


**KyPSC Case No. 2024-00140**  
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VERIFICATION

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

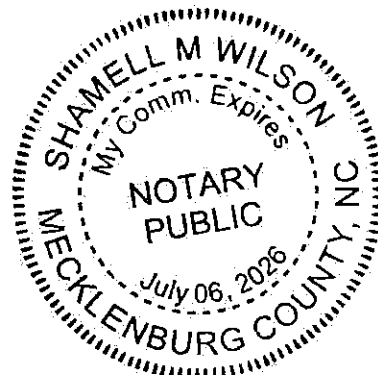
The undersigned, Jim McClay, Manager Director Natural Gas Trading, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
Jim McClay, Affiant

Subscribed and sworn to before me by Jim McClay on this 13<sup>th</sup> day of September  
2024.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:



**VERIFICATION**

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

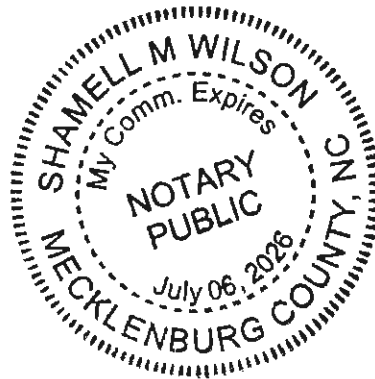
The undersigned, John D. Swez, Managing Director, Trading and Dispatch, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
John D. Swez, Affiant

Subscribed and sworn to before me by John D. Swez on this 13<sup>th</sup> day of September, 2024.

  
NOTARY PUBLIC

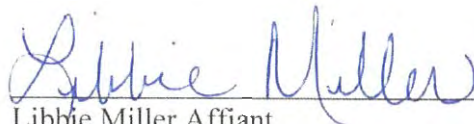
My Commission Expires:



VERIFICATION

STATE OF OHIO                    )  
  )     SS:  
COUNTY OF HAMILTON        )

The undersigned, Libbie Miller, Rates & Regulatory Strategy Manager, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing revised data request, and that the answers contained therein are true and correct to the best of her knowledge, information, and belief.

  
\_\_\_\_\_  
Libbie Miller Affiant

Subscribed and sworn to before me by Libbie S. Miller on this 20<sup>th</sup> day of September, 2024.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: July 8, 2027



EMILIE SUNDERMAN  
Notary Public  
State of Ohio  
My Comm. Expires  
July 8, 2027

**Duke Energy Kentucky**  
**Case No. 2024-00140**  
**STAFF Second Set of Data Requests**  
**Date Received: September 9, 2024**

**STAFF-DR-02-001**

**REQUEST:**

Refer to Duke Kentucky's response to Commission Staff's First Request for Information (Staff's First Request), Item 6. Explain why Duke Kentucky does not engage in long-term contracts for natural gas. Include in the response a cost/benefit scenario between a long-term contract and a spot contract for Duke Kentucky.

**RESPONSE:**

Duke Energy Kentucky does not engage in long-term contracts for natural gas given that Woodsdale is usually operated as a peaking plant, not a baseload plant, with commitment and dispatch primarily directed by PJM, which complicates forecasting near term and forward dispatches and associated gas burns. Compounding the supply forecasting issue, Duke Energy Kentucky does not receive cost recovery from gas purchased unless the gas is burned by the plant. Purchasing term gas for peaking units with unknown forward dispatch and associated gas supply volumes is likely to be uneconomic. As a short-term gas management practice, gas imbalances can be left on the pipeline using the pipeline's flexibility as storage and burning off the excess supply at a future period. The accumulation of multiple days' supply imbalance on the pipeline is not normal business practice and risks TETCO gas control forcing imbalance reduction to zero (sell it or burn it). Another difficulty managing baseload supply is when TETCO issues an operational flow order (OFO) limiting excess daily gas imbalances. OFO penalties are assessed on unburned daily gas volumes above stated OFO tolerance (usually 2000Dth/day) and results in a penalty of

three times the daily gas index assessed per MMBTU. A \$3.00/MMBtu gas price would result in a \$9.00/MMBtu penalty on excess imbalance. Any benefit of procuring gas under a long term or baseload contract for Woodsdale CTs would quickly be lost due to the negative gas management economics and uncertainty in the ability to sell gas to mitigate loss when the units are not needed by PJM or force running them resulting in uneconomic power sale losses.

