



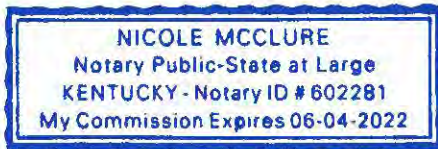
**VERIFICATION**

**STATE OF** )  
 ) **SS:**  
**COUNTY OF** )

The undersigned, Brett Riggins, GM II – Reg Stations, 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.

  
Brett Riggins, Affiant

Subscribed and sworn to before me by Brett Riggins on this 12<sup>th</sup> day of May, 2022.



  
NOTARY PUBLIC

My Commission Expires: 06-04-2022

**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 17 day of may,  
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                    )  
  )  
COUNTY OF HAMILTON        )        **SS:**

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 10<sup>th</sup> day of May, 2022.

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

My Commission Expires: July 8, 2022



EMILIE SUNDERMAN  
Notary Public  
State of Ohio  
My Comm. Expires  
July 8, 2022

**KyPSC Case No. 2022-00040**  
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**Duke Energy Kentucky**  
**Case No. 2022-00040**  
**STAFF Second Set Data Requests**  
**Date Received: May 9, 2022**

**STAFF-DR-02-001**

**REQUEST:**

Refer to Duke Kentucky's Response to Commission Staff's First Request for Information (Staff's First Request), Items 4-5

- a. Comparing the confidential attachments, explain the difference between written and oral solicitations.
- b. Comparing the confidential attachments, explain the difference between term and spot purchases.
- c. Comparing the confidential attachments, explain whether coal from different regions have different characteristics. If so, explain the differences.
- d. Comparing the confidential attachments, explain which party arranges transportation. If Duke Kentucky, explain the process including timing, pickup locations, etc.
- e. If not explained above, explain what "Transport Not Available" means in the sense of the factors that may cause the unavailability of transport.

**RESPONSE:**

- a. Comparing the confidential attachments, explain the difference between written and oral solicitations.

**Written Solicitation:** is a written solicitation sent via email requesting proposals for coal.



**Oral (Telephone) Solicitation:** Solicitation done verbally over the phone to allow for prompt execution and delivery in order to support immediate supply needs.

- b. Comparing the confidential attachments, explain the difference between term and spot purchases.

**Term purchases:** Term purchases are purchases with a duration greater than 12 months. Proposals for term purchases are typically secured through written solicitations and are evaluated, taking into account coal quality, quantity, volume flexibility, transportation alternatives and price, among other factors. The producer (or producers) whose coal offers the best value, particularly with regard to overall utilization costs and volume flexibility, is selected for further negotiations to produce a long-term contract or contracts.

**Spot purchases:** Spot purchases are purchases with a duration of 12 months or less and are typically used to supplement existing purchase commitments. The primary difference in the solicitation process is that for spot purchases, telephone (oral) solicitations are utilized to allow for prompt execution and delivery in order to support immediate supply needs resulting from changes in burn, inventory levels, or supply and transportation challenges.

- c. Coal regions are characteristically defined by their coal quality constituents, such as Btu and SO<sub>2</sub>, which vary further between specific mines and even seams within a mine.
- d. Duke Energy Kentucky procures coal FOB barge and is directly responsible for arranging the barge transportation from the delivery point proposed by the supplier to the plant. Monthly schedules are determined by collaboration

between the Company, the supplier and the barge carrier based on contractual obligation, availability, and station demand.

- e. The supplier for whom “Transportation Not Available” was stated twice in STAFF-DR-01-004 Confidential Attachment 2 indicated they were unable to secure the rail transportation required to transport the coal from the mine to a delivery point on the river. They therefore withdrew their offer as they were unable to fulfill their proposal due to lack of resources to get the coal to the delivery point as proposed.

**PERSON RESPONSIBLE:** Kimberly Hughes

**Duke Energy Kentucky**  
**Case No. 2022-00040**  
**STAFF Second Set Data Requests**  
**Date Received: May 9, 2022**

**STAFF-DR-02-002**

**REQUEST:**

Refer to Duke Kentucky's Response to Staff's First Request, Item 7.

