

ORIGINAL



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 OF BIG RIVERS ELECTRIC)	Case No.
CORPORATION FROM NOVEMBER 1, 2020)	2021-00297
THROUGH APRIL 30, 2021)	

**Responses to Commission's Request for Information
dated
August 18, 2021**

FILED: September 1, 2021

ORIGINAL

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF
THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

VERIFICATION


I, Jason C. Burden, 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.



Jason C. Burden

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

18 SUBSCRIBED AND SWORN TO before me by Jason C. Burden on this the
day of September, 2021.



Notary Public, Kentucky State at Large

Kentucky ID Number

KYNP16841

My Commission Expires

October 31, 2024




BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF
THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

VERIFICATION

I, Ronald D. ("Ron") Gregory, 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.



Ronald D. ("Ron") Gregory

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Ronald D. ("Ron") Gregory on this the 18th day of September, 2021.



Notary Public, Kentucky State at Large

Kentucky ID Number KY NP16841

My Commission Expires October 31, 2024



BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF
THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

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

Natalie R. Hankins

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

18 SUBSCRIBED AND SWORN TO before me by Natalie R. Hankins on this the
day of September, 2021.

Kathryn R. [Signature]

Notary Public, Kentucky State at Large

Kentucky ID Number

KYNP16841

My Commission Expires

October 3, 2024



BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF
THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

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)

18th SUBSCRIBED AND SWORN TO before me by Vicky L. Payne on this the
day of September, 2021.



Notary Public, Kentucky State at Large

Kentucky ID Number

KY NP 16841

My Commission Expires

October 31, 2024

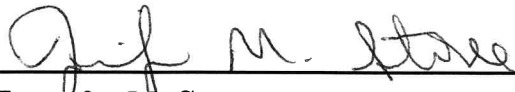


BIG RIVERS ELECTRIC CORPORATION

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FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
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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)

18 SUBSCRIBED AND SWORN TO before me by Jennifer M. Stone on this the
day of September, 2021.



Notary Public, Kentucky State at Large
Kentucky ID Number KY NP 16841
My Commission Expires July 31, 2024



BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 1)** *For the period under review, provide the amount of coal*
2 *purchased in tons and the percentage of purchases that were spot versus*
3 *contract.*

4

5 **Response)** Please see the schedules below.

6

For the Period from November 1, 2020, through April 30, 2021

Purchase Vendor ¹	Fuel Type	Purchase Tonnage	Contract Type
WKCR / ACNR (BRE-20-001A)	Coal	182,620.65	Contract
Alliance (BRE-18-003)	Coal	137,497.03	Contract
Rhino / Alliance (BRE-19-003A)	Coal	114,285.15	Contract
WKCR / ACNR (BRE-19-002A)	Coal	232,183.46	Contract
Foresight (BRE-21-001)	Coal	119,288.18	Spot
Knight Hawk Coal (BRE-21-003)	Coal	25,886.26	Spot
Total Tonnage		811,760.73	

For the Period from November 1, 2020, through April 30, 2021

Percentage Spot Purchase Tons	17.88 %
Percentage Contract Purchase Tons	82.12 %
Percentage Total Purchase Tons	100.00 %

7

8

¹ WKCR = Western Kentucky Consolidated Resources, LLC; ACNR = American Consolidated Natural Resources, Inc.

BIG RIVERS ELECTRIC CORPORATION

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CASE NO. 2021-00297**

**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1

2 **Witness)** Vicky L. Payne

3

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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CASE NO. 2021-00297**

**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

- 1 **Item 2)** *For the period under review, list each coal purchase made under*
2 *a long-term contract (one year or greater). For each purchase, list:*
- 3 *a. Contract or purchase order number;*
 - 4 *b. The supplier's name;*
 - 5 *c. The location(s) of production facilities from which the coal is*
6 *sourced;*
 - 7 *d. The method of delivery, (i.e., barge, truck, rail, other);*
 - 8 *e. The actual quantity received during the review period;*
 - 9 *f. The tonnage requirement for the review period; and*
 - 10 *g. Current price paid per ton.*

11

12 **Response)** Please see the attached schedule

13

14

15 **Witness)** Vicky L. Payne

16

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Rhino Energy LLC / Alliance Coal, LLC

A. CONTRACT NUMBER: BRE-18-001 / BRE-18- 001A ¹

B. SUPPLIER'S NAME/ADDRESS: Rhino Energy LLC/Pennyrile Energy, LLC.
424 Lewis Hargett Circle, Suite 250
Lexington, KY 40503
Alliance Coal, LLC ¹
1717 South Boulder, Suite 400
Tulsa, OK 74119

C. PRODUCTION FACILITY: Pennyrile Energy LLC (*original contract*)
Riveredge Mine, McLean County, Kentucky
River View Coal, LLC (*upon assignment*)
River View Mine, Union County, Kentucky

D. METHOD OF DELIVERY: Barge

E. ACTUAL TONNAGE:

	2018	-	350,000	Tons	
	2019	-	342,466	Tons	
	2020	-	207,980	Tons	(through December)

F. ANNUAL TONNAGE REQUIREMENTS:

	2018	-	350,000	Tons	
	2019	-	150,000 min. 350,000 max.	Tons	
	2020	-	150,000 min. 350,000 max.	Tons	

PERCENT OF ANNUAL REQUIREMENTS:

	2018	-	100.00 %		
	2019	-	97.85 %		(through December) ¹
	2020	-	100.21 %		(through December) ²

¹ Assigned to Alliance Coal on September 6, 2019. Referenced following assignment as Rhino/Alliance (BRE-18-001A). Calculated based on 350,000 ton maximum for 2019 per assignment. [342,466 tons *divided by* 350,000 tons = 97.85%]

² Calculated based on 200,000 nominated tons for 2020 *plus* 7,534 tons carryover from 2019 equaling 207,534 tons. [207,980 tons *divided by* 207,534 tons = 100.21%]

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Rhino Energy LLC / Alliance Coal, LLC (continued)
(Contract Numbers – BRE-18-001 / BRE-18-001A)

G. CURRENT PRICE (<i>Base</i>):	2018	–	\$ 37.5002	per Ton
	2019	–	\$ 38.6302	per Ton (<i>Jan. – Aug.</i>)
<i>Assigned Prices</i>	2019	–	\$ 36.2710	per Ton (<i>Sept. – Dec.</i>)
	2020	–	\$ 37.4302	per Ton
CURRENT PRICE (<i>Contract</i>):	2018	–	\$ 37.5002	per Ton
	2019	–	\$ 38.6302	per Ton (<i>Jan. – Aug.</i>)
<i>Assigned Prices</i>	2019	–	\$ 36.2710	per Ton (<i>Sept. – Dec.</i>)
	2020	–	\$ 37.4302	per Ton

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Alliance Coal, LLC

A. CONTRACT NUMBER:	BRE-18-003		
B. SUPPLIER'S NAME/ADDRESS:	Alliance Coal, LLC 1717 South Boulder, Suite 400 Tulsa, OK 74119		
C. PRODUCTION FACILITY:	Riverview Coal, LLC – River View Mine Union County, Kentucky		
D. METHOD OF DELIVERY:	Barge		
E. ACTUAL TONNAGE:	2018	–	590,897 Tons
	2019	–	676,162 Tons
	2020	–	360,087 Tons <i>(through December)</i>
F. ANNUAL TONNAGE REQUIREMENTS:	2018	–	585,000 Tons <i>(effective date – February 12, 2018)</i>
	2019	–	300,000 min. Tons 800,000 max.
	2020	–	300,000 min. Tons 800,000 max.
PERCENT OF ANNUAL REQUIREMENTS:	2018	–	101.00 %
	2019	–	100.17 % <i>(through December)</i> ³
	2020	–	85.90 % <i>(through December)</i> ⁴
	2021	–	104.91 % <i>(through February)</i> ⁵
G. CURRENT PRICE (<i>Base</i>):	2018	–	\$ 36.5010 per Ton
	2019	–	\$ 37.7499 per Ton
	2020	–	\$ 39.0011 per Ton
	2021	–	\$ 39.0011 per Ton
CURRENT PRICE (<i>Contract</i>):	2018	–	\$ 36.5010 per Ton
	2019	–	\$ 37.7499 per Ton
	2020	–	\$ 39.0011 per Ton
	2021	–	\$ 39.0011 per Ton

