

VERIFICATION


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

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 19 day of October, 2022.



NOTARY PUBLIC

My Commission Expires:

SHAMALE M WILSON
Notary Public, North Carolina
Mecklenburg County
My Commission Expires
July 06, 2026

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Libbie S. Miller, Rates & Regulatory Strategy Manager, being duly sworn, deposes and says that she 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 her knowledge, information and belief.



Libbie S. Miller Affiant

Subscribed and sworn to before me by Libbie S. Miller on this 19th day of October, 2022.



NOTARY PUBLIC

My Commission Expires: July 8, 2027



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

VERIFICATION

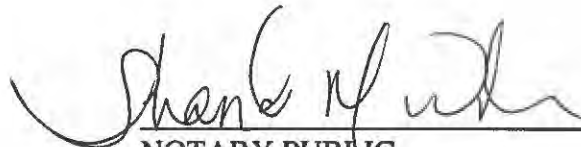
STATE OF NORTH CAROLINA)
) SS:
COUNTY OF MECKLENBURG)

The undersigned, Brad Daniel, Director, Generation Dispatch and Operations, 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.



Brad Daniel, Affiant

Subscribed and sworn to before me by Brad Daniel on this 19 day of October, 2022.



NOTARY PUBLIC

My Commission Expires:

SHAMALE M WILSON
Notary Public, North Carolina
Mecklenburg County
My Commission Expires
July 06, 2026

KyPSC Case No. 2022-00267
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**Duke Energy Kentucky
Case No. 2022-00267
STAFF Second Set Data Requests
Date Received: October 14, 2022**

STAFF-DR-02-001

REQUEST:

Refer to the Direct Testimony of Kimberly Hughes (Hughes Testimony), page 7, lines 17-19. Explain what industries are expanding their demand for metallurgical coal.

RESPONSE:

Strong domestic and global steel production drove the rebound in US metallurgical coal demand during the FAC period.

PERSON RESPONSIBLE: Kimberly Hughes

REQUEST:

Refer to the Direct Testimony of Jim McClay (McClay Testimony), page 5, lines 18-23, and page 6, lines 1-8.

- a. Explain whether the DEOK delivery zone being separated as a “constrained zone” means that transmission capacity into or out of the zone is constrained.
- b. Explain how the DEOK zone separation could affect market liquidity for capacity.
- c. Explain whether the higher zone capacity clearing prices are insufficient to induce either additional transmission capacity or generation capacity that would alleviate current constraints.
- d. If Duke Kentucky were to need additional capacity and assuming it were available, explain whether there is sufficient transmission capacity with its neighboring Kentucky utilities to acquire that capacity.

RESPONSE:

- a. When the DEOK zone becomes separated as a “constrained zone”, it may mean that there is a lack of transmission capacity into the zone, a shortage of generation inside that zone, or a combination of both.
- b. As Duke Energy Kentucky is currently a Fixed Resource Requirement (FRR) participant, PJM requires a certain percentage of generation to be located inside the DEOK zone. This requirement can change annually, but typically between 20% to 50% of the generation that Duke Energy Kentucky assigns to its FRR plan is

required to be inside of the DEOK zone. As noted, the Company's existing assets of East Bend and Woodsdale both meet this requirement. However, if additional generation were needed in the future, this requirement as well the amount of additional generation inside of DEOK could affect the amount of capacity available in the market to satisfy future Company FRR plans.

- c. Over time, if higher zonal capacity clearing prices occur on a repeated basis inside of a particular zone, this factor would potentially impact where additional generation is located, along with other factors needed to site and operate a generation station.
- d. Limiting "neighboring Kentucky utilities" to those located inside of PJM and referring to a scenario where Duke Energy Kentucky contemplated building or acquiring a portion or all of a generating unit inside of a neighboring PJM utility, if Duke Energy Kentucky were to need additional capacity, this option may be sufficient for a small portion of generation. However, this option comes with the additional risk to Duke Energy Kentucky of owning a generating resource outside of DEOK under the current FRR zonal requirement as discussed above. This option may be a more suitable option in the future if Duke Energy Kentucky moved to the Reliability Pricing Model (RPM) and were not an FRR participant.

PERSON RESPONSIBLE: Jim McClay

Duke Energy Kentucky
Case No. 2022-00267
STAFF Second Set Data Requests
Date Received: October 14, 2022

STAFF-DR-02-003

REQUEST:

Refer to Duke Kentucky’s response to Commission Staff’s First Request for Information (Staff’s First Request), Item 3. Explain whether at any point during the period under review, the coal inventory level for Duke Kentucky’s generating units fell below the units’ target range. If so, provide the coal inventory level for the generating units when they fell below the target coal inventory.

RESPONSE:

Duke Energy Kentucky’s generating units coal inventory levels were within the target coal inventory range of 45 FLB (Full Load Burn) days plus or minus 10 days during the FAC period. Please see the chart below.

Month	Ending Inventory	FLB
Nov-21	235,433	36
Dec-21	306,097	47
Jan-22	255,803	39
Feb-22	265,411	41
Mar-22	245,656	38
Apr-22	254,350	39

PERSON RESPONSIBLE: Kimberly Hughes

**Duke Energy Kentucky
Case No. 2022-00267
STAFF Second Set Data Requests
Date Received: October 14, 2022**

STAFF-DR-02-004

REQUEST:

Refer to Duke Kentucky's Response to Staff's First Request, Item 23, Attachment, page 1 of 1. Billing Line Item 2340 is listed twice, once as Reg. Supply and again as Lost Opp. Cost. Explain whether one of these is mislabeled, and if so, provide the correct labeling.