- a. For each month in period under review, provide the amount of natural gas and the amount of oil burned by the Woodsdale station along with the costs associated with procuring that natural gas and oil.
- b. Provide the vendors that supplied the Woodsdale station with oil during the period under review.
- c. Explain if the Operational Flow Order (OFO) given by TETCO was issued directly to Duke Kentucky or issued across TETCO's system.
- d. Provide a list of each time during the period of review in which an OFO was issued, for how long the OFO was in effect, if a reason for the OFO was given then provide the reason, the terms set forth in the OFO, and when Duke Kentucky had to burn oil instead of natural gas for the Woodsdale station.
- e. State if Duke Kentucky maintains a gas supply contract with TETCO for its Woodsdale station. If so, provide the contract.
- f. Explain if Duke Kentucky attempted to acquire natural gas from additional sources once it was issued an OFO from TETCO before deciding to burn oil.
- g. Explain if burning the oil was more cost beneficial to Duke Kentucky than procuring more natural gas through additional sources.

- h. Explain during each month of the period under review when the occasional issues with pipeline gas pressure occurred and for how long the issue would persist.

**RESPONSE:**

- a. The amount of gas burned is the same as the amount of gas purchased for the month at the Woodsdale station.

Fuel Burned - Woodsdale		
Month	Dollars Gas	MCF Gas
May-21	\$ 550,950.00	169,261
Jun-21	\$ 327,419.60	90,663
Jul-21	\$ 384,994.80	94,500
Aug-21	\$ 788,510.00	183,852
Sep-21	\$ 148,800.00	27,237
Oct-21	\$ 291,600.00	45,720

Fuel Burned - Woodsdale		
Month	Dollars Oil	Gallons Oil
May-21	\$ -	0
Jun-21	\$ 100,225.13	46,653.50
Jul-21	\$ -	0
Aug-21	\$ 6,467.46	3,010.52
Sep-21	\$ -	0
Oct-21	\$ -	0

- b. No purchases of oil were made for Woodsdale station during the months of May 2021 thru October 2021. The consumed/burned oil came from inventory.
- c. Operational Flow Orders (OFO) during the review period were issued in the Zone on TETCO's system where Duke Energy Kentucky was affected. The OFO was not issued directly to Duke Energy Kentucky.

d.

1. 8 Days Start: 7/30/2021 at 0900 CCT to End: 8/7/2021 at 0900
2. 5 Days Start: 9/28/2021 at 0900 CCT to End: 10/3/2021 at 0900

The OFO was issued by TETCO due to pipeline conditions to maintain system integrity. The Woodsdale units did not dispatch on oil during these OFO periods.

- e. Duke Energy Kentucky maintains two Interruptible contracts with TETCO Pipeline. Please see STAFF-DR-02-002(e) Attachments 1 and 2.

<u>Contract#</u>	<u>Service Level</u>	<u>Start Date</u>	<u>End Date</u>	<u>Current Demand Rate</u>	<u>Variable Rate</u>	<u>Fuel %</u>	<u>Receipt Point</u>	<u>Delivery Point</u>	<u>Season</u>	<u>Volume</u>
712323-R1	IT	4/1/2006	Mo to Mo	\$0.00	Tariff	Tariff	MRPL	MDPL	Year Round	100,000
770259-R2	IT	4/1/2006	Mo to Mo	\$0.00	Tariff	Tariff	MRPL	MDPL	Year Round	30,000

- f. On the June and August days of oil burn in question, there were no OFOs issued.

The oil was burned for unit testing.

- g. As discussed in response (f), on the days of oil burn in question, the oil was burned for unit testing.

- h. The occasional issues were:

1. At 1000 on June 1, TETCO confirmed with the Company that there would be no available gas flow to Woodsdale from 1000 on 6/3/21 to 1000 on 6/4/21.
2. On 6/24/21, there were gas pressure issues impacting Madison station, which is not part of Duke Energy Kentucky but receives natural gas at the same delivery point as Woodsdale. Pressure issues were reported as of 1330 EST. Woodsdale units were not dispatched to run on this day; therefore, technically were not unavailable to run on gas because of the pressure issue. The issues were fully alleviated by the following day.
3. On 6/28/21 pressure issues were reported at 1720 EST. One Woodsdale unit was removed from service at 1832 EST. The issue was fully alleviated by the following day.

4. On 7/6/21 gas pressure issues were reported at 1900 EST; however, no Woodsdale units were removed from dispatch because of the issue. The issue was alleviated the following day.
5. On 10/5/21, TETCO communicated to the Company an official declaration of a Force Majeure on 10/1 that was due to "an identified pipeline anomaly that requires a pressure reduction on 26" Line 3 between Somerset to Five Points station which occurred on October 1". This resulted in TETCO imposing a ratable gas supply on customers through 10/21.