³ Calculated based on 675,000 nominated tons for 2019. [676,162 tons *divided by* 675,000 tons = 100.17%]

⁴ Calculated based on 345,000 nominated tons for 2020. [296.364 tons *divided by* 345,000 tons = 85.90%]

⁵ Carryover tonnage from 2020 into 2021 was 48,636 tons; actual delivery was 65,571 tons. [361,935 tons (= 296,364 tons *plus* 65,571 delivered tons) *divided by* 345,000 tons]

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

**Western Kentucky Consolidated Resources, LLC (“WKCR”) /
American Consolidated Natural Resources, Inc. (“ACNR”)**

A. CONTRACT NUMBER:	BRE-19-002 / BRE-19-002A ⁶			
B. SUPPLIER’S NAME / ADDRESS:	Western Kentucky Consolidated Resources, LLC ⁶ KenAmerican Resources, Inc. American Consolidated Natural Resources, Inc. 46226 National Road St. Clairsville, OH 43950			
C. PRODUCTION FACILITY:	WKCC Genesis Mine MCCC Pride Mine KenAmerican Paradise Mine ACNR Pride Mine (<i>current source</i>)			
D. METHOD OF DELIVERY:	Truck and/or barge			
E. ACTUAL TONNAGE:	2019	–	456,313 Tons	
	2020	–	425,100 Tons	(<i>through December</i>)
	2021	–	168,427 Tons	(<i>through April</i>)
F. ANNUAL TONNAGE REQUIREMENTS:	2019	–	400,000 min. Tons 500,000 max.	
	2020	–	400,000 min. Tons 500,000 max.	
	2020	–	0 min. Tons 125,000 max.	<i>Option</i>
	2021	–	400,000 min. Tons 500,000 max.	
	2021	–	0 min. Tons 125,000 max.	<i>Option</i>
PERCENT OF ANNUAL REQUIREMENTS:	2019	–	101.40 %	(<i>through December</i>) ⁷
	2020	–	100.02 %	(<i>through December</i>) ⁸
	2021	–	33.69 %	(<i>through April</i>) ⁹

⁶ On September 10, 2020, the WKCR Agreement was assumed by ACNR, and assigned Contract Number BRE-19-002A.

⁷ Calculated based on 456,313 nominated tons for 2019. No Option tons nominated. [456,313 tons *divided by* 450,000 tons = 101.40%]

⁸ Calculated based on 425,000 nominated tons for 2020. No Option tons nominated. [425,100 tons *divided by* 425,000 tons = 100.02%]

⁹ Calculated based on 500,000 nominated tons for 2021. [168,427 tons *divided by* 500,000 tons = 33.69%]

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Western Kentucky Consolidated Resources, LLC (“WKCR”) /
American Consolidated Natural Resources, Inc. (“ACNR”) (continued)
(Contract Numbers – BRE-19-002 / BRE-19-002A)

G. CURRENT PRICE (<i>Base</i>):	2019	–	\$ 42.85	per Ton
	2020	–	\$ 42.85	per Ton
	2021	–	\$ 42.85	per Ton
CURRENT PRICE (<i>Contract</i>):	2019	–	\$ 42.85	per Ton
	2020	–	\$ 43.45	per Ton ¹⁰
	2021	–	\$ 43.45	per Ton ¹⁰
OPTION PRICE (<i>Contract</i>):	2020	–	\$ 43.85	per Ton ¹⁰
	2021	–	\$ 44.85	per Ton ¹⁰

¹⁰ Price increased in 2020 and 2021 by \$0.60 per ton, governmental imposition (Black Lung tax).

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Rhino Energy LLC / Alliance Coal, LLC

A. CONTRACT NUMBER:	BRE-19-003 / BRE-19-003A ¹¹			
B. SUPPLIER'S NAME / ADDRESS:	Rhino Energy LLC/Pennyrile Energy, LLC. ¹¹ 424 Lewis Hargett Circle, Suite 250 Lexington, KY 40503 Alliance Coal, LLC ¹¹ 1717 South Boulder, Suite 400 Tulsa, OK 74119			
C. PRODUCTION FACILITY:	Pennyrile Energy LLC (<i>original contract</i>) Riveredge Mine, McLean County, Kentucky River View Coal, LLC (<i>upon assignment</i>) River View Mine, Union County, Kentucky			
D. METHOD OF DELIVERY:	Barge			
E. ACTUAL TONNAGE:	2019	-	69,186 Tons	(through December)
	2020	-	193,770 Tons	(through December)
	2021	-	110,486 Tons	(through April)
F. ANNUAL TONNAGE REQUIREMENTS:	2019	-	100,000 min. Tons	
			150,000 max.	
	2020	-	100,000 min. Tons	
			150,000 max.	
	2021	-	350,000 min. Tons	
			500,000 max.	
	2022	-	200,000 min. Tons	
			350,000 max.	
	2023	-	200,000 min. Tons	
			350,000 max.	
PERCENT OF ANNUAL REQUIREMENTS:	2019	-	46.12 %	(through December) ¹²
	2020	-	99.88 %	(through December) ¹³
	2021	-	23.89 %	(through April) ¹⁴

¹¹ Assigned to Alliance Coal on September 6, 2019. Referenced following assignment as Rhino/Alliance (BRE-19-003A).

¹² Calculated based on 150,000 ton maximum for 2019 per assignment. [69,187 tons *divided by* 150,000 tons = 46.12%]

¹³ Calculated based on 112,500 nominated tons for 2020 *plus* 81,499 tons carryover from 2019 equaling 193,999 tons. [193,770 tons *divided by* 193,999 tons = 99.88%]

¹⁴ Calculated based on 462,500 nominated tons for 2021. [110,486 tons divided by 462,500 tons = 23.89%]

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Rhino Energy LLC / Alliance Coal, LLC (continued)
(Contract Numbers – BRE-19-003 / BRE-19-003A)

G. CURRENT PRICE (<i>Base</i>):	2019	–	\$ 40.67	per Ton (<i>Jan. – Aug.</i>)
<i>Assigned Prices</i>	2019	–	\$ 38.31	per Ton (<i>Sept. – Dec.</i>)
	2020	–	\$ 39.37	per Ton
	2021	–	\$ 40.10	per Ton
	2022	–	\$ 41.37	per Ton
	2023	–	\$ 42.35	per Ton
 CURRENT PRICE (<i>Contract</i>):	2019	–	\$ 40.67	per Ton (<i>Jan. – Aug.</i>)
<i>Assigned Prices</i>	2019	–	\$ 38.31	per Ton (<i>Sept. – Dec.</i>)
	2020	–	\$ 39.37	per Ton
	2021	–	\$ 40.10	per Ton
	2022	–	\$ 41.37	per Ton
	2023	–	\$ 42.35	per Ton

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

**Western Kentucky Consolidated Resources, LLC (“WKCR”) /
American Consolidated Natural Resources, Inc. (“ACNR”)**

A. CONTRACT NUMBER: BRE-20-001 / BRE-20-001A ¹⁵

B. SUPPLIER’S NAME / ADDRESS: Western Kentucky Consolidated Resources, LLC ¹⁵
Muhlenberg County Coal Company, LLC
American Consolidated Natural Resources, Inc.
46226 National Road
St. Clairsville, OH 43950

C. PRODUCTION FACILITY: WKCC Genesis Mine
MCCC Pride Mine
ACNR Pride Mine (*current source*)

D. METHOD OF DELIVERY: Truck and/or barge

E. ACTUAL TONNAGE:

2020	–	325,094	Tons	<i>(through December)</i>
2021	–	135,647	Tons	<i>(through April)</i>

F. ANNUAL TONNAGE REQUIREMENTS:

2020	–	300,000 min. 400,000 max.	Tons
2020 <i>Option</i>	–	0 min. 100,000 max.	Tons
2021	–	300,000 min. 400,000 max.	Tons
2021 <i>Option</i>	–	0 min. 100,000 max.	Tons
2022		300,000 min. 400,000 max.	
2022 <i>Option</i>		0 min. 100,000 max.	
2023		300,000 min. 400,000 max.	
2023 <i>Option</i>		0 min. 100,000 max.	

