

Kentucky Power Company
KPSC Case No. 2023-00092
LS Power's First Set of Data Requests
Dated July 24, 2023

DATA REQUEST

LS 2_1 Refer to the Integrated Resource Plan (IRP), Exhibit J. Is Kentucky Power treated as its own FRR or are all of the American Electric Power Company, Inc. (“AEP”) utilities treated as a single FRR in aggregate?

RESPONSE

Kentucky Power is included as part of the other affiliated AEP companies including Indiana Michigan Power Company (I&M), Appalachian Power Company (APCo) and Wheeling Power Company (WPCo) in AEP's designation as an FRR entity in PJM. The Power Coordination Agreement currently provides Appalachian Power Company (APCo), Indiana Michigan Power (I&M), Kentucky Power and Wheeling Power Company (Wheeling Power) the opportunity to participate collectively (a) under a common Fixed Resource Requirement (“FRR”) capacity plan in PJM, and (b) in specified collective off-system sales and purchase activities. Under the Power Coordination Agreement, generation is not planned on a single-system basis as it was under the previous Pool Agreement. Rather, APCo, I&M, Kentucky Power and Wheeling Power individually are required to own or contract for sufficient generation to meet their respective load and reserve obligations. Additional information regarding the PCA as it pertains to Kentucky Power can be found in FERC Docket No. ER13-234.

Witness: Alex E. Vaughan

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DATA REQUEST

LS 2_2 If Kentucky Power is not treated as its own FRR, please describe how the cost of resources used to satisfy the AEP FRR requirements are allocated to Kentucky Power ratepayers?

RESPONSE

Please refer to the Company's response to LS 2_1.

The Company further clarifies that the cost of resources used to satisfy the AEP FRR requirements is not allocated among the AEP FRR participating companies. Rather each company, including Kentucky Power, is expected to fulfill its own obligations under the Power Coordination Agreement (PCA). To the extent Kentucky Power does not fulfill its own obligations under the PCA, short-term capacity may be available from other PCA members for defined periods.

Witness: Alex E. Vaughan

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LS 2_3 Please provide the cost of resources used to satisfy the AEP FRR requirements that is allocated to Kentucky Power ratepayers on a \$/MW-day basis for the 2022/2023 and 2023/2024 delivery years.

RESPONSE

See the Company's response to LS 2_2. For 2022/23, Kentucky Power purchased bilateral capacity beginning December 8, 2022 from Rockport at \$50.00/MW-Day. For 2023/24, Kentucky Power purchased bilateral capacity at \$37.53/MW-Day. All other Kentucky Power needs were met through internal generation from Big Sandy and Mitchell Plants. An unbundled cost calculation for such bundled generation has not been performed.

Witness: Alex E. Vaughan

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DATA REQUEST

- LS 2_4** In developing the 2022 IRP, did Kentucky Power consider the procurement of energy and/or capacity from existing NGCCs (“Natural Gas Combined Cycle”) or NGCTs (“Natural Gas Combustion Turbine”) in its Reference portfolio and the other portfolio scenarios considered outside of short-term market purchases?
- a. If so, please provide any comparisons of costs or Cumulative Present Worth of existing versus new NGCT and NGCCs considered.
 - b. If not, please explain why this was not considered as an option in the modeling.

RESPONSE

The Company did not model a capacity and/or energy market purchase resource other than a 1 year market purchase. The Company did model the STMP capacity resource such that up to two consecutive years of reliance on this resource was available. As discussed in section 5.7, this resource was modeled to reflect a proxy PJM capacity price outlook and served to mitigate abrupt capacity shortfalls until long-term capacity resources might be available.

- b. The NGCT and NGCC was modeled as a proxy for the types of gas resources that could provide capacity and energy.

Witness: Gregory J. Soller

Witness: Thomas Haratym, CRA

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LS 2_5 Refer to the IRP, Section 5.3.1. Did Kentucky Power include a cost for hot Selective Catalytic Reduction (“SCRs”) systems in the capital cost and operating costs of a new NGCT in its modeling scenarios?

RESPONSE

No.

Witness: Thomas Haratym, CRA

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LS 2_6 Refer to the IRP, Sections 5.2.1 and 5.3.1. What was the assumed useful life of a new NGCT and NGCC used when determining the economic costs and benefits of those resources in Kentucky Power's modeling scenarios?

RESPONSE

30 years.

Witness: Thomas Haratym, CRA

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LS 2_7 Please describe any significant financial, environmental, or regulatory risks that Kentucky Power plans to evaluate when extending the operation of Big Sandy until 2041.

RESPONSE

The IRP does not make specific assumptions about those plans. As part of the Company's 3 year action plan discussed in section 8.2 of the IRP the Company will seek to refine cost estimates and develop plans for Big Sandy life extension.

Witness: Brian K. West

Witness: Gregory J. Soller

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LS 2_8 Refer to the IRP, Section 8.2. Does the planned All-Source Request for Proposal to add cost-effective market capacity purchases and firm resources in the near-term include procurement of demand side resources from the market such as demand response and energy efficiency?

RESPONSE

No. Kentucky Power will be requesting proposals for both accredited Summer and Winter capacity for wind, solar, natural gas, coal and storage resources to meet overall capacity need. The Company recently completed a Market Potential Study for DSM and plans to file with the Commission, within the next year, for approval of several new energy efficiency programs for residential and commercial customers.

