COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF DUKE ENERGY KENTUCKY, INC. FROM NOVEMBER 1, 2022 THROUGH OCTOBER 31, 2024	)))))	CASE NO. 2025-00342

DIRECT TESTIMONY OF

JAMES "JIM" J. MCCLAY, III

ON BEHALF OF

DUKE ENERGY KENTUCKY, INC.

January 23, 2026

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I. INTRODUCTION AND PURPOSE

Q. STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James J. McClay, III, and my business address is 525 South Tryon Street, Charlotte, North Carolina 28202.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed as Managing Director of Natural Gas Trading for Duke Energy Corporation (Duke Energy).

Q. PLEASE DESCRIBE BRIEFLY YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I received a Bachelor's Degree in Business Administration, majoring in Finance from St. Bonaventure University. I joined Progress Energy in 1998 as an Energy Trader, was promoted to Manager of Power Trading and held that position through early 2003. I then became the Director of Power Trading and Portfolio Management for Progress Energy Ventures through February 2007. From March 2007 through late 2008, I was the Director of Power Trading for Arclight Energy Marketing. From March 2009 through the present, I've been employed in various managerial roles at Progress Energy and Duke Energy overseeing Natural Gas and Oil trading, gas and power hedging, origination, and procurement. Prior to my tenure with Duke Energy, I was employed for approximately 13 years in Capital Markets as a U.S. Government fixed income securities trader working with various banks and brokers/dealers.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE PUBLIC SERVICE COMMISSION?

A. Yes, I have testified in a previous fuel adjustment clause (FAC) proceeding before the Kentucky Public Service Commission (Commission).

Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS MANAGING DIRECTOR OF NATURAL GAS TRADING.

A. As Managing Director of Natural Gas Trading, I manage the organization responsible for the natural gas trading, optimization, origination and scheduling functions for the regulated gas-fired generation assets in the Carolinas (Duke Energy Carolinas and Duke Energy Progress), Duke Energy Florida, Duke Energy Indiana and Duke Energy Kentucky (collectively, the "Utilities"), as well as the organization responsible for power trading for Duke Energy Indiana and Duke Energy Kentucky. Additionally, I oversee the execution of the Utilities' financial hedging programs, fuel oil procurement, and emissions trading.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to respond to Paragraph 6(a), (f), (g) & (h) of the Commission's December 19, 2025 Order (Order), to more broadly discuss and support Duke Energy Kentucky's fuel procurement practices and provide an overview of the Company's participation in PJM as it pertains to the capacity market for the period November 1, 2022 through October 31, 2024. Finally, I sponsor several of Duke Energy Kentucky's responses to the Commission's Data Requests contained in Appendix B of its Order.

II. DISCUSSION

Q. PLEASE COMMENT GENERALLY ON THE REASONABLENESS OF DUKE ENERGY KENTUCKY'S GAS PROCUREMENT PRACTICES DURING THE REVIEW PERIOD.

A. With respect to natural gas, the Company maintains supplier agreements to ensure natural gas can be procured at a competitive market price to meet the needs of the Company's gas generation fleet. The gas procurement personnel stay abreast of market trends and prices through real-time market electronic pricing platforms such as the Intercontinental Exchange (*i.e.*, ICE) real-time price feeds, information published in trade publications, industry reports, and various interactions with suppliers and pipelines. As part of natural gas procurement, the gas personnel review daily forecasts of natural gas needed based on projected generation unit runs before making commitments to purchase natural gas. The Company's natural gas supply agreements enable the Company to procure the needed volume of natural gas at the most competitive price each day.

Q. PLEASE DESCRIBE ANY CHANGES IN THE NATURAL GAS MARKET THAT OCCURRED DURING THE REVIEW PERIOD OR THAT DUKE ENERGY KENTUCKY EXPECTS TO OCCUR WITHIN THE NEXT TWO YEARS THAT HAVE SIGNIFICANTLY AFFECTED OR WILL SIGNIFICANTLY AFFECT DUKE ENERGY KENTUCKY'S NATURAL GAS PROCUREMENT PRACTICES.