**PERSON RESPONSIBLE:**

Libbie S. Miller – a., b.  
Jim McClay – c. thru f.  
Brad Daniel/John Swez – g. thru h.

SERVICE AGREEMENT  
FOR RATE SCHEDULE IT-1

Date: 03/16/2006,

Contract No. 712323-R1

SERVICE AGREEMENT

This AGREEMENT is entered into by and between Texas Eastern Transmission, LP, ("Pipeline") and DUKE ENERGY KENTUCKY, INC. ("Customer").

WHEREAS,

NOW THEREFORE, in consideration of the premises and of the mutual covenants herein contained, the parties do agree as follows:

1. Pipeline shall deliver and Customer shall take and pay for service pursuant to the terms of this Agreement and subject to Pipeline's Rate Schedule IT-1 and the General Terms and Conditions of Pipeline's Tariff, which are incorporated herein by reference and made a part hereof.
2. Maximum Daily Quantity (MDQ) 100,000 Dth  
Pipeline shall not receive on any Day a Quantity of Gas in excess of the applicable MDQ, plus Applicable Shrinkage, nor deliver on any Day a Quantity of Gas in excess of the MDQ.
3. This Agreement shall be effective on April 1, 2006 and shall continue for a term ending on and including April 30, 2006 ("Primary Term") and shall continue to be effective from month to month thereafter unless and until terminated by Pipeline or Customer upon prior written notice of at least 1 month. This Agreement may be terminated at any time by Pipeline in the event Customer fails to pay part or all of the amount of any bill for service hereunder and such failure continues for thirty (30) days after payment is due; provided, Pipeline gives thirty (30) days prior written notice to Customer of such termination and provided further such termination shall not be effective if, prior to the date of termination, Customer either pays such outstanding bill or furnishes a good and sufficient surety bond or other form of security reasonably acceptable to Pipeline guaranteeing payment to Pipeline of such outstanding bill. Any portions of this Agreement necessary to correct or cash-out imbalances under this Agreement as required by the General Terms and Conditions of Pipeline's Tariff shall survive the other parts of this Agreement until such time as such balancing has been accomplished.
4. Maximum rates, charges, and fees shall be applicable to service pursuant to this Agreement except during the specified term of a discounted rate or a Negotiated Rate to which Customer and Pipeline have agreed. Provisions governing such discounted rate shall be as specified in the Discount Confirmation to this Agreement. Provisions governing such Negotiated Rate and term shall be as specified on an appropriate Statement of Negotiated Rates filed, with the consent of Customer, as part of Pipeline's Tariff. It is further agreed that Pipeline may seek authorization from the Commission and/or other appropriate body at any time and from time to time to change any rates, charges or other provisions in the applicable Rate Schedule and General Terms and Conditions of Pipeline's Tariff, and Pipeline shall have the right to place such changes in effect in accordance with the Natural Gas Act. Nothing contained herein shall be construed to deny Customer any rights it may have under the Natural Gas Act, including the right to participate fully in rate or other proceedings by intervention or otherwise to contest increased rates in whole or in part.
5. The Point(s) of Receipt and Point(s) of Delivery at which Pipeline shall receive and deliver Gas shall be specified on Pipeline's Master Location List as such list is revised and published by Pipeline from time to time.
6. All Natural Gas tendered to Pipeline for Customer's account shall conform to the quality specifications set forth in Section 5 of Pipeline's General Terms and Conditions. Customer agrees that in the event Customer tenders for service hereunder and Pipeline agrees to accept Natural Gas which does not comply with Pipeline's quality specifications, as expressly provided for in Section 5 of Pipeline's General Terms and Conditions, Customer shall pay all costs associated with processing of such Gas as necessary to comply with such quality specifications. Customer shall execute or cause its supplier to execute, if such supplier has retained processing rights to the Gas delivered to Customer, the appropriate agreements prior to the commencement of service for the transportation and processing of any liquefiable hydrocarbons and any PVR quantities associated with the processing of Gas received by Pipeline at the Point(s) of Receipt under such Customer's service agreement. In addition, subject to the execution of appropriate agreements, Pipeline is willing to transport liquids associated with the Gas produced and tendered for transportation hereunder.
7. Unless otherwise required in the Tariff, all notices shall be in writing and shall be considered duly

