

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2024 INTEGRATED RESOURCE PLAN) Case No.
OF DUKE ENERGY KENTUCKY, INC.) 2024-00197

ATTORNEY GENERAL’S POST-HEARING COMMENTS

The intervenor, the Attorney General of the Commonwealth of Kentucky, through his Office of Rate Intervention (OAG), tenders its Post-Hearing Comments regarding Duke Energy Kentucky’s (DEK, or the Company) 2024 Integrated Resource Plan (IRP). The OAG hereby reiterates and incorporates by reference its previous comments filed into this docket on November 6, 2024.

A. Updated Developments Since Evidentiary Hearing and Prior Comments

As indicated in OAG’s November 6, 2024 Comments, PJM, in order to provide a measure of generator resource adequacy and enhance reliability, has initiated its marginal Effective Load Carrying Capability (ELCC) methodology¹ for accreditation of most new and existing capacity resource classes in its Base Residual Auction. PJM has made several revisions to the ELCC methodology in the past year, the most recent of which provides no changes to ratings ascribed to combustion turbines and combined cycle units, but decreased the rating applicable to coal units from 84% to 83%.² DEK may need to explain what effect, if any, this will or may have on the Company’s load obligation and reserve margin.³ Given

¹ As approved in FERC Docket Nos. ER24-99-000 and ER24-99-001, 186 FERC ¶ 61,080, Order dated Jan. 30, 2024.

² These same ELCC ratings also downrate solar generation by a massive 86% - 90% (i.e., giving credit to only 10% - 14% of nameplate capacity), depending on whether a given solar facility utilizes fixed or tracking panels.

³ See PJM document “Installed Reserve Margin (IRM), Forecast Pool Requirement (FPR), and Effective Load Carrying Capability (ELCC) for 2025/2026 3IA,” p. 4.

the frequency with which PJM is revising its ELCC ratings, DEK may also wish to discuss how the more frequent changes to ELCC ratings will or might affect the IRP process.

Additionally, in response to Staff's post-hearing data requests, the Company provided two updated load forecasts based upon the addition of hypothetical energy intensive customers, one industrial, and the other a data center.⁴ The Company noted that "[a]s expected, considerable additional capacity is required to serve the new hypothetical loads, including battery energy storage (both stand-alone and paired with solar) and, in some cases, additional combustion turbines."⁵ In the case of the hypothetical data center load, a 50 MW market capacity purchase would be necessary by 2028.⁶

Finally, the Company filed a corrected discovery response that significantly reduced the amount of customer-owned behind-the-meter distributed generation resources (primarily solar and solar-plus-storage) located within its service territory,⁷ together with reduced future projections. The Company's supplemental response in this regard indicates that as of 2024, there is a total 7.8 MW of behind the meter solar plus storage among all customer classes.⁸ This total is projected to grow to a combined total of 38.2 MW by 2044.⁹

B. As PJM's Reliability Challenges Deepen, the Value of DEK's Dispatchable Generation Resources Grows

As indicated in OAG's November 6, 2024 Comments, the nation is in the midst of a reliability crisis.¹⁰ Unfortunately, this crisis is only growing worse. On December 9, 2024, PJM's Board of Governors announced ". . . [T]he PJM system could see a capacity shortage

⁴ Company response to Staff Post-Hearing DR 1-9, filed Feb. 6, 2025.

⁵ *Id.*, p. 2.

⁶ *Id.*

⁷ See DEK's supplemental discovery response to AG 2-9 filed Nov. 26, 2024.

