

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_1 Refer to the Direct Testimony of Jason M. Stegall (Stegall Testimony), page 3, lines 15–17. Regarding the market parameters and other characteristics defined in PJM Interconnection, LLC (PJM) protocols, provide the following:

- a. An example of the typical market parameters during the period under review that Kentucky Power or any of the related American Electric Power Company, Inc. (AEP) subsidiaries would provide to PJM for each of Kentucky Power's generating units; and
- b. The "other characteristics defined in PJM protocols" that Kentucky Power or any of the related AEP subsidiaries would provide to PJM for each of Kentucky Power's generating units.

RESPONSE

Please note that in the referenced section of Mr. Stegall's testimony, he is identifying some data provided to PJM as part of the Company's daily interaction in advance of the deadline for the PJM Day Ahead energy market. Mr. Stegall's testimony specifically identifies the Startup Cost, Startup Time and Ramp Rate. The parameters submitted to PJM include:

- Minimum Down Time
- Minimum Run Time
- Maximum Number of Daily Starts
- Maximum Number of Weekly Starts
- Maximum Weekly Generation in Megawatt-hours
- Maximum Run Time
- Notification Time - hot, cold, and intermediate
- Hot-to-Cold Time
- Hot-to-Intermediate Time
- Startup Time - hot, cold, and intermediate
- Emergency Minimum Output
- Economic Minimum Output
- Emergency Maximum Output
- Economic Maximum Output
- Primary Energy Fuel
- Primary Startup Fuel

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_2 Refer to the Stegall Testimony, page 5, lines 12–17.

- a. Explain whether PJM has ever requested that any of Kentucky Power's generating units be moved to the Maximum Emergency status.
- b. Explain whether PJM ever went into an Emergency Event during the period under review. If so, explain how Kentucky Power was impacted.

RESPONSE

- a. PJM has not requested that any of Kentucky Power's generating units be moved to Maximum Emergency status under the 10-day rule in PJM Manual 13 discussed on page 5 of the direct testimony of Company Witness Stegall.
- b. PJM did not go into an Emergency Event during the review period. Please note that PJM publishes all such notifications here:
<https://emergencyprocedures.pjm.com/ep/pages/dashboard.jsf>

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_3 Refer to the Stegall Testimony, page 6, Figure 1. Provide the data table and the source used to produce the graph shown in Figure 1.

RESPONSE

Figure 1 in Mr. Stegall's testimony was developed using public settlement pricing data available through PJM's Data Miner 2 interface, which can be found here:
https://dataminer2.pjm.com/feed/rt_da_monthly_lmps

The data used for the graph can be found in the attachment to this response, KPCO_R_KPSC_2_3_Attachment1.

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_4 Refer to the Stegall Testimony, page 5, lines 17–21. Explain whether Kentucky Power was subjected to any performance penalties by PJM during the period under review.

RESPONSE

Kentucky Power was not subject to any performance penalties during the period under review.

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022
Page 1 of 2

DATA REQUEST

- KPSC 2_5** 5. Refer to the Direct Testimony of Kimberly K. Chilcote (Chilcote Testimony), page 9, lines 14–17.
- a. Explain further the circumstances under which Kentucky Power agreed to add a fuel surcharge to the agreement with Case Coal Sales, LLC (Case Coal Sales).
 - b. Explain how the fuel surcharge will assist the mine operator with which Case Coal Sales is working to produce coal under its contract.
 - c. Footnote 3 does not explain how the surcharge is applied. Explain the fuel charge rate.
 - d. Explain whether the updated coal contract with Case Coal Sales and that includes the additional fuel surcharge and any other changes to the terms and conditions of the contract has been filed with the Commission.