¹⁵ On September 10, 2020, this contract was assumed by ACNR and assigned Contract Number BRE-20-001A.

Big Rivers Electric Corporation
Case No. 2021-00297
Long-Term Fuel Contract Information

Western Kentucky Consolidated Resources, LLC (“WKCR”) /
American Consolidated Natural Resources, Inc. (“ACNR”) (continued)
(Contract Numbers – BRE-20-001 / BRE-20-001A)

PERCENT OF ANNUAL	2020	–	100.03 %	<i>(through December)</i> ¹⁶
REQUIREMENTS:	2021	–	33.91 %	<i>(through April)</i> ¹⁷
G. CURRENT PRICE (<i>Base</i>):	2020	–	\$ 42.75	per Ton (<i>Jan. – May</i>)
	2020	–	\$ 42.65	per Ton (<i>June – Dec.</i>)
	2021	–	\$ 43.25	per Ton
	2022	–	\$ 43.70	per Ton
	2023	–	\$ 44.15	per Ton
CURRENT PRICE (<i>Contract</i>):	2020	–	\$ 43.35	per Ton (<i>Jan. – May</i>) ¹⁸
	2020	–	\$ 43.25	per Ton (<i>June – Dec.</i>) ¹⁸
	2021	–	\$ 43.85	per Ton ¹⁸
	2022	–	\$ 43.70	per Ton
	2023	–	\$ 44.15	per Ton
OPTION PRICE (<i>Contract</i>):	2020	–	\$ 44.00	per Ton (<i>Jan. – May</i>) ¹⁸
	2020	–	\$ 43.90	per Ton (<i>June – Dec.</i>) ¹⁸
	2021	–	\$ 44.50	per Ton ¹⁸
	2022	–	\$ 44.35	per Ton
	2023	–	\$ 44.80	per Ton

¹⁶ Calculated based on 325,000 nominated tons for 2020. No Option tons nominated. [325,094 tons *divided by* 325,000 tons = 100.03%]

¹⁷ Calculated based on 400,000 nominated tons for 2021. No option tons nominated. [135,647 *divided by* 400,000 = 33.91%]

¹⁸ Priced increased by \$0.60 per ton for governmental imposition (Black Lung tax).

BIG RIVERS ELECTRIC CORPORATION

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ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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**Response to Commission's Request for Information
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September 1, 2021

1 **Item 3)** *As of the last day of the review period:*

2 *a. State the coal inventory level in tons and in number of days' supply.*

3 *Provide this information by generating station and in the*
4 *aggregate.*

5 *b. Describe the criteria used to determine number of days' supply.*

6 *c. State the target coal inventory level for each generating station, and*
7 *for the total system.*

8 *d. If actual coal inventory exceeds the target inventory by ten days'*
9 *supply, state the reasons for the excess inventory.*

10 *e. State whether any significant changes in the current coal inventory*
11 *target are expected within the next 12 months. If so, state the*
12 *expected change and the reasons for this change.*

13

14 **Response)**

15 a. As of April 30, 2021, Big Rivers' generating stations individually, and in
16 the aggregate, had the inventory levels and days' supply shown in the
17 tables on the following page. Reid Station Unit 1 and Coleman Units 1, 2

BIG RIVERS ELECTRIC CORPORATION

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1 and 3 were retired effective September 30, 2020. Station Two Units 1 and
2 2 were retired on February 1, 2019. Therefore, no information is reported
3 for these generating units.

4

Total System / Station	Inventory Level (Tons) ¹	Number of Days’ Supply ²	Preceding Six-Month Operating Duration (In Days)	Preceding 6 Months Burn (In Tons)
Big Rivers Electric System	373,829.03	40	105	974,608.19
Green Station	173,478.61	42	79	326,638.93
Wilson Station	200,350.42	48	155	647,969.26

5

6 b. Number of Days’ Supply =

$$\frac{\text{Current Inventory (Tons)}}{\text{Preceding 6 Months Burn (Tons)}} \times \text{Duration (In Days)}$$

7

8 c. Big Rivers Electric Corporation’s Target Supply is the following range for
9 each Station in days based on the projected annual fuel burn

Big Rivers Electric Corporation Coal Inventory Target Ranges	
Total System	30 – 60 Days
Green	30 – 60 Days
Wilson	30 – 60 Days

10

BIG RIVERS ELECTRIC CORPORATION

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1 d. Not Applicable. Actual coal inventory did not exceed the target inventory by ten
2 days' supply during the period under review.

3 e.

4 (1) Yes, Big Rivers anticipates a change in coal inventory at its R.D. Green
5 generating station within the next twelve (12) months.

6 (2) Based upon the planned conversion of the R.D. Green coal-fired
7 generating units to natural gas, Big Rivers anticipates that the coal
8 inventory at the R.D. Green generation station will be reduced through
9 March 31, 2022.

10

Footnotes to table in sub-part a. above -

1. - Green Station and Wilson Stations each had a pet coke inventory of zero tons as of April 30,
2021. Petroleum coke has not been purchased due to market pricing versus coal.

2. - Number of days' supply is rounded to reflect whole days.

11

12

13 **Witness)** Vicky L. Payne

14

BIG RIVERS ELECTRIC CORPORATION

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September 1, 2021

1 **Item 4)** *List each written coal-supply solicitation issued during the*
2 *period under review.*

3 *a. For each solicitation, provide the date of the solicitation, the type of*
4 *solicitation (contract or spot), the quantities solicited, a general*
5 *description of the quality of coal solicited, the period over which*
6 *deliveries were requested, and the generating unit(s) for which the*
7 *coal was intended.*

8 *b. For each solicitation, state the number of vendors to whom the*
9 *solicitation was sent, the number of vendors who responded, and the*
10 *selected vendor. Provide the bid tabulation sheet or corresponding*
11 *document that ranked the proposals. (This document should*
12 *identify all vendors who made offers.) State the reasons for each*
13 *selection. For each lowest-cost bid not selected, explain why the bid*
14 *was not selected.*

15
16

BIG RIVERS ELECTRIC CORPORATION

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September 1, 2021

1 **Response)**

2 BREC 21-02 (Spot and Term Solicitation)

3 a.

4 i. Date solicitation was issued: November 2, 2020;

5 Date solicitation was returned: November 16, 2020

6 ii. Type of solicitation: Spot 2020 and term (2021 – 2023) written bid
7 solicitation (web-based distribution).

8 iii. Quantities solicited: Spot up to 35,000 tons; Term – up to 500,000 tons
9 per year.

10 iv. Quality of coal and petroleum coke solicited:

11 (a) BTU/lb: 10,500 to 13,500

12 (b) Ash (lbs./MMBTU): 0.74 to 14.29

13 (c) Moisture (lbs./MMBTU): 8.89 to 11.90

14 (d) Sulfur (lbs. SO₂): 5.50 to 6.50 (coal); and

15 (e) Sulfur (lbs. SO₂): up to 8.50 (petroleum coke).