⁸ *Id.*

⁹ *Id.*

¹⁰ See Attorney General's Comments, Case No. 2024-00197, filed Nov. 6, 2024 at 9.

as soon as the 2026/27 Delivery Year.”¹¹ A few days following this announcement, PJM issued another warning:

“We have been warning for over two years of the prospect that parts of our country could run short of power during high demand periods. This possibility has been growing, primarily as a result of state and federal policy decisions that are pushing generators to retire prematurely, and also due to unprecedented and rapidly growing data center construction.”¹²

Just a few weeks ago, the federal agency charged with maintaining reliability of the electric grid, the North American Electric Reliability Corporation (NERC), issued its annual assessment on the state of future reliability.¹³ This latest assessment not only re-affirmed that the nation is in a profound reliability crisis, but it actually is even more intense than previously believed, as indicated in the following points:

- Most of the Bulk Power System faces mounting resource adequacy challenges over the next 10 years as surging demand growth continues and thermal generators announce plans for retirement. New solar PV, battery, and hybrid resources continue to flood interconnection queues, but completion rates are lagging behind the need for new generation. Furthermore, the performance of these replacement resources is more variable and weather dependent than the generators they are replacing. “As a result, less overall capacity (dispatchable capacity in particular) is being added to the system than what was projected and needed to meet future demand. **The trends point to critical reliability challenges facing the industry: satisfying escalating energy growth, managing generator retirements, and accelerating resource and transmission development.**”¹⁴ [emphasis in original]

¹¹ Letter from Mark Takahashi, Chair, PJM Board of Managers, to Stakeholders dated Dec. 9, 2024, accessible at: <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2024/20241209-board-letter-outlining-action-on-capacity-market-adjustments-rri-and-sis.pdf> [emphasis added]

¹² PJM Statement on FERC Complaint Filed by the Governor of Pennsylvania, dated Dec. 31, 2024, accessible at: <https://www2.pjm.com/-/media/DotCom/about-pjm/newsroom/2024-releases/20241231-pjm-statement-on-pa-gov-complaint.pdf>

¹³ “2024 Long-Term Reliability Assessment [LTRA],” December 2024, accessible at: https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf

¹⁴ *Id.* at 6.

- Resource additions are not keeping pace with generator retirements and demand growth. Winter seasons replace summer as the higher-risk periods due to generator performance and fuel supply issues.¹⁵
- Demand growth is now higher than at any point in the past two decades. Aggregated summer peak demand has increased by 52 GW from last year’s LTRA, for a new high of 132 GW. Aggregated winter peak demand has increased 57 GW, for a new high of 149 GW.¹⁶
- “Regulatory and policy-setting organizations must use their full suite of tools to manage the pace of retirements and ensure that replacement infrastructure can be developed and placed in service.”¹⁷

Given the growing reliability risk to the nation as a whole, and especially within PJM, now is not the time to accelerate the retirement of any dispatchable thermal resources. This is especially true in light of the unreliable ELCC ratings PJM has ascribed to solar resources. Intermittent inverter-based resources cannot provide the reliable grid Americans depend on. For these reasons, DEK’s East Bend coal plant and its Woodsdale station combustion turbines are more valuable to the Company and ratepayers than ever before, and provide a strong hedge against rising market prices.¹⁸ DEK’s proposals for the dual-fuel conversion of the East Bend plant, and a combined-cycle gas-fired plant upon the eventual retirement of East Bend, will provide the reliability its customers demand. The OAG continues to support these choices.

C. Conclusion

Renewable solar and wind does not make economic sense. Nowhere in the United States is there a utility that serves its customers with 100% solar or wind generated electricity. Those

¹⁵ *Id.* at 7, Table 1.

¹⁶ *Id.* at 8-9.

¹⁷ *Id.* at 10.

¹⁸ In yet another demonstration of the value to ratepayers of dispatchable thermal generation, DEK, in response to a Staff data request, disclosed that due to the fact that its generation was able to provide energy during Winter Storm Elliott, the average residential customer earned a bill credit \$36.67. Response to Staff Post-Hearing DR 1-4.

utilities that operate in states pushing solar and wind have the highest electricity cost and the least reliable grids. Thermal dispatchable generation is needed today and it will be needed tomorrow and for years to come. The OAG urges the Commission to continue the long-held practice in Kentucky of requiring utilities to have steel in the ground from thermal dispatchable generation located within their service territory.

Respectfully submitted,
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