RESPONSE

- a. The Coal Supply Agreement with Case Coal Sales (“Case”) was entered into effective October 1, 2021 and the initial price of the agreement was \$82.50 per ton. Case approached Kentucky Power in June 2022 due to the recent increase in diesel fuel pricing and stated that their diesel fuel costs had risen and requested an adjustment. Case uses diesel equipment to mine the coal and also to transport the coal to the delivery point on the Big Sandy River. In October 2021, diesel fuel was averaging about \$3.09 per gallon and had increased to \$4.70 per gallon in June 2022, a 57% increase. Historically Case has been a reliable supplier. Moreover, the contract price of coal was \$82.50 per ton, which was well below the market price in June 2022 at \$126.50 per ton. As such, Kentucky Power agreed to adjust the price in the form of adding a fuel surcharge in order to ensure delivery of coal in a tight market.
- b. The fuel surcharge has allowed Case to recover a portion of the increased cost in the production of coal due to the increase of diesel fuel. This has allowed Case to continue to mine, transport, and supply coal to the Company under the terms of the agreement at a competitive price.
- c. The fuel surcharge is based on an initial diesel price of \$3.60 per gallon and the fuel portion of the agreement price of \$16.50 per ton. Each month the base diesel price is compared to the average of the prior month, Midwest (PADD 2) Diesel (On-Highway) All Types price as published by the U.S. Energy Information Administration. The percentage change between the initial diesel

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022
Page 2 of 2

price of \$3.60 per gallon and the average for the prior month PADD 2 price is then calculated and applied to the fuel portion of the agreement (\$16.50 per ton), and any change is then added or subtracted to the contract price to determine the price to be paid for the month. See example below.

Example:

Monthly Average PADD2 for May 2022 = \$5.320

Base Fuel Component = \$3.60

% Change of Fuel = $(5.320-3.60)/3.60 = 47.78\%$

Fuel Portion Change = $\$16.50 * 47.78\% = \7.88

June 2022 Price = $\$82.50 + \$7.88 = \$90.38$ per ton

- d. Yes, the Notice of Change Order to the agreement 03-00-21-001 was filed on August 15, 2022.

Witness: Kimberly K. Chilcote

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_6 Refer to Kentucky Power's Response to Commission Staff's First Request for Information (Staff's First Request), Item 3. Explain why the Mitchell station has an excess of high sulfur coal inventory of 22 days.

RESPONSE

The inventory at the Mitchell station high sulfur pile increased in late 2021. In order to meet the contractual obligation, the plant received more coal than consumed for several months and the inventory increased during those periods. Additionally, in March the station was in an outage however the plant continued to accept delivery of high sulfur supply to build the inventory at the plant for the projected summer burn. At the end of September 2022 the inventory was at 26 days of full load burn or 11 days above the target of 15 days.

Witness: Kimberly K. Chilcote

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

- KPSC 2_7** Refer to Kentucky Power's Response to Staff's First Request, Item 4. Between the two solicitations sent during the review period to over 65 vendors, no more than 7 vendors responded.
- a. Explain whether Kentucky Power is aware of the reasons the non-respondents did not reply. For example, they were at capacity and had no additional supplies available or there was not sufficient transportation available.
 - b. Refer also to the confidential Attachment. Explain why a vendor would submit a bid, only to have the company not select the vendor because the "mine was in development, visit scheduled" and "tons not available."

RESPONSE

- a. When AEPSC issues a solicitation for coal it sends the request to a large population of vendors in order to receive back as many offers as possible. Although the solicitation is sent to a large population only a few choose to respond, which is typical for past proposal requests. Kentucky Power has not sought information, and is unaware as to why, some vendors choose to reply while others chose not to respond.
- b. Kentucky Power evaluates each bid received from the vendors who provide responses. In the last several solicitations multiple vendors have submitted bids for supply, however, the mines were not producing coal at the time of the submission, and thus were listed as mine in development. AEPSC have visited the sites proposed for development and assessed the site for possibility to produce coal in the future. Many of the sites when reviewed were not viable and thus listed as tons not readily available. Additionally, when suppliers submit bids, most if not all are designated as "subject to prior sale" so there are times when the tons are not available due to the tons previously being sold to another entity.

