



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE)	
APPLICATION OF THE FUEL ADJUSTMENT CLAUSE)	Case No.
OF BIG RIVERS ELECTRIC CORPORATION)	2022-00268
FROM NOVEMBER 1, 2021 THROUGH APRIL 30, 2022)	

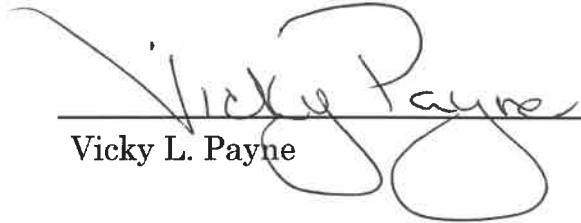
**Responses to Commission Staff's Second Request for Information
dated October 14, 2022**

FILED: October 28, 2022

BIG RIVERS ELECTRIC CORPORATION
AN ELECTRONIC EXAMINATION OF
THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2021 THROUGH APRIL 30, 2022
CASE NO. 2022-00268

VERIFICATION

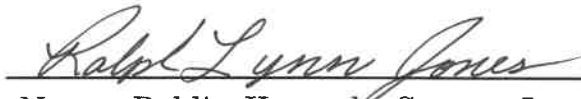
I, Vicky L. Payne, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Vicky L. Payne

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Vicky L. Payne on this the 27 day of October, 2022.



Notary Public, Kentucky State at Large
Kentucky ID Number KYNP43026
My Commission Expires 1-14-2026

RALPH LYNN JONES
Notary Public-State at Large
KENTUCKY - Notary ID # KYNP43026
My Commission Expires 01-14-2026

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VERIFICATION

I, Natalie R. Hankins, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Natalie R. Hankins

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

27 SUBSCRIBED AND SWORN TO before me by Natalie R. Hankins on this the
day of October, 2022.



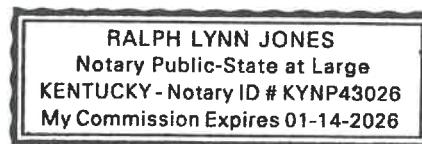
Notary Public, Kentucky State at Large

Kentucky ID Number

KYNP43026

My Commission Expires

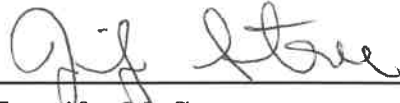
1-14-2026



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VERIFICATION

I, Jennifer M. Stone, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Jennifer M. Stone

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

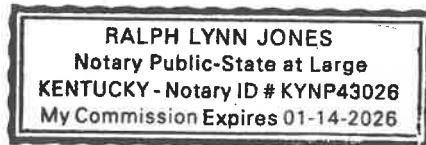
27 SUBSCRIBED AND SWORN TO before me by Jennifer M. Stone on this the
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Notary Public, Kentucky State at Large

Kentucky ID Number KYNP43026

My Commission Expires 1-14-2026



BIG RIVERS ELECTRIC CORPORATION

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1 **Item 1)** *Refer to the Direct Testimony of Natalie, R. Hankins (Hankins*
2 *Testimony), page 4, lines 4–11. Explain how and why the net capacity of the*
3 *Green Gas units relates to the need to amend the Power Purchase Agreement*
4 *between BREC and Unbridled Solar, LLC.*

5

6 **Response)** There is no relation. Please see the Direct Testimony of Mark J. Eacret
7 (Exhibit No. 3) in Big Rivers' Application in Case No. 2022-00296¹, which explains
8 the circumstances leading to the Amendment of the Power Purchase Agreement
9 between Big Rivers and Unbridled Solar, LLC.

10

11 **Witness)** Natalie R. Hankins

12

¹ See *In the Matter of Electronic Application of Big Rivers Electric Corporation for Approval of Amendment to Power Purchase Agreement*, P.S.C. Case No. 2022-00296, Application (Sept. 22, 2022).

