

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Constellation Energy Corporation)	Docket No. EC25-43-000
Constellation Energy Generation, LLC)	
Calpine Corporation on behalf of its Public)	
Utility Subsidiaries)	
)	

COMMENTS OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rule 211 of the Commission’s Rules and Regulations,¹ Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor (“Market Monitor”) for PJM Interconnection, L.L.C. (“PJM”),² submits these comments on the filing submitted by the applicants (“Applicants”) on April 28, 2025 (“Deficiency Response”), in response to the deficiency notice issued by the Commission in this proceeding on March 27, 2025 (“Deficiency Notice”). This matter concerns Applicants’ petition for approval of a proposed transaction pursuant to Section 203 of the Federal Power Act and Part 33 of the Commission’s Regulations in the above proceedings (“Transaction”).

¹ 18 CFR § 385.211 (2024).

² Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”), the PJM Operating Agreement (“OA”) or the PJM Reliability Assurance Agreement (“RAA”).

I. COMMENTS

A. Every Section 203 Application Should Include Review for New Potential Submarkets.

The Deficiency Notice required the Applicants to identify the transmission zones in PJM where Constellation generation overlaps with Calpine generation. The Deficiency Notice further requests price separation analysis and new Delivered Price Test results for any transmission zone or new potential submarket where price separation exists.

The Market Monitor supports the Commission's efforts to identify relevant new submarkets in PJM for the purpose of market power analysis. A first step is to define existing submarkets correctly. The next step should address the fact that submarkets are dynamic and not static. Transmission zones were originally defined in the last century based on state boundaries and administratively defined utility service areas and are not significant for the current dynamic reality of constraints, locational marginal pricing in the energy market, locational pricing in the capacity market, or the definition of local energy markets.

As the Market Monitor stated in its March 25, 2025, market power report, "It is not reasonable to ignore real submarkets as they evolve in PJM. In addition, patterns of congestion and constraints will continue to be dynamic in PJM. It is important to analyze existing submarkets but also to address the fact that market power is persistent and may be actionable in submarkets that do not yet exist."³ Furthermore, "The broader point about congestion is that it is dynamic and unpredictable. Submarkets in one period may not be submarkets in subsequent periods. The analysis of market power and of mergers should reflect these basic facts. Local market power may not exist in one period and may exist in the next. Local market power may exist in one period and not exist in the next. It is essential

³ Market Power Analysis: Constellation Acquisition of Calpine ("IMM Market Power Report") Docket No. EC25-43 (March 25, 2025) at 16.

that merger reviews recognize that increased concentration of ownership creates the potential for market power beyond the specific facts of a specific period.”

The Deficiency Response includes analysis of both price correlations among PJM transmission zones and price differences between pricing nodes in transmission zones on either side of the frequently binding constraints. Prices across PJM are correlated because they are determined by common input prices, particularly fuel prices. Some congestion corresponds to price separation due to both transmission constraints and pipeline constraints, like the constraints along the Pennsylvania/Maryland border, such as Nottingham, Graceton–Safe Harbor, and Conastone–Northwest. Other congestion depends more on transmission constraints and geography, not fuel price differences. Even with price separation in fuel prices, over time, fuel prices and LMPs move up and down together on both sides of constraints, resulting in correlated prices. For this reason, the analysis of price differences is more important than price correlation. Price differences can be persistent even when prices are correlated. Price correlation is not a good indicator of the existence of submarkets. The Deficiency Response simply ignores price differences within zones based on the underlying and incorrect assumption that transmission zones are relevant to the energy market.

B. The Delivered Price Test Does Not Accurately Measure Market Power in an LMP Market.

Even with thorough analysis of new potential submarkets, the Delivered Price Test (“DPT”) analysis does not capture the local nature of market power in an LMP market. In an LMP market, not every MWh has the same effect on market price within a submarket. Submarkets are created by transmission constraints, and every generator’s effect on a given transmission constraint varies based on the electrical topology of the transmission system. The correct metric for measuring the relevant supply and therefore local market power is to identify transmission constraints and calculate the distribution factor (“dfax”) times the MW controlled by the owner (dfax x MW) for every identified transmission constraint. The dfax measures the proportion of a MW injection from a resource that affects a specific

transmission constraint. The DPT incorrectly treats all sources of supply in a submarket created by a transmission constraint as being equivalent supply in that submarket rather than recognizing the impact of distribution factors in defining relevant supply.

A transmission constraint with flows at its limit affects prices on both sides of the constraint. There is a high priced side and a low priced side. Market power can be exercised on both sides of the constraint. A supplier withholding output can raise the price above the competitive level on either side of the constraint. A supplier can also uneconomically produce more output than the competitive level on one side of the constraint to force the constraint to bind and to raise prices on the other side of the constraint. By ignoring one side of the constraint, the DPT cannot capture the full extent of market power in an LMP market.

Even in a market that includes many MW on the low priced side of a constraint, a generator with a large dfax to that constraint can affect the price in the entire low price side submarket. The DPT ignores this situation because it ignores control of supply on the low price side of the constraint and it ignores the dfax of that supply to the constraint.

Ignoring the effect of generation on the low price side of constraints is a major gap in the DPT market power analysis, and, therefore, a major gap in Constellation's application. The Deficiency Response argues (at 40): "For the transmission zones that are outside of WOCI (i.e., on the low-price side of the relevant constraints), the relevant binding constraints do not prevent competing supply from transmission zones in WOCI from reaching customers in transmission zones outside of WOCI. Therefore, none of the transmission zones outside of WOCI would delineate a relevant submarket." Applicants are correct that load outside the submarket can be served from resources on either side of the constraint. The problem with this argument is that all the competitively priced supply on the high price side of the constraint is used to serve the load in the submarket. The withholding resource on the low price side of the constraint, especially one with a large dfax, can effectively raise prices above the competitive level on the low price side of the constraint, and there is no available supply from the high price side of the constraint to

provide competitive pressure. That is economic withholding, just the same as if it were on the high price side of the constraint.

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Table 1: Energy Market Three Pivotal Supplier Test Scores by Constraint for Peak Hours: 2024

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Table 2: Energy Market Three Pivotal Supplier Test Scores for Off Peak Hours: 2024

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C. The Market Monitor Recommends Behavioral Conditions to Ensure that Market Power Cannot be Exercised in the PJM Market as a Result of the Constellation Purchase of Calpine.

For these reasons, the DPT analysis is not sufficient to ensure that market power does not increase as result of the Transaction. As explained in the Market Monitor's March 25, 2025, filing, the implementation of the PJM market power mitigation rules is also insufficient to prevent the exercise of market power in many cases as a result of flaws in the definition and implementation of the rules. With the increase in Constellation's market power as a result of the Transaction, specific commitments regarding market behavior are needed to prevent the exercise of market power due to the Transaction.

II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to these comments as it resolves the issues raised in this proceeding.

Respectfully submitted,



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Dated: May 19, 2025

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 Eagleville, Pennsylvania,
this 19th day of May, 2025.



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