

Kentucky Power Company  
KPSC Case No. 2022-00424  
Commission Staff's Post Hearing Data Requests  
Dated July 28, 2023

**DATA REQUEST**

**KPSC**            Refer to Kentucky Power's response to Joint Intervenor's Second Request  
**PHDR\_1**        for Information, Item 1(b). Explain how the load factor was calculated.

**RESPONSE**

Load factor was determined utilizing the following formula:

*Monthly kWh used / (24 X 30 X Monthly kW)*

There were 30 days in this particular billing period. The 24 represents hours in a day.

Witness: Brian K. West

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**DATA REQUEST**

**KPSC** Refer to Kentucky Power's response to the Attorney General's First  
**PHDR\_2** Request for Information, Item 23, Attachment 2. State whether the  
estimated load obligations include reserve margins. If so, provide the  
reserve margin used for each year and explain how they were determined.

**RESPONSE**

Yes, reserve margins are included as follows:

DY 22/23: 1.0901

All DY's thereafter: 1.0894

Reserve Margins are based upon PJM's Forecast Pool Requirement (FPR) which sets  
PJM reserve margin requirements.

Witness: Brian K. West

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**DATA REQUEST**

**KPSC** Explain why a compliant Fixed Resource Requirement (FRR) plan meets  
**PHDR\_3** the service adequacy requirements under Kentucky law, including KRS  
278.030(2) and KRS 278.010(14).

**RESPONSE**

KRS 278.030(2) requires every utility to “furnish adequate, efficient and reasonable service ...” KRS 278.010(14) defines “adequate service” to mean:

having sufficient capacity to meet the maximum estimated requirements of the customer to be served during the year following the commencement of permanent service and to meet the maximum estimated requirements of other actual customers to be supplied from the same lines or facilities during such year and to assure such customers of reasonable continuity of service.

Although KRS 278.010(14) appears to narrowly relate to a utility having the capability to provide sufficient service to specific customers or facilities, and not more broadly to generation resource adequacy within its overall service territory, Kentucky Power is compliant with both the Fixed Resource Requirement (FRR) rules of PJM as well as any service adequacy requirements under Kentucky law. Load Serving Entities (LSE) in PJM, including Kentucky Power, are parties to the Reliability Assurance Agreement (RAA). The RAA is intended to ensure adequate capacity resources will be planned and made available to provide reliable service to all loads in the PJM region, including those in Kentucky Power’s service territory, during all periods of the year and all conditions (including emergencies). The RAA also ensures coordination of the planning of resources to support reliability in PJM. To support these objectives, PJM operates a capacity market – the Reliability Pricing Model (RPM) – and supports the FRR alternative to that market under which LSEs may self-supply their capacity.

Under this system, so long as LSEs act in accordance with and satisfy their resource adequacy obligations to PJM, PJM is then able to support resource adequacy for all service territories in its footprint. To support year-round resource adequacy, PJM ensures that LSEs self-supply (for FRR entities) or procure through PJM’s annual auctions (for RPM entities) sufficient capacity to meet the peak capacity needs of the PJM footprint as a whole, which occurs in the summer. Planning for the overall system peak in the summer allows PJM to provide adequate resources to meet the needs of all

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PJM LSEs during all periods of the year when the load in its footprint is equal to or less than the overall system peak.

This approach is reflected in the FRR provisions of the RAA. As described in the RAA, an LSE is eligible to participate in FRR if it has sufficient capacity to meet the unforced capacity obligation for all of its retail load for the applicable planning year. See RAA Schedule 8.1.B. That unforced capacity obligation is defined as the “weather adjusted coincident summer peak” for the LSE’s retail load. See RAA Schedule 8.A. (emphasis added).