Contract No.: 712323-R1

delivered when mailed to the applicable address below or transmitted via facsimile. Customer or Pipeline may change the addresses or other information below by written notice to the other without the necessity of amending this Agreement:

Pipeline: TEXAS EASTERN TRANSMISSION, LP  
5400 WESTHEIMER COURT  
HOUSTON, TX 77056-5310

Customer: DUKE ENERGY KENTUCKY, INC.  
139 EAST FOURTH STREET  
EA606  
CINCINNATI, OH 45202

8. The interpretation and performance of this Agreement shall be in accordance with the laws of the state of TEXAS, excluding conflicts of law principles that would require the application of the laws of a different jurisdiction.
9. This Agreement supersedes and cancels, as of the effective date of this Agreement, the contract(s) between the parties hereto as described below:

None

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their respective Officers and/or Representatives thereunto duly authorized to be effective as of the date stated above.

DUKE ENERGY KENTUCKY, INC.

TEXAS EASTERN TRANSMISSION, LP  
by its General Partner  
Spectra Energy Transmission Services, LLC

By: Executed Online by RENEE MARKO

By: Executed Online by AURORA ARELLANO



SERVICE AGREEMENT  
FOR RATE SCHEDULE LLIT

Date: 03/16/2006,

Contract No. 770259-R2

SERVICE AGREEMENT

This AGREEMENT is entered into by and between Texas Eastern Transmission, LP, ("Pipeline") and DUKE ENERGY KENTUCKY, INC. ("Customer").

WHEREAS,

NOW THEREFORE, in consideration of the premises and of the mutual covenants herein contained, the parties do agree as follows:

1. Pipeline shall deliver and Customer shall take and pay for service pursuant to the terms of this Agreement and subject to Pipeline's Rate Schedule LLIT and the General Terms and Conditions of Pipeline's Tariff, which are incorporated herein by reference and made a part hereof.
2. Maximum Daily Quantity (MDQ) 30,000 Dth  

Pipeline shall not receive on any Day a Quantity of Gas in excess of the applicable MDQ, plus Applicable Shrinkage, nor deliver on any Day a Quantity of Gas in excess of the MDQ.
3. This Agreement shall be effective on April 1, 2006 and shall continue for a term ending on and including April 30, 2006 ("Primary Term") and shall continue to be effective from month to month thereafter unless and until terminated by Pipeline or Customer upon prior written notice of at least 1 month. This Agreement may be terminated at any time by Pipeline in the event Customer fails to pay part or all of the amount of any bill for service hereunder and such failure continues for thirty (30) days after payment is due; provided, Pipeline gives thirty (30) days prior written notice to Customer of such termination and provided further such termination shall not be effective if, prior to the date of termination, Customer either pays such outstanding bill or furnishes a good and sufficient surety bond or other form of security reasonably acceptable to Pipeline guaranteeing payment to Pipeline of such outstanding bill. Any portions of this Agreement necessary to correct or cash-out imbalances under this Agreement as required by the General Terms and Conditions of Pipeline's Tariff shall survive the other parts of this Agreement until such time as such balancing has been accomplished.
4. Maximum rates, charges, and fees shall be applicable to service pursuant to this Agreement except during the specified term of a discounted rate or a Negotiated Rate to which Customer and Pipeline have agreed. Provisions governing such discounted rate shall be as specified in the Discount Confirmation to this Agreement. Provisions governing such Negotiated Rate and term shall be as specified on an appropriate Statement of Negotiated Rates filed, with the consent of Customer, as part of Pipeline's Tariff. It is further agreed that Pipeline may seek authorization from the Commission and/or other appropriate body at any time and from time to time to change any rates, charges or other provisions in the applicable Rate Schedule and General Terms and Conditions of Pipeline's Tariff, and Pipeline shall have the right to place such changes in effect in accordance with the Natural Gas Act. Nothing contained herein shall be construed to deny Customer any rights it may have under the Natural Gas Act, including the right to participate fully in rate or other proceedings by intervention or otherwise to contest increased rates in whole or in part.
5. The Point(s) of Receipt and Point(s) of Delivery at which Pipeline shall receive and deliver Gas shall be specified on Pipeline's Lebanon Lateral Master Location List as such list is revised and published by Pipeline from time to time.
6. All Natural Gas tendered to Pipeline for Customer's account shall conform to the quality specifications set forth in Section 5 of Pipeline's General Terms and Conditions. Customer agrees that in the event Customer tenders for service hereunder and Pipeline agrees to accept Natural Gas which does not comply with Pipeline's quality specifications, as expressly provided for in Section 5 of Pipeline's General Terms and Conditions, Customer shall pay all costs associated with processing of such Gas as necessary to comply with such quality specifications. Customer shall execute or cause its supplier to execute, if such supplier has retained processing rights to the Gas delivered to Customer, the appropriate agreements prior to the commencement of service for the transportation and processing of any liquefiable hydrocarbons and any PVR quantities associated with the processing of Gas received by Pipeline at the Point(s) of Receipt under such Customer's service agreement. In addition, subject to the execution of appropriate agreements, Pipeline is willing to transport liquids associated with the Gas produced and tendered for transportation hereunder.
7. Unless otherwise required in the Tariff, all notices shall be in writing and shall be considered duly delivered when mailed to the applicable address below or transmitted via facsimile. Customer or

