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January 9, 2025

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

Re: Technical Conference on Resource Adequacy in Pennsylvania Docket No. M-2024-3051988

Dear Secretary Chiavetta:

Enclosed for filing with the Pennsylvania Public Utility Commission are the Comments of Calpine Corporation in the above-referenced proceeding.

Respectfully submitted,

/s/ Boris B. Shkuta

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Enclosures

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Technical Conference on Resource Adequacy : Docket No. M-2024-3051988

COMMENTS OF CALPINE CORPORATION

Pursuant to the Pennsylvania Public Utility Commission’s (the “Commission”) November 15, 2024 Secretarial Letter in the captioned proceeding, Calpine Corporation (“Calpine”) appreciates this opportunity to comment on the Commission’s November 25, 2024 Technical Conference on resource adequacy. Calpine is an independent power producer actively involved in the operation, ownership and development of electric generation and the marketing and sale of electric power throughout the United States. Calpine operates the largest fleet of natural gas combined cycle and cogeneration facilities in the United States, delivering approximately 27,000 megawatts (MW) of reliable, low-cost electricity for customers and communities in 22 U.S. states and Canada. Calpine currently operates three natural gas generation facilities in Pennsylvania. The York 2 Energy Center—an 828 MW combined cycle generation facility—is the most recent generation facility to reach commercial operation (in 2019).

It is now both widely known and well-documented that the combination of load growth and the pace of generation resource retirements will require prompt action to develop additional generation resources in the coming years. Pennsylvania remains uniquely well-positioned to address the resource adequacy concerns facing both the state and the PJM region more broadly, and Calpine appreciates the Commission’s willingness to initiate dialogue surrounding these concerns.

I. Comments

A. Pennsylvania Should Maintain Its Support for Competitive Markets

Pennsylvania was and has been the leader in electric restructuring, choosing to restructure its electric system early, beginning in 1996. Since then, competitive markets have facilitated billions of dollars in investments—in both Pennsylvania and the PJM region more broadly—thereby effectively delivering system-wide benefits and improving system reliability. Pennsylvania remains a leading example of how electric restructuring provides benefits in both the wholesale and retail markets, and ultimately, to retail consumers. In addition, the region benefits greatly from reliance on an independent grid operator, PJM, as PJM’s grid operations, competitive markets, and the long-term planning process have resulted in savings to PJM’s customers of approximately \$3.2-4 billion annually.¹

Competitive markets have helped Pennsylvania become a leading state in the development of natural gas power generation and in providing capacity to the PJM market. In the past ten years, \$13 billion dollars have been invested in building approximately 17,000 megawatts (MW) of new power generation in the state.² As Pennsylvania is the second-largest producer of natural gas in the U.S.,³ leveraging this resource alone could add billions of dollars to the state’s economic development, job creation, and tax base. Pennsylvania, therefore, remains uniquely situated and prepared not only to support the development and construction of additional generation resources

¹ PJM Interconnection, L.L.C., *PJM Value Proposition* (2019), <https://www.pjm.com/-/media/DotCom/about-pjm/pjm-value-proposition.pdf>.

² See Marcellus Shale Coal., *New PA Natural Gas Generation 2016-2021* (2019), https://www.puc.pa.gov/transport/gassafe/pdf/Safety_Seminar_2019-PPT_MSC.pdf.

³ Power, *Largest Pennsylvania Coal-Fired Plant Will Convert to Natural Gas* (Dec. 6, 2024), <https://www.powermag.com/largest-pennsylvania-coal-fired-plant-will-convert-to-natural-gas/>.

within the state, but also to utilize existing resources in the state to enhance the state’s economic resiliency.

In terms of bringing capacity to the market, Pennsylvania already has the most installed capacity of any PJM state.⁴ In 2024, the state of Pennsylvania was a leading exporter of energy in PJM, exporting almost 90,000 GWh of energy to other states and regions.⁵ Pennsylvania’s policy of supporting competitive markets has resulted in significant benefits to energy consumers in the state, and it has enhanced reliability throughout the PJM region at the lowest possible cost to consumers.