From the inception of PJM’s capacity markets, Kentucky Power has participated in a joint FRR Plan with AEP’s other vertically integrated PJM operating companies that complies with PJM’s requirements. Kentucky Power informs the Commission of its election to jointly participate in an FRR Plan with its operating company affiliates for each PJM Delivery Year, including the benefits of that election in comparison to participating in RPM separately. Although the reports are filed confidentially, those benefits have typically included reductions in risk and cost to Kentucky Power customers in comparison to participating in RPM. And, like RPM, Kentucky Power also has the ability under FRR to sell capacity length into PJM’s annual capacity auctions (subject to a 3% capacity holdback) so that it can realize monetary benefit from any excess capacity under PJM’s tariffs.<sup>1</sup> This long-standing approach to providing resource adequacy for Kentucky customers, transparently explained to the Commission for each Delivery Year, is consistent with and supports Kentucky Power’s compliance with the service adequacy requirements of Kentucky law. Through the combination of its owned generation, contracted capacity resources, and its participation in PJM’s capacity and energy markets under PJM’s governing agreements, Kentucky Power provides the capacity and energy to ensure reasonable continuity of service for customers year-round, as described in Kentucky law. In fact, during Winter Storm Elliott in December 2022, extraordinary weather conditions drove Kentucky Power’s demand to a level 46% higher than the Company’s previous 12-month average peak demand. Yet, Kentucky Power was able to provide service without load shedding. In sum, Kentucky Power’s resources and PJM participation provide adequate service fully meeting the requirements of Kentucky law.

Witness: Alex E. Vaughan (factual aspects)

Respondent: Counsel (legal aspects)

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<sup>1</sup> The confidential FRR-RPM election report for the 2022/2023 Delivery Year is filed in the post case correspondence file in Case No. 2017-00179, as directed by the January 18, 2018, Final Order in that matter.

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**DATA REQUEST**

**KPSC**            Refer to the July 25, 2023 Hearing Video Transcript at 11:02:00–  
**PHDR\_4**        11:03:45. For the capacity purchases that Kentucky Power uses to satisfy  
its FRR plan, explain how energy is treated under the contract and where  
Kentucky Power reflects the associated energy in its rates.

**RESPONSE**

The Power Coordination Bridge Agreement ("PCBA") was created in anticipation of the Liberty transaction. As a result of the Liberty transaction being terminated, the PCBA never went into effect. Kentucky Power continues to participate in the Power Coordination Agreement ("PCA") with other AEP affiliates and has contracted consistent with the PCA for capacity for the PJM 2022/23 and 2023/24 Delivery Years. These transactions are only for UCAP capacity MW, not energy, and are priced at the foregone market price at which the affiliates would have otherwise sold the capacity. Such transactions are for capacity only and thus do not include an entitlement to energy.

Witness: Brian K. West

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**DATA REQUEST**

**KPSC**            Refer to Kentucky Power's Tariff Economic Development Rider (EDR),  
**PHDR\_5**        Original Sheet No. 37-1. Explain when the provision of Terms and  
                      Conditions, Section 1 would apply and how it would be implemented.

**RESPONSE**

Kentucky Power has not yet had cause to implement this provision for any current EDR customers. The Company remains capacity sufficient regarding its generation capacity obligation in PJM. This is because existing EDR customers are captured within the replacement capacity necessary for the loss of the Rockport UPA. Therefore, no incremental capacity was purchased.

For EDR customers coming online post Rockport UPA expiration, the Company will annually (during preparation of its annual tariff EDR report) determine what incremental capacity purchases were necessary for those customers based upon their inclusion in Kentucky Power's load obligation. This will be for every year in which those customers receive discounts. Should the Company determine an EDR customer required incremental capacity purchases the dollar amount to be clawed back will be based on their actual contribution to Kentucky Power's capacity obligation. The simplified formula is as follows:

MW capacity purchases necessary for the customer (determined by their contribution to the 5CP) *multiplied* by the average incremental purchase cost in \$per MW-day *less* the customer's discounted contribution towards capacity costs.

The claw-back will occur in the following twelve months on the EDR customer's bill.