A. Duke Energy Kentucky did experience volatile natural gas market prices over the review period and expects the natural gas market to remain volatile in the future.

Natural gas prices are reflective of the dynamics between supply and demand factors. In 2023 and 2024, market dynamics were primarily influenced by robust production, and growth in inventory storage balances which caused natural gas prices to sharply decline. Looking forward, demand for liquefied natural gas (LNG) exports is expected to double between 2024 and 2028, and U.S. gas production is projected to increase by 10–15 Bcf/day to meet both export requirements and growing domestic generation needs. Duke Energy Kentucky's procurement practices should remain unaffected, as market liquidity, strong production response, and existing pipeline infrastructure are expected to support continued affordability and reliability for customers.

Q. PLEASE DESCRIBE ANY ACTIONS DUKE ENERGY KENTUCKY HAS TAKEN TO MITIGATE THE HIGH COST OF FUEL FOR CUSTOMERS.

A. As previously discussed in my testimony, the Company enters into physical gas supply enabling agreements with multiple gas suppliers to ensure natural gas can be procured at a competitive market price to meet the needs of the Company's gas generation fleet. When needed, Duke Energy Kentucky procures natural gas in the spot market to serve the Woodsdale Combustion Turbine (CT) unit dispatches. When purchasing firm natural gas for day ahead and intra-day dispatch schedules, the Company actively solicits bids from those gas suppliers with whom it has active supply agreements and purchases from the lowest cost supplier. A competitive solicitation with multiple counterparties ensures Duke Energy Kentucky is capturing the lowest market price gas for its customers.

Q. PLEASE DESCRIBE HOW DUKE ENERGY KENTUCKY ADDRESSES CAPACITY SHORTFALLS DUE TO PLANNED OUTAGES BEING EXTENDED BEYOND THE ESTIMATED TIME OF THE OUTAGE.

A. During the period under review, Duke Energy Kentucky participated in the PJM capacity market as a self-supply Fixed Resource Requirement (FRR) entity using its own generation assets located in Duke Energy Ohio Kentucky (DEOK) locational zone to satisfy the PJM capacity requirements of the Reliability Pricing Model (RPM). Through the normal course of business, when Duke Energy Kentucky identifies a planned outage that will extend beyond its estimated time, the Company assesses the new schedule and evaluates if any mitigation actions, such as allocating existing uncleared capacity or purchasing replacement capacity from the PJM market, are necessary. Based on the results of its evaluation, the Company may purchase replacement capacity if necessary.

Q. PLEASE DESCRIBE THE PJM CAPACITY MARKET.

A. PJM's capacity market is called RPM; the purpose of RPM is to provide a market construct that enables PJM to secure adequate generation resources to meet the reliability needs of the regional transmission organization (RTO). The RPM construct and the associated rules regarding how PJM members participate in the PJM capacity market are described within the PJM Open Access Transmission Tariff (OATT) and Reliability Assurance Agreement (RAA). The PJM capacity market operates on a planning period that spans twelve months beginning June 1st and ending May 31st of each year (Delivery Year). In PJM, the capacity market structure is intended to provide transparent forward market signals that support

generation and infrastructure investment. There are two ways for a PJM member to participate in the RPM capacity structure: 1) through the RPM baseline procurement auctions; or 2) as a self-supply FRR entity. The baseline procurement auction is called a base residual auction (BRA). BRAs are typically conducted three years in advance of the actual Delivery Year in order to allow bidders to complete construction of projects that clear the BRA. The PJM capacity market is designed to provide incentives for the development of generation, demand response, energy efficiency, and transmission solutions through capacity market payments. Another key component of RPM is that price signals are locational and designed to recognize and quantify the geographical value of capacity. PJM divides the RTO into multiple sub-regions called locational delivery areas (LDA) in order to model the locational value of generation.

Q. PLEASE PROVIDE THE TIMING OF THE RECENT BASE RESIDUAL AUCTIONS.

A. The 2025/2026 auction occurred in June 2024, the 2026/2027 auction occurred in July 2025, and the 2027/2028 auction occurred in December 2025. The 2028/2029 auction will occur in June 2026, the 2029/2030 auction will occur in Dec 2026, and finally the 2030/2031 auction will occur in May 2027 (back on PJM's Tariff schedule).