16

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
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- 1 v. Time period over which deliveries were requested:
- 2 (a) Spot solicitation: December 1 through December 31, 2020
- 3 (b) Term solicitation: Years 2021 through 2023.
- 4 vi. Generating units for which coal was intended include: R.D. Green and D.
- 5 B. Wilson.
- 6 b.
- 7 i. Number of vendors solicited: The coal solicitation was posted to Big
- 8 Rivers' website for supplier review, print-out, and written bid proposal
- 9 submission. Big Rivers also notified coal and petroleum coke newsletters
- 10 and journals of the solicitation and its placement on Big Rivers' website,
- 11 referring to the web address for review and download. For Bid BREC 21-
- 12 02 there were eighteen (18) unique page views of the bid. Responding
- 13 vendors: Six (6) vendors replied to the spot and term bid solicitation.
- 14

BIG RIVERS ELECTRIC CORPORATION

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1 ii. Selected Vendors:

2 (a) Spot fuel supply:

3 Foresight Coal, LLC (BRE-21-001). [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED].

13 Big Rivers also elected to procure spot coal supply from Knight
14 Hawk Coal, LLC (BRE-21-003) [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]

BIG RIVERS ELECTRIC CORPORATION

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1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED].
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]

BIG RIVERS ELECTRIC CORPORATION

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1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]

BIG RIVERS ELECTRIC CORPORATION

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1

[REDACTED]

2

[REDACTED]

3

[REDACTED]

4

[REDACTED]

5

[REDACTED].

6

(b) Term fuel supply:

7

Big Rivers did not execute any term supply agreements due to the

8

pending conversion of the R. D. Green generating units to natural

9

gas² and the pending installation of a different flue gas

10

desulphurization unit at the D. B. Wilson generating station.³

11

iii. A confidential bid tabulation file is provided with these responses.

² See *In the Matter of: Electronic Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity Authorizing the Conversion of the Green Station Units to Natural Gas-Fired Units and an Order Approving the Establishment of as Regulatory Asset*, Case No. 2021-00079. Application filed March 1, 2021; Final Order issued June 23, 2021.

³ *In the Matter of: Electronic Application Of Big Rivers Electric Corporation For Approval Of Its 2020 Environmental Compliance Plan, Authority To Recover Costs Through A Revised Environmental Surcharge And Tariff, The Issuance Of A Certificate Of Public Convenience And Necessity For Certain Projects, And Appropriate Accounting And Other Relief*, Case No. 2019-00435. Application filed February 7, 2020; Final Order issued August 6, 2020. See *inter alia*, Application and Direct Testimony of Michael T. Pullen.

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1

2

3 **Witness)** Vicky L. Payne

4

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 5)** *List each oral coal-supply solicitation issued during the period*
2 *under review.*

3 **a.** *For each solicitation, state why the solicitation was not written, the*
4 *date(s) of the solicitation, the quantities solicited, a general*
5 *description of the quality of coal solicited, the period over which*
6 *deliveries were requested, and the generating unit(s) for which the*
7 *coal was intended.*

8 **b.** *For each solicitation, identify all vendors solicited and the vendor*
9 *selected. Provide the tabulation sheet or other document that ranks*
10 *the proposals. (This document should identify all vendors who*
11 *made offers.) State the reasons for each selection. For each lowest-*
12 *cost bid not selected, explain why the bid was not selected.*

13

14

BIG RIVERS ELECTRIC CORPORATION

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1 **Response)**

2 a. and b.

3 There were no oral coal-supply solicitations issued during the period from
4 November 1, 2020, through April 30, 2021.

5

6

7 **Witness)** Vicky L. Payne

8

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 6)** *For the period under review, list each vendor from whom natural*
2 *gas was purchased for generation and the quantities and the nature of each*
3 *purchase (i.e., spot or contract).*

4

5 **Response)** Please see the listing on the following page for vendors from whom
6 natural gas was purchased for generation and the quantity and nature of each
7 purchase from November 1, 2020, through April 30, 2021. Also on the following page
8 please see the percentage of purchases that were either spot versus contract for the
9 period under review in total.

10 Starting in July 2010, Big Rivers began purchasing natural gas under a North
11 American Energy Standard Board ("NAESB") base contract for sale and purchase of
12 natural gas. Actual purchases of gas are made using transaction confirmations that
13 are governed by the NAESB contract. Big Rivers also entered into a contract with
14 Texas Gas Transmission, LLC for the transportation and storage and borrowing of
15 gas to Big Rivers' delivery point, the Reid Combustion Turbine. All of these contracts
16 are on file with the Kentucky Public Service Commission.

17

BIG RIVERS ELECTRIC CORPORATION

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1

For the Period from November 1, 2020, through April 30, 2021

Purchase Vendor	Fuel Type	MCF	Contract Type
CIMA Energy, LTD	Natural Gas	12,046.00	Spot

For the Period from November 1, 2020, through April 30, 2021

Percentage Spot	100.00 %
Percentage Contract	0.00 %
Percentage Total	100.00 %

2

3

4 **Witness)** Vicky L. Payne

5

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 7)** *For the period under review, state if there were any instances in*
2 *which a natural gas generating unit could not be operated when it otherwise*
3 *would have run due to pipeline constraints or natural gas being unavailable.*

4

5 **Response)** There were no instances during this review period that Big Rivers' gas
6 generating unit could not be operated when it otherwise would have run, due to
7 pipeline constraints or natural gas being unavailable.

8

9

10 **Witness)** Vicky L. Payne

11

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 8)** *State if there have been any changes to hedging activities for coal*
2 *or natural gas purchases used for generation since the previous FAC review*
3 *proceeding. If so, describe the changes in detail.*

4

5 **Response)** Big Rivers does not engage in financial hedging activities regarding its
6 coal or natural gas purchases used for generation. Big Rivers does, however, stagger
7 its purchases of coal to create a natural hedge on price volatility pursuant to Policy
8 No. 111 – Hedge Policy. There have been no changes to these hedging activities since
9 the previous FAC review.

10

11

12 **Witness)** Vicky L. Payne

13

BIG RIVERS ELECTRIC CORPORATION

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- 1 **Item 9)** *State whether BREC has audited any of its fuel or transportation*
2 *contracts during the period under review. If so, for each audited contract:*
- 3 *a. Identify the contract;*
4 *b. Identify the auditor; and*
5 *c. State the results of the audit, and describe the actions that Big Rivers took*
6 *as a result of the audit.*

7
8 **Response)**

- 9 a. Big Rivers has audited one of its coal supply source mine operations during
10 the review period; that being, Foresight's Hillsboro / Deer Run mining
11 operation (January 14 and 15, 2021), along with its associated sampling
12 system at their SiTran Dock operation. Big Rivers has not audited any of
13 its transportation contracts during that same time period.
- 14 b.
- 15 (1) Foresight Coal (BRE-21-001).
- 16 (2) Mine review was performed by Associated Engineers, Madisonville,
17 Kentucky (January 14, 2021) and sampling system reviews by SGS
18 Laboratories, Henderson, Kentucky (January 15, 2021).

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- 1 (3) Big Rivers requested a mine engineering review of the Foresight
2 Hillsboro / Deer Run mining operation to ensure that the mine had the
3 ability to perform pursuant to the pending spot coal supply agreement
4 (executed January 29, 2021) in regard to quality and quantity
5 obligations. Associated Engineers reviewed the company's mining
6 operations and provided a positive review of the mining firm's abilities
7 to perform under the spot coal supply agreement. SGS Laboratories
8 performed a review of the sampling systems to ensure that the systems
9 were performing properly per design to provide an appropriate and
10 representative coal sample for determination of coal quality.
- 11 (4) SGS Laboratories reviewed the sampling systems, finding the systems
12 in good order and appropriate for obtaining coal samples pursuant to
13 the obligations of the spot coal supply agreement.