Witness: Brian K. West

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**DATA REQUEST**

**KPSC  
PHDR\_6** Refer to Kentucky Power's responses to Commission Staff's First Request for Information (Staff's First Request), Item 2, and Commission Staff's Second Request for Information, Item 2. Provide the estimated cost of each of the upgrades identified in these responses.

**RESPONSE**

The Company is finalizing its engineering and estimating work related to the projects referenced in the Company's responses to KPSC 1-2(b) and KPSC 2-2 (adding a phase-over-phase switch and replacing the metering equipment). Newly identified changes in the proposed solutions for those projects may result in an approximately \$1-1.5M reduction to the Company's original estimates for those projects. The Company will provide the final cost information once the estimates have been completed in coming months.

Witness: Amanda C. Clark

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**DATA REQUEST**

**KPSC** Explain how Cyber Innovation Group, LLC and Kentucky Power  
**PHDR\_7** communicated regarding service with Kentucky Power and provide a timeline from initial contact to the filing of the special contract with the Commission. For each step of the timeline, state the position of the primary representative of Kentucky Power.

**RESPONSE**

Communication with Cyber Innovation (which was operating under the business name Digital Coalivation at that the time) began via email with Company Witness Clark in early October 2021. Cyber Innovation contacted Witness Clark to inquire about possible sites that could support a cryptocurrency operation.

In October 2021, Zach Staton, President, introduced Warren Rogers, Chief Strategy Officer, as a business contact to Witness Clark via email. Mr. Rogers requested power for Cyber Innovation's first facility at its Long Fork location, and Witness Clark connected the potential customer with Kentucky Power Key Account Manager Principal, Shaun Sumner. On-going communication with Cyber Innovation was through a mix of phone calls and emails. Mr. Sumner was the primary Kentucky Power contact for the Cyber Innovation account throughout the contract development process. Warren Rogers and/or Zach Staton were the primary Cyber Innovation contacts at that time. Both are no longer with Cyber Innovation.

Mr. Sumner's first discussions with Cyber Innovation with respect to the Rockhouse facility project began in early December 2021. Cyber Innovation secured its lease for the Rockhouse site on December 27, 2021. Cyber Innovation initially communicated to the Company that it would require 20 MW for its Rockhouse facility. On January 5, 2022, the Company transmitted the standard 3B contract for electric service for 20 MW of capacity to Cyber Innovation. Throughout January to March 2022, the Company and Cyber Innovation continued to discuss the ramp up clause in the 3B contract and the expected capacity for the Rockhouse facility. AEP's Transmission Engineering group also performed its system study around this time. Around April 2022, the Company determined it was ready to move forward with offering the EDR contract to Cyber Innovation for the Rockhouse facility.



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Between April and May 2022 the Company continued discussions with Cyber Innovation concerning its plans, including the expected load at the Rockhouse facility and when it planned to begin operating. Throughout this process, Cyber Innovation revised its plans and indicated it would instead require 7 MW for its Rockhouse facility. On May 10, 2022, the Company transmitted a revised standard 3B contract for 7 MW.

Cyber Innovation also was requested to complete its EDR application for the 7 MW Rockhouse facility. The Company received Cyber Innovation's EDR application on August 25, 2022. The Company worked over the next month with Cyber Innovation to complete the EDR application. The Company received the completed, final EDR application from Cyber Innovation on September 17, 2022. Kentucky Power reviewed and processed the EDR application and began preparing the EDR contract from that time until early November 2022.

Kentucky Power and Cyber Innovation entered into the EDR contract proposed in this case on November 8, 2022. Kentucky Power filed the EDR contract through the Commission's Tariff Filing System on November 16, 2022.