**PERSON RESPONSIBLE:** Jim McClay

**Duke Energy Kentucky**  
**Case No. 2024-00140**  
**STAFF Second Set of Data Requests**  
**Date Received: September 9, 2024**

**STAFF-DR-02-002**

**REQUEST:**

Refer to Duke Kentucky's response to Staff's First Request, Item 7. Confirm that Duke Kentucky operated Woodsdale during Winter Storm Elliott. If so, then provide a breakdown of all costs associated with operating Woodsdale during that time period.

**RESPONSE:**

Confirmed. The five available units at Woodsdale station were started during the morning of December 23. On this day, the units operated on both natural gas and fuel oil, and by the end of this day, all available units were transitioned to operating on fuel oil only. The units ran until coming off-line the morning of December 27. Note that the units were operated continuously, including overnight hours, during this time, but were dispatched up and down as instructed. Additionally, note that the units were operated primarily on fuel oil, since the cost of operating the unit on fuel oil was below that of natural gas. In reference to the response to STAFF-DR-01-007, the Woodsdale units were not reported as being unavailable on natural gas during this time, since after fuel oil became the economic fuel choice, the units were not attempted to run on natural gas since fuel oil was more economic. Had the units not operated on fuel oil during this time, natural gas availability would have been uncertain. Woodsdale 3 was unavailable during the entirety of Winter Storm Elliott due to the unit's generator rewind outage and did not operate.

According to the Company's Sumatra fuel cost allocation statistics, the Woodsdale fuel expense during this time was:

- \$566,540 in natural gas expense consumed.
- \$4,271,971 in fuel oil expense consumed.

**PERSON RESPONSIBLE:** John Swez



**Duke Energy Kentucky**  
**Case No. 2024-00140**  
**STAFF Second Set of Data Requests**  
**Date Received: September 9, 2024**

**STAFF-DR-02-003**

**REQUEST:**

Refer to Duke Kentucky's response to Staff's First Request, Item 13, Attachment. Explain the negative values for the months ended January 31, 2023, and April 30, 2023.

**RESPONSE:**

Duke Energy Kentucky's Economy Sales Schedule has a sale when generation is greater than customer load. That sale can be positive (revenues received are greater than the cost of the unit that served that sale) or negative (revenues received are less than the cost of the unit that served that sale). A negative value can occur for many reasons – 1) PJM Day-Ahead Locational Marginal Price (LMP) versus the Real-Time LMP; 2) an unexpected loss or derate of a unit; 3) generally low LMP in non-peak hours; 4) Prior to receipt of PJM Balancing Operating Reserve (Make Whole) Payments, or 5) other unforeseen reasons.

Negative values in January 2023 mainly were attributable to LMP volatility that occurred on the morning of January 10, 2023, when the Real-Time LMP spiked to approximately \$3,500/MWh for one 5-minute period. Duke Energy Kentucky was "buying back" its generation Day-Ahead commitment in the Real-Time market at a price that was greater than the cost of the unit during this short spike in the LMP. In this circumstance a loss occurred because the Real-Time LMP "buy-back" price was higher than the Day-Ahead LMP offer price.

Negative values in April 2023 mainly were attributable to an unexpected derate at the East Bend unit from April 14 through April 19 due to a scrubber booster ID fan issue. Additionally, because of the unit's derate during this time and due to the unit starting a Spring outage on April 20, the unit had less opportunity to sell excess generation to the PJM market at peak prices that could have offset these negative values.