Given the significant economic prosperity resulting from Pennsylvania’s strong energy footprint, the state must maintain its steady support for competitive markets that has to date and will continue to facilitate the development of needed generation capacity to meet the future needs of consumers within the state and within the PJM footprint.

B. Well-Designed Competitive Markets Send Appropriate Signals with Respect to Supply Needs

Well-designed competitive markets send accurate price signals indicating a need for new generation in response to resource adequacy or reliability concerns. PJM’s recent capacity market auction results for the 2025/26 Delivery Year sent strong signals to developers and investors that new supply is needed in the PJM region. Specifically, as explained by PJM itself, the results “yielded prices across the PJM Region that are significantly higher than prices in the last several

⁴ Monitoring Analytics, LLC, *State of the Market Report for PJM* at 718 (2024), https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2024/2024q3-som-pjm.pdf (“Of the 187,011.1 MW of installed capacity, 47,066.7 MW (23.9 percent) are in Pennsylvania, of which 6,109.4 MW (13.0 percent) are coal fired steam units, 18,292.2 MW (38.9 percent) are combined cycle units and 8,843.8 MW (18.8 percent) are nuclear units.”).

⁵ See PJM Interconnection, L.L.C., *Hourly Net Exports By State*, https://dataminer2.pjm.com/feed/state_net_interchange.

auctions” resulting from “decreased electricity supply, caused primarily by a large number of generator retirements . . . as well as increased electricity demand.”⁶

Market participants already are responding to the new price signals. Several entities have announced withdrawn or delayed retirement of existing generating plants. Citing “tightening supply demand conditions in PJM’s capacity market,” Middle River Power announced its intention to continue operating its 540-MW, gas-fired Elgin Energy Center in Illinois, instead of following through with plans to retire it by June 1, 2025.⁷ ECP recently pledged to keep operating the Gavin Plant located in Ohio amid speculation regarding possible plans to retire the facility.⁸ Other entities are announcing plans to reactivate or repurpose shuttered generating units. Homer City Development recently announced plans to restart the Homer City Generating Station and increase its generating capacity through burning natural gas.⁹ Constellation announced that it has entered into a 20-year power purchase agreement with Microsoft to restart the Three Mile Island nuclear facility,¹⁰ and this is in addition to Constellation’s February 2023 announcement to increase the

⁶ PJM Interconnection, L.L.C., Tariff Filing, FERC Docket No. ER25-712-000 at 15 (filed Dec. 13, 2024).

⁷ Util. Dive, *Middle River Power Reverses Plan to Shut 540-MW Plant Amid Record PJM Capacity Prices* (Sept. 12, 2024), <https://www.utilitydive.com/news/middle-river-power-retire-elgin-power-plant-pjm-interconnection/726824/>. This response to resource adequacy is happening beyond PJM’s market as well. Vistra announced plans to push back the retirement of its 1,185-megawatt (MW) Baldwin Power Plant located in Illinois to 2027 instead of retiring in 2025 due to “widespread concern over reliability” in the MISO market. Power Eng’g, *Vistra Connects Two New Solar Projects, Extends Life of 1,185-MW Baldwin Coal Plant in Illinois* (Dec. 19, 2024), <https://www.power-eng.com/coal/vistra-connects-two-new-solar-projects-extends-life-of-1185-mw-baldwin-coal-plant-in-illinois/>.

⁸ Darby Power, LLC et al., Motion for Leave to Answer and Answer, Docket No. EC24-125-000 at 6 (filed Dec. 11, 2024).

⁹ Power, *Largest Pennsylvania Coal-Fired Plant Will Convert to Natural Gas* (Dec. 6, 2024), <https://www.powermag.com/largest-pennsylvania-coal-fired-plant-will-convert-to-natural-gas/>.

¹⁰ Util. Dive, *A Fast-Track PJM Interconnection Review Could Speed Three Mile Island Restart: Constellation CFO* (Sept. 23, 2024), <https://www.utilitydive.com/news/fast-track-pjm-interconnection-review-three-mile-island-constellation-microsoft-ppa/727736/>.