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1 **Item 2)** *Refer to the Hankins Testimony, page 4, lines 12–14.*

2 *a. Explain why the solar contracts with Community Energy is at*
3 *best delayed and at worst will not perform at all. Include in the response*
4 *whether the desire to amend the contracts was BREC's or Community*
5 *Energy's.*

6 *b. To the extent that these contracts were entered into with the*
7 *expectation of using the renewable energy to satisfy industrial customers'*
8 *demand for renewable energy, explain what recourse BREC has to satisfy*
9 *industrial customers' demand.*

10 *c. To the extent that the delay or nonperformance is partly due to*
11 *the increased costs of interconnection in MISO, if known, explain the nature*
12 *of the increased interconnection costs.*

13

14 **Response)**

15 *a. Big Rivers does not desire to amend the contracts. AES Corporation*
16 *("AES") has indicated it does not intend to honor the terms of the contracts and may*
17 *decline to perform under the contracts altogether. Please see pages 18-19 of the*

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1 Direct Testimony of Mark J. Eacret (Exhibit No. 3) in Big Rivers' Application in Case
2 No. 2022-00296¹, which explained, "*Community Energy notified Big Rivers in June of*
3 *2021, that they were unlikely to be able to honor those contracts [the two solar*
4 *contracts totaling 100 MW]. This was before issues with the MISO interconnections*
5 *queue were known and before the Auxin Solar filing with the Department of*
6 *Commerce, so this was purely based on cost and price. Community Energy was*
7 *acquired by the AES Corporation ("AES") in December of 2021. AES has indicated*
8 *that it does not intend to honor the contracts either. Big Rivers continues to try to*
9 *negotiate a reasonable resolution with AES."*

10 b. Big Rivers did not enter into the contracts to satisfy industrial
11 customers' demand for renewable energy. The contracts were, however, part of a Big
12 Rivers plan to hedge the price of a large new industrial load. The contracts are also
13 a direct part of the cost structure of this large new industrial load beginning in 2032.
14 Should AES decide to refuse to perform under the contracts, Big Rivers will need to
15 find alternative sources of the capacity and energy that those contracts would have

¹ See *In the Matter of Electronic Application of Big Rivers Electric Corporation for Approval of Amendment to Power Purchase Agreement*, P.S.C. Case No. 2022-00296, Application (Sept. 22, 2022).

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1 provided and identify and procure an alternative solar energy project for the large
2 new industrial customer's post-2031 needs, but in a much more costly market.

3 c. The nonperformance is not due to increased cost to interconnect to
4 MISO. In fact Big Rivers has offered to enter into a Provisional Interconnection
5 Agreement which removes AES's cost obligation for any potential Network Upgrade
6 costs. Additionally, see the response to sub-part(a). Community Energy notified Big
7 Rivers that they were unlikely to be able to honor the contracts prior to the time that
8 issues with the MISO interconnection queue were known.

9

10 **Witness)** Mark J Eacret

11

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1 **Item 3)** *Refer to the Hankins Testimony, page 5, lines 13–15. Explain how*
2 *the approval of MISO's seasonal capacity construct has added uncertainty to*
3 *the market and how that uncertainty affects BREC in terms of the capacity*
4 *markets, energy markets and any ancillary service markets.*

5

6 **Response)** While FERC has approved the MISO seasonal capacity construct, many
7 details on its application remain unknown. Big Rivers cannot yet determine with
8 certainty, how many Zonal Resource Credits will be assigned to its generating
9 resources and power purchase agreements in each season, and Big Rivers has not yet
10 determined its seasonal capacity obligation. All other market participants are in the
11 same position, meaning that until the seasonal bilateral market is developed bilateral
12 seasonal prices are unpredictable.

13 Big Rivers does not anticipate that the seasonal construct will affect energy or
14 ancillary services markets.

15

16

17 **Witness)** Natalie R. Hankins

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1 **Item 4)** *Refer to BREC's Response to Commission Staff's First Request for*
2 *Information (Staff's First Request), Item 2, page 5. Alliance Coal, LLC is*
3 *almost 50 percent behind on its required delivery of coal. Explain whether*
4 *BREC expects this amount to be made up and whether Alliance Coal, LLC is*
5 *continuing to have trouble meeting its commitments.*

6

7 **Response)** Because of the timing of the response during the review period, Alliance
8 Coal, LLC appeared to be behind on its required delivery of coal. However, Alliance
9 Coal, LLC is currently meeting all contract requirements, and Big Rivers does not see
10 any issues that would cause future deliveries not to meet required commitments. All
11 Big Rivers' coal delivery contracts are meeting contractual requirements.