14

15

16 **Witness)** Vicky L. Payne

17

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 10)**

2 **a. *State whether BREC is currently involved in any litigation with its***
3 ***current or former fuel suppliers or transportation vendors. If yes,***
4 ***for each litigation:***

5 ***(1) Identify the supplier or vendor;***

6 ***(2) Identify the contract involved;***

7 ***(3) State the potential liability or recovery to BREC;***

8 ***(4) List the issues presented; and***

9 ***(5) Provide a copy of the complaint or other legal pleading that***
10 ***initiated the litigation and any answers or counterclaims. If***
11 ***a copy has previously been filed with the Commission, provide***
12 ***the date on which it was filed and the case in which it was***
13 ***filed.***

14 **b. *State the current status of all litigation with suppliers or vendor.***

15

16

BIG RIVERS ELECTRIC CORPORATION

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1 **Response)**

2 a. Big Rivers is not currently involved in any litigation with its current or
3 former fuel suppliers or transportation vendors.

4 b. (1) – (5)

5 Not applicable.

6 c. Not applicable.

7

8

9 **Witness)** Vicky L. Payne

10

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 11)**

2 **a. *For the period under review, state if there have been any changes to***
3 ***BREC's written policies and procedures regarding its fuel***
4 ***procurement.***

5 **b. *If yes:***

6 ***(1) Describe the changes;***

7 ***(2) Provide the written policies and procedures as changed;***

8 ***(3) State the date(s) the changes were made; and***

9 ***(4) Explain why the changes were made.***

10 **c. *If no, provide the date BREC's current fuel procurement policies and***
11 ***procedures were last changed, provide the date when they were last***
12 ***provided to the Commission, and identify the proceeding in which***
13 ***they were provided.***

14

15

BIG RIVERS ELECTRIC CORPORATION

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1 **Response)**

2 a. Yes, during the period under review, *i.e.*, November 1, 2020, through April
3 30, 2021, Big Rivers made changes to Policy No. 105 – Energy–Related
4 Transaction Authority Policy.

5 b. (1) through (4)

6 Policy No. 105 – Energy–Related Transaction Authority Policy

7 On November 20, 2020, Big Rivers made changes to the Sales and
8 Purchases tables at the beginning of Section 4 - Bilateral Energy, Capacity
9 and Transmission Purchases and Sales Transaction Authority, on page 5 of
10 20. The Chief Executive Officer's ("CEO's") Per Transaction Limits for both
11 Purchases and Sales were clarified to conform with changes in columns
12 headings. As the Big Rivers' capacity position has gotten flatter, Big Rivers'
13 revised this policy to give its CEO the increased authority to make capacity
14 purchases if necessary.

15 A copy of Policy No. 105 is attached to this response along with a
16 redline mark-up thereof showing the changes from the prior version.

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1 c. Big Rivers’ other fuel procurement policies and procedures were not
2 changed during the period under review, *i.e.*, November 1, 2020, through
3 April 30, 2021. In the table on the following page, Big Rivers lists these
4 other written policies and procedures regarding fuel procurement, the date
5 of their last changes, and the proceedings in which Big Rivers provided
6 them to the Commission.

7

Big Rivers Electric Corporation Policies and Procedures for Fuel Procurement				
Number	Name	Date Last Change	Provided In	Date Provided
111	Hedge Policy	2020-08-21	Case No. 2021-00058	2021-03-22
120	Fuel Procurement Policies and Procedures	2020-08-21	Case No. 2021-00058	2021-03-22
121	Solid Fuel Inventory Policy	2019-08-16	Case No. 2020-00009	2020-02-25
122	Energy-Related Transaction Credit Policy	2017-11-17	Case No. 2018-00221	2018-08-24

8

9 **Witness)** Vicky L. Payne

10

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	11/20/2020	

1. Policy Purpose

The purpose of this policy is to define the authority granted by the Big Rivers Electric Corporation (“Big Rivers”) Board of Directors (“Board”) to the President & Chief Executive Officer (“CEO”) to execute, or to delegate authority to execute energy-related transactions. Furthermore, it sets forth clarity and empowerment among those with transaction authority and is designed to encourage communication among individuals with transaction authority and the Board.

2. Objective

The objective of Big Rivers’ Energy Related Transaction Authority Policy is to define:

- Who has authority to execute transactions,
- The commodities and products that can be transacted,
- The authorized lead-time and term for each transaction,
- The authorized maximum price and volume,
- Counterparty contract and credit requirements,
- The process for approving new commodities, products or locations,
- Big Rivers’ intention regarding hedging and speculating,
- Other relevant factors associated with due diligence in authorizing transactions to be executed.

3. Procedural Requirements

The following defines the procedural requirements that apply to all commodities and products transacted pursuant to this policy.

Execution Authority

Execution Authority is outlined by commodity in the authority matrix sections found below. All column limits in these matrices are applied independently of one another for each authority level, in that no individual column limit may be exceeded without authorization, regardless of whether a transaction does not exceed another column limit for that same authority level. Limits for each level of authority are cumulative, and include all column limits up to and including that level. The authority granted in this policy should not violate any other policy limits.

The transaction limits apply to both purchases and sales.

This policy identifies Board-authorized levels for the CEO and explicitly gives the CEO the authority to delegate authority levels to Big Rivers’ staff and ACES Power Marketing (“ACES”). The CEO has the authority to modify delegated authority levels (noted in Appendix A) at his sole discretion as long as the delegated authority does not exceed his own authority per this policy.

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	11/20/2020	

Contract Requirements

Transactions with counterparties shall only be permitted if Big Rivers has either:

- An active, valid, and executed agreement enabling such transaction activity with that counterparty,
- Long-form confirmations may be used as a valid agreement in lieu of a permanent agreement, when necessary if approved in writing by the Big Rivers CEO.

Credit Requirements

Credit limits for each counterparty shall not be intentionally exceeded. *(Note: Since credit exposures are a function of not only positions transacted, but also a function of market pricing and volatility, credit exposure to counterparty may unintentionally exceed a credit limit purely due to changes in the forward market.)*

Entering into unsecured transactions with a counterparty that has total credit exposure greater than or equal to its open line of credit and the total of any security currently provided will not be allowed unless approved in writing by the Big Rivers CEO.

Credit Sleeving

All sleeving transactions for credit purposes shall be approved by the CEO. *(Note: Sleeving is an arrangement where a more financially reputable entity acts as middleman for a smaller, undercapitalized entity in the purchase or sale of power.)*

Contract Sleeving

This policy does not prohibit Big Rivers from being positioned between another member or customer of ACES and an external counterparty in order to bridge a contract gap that exists. The sleeve must:

- Be only for physical power, transmission or natural gas, not transportation,
- Be only for terms of one month or less.

Contract sleeving on behalf of Big Rivers is approved when it is either the only or the most economical path to pursue at the discretion of ACES, with prompt after-the-fact notice to the Big Rivers CEO.

Transaction Communications

All communications for bilateral electric power transactions must be transacted via a recorded communication method. Examples include, but are not limited to, voice recorded communication, instant messaging, email or via an online broker account. Recorded communications must be maintained and controlled by personnel who are independent of the transaction function.

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	11/20/2020	

Deal Capture

Power transactions executed by a Big Rivers employee must be promptly forwarded to ACES after the deal execution.

Speculation

Speculation refers to a purchase or sale transaction in which the intent was to realize a profit without an underlying long or short generation position. No speculative transaction activities shall be permitted, and no speculative transaction positions shall be initiated. Transactions will be permitted only for purposes of hedging and portfolio optimization.

Non-Standard Products

The Board must pre-approve any transaction that involves commodities or products not listed in this policy.

Transactions Requiring Board Approval

Transactions which meet any of the following criteria must be pre-approved by the Board prior to execution:

- The transaction is a new commodity or within the list of commodities not previously transacted by Big Rivers,
- The transaction is at a location in which no transactions are permitted,
- The transaction is for something other than: physical spot or forward electricity, natural gas, fuel oil, solid fuel, ancillary services, capacity, power transmission, financial transmission rights, gas transportation, gas imbalance and storage, solid fuel transportation, exchange transacted energy products, over-the-counter (OTC) financial energy transactions, OTC energy options, federal SO₂ or NO_x emission allowances, renewable energy credits or a unit outage insurance product.