Witness: Kimberly K. Chilcote

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022
Page 1 of 3

DATA REQUEST

- KPSC 2_8** Refer to Kentucky Power's Response to Staff's First Request, Item 15, Attachment 1, page 1.
- a. Explain the term "reserve shutdown," how it compares to the other listed designations, and when the last time Kentucky Power used that designation to classify an outage.
 - b. Explain how power purchases are treated when a unit is in reserve shutdown and whether it makes a difference if the unit is offline for the entire month or online for part of the month.
 - c. For the hours a unit is in reserve shutdown, explain whether the company is eligible for and collects any PJM ancillary service revenues. If so, explain which ancillary services.
 - d. Explain whether PJM places a unit into reserve shutdown or AEP or Kentucky Power requests PJM to place a unit into reserve shutdown.
 - e. If applicable, explain what impact a reserve shutdown has on coal inventory.

RESPONSE

- a. The Event Types used by the Company are Planned Outage (PO), Maintenance Outage (MO), Unplanned (Forced) Outage (FO) and Reserve Shutdown (RS). Unplanned (Forced) Outages (FO) can be classified into three categories. Each event type is defined in the North American Electric Reliability Corporation (NERC) Generating Availability Data System (GADS) Data Reporting Instructions, Section III – Event Reporting¹. Those definitions are:
- i. **Planned Outage (PO)** - An outage that is scheduled well in advance and is of a predetermined duration, can last for several weeks, and occurs only once or twice a year. Typically, these events are specifically listed in the plant budget. Turbine and boiler overhauls or inspections, testing, and nuclear refueling are typical planned outages. For a planned outage, all of the specific individual maintenance and operational tasks to be performed are determined in advance and are referred to as the "original scope of work."
 - ii. **Maintenance Outage (MO)** - An outage that can be deferred beyond the end of the next weekend (defined as Sunday at 2400 hours or as Sunday turns into

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022
Page 2 of 3

- Monday), but requires that the unit be removed from service, another outage state, or Reserve Shutdown state before the next Planned Outage (PO).
- iii. **Unplanned (Forced) Outage (FO)** - The unplanned removal of a generating unit from service. There are three Unplanned Outage designations – U1, U2, U3. Forced outages can last from a few hours to several weeks depending on the situation. *Note: The company refers to these as forced outages (FO) in our responses.*
- a. **U1 Unplanned (Forced) Outage - Immediate** - This is an outage that requires immediate removal of a unit from service, another outage state, or a reserve shutdown state. This type of outage usually results from automatic control system trips or operator initiated manual trips of the unit in response to unit alarms but can also occur while the unit is offline.
 - b. **U2 Unplanned (Forced) Outage Delayed** - 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.
 - c. **U3 Unplanned (Forced) Outage Postponed** - 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. **Reserve Shutdown (RS)** - This is an event where a unit is available for load but is not synchronized due to lack of demand. This type of event is sometimes referred to as an economy outage or economy shutdown. If a unit is shut down due to any equipment related problems, whether or not the unit was needed by the system, it is reported as an Unplanned (Forced) Outage, Maintenance Outage, or Planned Outage. *Note: Reserve Shutdown has also been referred to as Down Not Required (DNR) in the past.*

When the Company offers a generating unit into the PJM Day Ahead energy market and it is not selected for economic reasons and the Company decides to remove that unit from service, the Event Type is Reserve Shutdown (RS). The Company last used this designation on September 23, 2022.

¹ North American Electric Reliability Corporation (NERC) Generating Availability Data System (GADS) Data Reporting Instructions - [Link to NERC GADS Data Reporting Instructions](#)

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022
Page 3 of 3

b. During a period when a unit is in Reserve Shutdown, power purchases that serve internal load are recovered through the FAC and subject to the cost recovery cap in the Peaking Unit Equivalent calculation. This treatment is applied regardless of whether the unit is not selected by PJM for a several days or an entire month.

c. Yes, the unit is available to deliver ancillary services but only receives ancillary service revenues for hours in which it provides those services to PJM.

d. AEP does not request PJM to place a unit into reserve shutdown. A unit's status is reserve shutdown when a unit is available for load but is not synchronized due to lack of demand. This type of event is sometimes referred to as an economy outage or economy shutdown due to the unit not receiving a day ahead award from PJM.

e. A reserve shutdown is a time when the plant does not consume coal and scheduled deliveries would go into and increase the coal inventory.

