UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.	)	Docket No. ER17-367-001

COMMENTS OF THE PJM POWER PROVIDERS GROUP

Pursuant to Rule 214 of the Federal Energy Regulatory Commission's ("FERC" or the "Commission") Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2016), the PJM Power Providers Group ("P3")[1] hereby submits these comments in response to the January 23, 2017 filing by PJM Interconnection, L.L.C. ("PJM") in the above-captioned proceeding.[2]

I. BACKGROUND

On December 23, 2016, the Office of Energy Market Regulation issued a deficiency letter requesting additional information to PJM's December 23, 2016 filing in this proceeding.[3] The Deficiency Letter sought additional information pertaining to six (6) issues: (1) aggregation

[1] P3 is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly designed and well-functioning electricity markets in the PJM Interconnection, L.L.C. ("PJM") region. Combined, P3 members own over 84,000 MWs of generation assets, produce enough power to supply over 20 million homes and employ over 40,000 people in the PJM region covering 13 states and the District of Columbia. The comments contained in this filing represent the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue. For more information on P3, visit www.p3powergroup.com.

[2] PJM Interconnection, L.L.C., Response to Commission's December 23, 2016 Information Request, Docket No. ER17-367-000 (filed January 23, 2017)("Response to Deficiency Letter").

[3] Office of Energy Market Regulation, Seasonal Capacity Filing, Docket No. ER17-367-000, issued December 23, 2016 ("Deficiency Letter").

of seasonal capacity performance resource ("CP Resource") offers and questions regarding PJM's optimization algorithm; (2) operational and pricing issues related to seasonal CP Resource offers in Locational Deliverability Areas ("LDA"); (3) applicability of charges of non-performance and credits for performance will apply for cross-LDA aggregation; (4) Application of seasonal CP Resources included in Fixed Resource Requirement ("FRR") capacity plans; (5) proposed exclusion of a winter-period demand resource from participating as a seasonal CP Resource; and (6) seasonal CP Resources' impact on the marginal reliability benefit to the PJM markets. PJM submitted its detailed response to the Deficiency Letter on January 23, 2017.

P3 filed Comments and a Limited Protest in this docket on December 8, 2016, and a Motion for Leave to Answer and Answer on December 23, 2016. On January 25, 2017, P3 filed a Protest to two separate complaints regarding participation by seasonal CP Resources in the PJM markets ("P3 Protest").[4] P3's Protest contained the Affidavit of Dr. Roy J. Shanker, which addressed many of the issues in the ODEC/AEMA Complaint dockets ("Shanker Affidavit") and provides a rebuttal to a number of allegations that the complainants made about the marginal reliability benefit of summer and winter resources. P3 submits that the information contained in Dr. Shanker's Affidavit is relevant to the questions posed in the Commission Staff's Deficiency Letter, particularly question no. 6, regarding whether there is a marginal reliability benefit of capacity that is different when adding capacity in the summer versus winter.

[4] Protest of the PJM Power Providers Group, Old Dominion Cooperative and Direct Energy Business, L.L.C., on behalf of itself and its affiliate, Direct Energy Business Marketing, L.L.C., and American Municipal Power, Inc. v. PJM Interconnection, L.L.C., Docket No. EL17-32-000 and Advanced Energy Management Alliance v. PJM Interconnection, L.L.C., Docket No. EL17-36-000 (Not Consolidated), ("ODEC/AEMA Complaints"), dated January 25, 2017 ("P3 Protest").
http://www.p3powergroup.com/siteFiles/News/E42AA88120E7D86AD8DC393930473E1F.pdf

II. COMMENTS

A. Comments in Addition to PJM's Responses to the Deficiency Letter

Question no. 6 of the Staff's Deficiency Letter reads as follows:

> "(6) Is the marginal reliability benefit of capacity different when adding capacity in the summer versus the winter? That is, if a specified number of additional MWs in a specified location were to take on a capacity obligation in the PJM system for only one season (while holding constant the number of MWs in the other season), would the reduction in system-wide Loss of Load Expectation (LOLE) resulting from the additional MWs differ depending on the season in which the additional MWs are added? If so, in which season would adding the specified number of MWs reduce the system-wide LOLE more? Has PJM conducted any studies or analyses that quantify this difference in the marginal reliability value of capacity by season? If so, what is the quantitative difference in the marginal reliability value of capacity by season that the studies or analyses found?"