Witness: Amanda C. Clark

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**DATA REQUEST**

**KPSC** Explain how capacity purchases flow through Rider Purchased Power  
**PHDR\_8** Adjustment (PPA).

**RESPONSE**

Capacity purchases are covered within element "N" of the PPA formula found on Tariff sheet 35-1:

*“The annual purchase power adjustment factor will be computed using the following formula:*

1. *Annual Purchase Power Net Costs (PPANC)*

$$PPANC = N + CSIRP + OATT + RKP + RP - BPP$$

*Where: BPP = The annual amount of purchase power costs included in base rates, \$98,165,699.*

*a. N = The annual cost of power purchased by the Company through new Purchase Power Agreements and purchased power expense from avoided cost payments to net metering customers under tariff N.M.S. II. All new purchase power agreements shall be approved by the Commission to the extent required by KRS 278.300.”*

A breakdown of element "N" is found on Forms 3.0a and 3.0 within the Company's annual PPA filing. No capacity purchases have been included within the annual PPA filings to date. The Company will be filing its next annual PPA filing on or before August 15, 2023 which will detail actual expenses for the 12-month period ending June 2023.

Witness: Lerah M. Kahn

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**DATA REQUEST**

**KPSC  
PHDR\_9** Refer to Kentucky Power's response to Staff's First Request, Item 1, Attachment 1, Tab "Summary" showing the estimated incremental capacity costs. Provide an Excel spreadsheet, with all formulas, rows, and columns unprotected and fully accessible, showing the effect those capacity costs would have on the PPA rates reflected in Tab "Rev" in each year, assuming there are no other changes to the PPA rates.

**RESPONSE**

Please see KPCO\_R\_KPSC\_PHDR\_9\_ConfidentialAttachment1 for the requested calculation under the question's premise that 1 MW (plus 15% reserve margin) of the replacement capacity purchases was for Cyber Innovation.

It is important to note that under the Rockport Unit Power Agreement ("UPA") there was \$40,831,141 in non-fuel, non-environmental costs within the Company's cost of service. The replacement capacity necessary to serve the Company's native load is expected to be approximately \$600,000 and \$1,500,000 in PJM Planning Years 2022/2023 and 2023/2024 respectively (please also see tab "5CP & G Cost"). Even with the addition of Cyber Innovation this represents a significant reduction in capacity costs.

Witness: Lerah M. Kahn

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**DATA REQUEST**

**KPSC  
PHDR\_10** Provide the percent increase in Kentucky Power's PJM Load Serving Entity (LSE) Open Access Transmission Tariff (OATT) since 2015 on a year-to-year basis. Provide all supporting calculations and documentation in Excel spreadsheet format, with all formulas, columns, and rows unprotected and fully accessible.

**RESPONSE**

Please see KPCO\_R\_KPSC\_PHDR\_10\_Attachment1 for the requested information.

Witness: Lerah M. Kahn

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**DATA REQUEST**

- KPSC  
PHDR\_11** Refer to Kentucky Power's response to Staff's First Request, Item 1, Attachment 1.
- a. Provide a revised marginal cost analysis which uses the 2015-2022 escalation rate to forecast PJM LSE OATT expenses and includes an increased Tariff PPA rate commensurate with the increase in PJM LSE OATT expenses.
  - b. Provide an Excel spreadsheet, with all formulas, rows, and columns unprotected and fully accessible, showing the effect those PJM LSE OATT expenses would have on the PPA rates reflected in Tab "Rev" of Attachment 1 in each year, assuming there are no other changes to the PPA rates.

**RESPONSE**

Please see KPCO\_R\_KPSC\_PHDR\_11\_ConfidentialAttachment1 for the requested information.

Witness: Lerah M. Kahn

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**DATA REQUEST**

**KPSC** Explain how Kentucky Power has historically defined “new customer” for  
**PHDR\_12** the purposes of Tariff EDR.

**RESPONSE**

The Company interprets the term "new customer" in its tariff to mean a customer not taking service currently from Kentucky Power at a particular point of delivery. A relocation of load within the service territory is not considered a new customer.

The Company notes that Tariff EDR is available to qualifying new and existing customers. Cyber Innovation’s Rockhouse facility qualifies for Tariff EDR. Please see Tariff Sheet 37-2, terms and conditions section 3:

*For new and existing customers, billing demands for which reductions will be applicable under this EDR shall be for service at a new service location or expanded production at an existing facility and not merely the result of a change of ownership.*

Witness: Brian K. West

VERIFICATION

The undersigned, Amanda C. Clark, being duly sworn, deposes and says she is the External Affairs Manager for Kentucky Power, 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.