Contract No.: 770259-R2

Pipeline may change the addresses or other information below by written notice to the other without the necessity of amending this Agreement:

Pipeline: TEXAS EASTERN TRANSMISSION, LP  
5400 WESTHEIMER COURT  
HOUSTON, TX 77056-5310

Customer: DUKE ENERGY KENTUCKY, INC.  
139 EAST FOURTH STREET  
EA606  
CINCINNATI, OH 45202

8. The interpretation and performance of this Agreement shall be in accordance with the laws of the state of TEXAS, excluding conflicts of law principles that would require the application of the laws of a different jurisdiction.
9. This Agreement supersedes and cancels, as of the effective date of this Agreement, the contract(s) between the parties hereto as described below:

All prior contract(s) between the parties related to the service hereunder

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their respective Officers and/or Representatives thereunto duly authorized to be effective as of the date stated above.

DUKE ENERGY KENTUCKY, INC.

TEXAS EASTERN TRANSMISSION, LP  
by its General Partner  
Spectra Energy Transmission Services, LLC

By: Executed Online by RENEE MARKO

By: Executed Online by AURORA ARELLANO

THIS IS A TRUE COPY OF A SIGNED CONTRACT EXECUTED ELECTRONICALLY ON LINK

**REQUEST:**

Refer to Duke Kentucky's Response to Staff's First Request, Item 15, Attachment, page 1 of 1.

- a. Explain what a Boroscope is and what it does.
- b. Explain what an annunciator is and what it does.
- c. Explain what a synchronizer is and what it does.

**RESPONSE:**

- a. A Boroscope is an instrument used to inspect the inside of a structure through a small hole. Boroscope inspections of gas turbines help view and access impossible or hard to reach areas.
- b. An annunciator is a bell, light, or other device that provides information on the state or condition of something by indicating which of several electrical circuits has been activated. The annunciator panel and its associated circuitry is designed to secure an operator's attention by blinking lights or sounding an audible buzzer when a process changes into an abnormal state.
- c. A synchronizer an instrument that indicates whether two periodic motions are synchronous. Generator synchronization is the process of matching parameters such as voltage, frequency, or phase angle with a healthy or running power system.

**PERSON RESPONSIBLE:** John Swez  
Brad Daniel

**STAFF-DR-02-004**

**REQUEST:**

Refer to Duke Kentucky's Response to Staff's First Request, Item 15, Attachment, page 1 of 1, regarding the column headers.

- a. Define what the Schedule Hours, Forced Hours, Actual Hours, and Event Duration Hours are and the differences between the allotted hours listed.
- b. Explain if there was any time during the reporting period, in which the amount of actual hours a unit was offline was more or less than the original time the unit was estimated to be offline by Duke Kentucky. If so, then explain why the document does not reflect these differences in estimated and actual hours. Provide an update to the attachment if necessary.

**RESPONSE:**

- a. The Company reports outage durations according to the categories in NERC GADS terminology, rather than what might be a colloquial understanding of the descriptions. Referring to STAFF-DR-01-015 Attachment, the column headers are defined as:
  - Scheduled Hours – The actual length in hours of outages considered scheduled outages. Scheduled outage hours consist of the sum of all hours experienced during Planned Outages and Maintenance Outages and Scheduled Outage Extensions of any Maintenance Outages and Planned Outages.