Q. HAS THE DEOK DELIVERY ZONE SEPERATED AS A CONSTRAINED ZONE SINCE THE 2020/2021 PLANNING YEAR AS PREVIOUSLY REPORTED?

A. Yes. In the BRA for the Delivery Year 2022/2023, the DEOK delivery zone separated as a constrained zone clearing at $71.69/MW-Day as opposed to the $50.00/MW-Day for the rest of the RTO. In the BRA for the Delivery Year 2024/2025, the DEOK delivery zone separated as a constrained zone clearing at $96.24/MW-Day as opposed to the $28.92/MW-day clearing price for the rest of the RTO. This is relevant since Duke Energy Kentucky is required to provide capacity in its FRR plans that meet the requirements of the DEOK zone. As mandated by PJM, a certain percentage of such capacity must come from within the zone. The Company's owned generation at East Bend and Woodsdale stations met that requirement during the review period.

Following the 2024/2025 BRA which occurred June 2022, the DEOK delivery zone has not separated.

Q. PLEASE BRIEFLY EXPLAIN PJM'S FRR PROCESS.

A. The PJM OATT and RAA specify the obligations and compensation to Load Serving Entities (LSE) for supplying capacity. The FRR process is an alternative means for a PJM LSE such as Duke Energy Kentucky to satisfy its customer capacity obligation under the PJM RAA. Under the FRR construct, an LSE must annually submit a preliminary three-year forward, and a final current year FRR capacity plan that meets a PJM defined customer capacity obligation (FRR Plan). The FRR Plan must identify the unit-specific generating or demand response

resources that will be providing the capacity that will fulfill the LSE's customer obligation. FRR allows the LSE to match its customer reliability requirement to its own generation, demand response, energy efficiency, and/or transmission resources, while still being permitted to sell some or all of its excess supply into RPM. Duke Energy Kentucky would face severe penalties and limitations on its ability to choose the FRR option if PJM were to deem either its initial or final FRR plans to be insufficient or its generation otherwise non-compliant with PJM requirements. Duke Energy Kentucky annually submits both a preliminary and a final FRR Plan to PJM. These submittals are consistent with the Commission's Order in Case No. 2010-00203 whereby the Commission required the Company to participate in PJM as an FRR entity until such time as it received Commission approval to participate in the PJM capacity auctions. As discussed in the direct testimony of Mr. Swez, in late 2024 Duke Energy Kentucky conducted an evaluation which determined that continued participation as an FRR capacity construct participant was no longer in customers' best interests. Based on that evaluation the Company submitted an Application to the Commission in Case No. 2024-00285 requesting permission to transition from FRR to full RPM auction participation. Following Commission approval of Duke Energy Kentucky's transition[1], the Company terminated the Company's FRR status with PJM, effective October 2, 2025[2], and beginning with the delivery period June 1, 2027

[1] *In the Matter of the Electronic Application of Duke Energy Kentucky, Inc. to Become a Full Participant in the PJM Interconnection LLC, Base Residual and Incremental Auction Construct for the 2027/2028 Delivery Year and for Necessary Accounting and Tariff Changes*, Case No. 2024-00285, Final Order (Ky. P.S.C. May 16, 2025).

[2] *Id.*, Duke Energy Kentucky Inc's Notice of Termination as an FRR Alternative with PJM (Oct. 31, 2025).

through May 31, 2028, Duke Energy Kentucky will participate in the RPM BRA and subsequent Incremental Auctions.

Q. PLEASE EXPLAIN WHAT BEING AN FRR ENTITY MEANT FOR DUKE ENERGY KENTUCKY DURING THE REVIEW PERIOD.

A. As an FRR entity, Duke Energy Kentucky must secure and commit unit-specific generation resources to meet the peak load capacity requirements for all of its customers in advance of the PJM's annual BRA through its FRR Plan. Presently, the load requirements include both the forecasted load of Duke Energy Kentucky's customers, as well as the reserve requirement for that load mandated by PJM. The Duke Energy Kentucky FRR plan currently includes East Bend Unit 2 and Woodsdale Units 1-6 generating stations, demand response, as well as any bilateral capacity purchases required to meet customer demand.