*Amanda Clark*

Amanda C. Clark

Commonwealth of Kentucky )  
County of Boyd )

Case No. 2022-00424

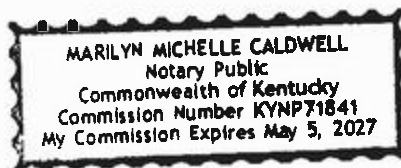
Subscribed and sworn before me, a Notary Public in and before said county and State, by

Amanda C. Clark on August 2, 2023.

*Marilyn Michelle Caldwell*  
Notary Public

My Commission Expires May 5, 2027

Notary ID Number KYNP 71841



**VERIFICATION**

The undersigned, Lerah M. Kahn, being duly sworn, deposes and says she is the Regulatory Case Manager for Kentucky Power, 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.

*Lerah Kahn*  
Lerah M. Kahn

Commonwealth of Kentucky )  
  )  
County of Boyd                                    )      Case No. 2022-00424

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Lerah M. Kahn, on August 2, 2023.

*Marilyn Michelle Caldwell*  
Notary Public



My Commission Expires May 5, 2027

Notary ID Number KYNP71841





### Vaughan Verification Form.doc

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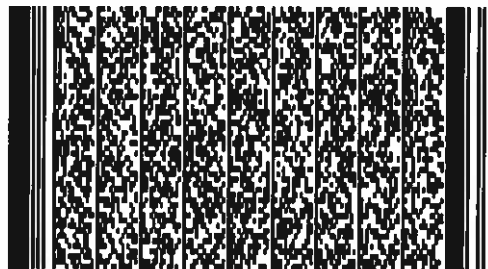
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**E-Signature 1: Alex Vaughan (AEV)**  
 August 04, 2023 06:21:16 -8:00 [956DF75910B9] [167.239.221.101]  
 aevaughan@aep.com (Principal) (Personally Known)

**E-Signature Notary: Marilyn Michelle Caldwell (MMC)**  
 August 04, 2023 06:21:16 -8:00 [11481307BBA0] [167.239.221.101]  
 mmcaldwell@aep.com  
 I, Marilyn Michelle Caldwell, did witness the participants named above electronically sign this document.



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VERIFICATION

The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is the Managing Director of Renewables & Fuel Strategy 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.

Alex Vaughan  
Signed on 20220804 08:21:18 -0500

Alex E. Vaughan

Commonwealth of Kentucky )  
County of Boyd )

Case No. 2022-00424

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Alex E. Vaughan, on \_\_\_\_\_.

Notary Public

Marilyn Michelle Caldwell  
Signed on 20220804 08:21:18 -0500

MARILYN MICHELLE CALDWELL  
ONLINE NOTARY PUBLIC  
STATE AT LARGE KENTUCKY  
Commission # KYNP71841  
My Commission Expires May 05, 2027

My Commission Expires \_\_\_\_\_

Notarial act performed by audio-visual communication

Notary ID Number \_\_\_\_\_

1601BF4E-3EA0-4760-8B1F-CB6B251B9E5D --- 2023/08/04 05:49:38 -8:00 --- Remote Notary



**VERIFICATION**

The undersigned, Brian K. West, being duly sworn, deposes and says he is the Vice President, Regulatory & Finance for Kentucky Power, 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.

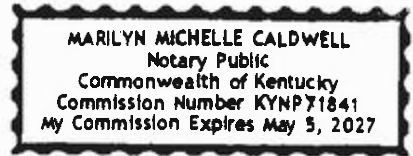
Brian K. West

Commonwealth of Kentucky )  
)  
County of Boyd )

Case No. 2022-00424

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Brian K. West, on August 2, 2023.

Marilyn Michelle Caldwell  
Notary Public



My Commission Expires May 5, 2027

Notary ID Number KNP 71841