Witness: Paul J. Massie

Witness: Douglas J. Rosenberger

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_9 Refer to Kentucky Power's Response to Staff's First Request, Item 15, Attachment 1. For Kentucky Power's Generating Usage Outage report, there appears to be inconsistencies for the use of a reserve shutdown. On February 11, 2022, Kentucky Power placed Mitchell 1 in reserve shutdown from 2:00 AM until 7:50 AM. Then Kentucky Power placed Mitchell 1 in reserve shutdown from February 16, 2022 to March 9, 2022. Explain the analysis used to determine the length of time Kentucky Power places its units into reserve shutdown.

RESPONSE

Kentucky Power does not request PJM to place a unit into reserve shutdown. The use of the Reserve Shutdown status in the Company's systems reflects the fact that the unit was not selected to provide energy to PJM. The Company does not determine the length of time that PJM opts not to commit and dispatch its units and therefore has no analysis to provide.

In addition, please note that the number of hours on February 11 when the unit was classified with a status of Reserve Shutdown is less than the number of hours required for the unit to startup from its cold state, so the unit could not have been started in that time.

Witness: Douglas J. Rosenberger

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_10 Refer to Kentucky Power's Response to Staff's First Request, Item 15, Attachment 1. Kentucky Power placed Mitchell 1 in reserve shutdown on February 16, 2022. Refer to KPCO_R_KPSC_1_16_Attachment4, tab 02-22 KPCo Gen Data. On February 16, 2022, Kentucky Power had Mitchell 1 Control Mode as offline. Explain the rationale for opting for reserve shutdown rather than to bring a unit back online.

RESPONSE

Kentucky Power does not request PJM to place a unit into reserve shutdown. A Reserve Shutdown status indicates that the unit was offered into the market and not selected for operation by PJM.

The status reported in the Gen Data tab of the Company's attachments in its monthly PUE calculation is generated from a different system than the one used to generate the report provided in the Company's response to Staff 1-15. The status identified on the Gen Data tab is not used to provide any information with regard to unit outage. The Control Mode value of "OFFLINE" merely indicates the unit was off without indicating whether the unit was in an outage or not selected by PJM.

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_11 Refer to Kentucky Power's Response to Staff's First Request, Item 23, Attachment 1, page 1. There appears to be two entries for certain allowable Billing Line Items (BLI) (i.e., 1250 and 1250a, Meter Correction Charge). For those BLI entries with an "a" designation, explain the purpose of the second entry.

RESPONSE

The "a" designation for the Billing Line Item (BLI) entry is to identify that PJM has made a prior period adjustment (in the form of either a credit or a charge) for that BLI.

Witness: Scott E. Bishop

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_12 Refer to Kentucky Power's Response to Staff's First Request, Item 32. Explain how a unit can be in reserve shutdown and available for dispatch. Include in the response a description of the steps that if called upon by PJM, must be taken to dispatch the unit.

RESPONSE

Reserve Shutdown refers to periods when the Company's units have been offered into the PJM Day Ahead energy market with a commitment status of Economic and not selected as part of PJM's economic commitment process. This means the unit was available to PJM but was not necessary to serve an individual operating day. **Note: Reserve Shutdown has also been referred to as Down Not Required (DNR) in the past.**

Witness: Jason M. Stegall

Kentucky Power Company
KPSC Case No. 2022-00263
Commission Staff's Second Set of Data Requests
Dated October 14, 2022

DATA REQUEST

KPSC 2_13 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, or that Kentucky Power was unable to collect via any other means.

RESPONSE

During the review period, there were no fuel related costs that occurred during a forced outage that were disallowed pursuant to 807 KAR 5:056 and that Kentucky Power was unable to collect.

Please see KPCO_R_KPSC_2_13_Attachment1. The amounts labeled “Identifiable Fuel Cost (substitute for Forced Outage)” are located on Page 5 of each monthly Fuel Adjustment Clause (FAC) filing in sub-part B. These amounts are not recovered through the FAC. The difference between the “Identifiable Fuel Cost (substitute for Forced Outages)” and the allowed “Fuel (Assigned cost during Forced Outage)” is recovered in the Purchase Power Agreement rider.

The amount labeled “Purchase Adjustment for Peaking Unit Equivalent” is subject to base rate recovery.