The Shanker Affidavit addresses several issues with respect to PJM's use of the LOLE metric and its implications to both the operational reliability of the PJM markets and inclusion of seasonal CP Resources in the market as well. For example, Dr. Shanker noted that:

> "In general, reliability in an electric system is defined by two concepts: adequacy and security (or operating reliability):
>
> - NERC's traditional definition of "reliability" was ubiquitous throughout the electric utility industry, and consists of two fundamental concepts adequacy and operating reliability:
>
> - Adequacy is the ability of the electric system to supply the aggregate electric power and energy requirements of the electricity consumers at all times, taking into account scheduled and reasonably expected unscheduled outages of system components.
>
> - Operating reliability [security] is the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system components.[5]

[5] http://www.nerc.com/docs/pc/Definition-of-ALR-approved-at-Dec-07-OC-PC-mtgs.pdf Note that NERC now uses "operating reliability" instead of "security" to avoid confusion with national security issues, critical infrastructure concerns etc.

> Capacity markets have traditionally addressed system adequacy by making sure that there were adequate generation resources available to meet anticipated needs. A typical metric for system adequacy is LOLE that reflects the likelihood that load may exceed available generation. Such metrics are usually based on some form of statistical summary of available generation and load.
>
> PJM's traditional capacity construct was built on this type of adequacy concept and associated LOLE metric. An installed reserve margin was established based on the use of a model (PRISM) and the Reliability Pricing Model (RPM) was used to obtain resources that over time would be consistent with the metric, as well as meet certain economic criteria related to the cost of entry of new resources and the retention of existing resources.[6]

Dr. Shanker also stated that:

> "PRISM basically estimates for every week of the year the statistical likelihood that load will exceed resources. This weekly probability, summed over the year, reflects the LOLE. The PRISM calculations explicitly minimize the annual requirements to meet a target LOLE, *and* the associated scheduling of planned maintenance in accomplishing this objective. Inherently PJM, via PRISM, *assumes an annual adequacy* product. Because of the fact that LOLE is concentrated in the summer, as AEMA notes, generation resources effectively have no planned outages during the summer period. As a result, PRISM assumes virtually all generation maintenance is scheduled during the non-summer months including winter. In order to balance the summer requirements, PJM and PRISM "consume" the planned outages of traditional generation resources in the winter. A seasonal product cannot contribute capacity in this fashion, and as discussed below with respect to the necessary WWRT, the seasonal product actually works against this needed flexibility. Such resources, in effect, are "on outage" in all non-summer months and must be accounted for that way.
>
> The associated high winter reserves *are not excess*, as AEMA seems to argue, but a direct result of the need to meet annual requirements and the lack of any summer maintenance for all cleared resources while balancing necessary maintenance over the remainder of the year. Without the annual capability and the flexibility to conduct maintenance in the non-summer period, more annual resources would be necessary.."[7]

Thus, Dr. Shanker's Affidavit offers a conclusion that strikes at the heart of the Commission's inquiry with respect to the relative value of summer and winter resources. His Affidavit highlights how the addition of the pay for performance market design necessitates the

[6] Shanker Affidavit, pp. 7-8.

[7] Shanker Affidavit, at pp. 11-12 (citations and references omitted).

evaluation of the relative contributions of summer and winter resources from both a resource adequacy and operational security viewpoint. Dr. Shanker further points out that PRISM model was constructed to evaluate annual capacity products and that in order to accurately evaluate a seasonal capacity construct, a new model would be required:

> [i]f there was a desire to evaluate a seasonal construct, one would have to build the elements from the beginning, with independent seasonal products, independent seasonal maintenance and performance requirements, independent load assumptions and a compensation structure that assures appropriate compensation for supporting new entry (via each product or product(s)) and retaining economic existing supply.[8]

It is important for the Commission to review any data or statistics that result from an analysis using the PRISM model with these limitations in mind.

III. CONCLUSION

For the foregoing reasons, P3 respectfully requests that the Commission consider P3's comments to PJM's response to the Deficiency Letter and issue an order consistent with P3's underlying comments in this proceeding.

Respectfully submitted,

On behalf of the PJM Power Providers Group

By: /s/Glen Thomas

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[8] Shanker Affidavit at p. 5.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the Official Service List compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 13th day of February, 2017.

On behalf of the PJM Power Providers Group

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