NRDC & Sustainable FERC Project at 10.

[5] Pre-Technical Conference Comments of Advanced Energy Management Alliance at 5-6.

[6] Pre-Technical Conference Comments of James F. Wilson at 11.

[7] PJM Interconnection, L.L.C., *2021/2022 RPM Base Residual Auction Results* (May 2018), *available at:* http://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx.

response, and energy efficiency resources all increased compared to the 2020/2021 RPM BRA and at higher clearing prices throughout the PJM footprint. Please comment on how these results reflect on the efficacy of PJM's seasonal aggregation mechanism and the ability of these resource types to participate in RPM as either annual resources or aggregated resources under existing RPM rules. To the extent you view one or more of the alternative market designs mentioned above as better than the existing RPM rules, please explain how those alternative designs would yield preferable auction outcomes relative to those seen in the 2021/2022 BRA. Please provide evidence and quantitative support where possible.

3. Under either a two-season or three-season market construct, how would PJM optimize capacity procurement within and across seasons? Would each season have a distinct demand curve and auction that clears independently of other seasons, or would all seasonal auctions be cleared simultaneously to optimize procurement for a delivery year?

4. During the technical conference, Mr. Falin of PJM noted that PJM performs a winter-period peak load test known as a Capacity Emergency Transfer Objective and Capacity Emergency Transfer Limit (CETO CETL analysis). Mr. Falin explained that during the winter-period CETO CETL analysis, PJM divides its region into sub-regions and tests how many MWs of emergency imports are needed to satisfy reliability criteria given that specific sub-region's quantity of installed reserves.[8] Please describe the assumptions that PJM makes when it performs a CETO/CETL analysis for winter-period peak loads. What assumptions are markedly different from summer-period peak load CETO/CETL analyses? Does PJM perform winter- and summer-period CETO/CETL analyses for all sub-areas or LDAs?

5. What other implementation challenges would be involved in transitioning to a two-season or three-season market construct (aside from a lengthy stakeholder process)?

Peak Shaving

In these proceedings, intervenors argue that the practice of peak shaving produces

[8] Tr. 83:5-13 (Falin).

far fewer benefits than previously understood and, thus, peak shaving practices are not a viable pathway for demand response resources in lieu of participation on the supply side of PJM's capacity market. Based on this characterization of peak shaving's limited impacts, please address the following questions.

1. During the technical conference, Mr. Falin of PJM indicated that PJM has put on hold possible changes to the PRD program to align the program with PJM's annual capacity construct. Is PRD a feasible path forward for incorporating seasonal DR resources in the capacity market? Please explain why or why not.

2. During the technical conference, Mr. Falin stated that, in order for peak shaving activity to be reflected in load forecasts, peak shaving actions will need to be based on specific triggers, and commit to be interrupted a certain number of times per summer with a certain hourly duration. Direct load control programs operated by electric distribution companies that cycle air conditioners or other appliances typically have these attributes specified in their tariffs. What is the status of the recognition of these programs in PJM's load forecasts? Please describe the mechanisms, calculations, and adjustments that PJM uses to account for load serving entity (LSE) or electric distribution company (EDC) direct load control and load management programs in PJM load forecasting. Are these load forecast adjustments performed at the request of the EDC, or are there clear and specific procedures or rules that are applied non-discriminatorily to all LSE and electric distribution company direct load control and load management programs?

3. During the technical conference, Mr. Falin stated that PJM conducts its load forecast modeling, and calculates model forecast accuracy, at the PJM system level. Mr. Falin also stated that PJM compared forecasted zonal load to average historical contribution of each zone to the PJM's overall peak and that number is within a tenth or two-tenths of a percent of PJM's zonal forecast. Did PJM observe any differences in the model errors by zone, especially for the zones that have operated summer-focused load management programs for years? How does the frequency of summer-focused load management programs' deployment, especially their infrequent deployment during system peaks, impact PJM load forecasts and the calculated model errors at the zonal level?

4. According to information provided in the AEMA complaint in Docket No. EL17-36-000, Baltimore Gas & Electric (BG&E) worked with PJM in Maryland Public Service Commission Rate Case No. 9406 to reflect its air-conditioner direct

control program into an alternate load forecast for its zone, but not at the full load reduction that the program can produce. Please describe the processes involved in creating that alternative load forecast and the assumptions underlying BG&E's partial adjustment.

5. In PJM's June 2017 white paper "Demand Response Strategy", PJM stated "Ideally, PJM would have a truly unrestricted peak-load forecast with a complete understanding of explicit (dispatch and/or managed by PJM) versus implicit (managed by LSE, EDC or end-use customer) DR, allowing more visibility to quantify forecast risk."[9] Please describe the steps PJM is taking to accomplish this goal. Are these steps sufficient to accomplish this goal? Why or why not? How is PJM working to change its load forecasting methodology to achieve this goal?

[9] PJM Interconnection, *Demand Response Strategy* at 30-31, (Jun. 2017), *available at* http://www.pjm.com/~/media/library/reports-notices/demand-response/20170628-pjm-demand-response-strategy.ashx.