As the FRR plan timeline follows the RPM auction timeline, the Company will be submitting its final FRR Plan for the delivery period spanning June 1, 2026 through May 31, 2027.

Q. PLEASE EXPLAIN THE PJM CAPACITY PERFORMANCE CONSTRUCT.

A. In a stated effort to improve the reliability of generating resources in the PJM footprint, PJM redesigned the RPM with its "Capacity Performance" construct. In doing so, PJM redefined its capacity products and implemented new performance-based penalties. Capacity Performance Resources must be capable of sustained, predictable operation that allows the resource to be available to provide energy and reserves during performance assessment hours throughout the Delivery Year.

Capacity Performance capacity is subject to non-performance charges assessed during emergency conditions throughout entire Delivery Year. Capacity Performance capacity must be available to the RTO during periods of high load demand or system emergency or face substantial performance penalties. With Capacity Performance, PJM adopted a no-excuses availability policy in order to improve reliability through a new penalty structure.

In this new construct, PJM transitioned all capacity in the footprint to Capacity Performance. In other words, all capacity purchased on behalf of the load through RPM or eligible for inclusion in FRR capacity plans must meet the Capacity Performance criteria.

Q. HOW WOULD YOU CLASSIFY THE CURRENT DUKE ENERGY KENTUCKY RESOURCES IN TERMS OF COMPLIANCE WITH THE CAPACITY PERFORMANCE CONSTRUCT?

A. East Bend Unit 2 meets the minimum requirements of a Capacity Performance Resource in that it is a coal fired facility with a significant reserve of fuel stored on-site. The Woodsdale CT facility meets the Capacity Performance requirements in that it is a dual fuel facility able to generate on either natural gas or fuel oil which is stored on-site. The primary fuel at Woodsdale is natural gas delivered under a non-firm delivery contract. Due to its low-capacity factor, it is not economic to maintain contracted firm natural gas transportation for the station. The Company continues to evaluate Capacity Performance compliance opportunities for its portfolio to increase their value and mitigate non-performance risks.

Q. DID PJM DECLARE ANY CAPACITY PERFORMANCE EVENTS DURING THE REVIEW PERIOD?

A. Yes, PJM declared capacity performance events on two days, December 23 and 24, 2022. On December 23, PJM declared 5.5 hours of performance assessment intervals (PAI) and on the 24th, an additional 17.5 hours of PAI occurred, for a total of 23 hours.

Q. **HOW DID DUKE ENERGY KENTUCKY'S ASSETS PERFORM DURING PJM'S DECLARED CAPACITY PERFORMANCE EVENTS?**

A. As discussed in more detail in Mr. Swez's testimony, during the declared PAI's East Bend Unit 2 was capable of near or full load operation and Woodsdale Units 1-6 successfully operated primarily on fuel oil. As a result of the strong performance of both generating stations, Duke Energy Kentucky was issued capacity performance credits of approximately $887,000 and zero capacity performance charges.

Q. PLEASE IDENTIFY THE RESPONSES TO COMMISSION DATA REQUESTS YOU ARE SPONSORING.

A. I sponsor the Company's responses to Data Request Numbers 6, 8, 9, 10, 11, 18, 21, and 31 in this proceeding. These responses were prepared by me and under my direction and control and are true and accurate.

III. CONCLUSION

Q. IN YOUR OPINION, WERE DUKE ENERGY KENTUCKY'S FUEL COSTS AND PROCUREMENTS DURING THE REVIEW PERIOD REASONABLE?

A. Yes.

Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes.

VERIFICATION

STATE OF NORTH CAROLINA)
) SS:
COUNTY OF MECKLENBURG)

The undersigned, Jim McClay, Managing Director Natural Gas Trading, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of his knowledge, information, and belief.

Jim McClay, Affiant

Subscribed and sworn to before me by Jim McClay on this 13th day of January, 2026.

NOTARY PUBLIC

My Commission Expires:

SHAMELL M WILSON
My Comm. Expires
NOTARY PUBLIC
July 06, 2026
MECKLENBURG COUNTY, NC