- Forced Hours – The actual length in hours of outages considered forced outages. In NERC GADS terminology, forced outages are categorized as Unplanned outages, therefore the NERC GADS reporting instructions for Unplanned outages apply the definition of Forced outages. There are three separate and distinct categories of Unplanned (Forced) outages and are categorized as follows:
  - i. Unplanned (Forced) Outage — immediate (U1) - This is an outage that requires immediate removal of a unit from service, another outage state, or a reserve shutdown state.
  - ii. Unplanned (Forced) Outage — Delayed (U2) - This is an outage that does not require immediate removal of a unit from the in-service state, instead requiring removal within six hours. This type of outage can only occur while the unit is in service.
  - iii. Unplanned (Forced) Outage — Postponed (U3) - This is an outage that can be postponed beyond six hours but requires that a unit be removed from the in-service state before the end of the next weekend (Sunday at 2400 or before Sunday turns into Monday). This type of outage can only occur while the unit is in service.
  - iv. Startup Failure (SF) - This is an outage that results when a unit is unable to synchronize within a specified startup time following an outage or reserve shutdown.
- Actual Hours – The actual number of hours of the associated outage. This number will always be the same as the Scheduled Hours column for a

scheduled outage and, likewise, the same as the Forced Hours column for a forced outage.

- Event Duration Hours – This column contains the same quantity as Actual Hours.

b. Referring to Duke Energy Kentucky's Response to STAFF-DR-01-015 the requested information is a list, in chronological order, showing by unit any scheduled, actual, and forced outages for the period under review. The attachment provides this information and is not intended to determine if a unit was offline was more or less than the original time the unit was estimated to be offline.

**PERSON RESPONSIBLE:** John Swez  
Brad Daniel

**Duke Energy Kentucky**  
**Case No. 2022-00040**  
**STAFF Second Set Data Requests**  
**Date Received: May 9, 2022**

**STAFF-DR-02-005**

**REQUEST:**

Refer to Duke Kentucky's Response to Staff's First Request, Item 15, Attachment, page 1 of 1, regarding the event type.

- a. Explain how Duke Kentucky defines each event type listed in the legend.
- b. Explain how Duke Kentucky differentiates between the PO: Planned Outage and PE: Planned Outage Extension, also between the MO: Maintenance Outage and ME: Maintenance Outage Extension.
- c. Explain if Duke Kentucky allocates a set amount of time for each Planned and Maintenance Outage when originally scheduled and the steps Duke Kentucky takes should a Planned or Maintenance Outage go beyond the allocated timeframe.
- d. If a Planned or Maintenance Outage is extended for a point of time beyond the allocated amount of time for such Outages, then explain why these Outages do not qualify as a Forced Outages.
- e. Explain if during the period of review Duke Kentucky designated any unscheduled outages that require substitute power for a continuous period in excess of six (6) hours as Maintenance Outages or Planned Outages. If so, list the instances in which this has occurred and explain why these outages were not designated as Forced Outages.
- f. Explain how often Duke Kentucky extends a Planned or Maintenance Outage.

**RESPONSE:**

For purposes of this response, Duke Kentucky reference the NERC Generating Availability Data System (“GADS”) Reporting Instructions located here: [2022\\_GADS\\_DRI.pdf \(nerc.com\)](https://www.nerc.com/pa/RAPA/gads/DataReportingInstructions/2022_GADS_DRI.pdf).

[https://www.nerc.com/pa/RAPA/gads/DataReportingInstructions/2022\\_GADS\\_DRI.pdf](https://www.nerc.com/pa/RAPA/gads/DataReportingInstructions/2022_GADS_DRI.pdf)

As applicable, responses will provide pertinent resources within the document for reference purposes.

- a. Duke Energy Kentucky utilizes GADS Reporting Instructions to define each event type listed in the legend.
- b. NERC GADS differentiates Outages and Outage Extensions in the reporting instructions. Duke Energy Kentucky follows guidance set forth in the reporting instructions to differentiate between an Outage and Outage Extension. Please refer to section iii-5 through iii-7 in the outage instructions for information regarding outages and outage extensions.
- c. As part of the outage management process, Duke Energy Kentucky initiates and develops outage scopes and schedules that provide estimated amounts of time for planned outages. Maintenance outages typically have shorter lead time and can be more unpredictable in scope and duration than planned outages. Planned and Maintenance outages have several different variables that can impact their duration including, but not limited to, labor resources, vendor scheduling, equipment and materials availability, and commissioning and startup testing.
- d. NERC GADS event types Planned Outage Extension (PE) and Maintenance Outage Extension (ME) are reported in instances where the original scope of work requires



more time to complete than originally scheduled. Should a planned or maintenance outage discover unexpected problems or conditions during the outage which render the unit out of service beyond the estimated end date of the original Planned or Maintenance Outage the outage would then be designated as Unplanned (Forced) Outage. Please refer to section iii-6 and iii-7 in the outage instructions for information regarding outage extensions.