12

13

14 **Witness)** Vicky L. Payne

15

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1 **Item 5)** *Refer to BREC's Response to Staff's First Request, Item 3, pages*
2 *2-3. Wilson Station's coal supply is 16 days over its target level. If this is by*
3 *design, explain the reasons for the excess inventory and what, if anything,*
4 *BREC is doing to bring its inventory level back to within target levels.*

5

6 **Response)** Actual coal inventory exceeds the target inventory for Wilson Station by
7 more than ten days' supply during the period under review. Big Rivers is choosing to
8 nominate maximum tonnage on all lower price long-term contracts. The current
9 market price for Illinois Basin coal is \$190/ton or greater. Big Rivers is maximizing
10 contract deliveries ranging from \$42/ton-\$45/ton. Inventory will continue to grow
11 while maximizing nominations. Big Rivers does not expect [REDACTED]

12 [REDACTED]

13 [REDACTED]

14

15

16 **Witness)** Vicky L. Payne

17

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1 **Item 6)** *Refer to BREC's Response to Staff's First Request, Item 15. BREC*
2 *has multiple outages listed as "Forced" that are less than six hours long.*
3 *Explain how BREC treats power purchases during forced outages that are*
4 *less than six hours in the Fuel Adjustment Clause.*

5

6 **Response)** The energy cost of purchased power to meet demand when Big Rivers is
7 experiencing a forced outage that is less than six hours is included in the calculation
8 of Big Rivers' monthly FAC factor, and appears in Big Rivers' monthly Form A Filing
9 on page 2, Fuel Cost Schedule, in the Purchases, "Net Energy Cost-Economy
10 Purchases" or "Identifiable Fuel Cost-Other Purchases" line item, depending on the
11 classification of the purchase. The cost of these power purchases recovered through
12 the FAC is limited to the \$/kWH cost of Big Rivers' highest cost generating unit
13 available during the respective expense month. If the \$/kWH cost of the purchased
14 power exceeds the \$/kWH cost of the highest cost unit, the excess is included in the
15 "Less Purchases Above Highest Cost Units" line item on page 2 of the Form A filing
16 and subtracted from the recoverable fuel expense.

17

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1

2

3 **Witness)** Jennifer M. Stone

4

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1 Item 7) *Refer to BREC's Response to Staff's First Request, Items 29b and*
2 *29c, Attachment, and the Hankins Testimony, page 7, lines 1–12, referring to*
3 *the Attachment, Green Unit 1 Tab, rows 817, 841, and 865. Green Unit 1 was*
4 *on standby status for December 4–6, 2021, but the commitment status is*
5 *Economic.*

6 a. *If BREC offers in its units with an Economic commitment status,*
7 *explain what entity decides to place a unit on standby.*

8 b. *Explain how a unit is operating when the unit cost is greater*
9 *than the average day-ahead price and the unit is on standby.*

10 c. *Explain whether Midcontinent Independent System Operator*
11 *(MISO) selects BREC's units to operate based on the average cost at full load*
12 *clearing the average day ahead energy price. If not, provide further*
13 *explanation of the criteria for whether BREC's units are selected to run.*

14

15 **Response)**

16 a. When Big Rivers offers a unit into the day ahead market with an economic
17 commitment status, MISO is determining when to award the unit a start,

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1 bring it online, as well as when to take the unit offline. When the unit is
2 offline but available, it is in economic standby.

3 b. If the unit is on standby, it is not operating. It remains available to MISO
4 if called upon.