Witness: Brian K. West

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LS 2_9 Refer to the IRP, Section 7.3.1, page 156. Please describe the incremental demand[1]side resources included in the Reference portfolio that increase from 3 MW in 2023 to 37 MW in 2030. What is the breakdown between demand response, energy efficiency and any other resources considered as DSM in the Reference portfolio? Did the modeling and the Reference portfolio include market purchases of DSM resources?

RESPONSE

Please see KPCO_R_LS_2_9_Attachment1.
For the purposes of this IRP, all DSM is energy efficiency. Energy Efficiency resources were modeled as a proxy for utility sponsored programs.

Witness: Thomas Haratym, CRA

Reference Portfolio DSM (MW)

	Residential - Low/Medium_ 23-25	C&I - Low_23- 25	IQW_23-25	Residential - Low_26-30	C&I - Low_26- 30	IQW_26-30	C&I - Low_31- 42	IQW_31-42
2023	1.64	1.76	0.03					
2024	3.53	4.69	0.08					
2025	5.60	8.39	0.14					
2026	4.84	7.72	0.13	3.00	5.02	0.08		
2027	4.02	6.98	0.12	5.53	9.50	0.16		
2028	3.17	6.19	0.10	7.60	13.47	0.23		
2029	2.33	5.38	0.09	9.31	16.87	0.29		
2030	1.57	4.56	0.08	10.69	19.69	0.34		
2031	0.93	3.75	0.06	9.26	17.72	0.31	4.37	0.08
2032	0.44	2.97	0.05	7.82	15.65	0.27	8.36	0.16
2033	0.14	2.25	0.04	6.45	13.52	0.23	11.96	0.22
2034	0.02	1.60	0.03	5.19	11.39	0.20	15.13	0.29
2035		1.06	0.02	4.10	9.31	0.16	17.97	0.34
2036		0.55	0.01	3.22	7.33	0.13	20.30	0.39
2037		0.14	0.00	2.50	5.52	0.10	22.19	0.42



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E-Signature 1: Tomasz Haratym (TH)
 September 07, 2023 06:56:02 -8:00 [B6E0969F284C] [38.122.101.202]
 THaratym@crai.com (Principal) (Personally Known)

E-Signature Notary: Marilyn Michelle Caldwell (MMC)
 September 07, 2023 06:56:02 -8:00 [D37D679763F9] [167.239.221.101]
 mmcaldwell@aep.com
 I, Marilyn Michelle Caldwell, did witness the participants named above electronically sign this document.



VERIFICATION

The undersigned, Tomasz J. Haratym, being duly sworn, deposes and says he is the Associate Principal, for Charles River Associates, 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.

Tomasz Haratym

Tomasz J. Haratym

Commonwealth of Kentucky)
County of Boyd)

Case No. 2023-00092

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Tomasz J. Haratym, on September 7, 2023.

Notary Public

Marilyn Caldwell

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

Notarial act performed by audio-visual communication

My Commission Expires May 5, 2027

Notary ID Number KYNP71841

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E-Signature Summary

E-Signature 1: Gregory J. Soller (GJS)
 August 31, 2023 08:15:45 -8:00 [36816C35689F] [167.239.221.106]
 gsoller@aep.com (Principal) (Personally Known)

E-Signature Notary: Marilyn Michelle Caldwell (MMC)
 August 31, 2023 08:15:45-8:00 [C5DFC300B166] [167.239.221.101]
 mmcaldwell@aep.com
 I, Marilyn Michelle Caldwell, did witness the participants named above electronically sign this document.



VERIFICATION

The undersigned, Gregory J. Soller, being duly sworn, deposes and says he is the Resource Planning 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.

Gregory J. Soller
Signed on 2023/08/31 08:13:42 -4:00

Gregory J. Soller

Commonwealth of Kentucky)
)
County of Boyd)

Case No. 2023-00092

Subscribed and sworn to before me, a Notary Public in and before said County

and State, by Gregory J. Soller, on August 31, 2023.

Marilyn Michelle Caldwell
Signed on 2023/08/31 08:15:45 -4:00

MARILYN MICHELLE CALDWELL
ONLINE NOTARY PUBLIC
STATE AT LARGE KENTUCKY
Commission # KYNP71841
My Commission Expires May 05, 2027
Notary Stamp 2023/08/31 08:15:45 PST

Notarial act performed by audio-visual communication

Notary Public

My Commission Expires May 5, 2027

Notary ID Number KYNP71841

VERIFICATION

The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is the Managing Director for Renewables and 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.

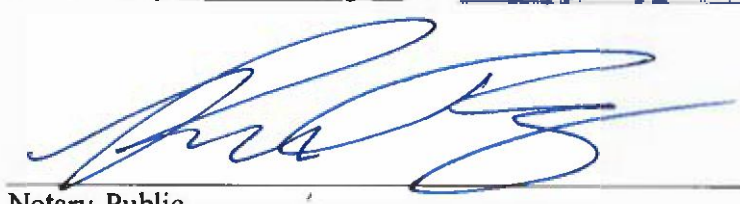


Alex E. Vaughan

State of Ohio State of Kentucky)
)
Franklin County)

Case No. 2023-00092

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Alex E. Vaughan, on 8/30/23.



Notary Public



Paul D. Flory
Attorney At Law
Notary Public, State of Ohio
My commission has no expiration date:
Sec. 147.03R, C.

My Commission Expires Never

Notary ID Number NA 10

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. 2023-00092

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Brian K. West, on August 31, 2023.

Maribyn Michelle Caldwell
Notary Public

My Commission Expires May 5, 2027

Notary IDNumber KYNP 71841