Witness: Scott E. Bishop

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Total
Identifiable Fuel Cost (substitute for Forced Outage)	\$ 717,836	\$ 1,264,345	\$ 1,230,412	\$ -	\$ 1,694,183	\$ 2,326,305	\$ 7,233,081
Purchase Adjustment for Peaking Unit Equivalent	\$ 29,766	\$ 443,748	\$ 79,578	\$ 665,115	\$ 51,226	\$ -	\$ 1,269,433

VERIFICATION

The undersigned, Kimberly K. Chilcote, being duly sworn, deposes and says she is the Coal Procurement Manager for American Electric Power Service Corporation, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

Kimberly Chilcote

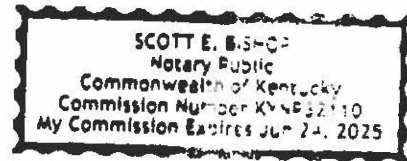
Kimberly K. Chilcote

Commonwealth of Kentucky)
)
County of Boyd)

Case No. 2022-00263

Subscribed and sworn before me, a Notary Public, by Kimberly K. Chilcote this 27th day of October, 2022.

Scott E. Bishop
Notary Public



My Commission Expires June 24, 2025

Notary ID Number: KYNP 32110

VERIFICATION

The undersigned, Douglas J. Rosenberger, being duly sworn, deposes and says he is the Plant Manager – Mitchell for Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.



Douglas J. Rosenberger

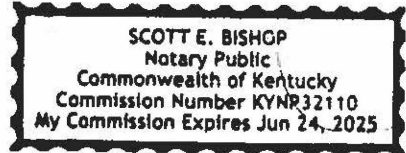
Commonwealth of Kentucky)
)
County of Boyd)

Case No. 2022-00263

Subscribed and sworn before me, a Notary Public, by Douglas J. Rosenberger this 27th day of October, 2022.



Notary Public



My Commission Expires June 24, 2025

Notary ID Number: KYNP 32110

VERIFICATION

The undersigned, Paul J. Massie, being duly sworn, deposes and says he is the Plant Manager – Big Sandy for Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

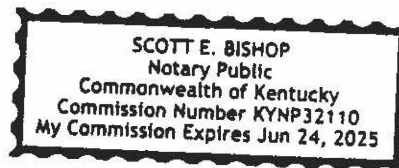
Paul J. Massie
Paul J. Massie

Commonwealth of Kentucky)
County of Boyd)

Case No. 2022-00263

Subscribed and sworn before me, a Notary Public, by Paul J. Massie this 27th day of October, 2022.

Scott E. Bishop
Notary Public



My Commission Expires June 24, 2025

Notary ID Number: KYNP 32110

VERIFICATION

The undersigned, Scott E. Bishop, being duly sworn, deposes and says he is a Regulatory Consultant Sr. for Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing responses, and the information contained therein is true and correct to the best of his information, knowledge, and belief after reasonable inquiry.



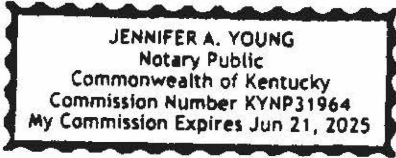
Scott E. Bishop

Commonwealth of Kentucky)
) Case No. 2022-00263
County of Boyd)

Subscribed and sworn before me, a Notary Public, by Scott E. Bishop this 27th day of October, 2022.



Notary Public



My Commission Expires 6/21/2025

Notary ID Number: KYNP31964

VERIFICATION

The undersigned, Jason M. Stegall, being duly sworn, deposes and says he is the Regulated Pricing & Analysis Manager for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Jason M. Stegall

Jason M. Stegall

Commonwealth)
)
County of Boyd)

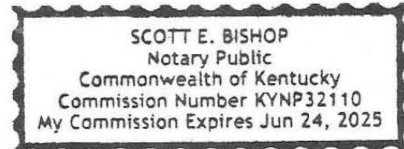
Case No. 2022-00263

Subscribed and sworn before me, a Notary Public, by Jason M. Stegall this 27th day of October, 2022.

Scott E. Bishop

Notary Public

My Commission Expires June 24, 2025



Notary ID Number: KYNP 32110