5 c. MISO will select Big Rivers' units to operate if they are the most economic
6 units available to serve load or are required to provide system reliability
7 based on a wide range of operating characteristics, such as hot, cold, or
8 intermediate start time, start costs, ramp rates, minimum and maximum
9 load availability, minimum runs time, etc, and a cost curve that reflects the
10 unit's cost at each point along its operating range. If selected, MISO
11 guarantees that Big Rivers will, at a minimum, recover its cost.

12

13

14 **Witness)** Natalie R. Hankins

15

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1 **Item 8)** *Explain if BREC was subjected to any performance penalties by*
2 *MISO during the period under review.*

3

4 **Response)** During the period under review, Big Rivers was subjected to penalties
5 related to deviations from two MISO instructions (Failure to Follow Dispatch Flags
6 (FFDF) and Failed Mileage Performance Test Flags (FMPTF)). An FFDF occurs
7 when a unit operated outside of MISO's dispatch thresholds for at least 4 consecutive
8 5-minute intervals within the given hour (Dispatch Interval), causing Excessive
9 Energy (EXE) or Deficient Energy (DFE).¹ If the FFDF does not fall into an
10 exemption, then MISO applies the MISO Revenue Sufficiency Guarantee (RSG) Rate
11 to the EXE or DFE and applies the MISO RT Excessive Deficient Deployment Rate
12 to the total Real-Time Billable meter (the actual meter volume).

13 An FMPTF is similar to a FFDF, but relates to ancillary services. A FMPTF
14 occurs when the unit fails the regulation mileage performance test by deviating from
15 MISO Regulation Deployment Instructions for a given hour. When an FMPTF occurs
16 then MISO imposes a "clawback" or a return of all regulation revenue for that hour.

¹ See MISO FERC Electric Tariff at <https://www.misoenergy.org/legal/tariff/>.

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1

2

3 **Witness)** Natalie R. Hankins

4

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1 **Item 9)** *For each month of the review period, provide the total amount of*
2 *fuel related cost that occurred during a forced outage that was disallowed*
3 *pursuant to 807 KAR 5:056 or was unable to be collected via any other means.*

4

5 **Response)** The table below provides the fuel-related cost that occurred during a
6 forced outage that was disallowed pursuant to 807 KAR 5:056 and not recoverable
7 through Big Rivers' FAC, all of which was recoverable through the Non-FAC PPA as
8 defined in the tariff.

9

Nov-2021	\$ 1,055,991
Dec-2021	\$ 38,315
Jan-2022	\$ 225,686
Feb-2022	\$ 399,621
Mar-2022	\$ 53,983
Apr-2022	\$ -

10

11

12

13 **Witness)** Jennifer M. Stone

14

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1 **Item 10)** *For each month in the current six-month review period, provide,*
2 *separately, the amounts of purchased power fuel during scheduled/extended*
3 *outages and forced outages in both kWh and dollars, the amounts of*
4 *purchased power cost recovered through the Fuel Adjustment Clause and*
5 *through the Purchase Power Agreement, and any amounts not recovered*
6 *through either. The response should be provided in Excel spreadsheet format*
7 *with all formulas, columns, and rows unprotected and fully accessible.*

8

9 **Response)** Please see the attached Excel spreadsheet.

10

11

12

13 **Witness)** Jennifer M. Stone

14

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1 **Item 11)** *Provide the case number in which the Commission initially*
2 *approved BREC's Non-FAC PPA tariff and provide any subsequent case*
3 *numbers of any Commission cases in which any changes made to the Non-*
4 *FAC PPA tariff were approved.*

5

6 **Response)** The Commission initially approved Big Rivers' Non-FAC PPA tariff in
7 Case No. 2011-00036.¹ Subsequently, the Commission approved non-substantive
8 changes to the Non-FAC PPA tariff in Case No. 2013-00199.²

9

10

11

12 **Witness)** Jennifer M. Stone

13

¹ *In the Matter of: Application of Big Rivers Electric Corporation for a General Adjustment in Rates, P.S.C. Case No. 2011-00036.*

² *In the Matter of: Application of Big Rivers Electric Corporation for a General Adjustment in Rates Supported by Fully Forecasted Test Period, P.S.C. Case No. 2013-00199.*