Examples of new instruments would include the use of derivatives with different risk characteristics or the use of derivatives to implement different business strategies or goals. New instruments or locations would also include those instruments or locations that may be transacted on a “one-off” basis, which would be implementation of a derivative instrument or entry into a commodity market that, despite the anticipation of being transacted just once, would still fit the definition of a new instrument or location.

The purpose of defining a process for such transactions as noted above is to ensure that the exposures associated with them are thoroughly reviewed and understood by the Board and appropriate transaction controls are in place. The Board must approve the use of such transactions prior to execution using the process defined below:

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	11/20/2020	

- a) Transaction Proposal - The proposal is the responsibility of the person or business group proposing the transaction. The proposal should address the business need, risks, transaction controls, valuation methodology, accounting methodology, operations workflow/ methodology, and assessment of legal and regulatory issues.

- b) Board Review - The Board will perform a review of the benefits and risks of the proposed transaction. The Board will assess the proposed transaction and make a determination whether to add the proposed transaction to the approved list.

- c) Approval (Pilot Program) – The Board may approve limited use of the proposed transaction to ensure that proper controls are in place to monitor the activity. The Board may approve the proposed transaction without instituting a Pilot Program if the proposed transaction is going to be used once (one off), where it would not be prudent to test it in a shorter time frame or smaller quantity due to constraints such as liquidity or length of term of product. The Board will use more scrutiny in approval of one-off transactions.

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	11/20/2020	

4. Bilateral Energy, Capacity and Transmission Purchases and Sales Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for energy, capacity and transmission transactions.

Purchases		Per Transaction Limits (up to)				Aggregate Limits (up to)	
Title	Product	Term	Lead Time	MW Size	Max. \$	Total Volume	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
CEO	Energy	≤ 2 Years	≤ 3 Years	≤ 400	≤ \$150/MWh	7,008,000 MWh	\$350.4 million
	Capacity	≤ 3 Years	≤ 4 Years	≤ 100	≤ \$6/kW-Mo	1200 MW-Year	\$86.4 million
	Transmission	≤ 2 Years	≤ 3 Years	≤ 100	Tariff	200 MW-Year	Tariff

Sales		Per Transaction Limits (up to)				Aggregate Limits (up to)	
Title	Product	Term	Lead Time	MW Size	Min. \$	Total Volume	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
CEO	Energy	≤ 2 Years	≤ 3 Years	≤ 400	No Limit	11,100,000 MWh	No Limit
	Capacity	≤ 2 Years	≤ 3 Years	≤ 500	No Limit	1500 MW-Year	No Limit
	Transmission	≤ 2 Years	≤ 3 Years	≤ 100*	No Limit	300 MW-Year	No Limit

*Lesser of 100 MW or rights to transmission capacity owned by Big Rivers.

Energy, Capacity and Transmission Authority Matrix Explanations

- Transaction limits represent the MW volume per hour and dollars/MWH for each transaction executed.
- Aggregate Limits represent the sum total MWH volume and dollars for all physical and financial forward transactions, excluding options.
- Lead time represents the time period from the date the transaction is executed to the start of the transaction.

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	11/20/2020	

- Authorized products include energy both forwards and options, transmission and capacity, including both physical and financial derivatives. Options may only be entered into by the Big Rivers CEO or his designee.
- Authority for PJM and MISO products is defined in the authority matrices below.

Delivery Locations

Transactions at delivery locations outside the eastern interconnect are not permitted, unless approved by the CEO. Transaction at delivery locations that are normal to the daily course of business for Big Rivers, to the extent transmission is available, are authorized as follows:

Unrestricted Delivery Locations

- SERC Reliability Region
- MISO
- PJM
- RFC Reliability Region
- SPP

Transaction at any other delivery locations within the eastern interconnection shall be restricted as follows:

Restricted Delivery Locations

Other eastern interconnection locations only with approval by the Big Rivers CEO.

Firmness of Energy

The product firmness of all transactions must be provided for in an executed agreement between Big Rivers and the appropriate counterparty. Sales commitments must never be more firm than the supply source, including the purchase side of back-to-back sales, swaps, sleeves or spreads unless the Big Rivers CEO gives explicit written authority to sell power that is more firm than the supply source. Energy purchased as firm liquidated damages may be resold as such.

Transmission Firmness and Volume

Transmission purchases need to be of equal firmness and volume to the energy component that such transmission purchase is associated with, unless pre-approved otherwise by the Big Rivers CEO. (Note: Purchasing small percentages of additional transmission to cover transmission losses is permitted.) In addition, transmission may be reserved but not utilized if an energy schedule is not confirmed prior to scheduling deadlines outside of Big Rivers' or ACES's control. When this occurs it is not considered a violation of this policy.

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5. MISO Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for MISO products.

		MISO Per Transaction Limits (up to)			
Title	Product	Delivery Lead Time	Term	MW Size	\$/MWh
Board	All MISO Products	No Limit	No Limit	No Max	No Max
CEO	Generation Awards	As Required by MISO	1 Operating Day	No Max	MISO Price Cap
	Demand Awards				
	Ancillary Service Awards				
	Capacity	≤ 3 Years	≤ 3 Years	500	
	Financial Transmission Rights	≤ 4 Years	≤ 4 Years	425	\$20
	Virtual Transaction Awards Imports/Exports	As Required by MISO	1 Operating Day	No Max	MISO Price Cap

MISO Authority Matrix Explanations

- Virtual transaction award limits are per each bid/offer nodal point. Virtual purchase awards and virtual sales awards are monitored separately.
- Imports and exports are per location and are monitored separately.
- Generation Award Limits are per generating unit.
- Demand Award Limits are per each load nodal point.
- Limits for Ancillary Service Awards apply to the Regulation and Operating (Spinning and Supplemental) Reserve Market only.
- Capacity limits apply to capacity transacted via the MISO Capacity Auction for each generating unit and excludes the capacity required for Big Rivers' native load.
- Only Financial Transmission Rights that are bought and sold via the annual and monthly auctions or in the secondary market are monitored per the limits above. Participation in the Annual Allocation of financial transmission rights is not considered a transaction subject to this Policy.
- Delivery lead time represents the time period between trade execution and start of flow.

Note that all MISO day-ahead transactions, such as price-sensitive offers and bids for importing and exporting from MISO, are financially firm. Hence an exception from the firmness of power for adjustments to these day ahead transactions intraday is acceptable due to the fact that these adjustments are hourly and non-firm.

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6. PJM Transaction Authority (Non-Bilateral)

The following outlines transaction limits, definitions, and procedural requirements for PJM products.

		PJM Per Transaction Limits (up to)			
Title	Product	Delivery Lead Time	Term	MW Size	\$/MWh
Board	All PJM Products	No Limit	No Limit	No Max	No Max
CEO	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity	≤ 4 Years	≤ 4 Years	425	\$20
	Financial Transmission Rights				
	Virtual Transaction Awards				
Imports/Exports	As Required by PJM	1 Operating Day	No Max	PJM Price Cap	

PJM Authority Matrix Explanations

- Virtual transaction award limits are per each bid/offer nodal point. Incremental purchase awards and decremental sales awards are monitored separately.
- Imports and exports are per location and are each monitored separately.
- Only financial transmission rights that are bought and sold via the annual and monthly auctions or in the secondary market are monitored per the limits above. Participation in the Annual Allocation of financial transmission rights is not considered a transaction subject to this Policy.

Note that PJM RTO day-ahead transactions, such as price-sensitive offers and bids for importing and exporting from PJM are financially firm. Hence an exception from the firmness of power for adjustments to these day ahead transactions intraday is acceptable due to the fact that these adjustments are hourly and non-firm.