- e. During the period under review Duke Energy Kentucky did not designate any unscheduled outages as Maintenance or Planned Outages.
- f. For the period under review, Duke Energy Kentucky had one instance of a Planned or Maintenance Outage Extension.

**PERSON RESPONSIBLE:** John Swez  
Brad Daniel

**Duke Energy Kentucky**  
**Case No. 2022-00040**  
**STAFF Second Set Data Requests**  
**Date Received: May 9, 2022**

**STAFF-DR-02-006**

**REQUEST:**

Refer to Duke Kentucky's Response to Staff's First Request , Item 15, Attachment, page 1 of 1, the East Bend 2 Unit for the month of May. This outage is noted to have an event type of PE: Planned Outage Extension. Also, refer to Case No. 2021-00459<sup>1</sup>, Duke Kentucky's Application, page 3, numbered paragraph 6. Duke Kentucky 7. [sic] states that East Bend's original outage was planned for the spring of 2021 but in January 2021, the outage was moved to the fall of 2021.

- a. Explain why the planned Outage was moved from spring 2021 to fall 2021 back in January 2021.
- b. Explain if PJM's approval was required for East Bend's planned outage to be moved. If so, then explain when Duke Kentucky provided notice to PJM on the planned outage for the East Bend Unit being moved from spring 2021 to fall 2021 back in January 2021.
- c. Explain what repairs or maintenance was made to East Bend for the Planned Fall Outage in September.
- d. Explain if the "2-2 PA Fan Shaft and Bearing Repairs" listed in the description for East Bend's Planned Outage Extension was included in the original outage plans or if this repair was a new development that needed to be addressed.

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<sup>1</sup> Case No. 2021-00459, *Electronic Application of Duke Energy Kentucky, Inc. For Proposed Accounting And Fuel Adjustment Clause Treatment And For Declaratory Ruling* (filed Dec. 10. 2021).

**RESPONSE:**

- a. The outage was moved to allow additional time for engineering, planning and procurement of material for LP (Low Pressure) turbine L-2 blade replacement, Generator rewind, Distributed Controls upgrade, Lime Barge Unloader dust collection system and underground fuel oil tank replacement. In addition, impacts of Covid-19 on craft resources was considered and moving the outage to the fall allowed additional time to evaluate resource availability.
- b. PJM's Outage Planning Process ensures that facility outages do not have an adverse impact on the reliability of the system. PJM approves entries to its Dispatcher Application and Reporting Tool (eDART) if there are no reliability issues impacting the PJM system, as was the case with this outage. The exact date Duke Energy Kentucky provided notice requesting the outage to be moved is not officially known because the eDART records query archives records for only 365 days. However, internal records show the outage change request was submitted internally on January 14, 2021.
- c. Planned outage work included equipment inspections, preventative maintenance, and corrective maintenance on plant systems. Significant planned outage scopes for the fall 2021 outage included the following:
  - Above ground fuel oil storage tank
  - Generator stator rewind
  - LPA & LPB L-2 blade replacement
  - DCS Evergreen upgrade
  - Generator relays replacement
  - LBU dust collector
  - Flame scanners

- SCR expansion joints
- Economizer outlet expansion joints
- 2-6 Pulverizer overhaul
- BFP turbine valves
- ID fan blade liners
- PA fan bearings and shaft replacement
- 2-1 Circulating water pump overhaul
- 2-1 Vertimill overhaul
- IDF VFD Cooler replacement
- Deaerator hanger replacement
- Precipitator inlet duct repairs
- Boiler back pass & stack wash
- WS backwash piping replacement
- Cooling tower structure repairs
- Miscellaneous valves
- High Energy Piping inspections
- CBU Repairs
- WSP Repairs
- UPS Panel Replacement

d. The PA fan work was included in the original planned outage scope. This work consisted of fan shaft replacement, bearing replacement and alignment.

**PERSON RESPONSIBLE:** Brett Riggins – a., c., d.  
Brad Daniel/John Swez – b.