Braidwood and Byron nuclear generating stations' output by 135 MW in Illinois.¹¹ An economic impact study commissioned by the Pennsylvania Building & Construction Trades Council found that Constellation's reactivation effort in Pennsylvania will create 3,400 direct and indirect jobs and add more than 800 megawatts of carbon-free electricity to the grid.¹²

Developers, including Calpine, are also exploring investment opportunities in response to these market signals. Following the July 2024 auction, Calpine announced that it is accelerating its development efforts in PJM, exploring multiple new project sites in the PJM region and assessing opportunities to expand existing facilities.¹³ Also in response to the July 2024 auction results, LS Power announced that it has "restarted development of a portfolio of investment opportunities in both existing and new capacity resources in the PJM footprint" and "resumed the process for . . . on-hold projects" based on recent changes to PJM's capacity market design.¹⁴

The best regulatory response to the "build" signals being delivered by recent auction results is for the Commission to continue to keep investment risks with investors and competitive developers and to resist allowing utilities to get back into constructing and operating rate-based generation. Utilities have broadly been out of the generation business for 20 years, with historic utility cost overruns being one of the key catalysts for electric restructuring in 1996. As we have

¹¹ *Constellation Making Major Investment in Two Illinois Nuclear Plants to Increase Clean Energy Output*, Constellation Energy Corp. (Feb. 21, 2023), <https://www.constellationenergy.com/newsroom/2023/Constellation-Making-Major-Investment-in-Two-Illinois-Nuclear-Plants-to-Increase-Clean-Energy-Output.html>.

¹² The Brattle Grp., *Economic Impacts of Establishing the Crane Clean Energy Center (CCEC)* 1 (2024), <https://pabuildingtrades.org/ULWSiteResources/pabctc/Resources/file/News-Events/CCEC/CCEC-Brattle-Report-Complete.pdf>. The report also found that restarting the plant will add \$16 billion to the Pennsylvania's GDP and generate more than \$3 billion in state and federal taxes. *Id.* at 2.

¹³ Calpine Corp., *Calpine Accelerates PJM Development Program* (Aug. 22, 2024), <https://www.calpine.com/calpine-accelerates-pjm-development-program/>. In the last year, Calpine has brought online more than 650 MW in storage resources and has approximately 1,000 MW of natural gas generation in advanced development in Texas, with several gigawatts of new projects at various stages of development. *See* Calpine Corp. and LS Power Dev., LLC, Protest, Docket No. EL24-148-000 at Exh. 2, 5:2-6 (filed Oct. 25, 2024).

¹⁴ *See* Calpine Corp. and LS Power Dev., LLC, Protest, Docket No. EL24-148-000 at Exh. 3, 6:3-6, 21-23 (filed Oct. 25, 2024).

seen since restructuring, non-market capacity prices have outpaced capacity prices set by the PJM market, as demonstrated, for example, by the capacity prices reflected in Appalachian Power Company's recent formula rates in West Virginia.¹⁵ Allowing utilities to build rate-based generation will very likely have negative consequences for Pennsylvania ratepayers, burdening them with unnecessary costs.

While utilities are not best positioned to bring new megawatts online at least cost, they do have an important role to play in ensuring future needs can be met. Pennsylvania can and should work with its utilities to audit and substantiate their load growth projections within the state to help both regulators and developers more accurately assess additional supply needs and to support PJM's load forecasts. Pennsylvania would then be best served by letting competitive markets rely on this more accurate data to determine where and whether to build additional generation capacity. Allowing markets to work keeps investment risks placed with utility shareholders and developers, thereby continuing to shield Pennsylvania ratepayers and taxpayers from such risk.