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7. Natural/Synthetic Gas and Transportation Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for natural/synthetic gas (Gas) and transportation transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Physical Volume per Day MMBtu	\$/ MMBtu	Total Physical Volume MMBtu	Total \$
Board	Gas Products	No Limit	No Limit	No Max.	No Max.	No Max.	No Max.
CEO	Physical	> 1 Year ≤ 2 Years	≤ 2 Years	25,000	\$15	1.2 million	\$18 million
		≤ 1 Year		No Max.	No Max.		

Gas Authority Matrix Explanations

- Transaction limits represent the physical MMBtu volume per day and dollars/MMBtu for each transaction executed.
- Aggregate limits represent the total physical MMBtu volume and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.
- The dollar limits are based upon commodity gas only and do not include transportation, however, the term, lead time, and volume limits do apply to transportation.
- Gas products include physical gas, as well as transportation, imbalance and storage. The above authority matrix applies to both exchange transacted and OTC derivative products.

Gas Firmness

The product firmness of all transactions must be provided for in an executed agreement between Big Rivers and the appropriate counterparty. Sales commitments of Gas must never be more firm than the Gas supply source unless pre-approved by the Big Rivers CEO.

Transportation Firmness and Volume

Transportation purchases need to be of equal firmness and volume to the Gas component that such transportation purchase is associated with, unless pre-approved otherwise by the Big Rivers CEO.

Energy Related Transaction Authority Policy				
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Delivery Locations

Gas transactions may only be executed at the following locations:

- Pipelines and hubs that serve Big Rivers' gas powered generation unit(s).

Physical Gas transactions may only be executed at other locations upon approval of the Big Rivers CEO and such transactions must support the hedging needs of Big Rivers.

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
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8. Renewable Energy Credits Trading Authority

The following outlines transaction limits, definitions, and procedural requirements for renewable energy credit transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Total Volume MWh	\$/MWh	Total Volume MWh	Total \$
Board of Directors	Renewable Energy Credits	No Limit	No Limit	No Max.	No Max.	No Max.	No Max.
CEO	Renewable Energy Credits	≤ 3 Years	≤ 4 Years	400,000	\$15	800,000	\$12 Million

Renewable Energy Credits Trading Authority Matrix Explanations

- The authority matrix above addresses authority for Renewable Energy Credits (RECs).
- Transaction Limits represent the total MWh volume and dollars/MWh for each REC transaction executed.
- Aggregate Limits represent the sum total MWh volume and dollars for all forward transactions.
- Term limits only apply to forward transactions, not spot transactions.
- Lead time represents the time period between trade execution and delivery of the RECs. Lead time limits only apply to forward transactions and not to spot transactions.

Energy Related Transaction Authority Policy				
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9. Fuel Oil Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for physical fuel oil transactions.

Fuel oil hedging will be conducted to hedge price risk associated with fuel oil used for plant start-up or to hedge potential fuel oil or diesel fuel price risk contained within solid fuel contracts.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Physical - Volume Gallons	\$/Gallon	Total Physical - Volume Gallons	Total \$
Board	Physical Fuel Oil	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Fuel Oil	> 1 Year	≤ 2 Years	1,000,000	\$6	6,000,000	\$36 million
		≤ 3 Years		No Max	No Max		
		≤ 1 Year					

Fuel Oil Authority Matrix Explanations

- Transaction limits represent the total gallons and dollars/gallon for each transaction executed.
- Aggregate limits represent the sum total gallon volume and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

Energy Related Transaction Authority Policy				
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10. Solid Fuel Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for solid fuel transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/MMBtu	Total Volume Tons	Total \$
Board	Physical Solid Fuel	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Solid Fuel	> 3 Months ≤ 3 Years	≤ 2 Years	2,500,000	\$2.50	4 million	\$240 million
		≤ 3 Months		200,000	\$2.85		

Solid Fuel Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars/MMBtu for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

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11. Transportation Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for transportation transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Barge, Rail or Truck Transportation	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Barge, Rail or Truck Transportation	> 1 Year ≤ 3 Years	≤ 2 Years	3 million	\$25	6 million	\$150 million
		≤ 1 Year		No Max	No Max		

Transportation Authority Matrix Explanations

- Authorized products include barge, rail and truck transportation transactions.
- Per transaction limits represent the total quantity in tons and dollars/ton for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

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12. Emission Allowances Transaction Authority*

The following outlines transaction limits, definitions, and procedural requirements for emissions transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Federal SO ₂ and NO _x Emission Allowances	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Federal SO ₂ Emission Allowances	> 1 Year ≤ 2 Years	≤ 2 Years	5,000	\$500	20,000	\$10 million
		≤ 1 Year		No Max	No Max		
	Federal NO _x Emission Allowances	> 1 Year ≤ 2 Years		2,500	\$2,500	12,500	\$30 million
		≤ 1 Year		No Max	No Max		

Emission Allowance Authority Matrix Explanations

- The authority matrix above represents authority for SO₂ and NO_x emission allowances.
- Per transaction limits represent the total quantity in tons and dollars/ton for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

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Original Effective Date	06/15/2007	Date Last Reviewed	11/20/2020	Approved by BOARD
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13. Limestone Reagent Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for limestone reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Physical Limestone Reagent	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Limestone Reagent	> 3 Months ≤ 3 Years	≤ 2 Years	750,000	\$20	1.50 million	\$30 million
		≤ 3 Months		No Max	No Max		

Limestone Reagent Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

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14. Bulk Lime and Lime Hydrate Reagent Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for bulk lime and lime hydrate reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Physical Lime Reagent	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Lime Reagent	> 3 Months ≤ 3 Years	≤ 2 Years	750,000	\$200	750,000	\$150 million
		≤ 3 Months		No Max	No Max		

Bulk Lime and Lime Hydrate Reagent Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

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15. MATS Reagent Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for MATS reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	MATS Reagent	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	MATS Reagent	> 3 Months ≤ 3 Years	≤ 2 Years	25,000	\$4,000	25,000	\$100 million
		≤ 3 Months		No Max	No Max		

MATS Reagent Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.

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16. Acknowledgements

Clear Authority and Staff and ACES Authority Delegations

Where authority is further downward delegated, it must be approved by written signature of the next authority level up prior to any execution. In no case will the delegation of authority to Big Rivers' staff or ACES exceed that of the Big Rivers CEO.

Violations and Sanctions

Violations of this Authority Policy must not occur. Any person covered by this policy who becomes aware of a violation of the Authority Policy has an affirmative duty to report the violation to their immediate supervisor and to the Director Strategic Planning and Risk Management who in turn shall inform the Big Rivers CEO. However, if it is believed that the Big Rivers CEO is involved, then the Big Rivers Chairman of the Board shall be notified. The responsible party (ies) will be sanctioned according to Big Rivers Risk Management Sanctions Policy (for Big Rivers Employees only, ACES employees are governed by the ACES Power Marketing Trading Sanctions Policy).

Policy Effective

This Transaction Authority Policy is in effect upon the Board's approval and shall remain in effect until a revised policy has been approved by the Board.

Responsibility

It shall be the responsibility of the Board, the CEO, the Big Rivers-IRMC and the ACES-IRMC to ensure compliance with this policy.