Finally, although the following described below occurred in smaller amounts than the reasons identified above, negative values still occur at any time during peak or non-peak hours because of the normal unit commitment process. However, negative values more often than not occur in the non-peak hours when a unit's minimum generator output is greater than customer load for that hour. Due to the unit's physical parameters and the results of the unit commitment process, a unit's cost could be higher than the unit's LMP received. Generally, the LMP is at its lowest price during the off-peak hours, and the unit is at its lowest efficiency during off-peak hours when it is running at or near minimum load. The less efficient unit costs more to run while receiving a lower LMP price, resulting in a negative value for Duke Energy Kentucky.

**PERSON RESPONSIBLE:** Libbie Miller  
John Swez

**Duke Energy Kentucky**  
**Case No. 2024-00140**  
**STAFF Second Set of Data Requests**  
**Date Received: September 9, 2024**

**STAFF-DR-02-004**

**REQUEST:**

Refer to Duke Kentucky's response to Staff's First Request, Item 17. Confirm that Duke Kentucky operated East Bend during Winter Storm Elliot. If so, then provide a breakdown of all costs associated with operating East Bend during that time period.

**RESPONSE:**

For this response, the Winter Storm Elliott period was defined as December 22, 2022 through December 27, 2022.

Confirmed. East Bend operated during the entirety of the Winter Storm Elliott period.

According to the Company's Sumatra fuel cost allocation statistics, East Bend Station consumed \$2,567,571 in coal expense during this time.

**PERSON RESPONSIBLE:** John Swez

**Duke Energy Kentucky**  
**Case No. 2024-00140**  
**STAFF Second Set of Data Requests**  
**Date Received: September 9, 2024**

**PUBLIC STAFF-DR-02-005**

**REQUEST:**

Explain if Duke Kentucky was subject to PJM Performance Assessment Interval penalties during the review period. If so, include an explanation for why for each instance and the amount(s) of the penalties.

**RESPONSE:**

**CONFIDENTIAL PROPRIETARY TRADE SECRET**

Duke Energy Kentucky, as an FRR entity in PJM, elected the physical option of the Capacity Performance Non-Performance Assessment for resources committed to the Delivery Year’s FRR Capacity Plan. During the same period, the Company also sold 100.2 MW of excess capacity at East Bend into the 2022/2023 Base Residual Auction (BRA). This portion of the committed capacity is not under the FRR Plan and, therefore, is under the financial option of the Non-Performance Assessment. Please see below for the Company’s FRR Capacity Plan including the RPM capacity sold in the BRA during Winter Storm Elliott.

**Final DEK Capacity Position from 11/02/2022 00:00 to 01/17/2023 23:59**

ResourceName	EFORD	EFORD5yr	ICAP				UCAP			
			Total ICAP	FRR ICAP	RPM ICAP	Remaining (MW)	Total UCAP	FRR UCAP	RPM UCAP	Remaining (MW)
EAST BEND 2			600			0			100.2	0.0
WOODSDALE GT1			77			0			0	0
WOODSDALE GT2			77			0			0	0
WOODSDALE GT3			77			5			0	4.8
WOODSDALE GT4			77			0			0	0
WOODSDALE GT5			77			0			0	0
WOODSDALE GT6			77			0			0	0
DR - CP			3.5			0			0	0
<b>TOTAL</b>			<b>1065.5</b>			<b>5</b>			<b>100.2</b>	<b>4.8</b>

FRR Physical Option - Capacity Performance Non-Performance Assessment Amount:

For the Non-Performance Assessment under the FRR physical option, the Company received a total 1.2 MW assessment. Thus, the Company committed an additional 1.2 MW of capacity in the 2023/2024 Delivery Year FRR Plan.

BRA Excess Capacity Sell - Financial Option Non-Performance Assessment Amount:

During the review period and under the financial option, the Company received a Non-Performance Assessment Charge of \$0 and Non-Performance Assessment Bonus (payment to Duke Energy Kentucky) of \$886,125.45. The primary driver of the bonus was due to East Bend actual generation exceeding its RPM capacity commitment during Winter Storm Elliott.

**PERSON RESPONSIBLE:**            John Swez