RESPONSE:

The labeling of Billing Line Item 2340 is correct for both the "Reg Supply" and "2340 Lost Opp. Cost" lines of STAFF-DR-01-023. The Reg Supply line contains the regulation revenue awarded to the Company by PJM. The Lost Opp Cost line includes the Lost Opportunity Cost Credit from PJM for BLI 2340, typically applied when a generator's output is reduced or suspended for reliability. The sum of these two line items before the native/non-native split appears on the PJM invoice as BLI 2340.

PERSON RESPONSIBLE: Libbie S. Miller
Brad Daniel

Duke Energy Kentucky
Case No. 2022-00267
STAFF Second Set Data Requests
Date Received: October 14, 2022

STAFF-DR-02-005

REQUEST:

Refer to Duke Kentucky's Response to Staff's First Request, Item 28, in which it states, "In circumstances when the market price of power drops below the unit offer and the generators' market costs are expected to exceed the forecasted market revenues over an appropriate time period, the unit could be offered to PJM with an Economic status."

- a. If the unit were to be offered to PJM Interconnection, Inc. (PJM) in Economic status, explain how the unit would operate over the appropriate time period.
- b. Explain what other options Duke Kentucky has as alternatives to offering the unit to PJM in Economic status. Include in the response whether there would be any unit operational differences under this alternative offer.

RESPONSE:

- a. If East Bend was offered by the Company with an Economic status to PJM in the Day-Ahead Market and the unit was committed by PJM, the unit would dispatch the same in the Real-Time Market as it would when the unit was offered to PJM with a Must Run status in the Day-Ahead Market. In both cases, once the unit reaches its minimum dispatchable load, in the Real-Time market PJM will economically dispatch the unit between its economic minimum and maximum load. However, if East Bend was offered by the Company with an Economic status in the Day-Ahead Market to PJM and the unit was not committed by PJM the unit would remain off-line until or unless committed by PJM either economically or for system

reliability reasons. The Company could also self-commit the unit in the Real-Time Market or offer the unit with a Must Run status in the Day Ahead Market to ensure the unit's commitment with a Day-Ahead award.

- b. Duke Energy Kentucky generating units are offered with designations including Must Run, Economic, Emergency, and Unavailable. When a unit is available, the commitment decision for an available unit is between either a Must Run or Economic commitment status offer. Very rarely and only under special operational circumstances typically impacting longer term unit reliability will a unit be offered with the Emergency designation. There are operational differences between Economic and Must Run offers, mainly in how the unit is committed into the market. When offering a unit in the Day-Ahead market with Economic status, the unit may or may not receive a Day Ahead award. When the Company offers the unit to PJM in the Day-Ahead market with an Economic status, the Company is allowing PJM to determine the commitment decision for the unit, whether the unit is in an already online state or an offline state. If the unit does not receive an Economic Day Ahead award, the unit has no Day Ahead energy obligation to PJM. When offering a unit in the Day-Ahead market with Must Run status, the unit will receive a Day Ahead Award greater than or equal to the unit's minimum dispatchable load up to its maximum dispatchable load. Once the unit is committed online, the unit will be dispatched economically just as it would if it were committed with an Economic offer by PJM. Said in another way, the unit will economically dispatch the same whether it is committed with a Must Run or Economic offer. These commitment decisions involve many different inputs, including the initial state of the unit (on or off), expected revenue from operation

of the unit, operating cost of the unit including replacement fuel cost, unit startup up cost, unit startup up time, risk around cycling off-line, the need to perform any required unit testing, weather and system reliability conditions and other factors.

PERSON RESPONSIBLE: Brad Daniel

**Duke Energy Kentucky
Case No. 2022-00267
STAFF Second Set Data Requests
Date Received: October 14, 2022**

STAFF-DR-02-006

REQUEST:

Explain whether Duke Kentucky was subjected to any performance penalties by PJM during the period under review.

RESPONSE:

No. Duke Kentucky did not receive nor pay any charges from PJM related to capacity performance penalties during this review period.

PERSON RESPONSIBLE: Jim McClay
John Swez

Duke Energy Kentucky
Case No. 2022-00267
STAFF Second Set Data Requests
Date Received: October 14, 2022

STAFF-DR-02-007

REQUEST:

For each month of the review period, provide the total amount of fuel related cost that occurred during a forced outage that was disallowed pursuant to 807 KAR 5:056, of that Duke Kentucky was unable to collect via any other means.

RESPONSE:

For each month of the review period, the Company does not have any disallowed forced outage costs that cannot be included in the deferral authority granted to it by the Commission in Case No. 2017-00321.¹ As noted in STAFF-DR-01-026, the Company has not asked for recovery of this deferral balance but may seek recovery of the deferred balance (debit or credit) in a future base rate case proceeding.

PERSON RESPONSIBLE: Libbie S. Miller

¹ See Case No. 2017-00321, *Electronic Application of Duke Energy Kentucky, Inc. for: 1) An Adjustment of the Electric Rates; 2) Approval of an Environmental Compliance Plan and Surcharge Mechanism; 3) Approval of New Tariffs; 4) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; and 5) All Other Required Approvals and Relief* (Ky. PSC Oct. 2, 2018), Order.