C. The Commission Should Continue to Work with Stakeholders to Implement Policies to Address Increasing Resource Adequacy Concerns

The Commission should continue to work with PJM, the Federal Energy Regulatory Commission ("FERC"), state agencies and policy makers, and other stakeholders to address resource adequacy and reliability issues in the PJM region, and to mitigate risk in new investment in generation. Pennsylvania should support PJM in advancing market reforms to ensure that reliable, dispatchable generation resources are readily available by, for example, supporting PJM's Reliability Resource Initiative filing that is currently pending before FERC. If approved, PJM's Reliability Resource Initiative proposal is anticipated to attract applications for interconnection of

¹⁵ See, e.g., Am. Elec. Power Serv. Corp., Annual Update to Appalachian Power's Capacity Compensation Formula Rate, Docket No. ER13-539-000 (filed May 28, 2024).

multiple projects, “representing at least 10 GW of reliable resources for the PJM Region,”¹⁶ to address reliability issues in PJM’s footprint. Pennsylvania must also continue to be a leading voice at the Organization of PJM States to advance and support policies that enable market outcomes that support resource retention and new entry.

In addition to market reforms to facilitate new investment and strengthen reliability, the Commission and other state agencies should continue to create a regulatory framework in Pennsylvania that will support investment in the development and construction of new generation. It is imperative that the Commission continue to work with other agencies to analyze and capture the economic, job and tax opportunities that current resource adequacy needs present. Efforts to enhance this regulatory framework could include:

- Supporting a Pennsylvania Department of Community & Economic Development analysis of the economic development benefit of constructing new generating facilities in Pennsylvania;
- Conducting independent analyses to understand the negative impact of the Commonwealth’s membership in the Regional Greenhouse Gas Initiative and what impacts the ongoing litigation over such membership¹⁷ and the Governor’s Pennsylvania Climate Emissions Reduction Act proposal¹⁸ will have on investor interest for construction of additional generation in the state;¹⁹ and
- Reviewing current permitting and siting regulations at the federal and state level, including assessing the Pennsylvania Environmental Hearing Board processes to optimize timing for securing permits.

¹⁶ PJM Interconnection, L.L.C., Tariff Filing, Docket No. ER25-712-000 at 22 (filed Dec. 13, 2024).

¹⁷ See Spotlight PA, *Pa. Court Strikes Down a Key Climate Program, but Environmentalists Expect an Appeal* (Nov. 1, 2023), <https://www.spotlightpa.org/news/2023/11/regional-greenhouse-gas-rggi-struck-down-pennsylvania-climate-change-fossil-energy/>.

¹⁸ See Commonwealth of Pa., *Governor Josh Shapiro’s Energy Plan Builds on Pennsylvania’s Legacy of Energy Leadership by Protecting and Creating Energy Jobs and Lowering Electricity Costs for Consumers* (Mar. 13, 2024), <https://www.pa.gov/governor/newsroom/2024-press-releases/governor-josh-shapiro-s-energy-plan-builds-on-pennsylvania-s-leg.html>

¹⁹ “Clarity regarding state-level air emissions regulations is needed for projects to move forward in Pennsylvania.” Calpine Corp., *Calpine Accelerates PJM Development Program* (Aug. 22, 2024), <https://www.calpine.com/calpine-accelerates-pjm-development-program/>.

In working with state regulators to identify and remove barriers to the addition of new generation capacity, Pennsylvania should remain mindful of the upcoming change in federal administrations. For example, it is reasonable to expect the incoming administration to enact policies that support the development of thermal facilities and other dispatchable resources—a departure from the approach of the outgoing administration. The change in federal administration could also lead to changes in environmental requirements that have resulted in the planned retirement of fossil fuel generation. It is likely that the new administration will slow the pace of retirements of existing resources as well as remove obstacles to building new generation resources in the state. Pennsylvania should stand ready to respond to these types of changes.

II. Conclusion

Calpine appreciates the opportunity to comment on these critical issues and appreciates the Commission’s efforts to continue its dialogue about resource adequacy and reliability concerns in Pennsylvania and the PJM region. Calpine urges the Commission to continue these discussions to ensure that both Pennsylvania and PJM meet the challenges ahead, and we remain available to provide any additional insights to this Commission on these important matters.

Respectfully submitted,
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