Number	Date	Notes	Approved by
		Replaced Risk Management Policy for Power Supply	Board
Original	06/15/2007	Trading Authority Policy w/o matrices	Board
Rev 1	10/16/2009	Name change to Energy Related Transaction Authority Policy with matrices	Board
Rev 2	11/19/2010	MISO Transaction Authority added	Board
Rev 3	12/17/2010	Updated Solid Fuel Transaction Authority	Board
Rev 4	03/18/2011	Added limestone and lime, general cleanup	Board
Rev 5	02/21/2012	Made revisions to account for retirement of Senior VP Energy Services	Board

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Rev 6	02/14/2013	Changed VP Production to Chief Operating Officer. Changed Vice President of Governmental Relations and Enterprise Risk Management to Director Enterprise Risk Management/Strategic Planning. Under MISO, changed Aggregate Planning Resource Credits to Zonal Resource Credits.	
Rev 7	03/21/2014	Add date last reviewed line and correct section 4 to comply with Appendix	Board
Rev 8	08/15/2014	Remove reference to Chief Operating Officer	Board
Rev 9	02/20/2015	Added MATS reagents transaction authority; updated transaction authority for bilateral electric power and transmission and lime reagent; general clean up.	Board
Rev 10	02/23/2016	Made changes to clarify transaction authority for purchases and sales for energy, capacity and transmission. Changes implemented to be inclusive of transportation for items shipped in bulk by barge, rail and truck. Updated transaction authority amounts for various lime and MATS reagents.	Board
Rev 11	12/16/2016	Made changes to clarify language for speculation. Eliminated daily limits for both bilateral energy, capacity and transmission purchases and sales transactions and natural/synthetic gas and transportation transactions.	Board
Rev 12	8/16/2019	Added Renewable Energy Credits trading authority	Board
Rev 13	08/21/2020	Punctuation Changes	Board
Rev 14	11/20/20	Updated capacity purchase transaction trading authority limits and revised units for capacity and transmission transactions	Board



BOARD POLICY

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1. Policy Purpose

The purpose of this policy is to define the authority granted by the Big Rivers Electric Corporation (“Big Rivers”) Board of Directors (“Board”) to the President & Chief Executive Officer (“CEO”) to execute, or to delegate authority to execute energy-related transactions. Furthermore, it sets forth clarity and empowerment among those with transaction authority and is designed to encourage communication among individuals with transaction authority and the Board.

2. Objective

The objective of Big Rivers’ Energy Related Transaction Authority Policy is to define:

- Who has authority to execute transactions,
- The commodities and products that can be transacted,
- The authorized lead-time and term for each transaction,
- The authorized maximum price and volume,
- Counterparty contract and credit requirements,
- The process for approving new commodities, products or locations,
- Big Rivers’ intention regarding hedging and speculating,
- Other relevant factors associated with due diligence in authorizing transactions to be executed.

3. Procedural Requirements

The following defines the procedural requirements that apply to all commodities and products transacted pursuant to this policy.

Execution Authority

Execution Authority is outlined by commodity in the authority matrix sections found below. All column limits in these matrices are applied independently of one another for each authority level, in that no individual column limit may be exceeded without authorization, regardless of whether a transaction does not exceed another column limit for that same authority level. Limits for each level of authority are cumulative, and include all column limits up to and including that level. The authority granted in this policy should not violate any other policy limits.

The transaction limits apply to both purchases and sales.

This policy identifies Board-authorized levels for the CEO and explicitly gives the CEO the authority to delegate authority levels to Big Rivers’ staff and ACES Power Marketing (“ACES”). The CEO has the authority to modify delegated authority levels (noted in Appendix A) at his sole discretion as long as the delegated authority does not exceed his own authority per this policy.



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Contract Requirements

Transactions with counterparties shall only be permitted if Big Rivers has either:

- An active, valid, and executed agreement enabling such transaction activity with that counterparty,
- Long-form confirmations may be used as a valid agreement in lieu of a permanent agreement, when necessary if approved in writing by the Big Rivers CEO.

Credit Requirements

Credit limits for each counterparty shall not be intentionally exceeded. *(Note: Since credit exposures are a function of not only positions transacted, but also a function of market pricing and volatility, credit exposure to counterparty may unintentionally exceed a credit limit purely due to changes in the forward market.)*

Entering into unsecured transactions with a counterparty that has total credit exposure greater than or equal to its open line of credit and the total of any security currently provided will not be allowed unless approved in writing by the Big Rivers CEO.

Credit Slewing

All slewing transactions for credit purposes shall be approved by the CEO. *(Note: Slewing is an arrangement where a more financially reputable entity acts as middleman for a smaller, undercapitalized entity in the purchase or sale of power.)*

Contract Slewing

This policy does not prohibit Big Rivers from being positioned between another member or customer of ACES and an external counterparty in order to bridge a contract gap that exists. The sleeve must:

- Be only for physical power, transmission or natural gas, not transportation,
- Be only for terms of one month or less.

Contract slewing on behalf of Big Rivers is approved when it is either the only or the most economical path to pursue at the discretion of ACES, with prompt after-the-fact notice to the Big Rivers CEO.

Transaction Communications



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All communications for bilateral electric power transactions must be transacted via a recorded communication method. Examples include, but are not limited to, voice recorded communication, instant messaging, email or via an online broker account. Recorded communications must be maintained and controlled by personnel who are independent of the transaction function.

Deal Capture

Power transactions executed by a Big Rivers employee must be promptly forwarded to ACES after the deal execution.

Speculation

Speculation refers to a purchase or sale transaction in which the intent was to realize a profit without an underlying long or short generation position. No speculative transaction activities shall be permitted, and no speculative transaction positions shall be initiated. Transactions will be permitted only for purposes of hedging and portfolio optimization.

Non-Standard Products

The Board must pre-approve any transaction that involves commodities or products not listed in this policy.

Transactions Requiring Board Approval

Transactions which meet any of the following criteria must be pre-approved by the Board prior to execution:

- The transaction is a new commodity or within the list of commodities not previously transacted by Big Rivers,
- The transaction is at a location in which no transactions are permitted,
- The transaction is for something other than: physical spot or forward electricity, natural gas, fuel oil, solid fuel, ancillary services, capacity, power transmission, financial transmission rights, gas transportation, gas imbalance and storage, solid fuel transportation, exchange transacted energy products, over-the-counter (OTC) financial energy transactions, OTC energy options, federal SO2 or NOx emission allowances, renewable energy credits or a unit outage insurance product.

Examples of new instruments would include the use of derivatives with different risk characteristics or the use of derivatives to implement different business strategies or goals. New instruments or locations would also include those instruments or locations that may be transacted on a “one-off” basis, which would be implementation of a derivative instrument or entry into a commodity market that, despite the anticipation of being transacted just once, would still fit the definition of a new instrument or location.



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The purpose of defining a process for such transactions as noted above is to ensure that the exposures associated with them are thoroughly reviewed and understood by the Board and appropriate transaction controls are in place. The Board must approve the use of such transactions prior to execution using the process defined below:

- a) Transaction Proposal - The proposal is the responsibility of the person or business group proposing the transaction. The proposal should address the business need, risks, transaction controls, valuation methodology, accounting methodology, operations workflow/ methodology, and assessment of legal and regulatory issues.
- b) Board Review - The Board will perform a review of the benefits and risks of the proposed transaction. The Board will assess the proposed transaction and make a determination whether to add the proposed transaction to the approved list.
- c) Approval (Pilot Program) – The Board may approve limited use of the proposed transaction to ensure that proper controls are in place to monitor the activity. The Board may approve the proposed transaction without instituting a Pilot Program if the proposed transaction is going to be used once (one off), where it would not be prudent to test it in a shorter time frame or smaller quantity due to constraints such as liquidity or length of term of product. The Board will use more scrutiny in approval of one-off transactions.



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4. Bilateral Energy, Capacity and Transmission Purchases and Sales Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for energy, capacity and transmission transactions.

Purchases		Per Transaction Limits (up to)				Aggregate Limits (up to)	
Title	Product	Term	Lead Time	MW Size	Max. \$	Total Volume	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
CEO	Energy	≤ 2 Years	≤ 3 Years	≤ 400	≤ \$150/MWh	7,008,000 MWh	\$350.4 million
	Capacity	≤ 3 Years	≤ 4 Years	≤ 100	≤ \$6/kW-Mo	1200 MW-Year	\$86.4 million
	Transmission	≤ 2 Years	≤ 3 Years	≤ 100	Tariff	200 MW-Year	Tariff

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Sales		Per Transaction Limits (up to)				Aggregate Limits (up to)	
Title	Product	Term	Lead Time	MW Size	Min. \$	Total Volume	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
CEO	Energy	≤ 2 Years	≤ 3 Years	≤ 400	No Limit	11,100,000 MWh	No Limit
	Capacity	≤ 2 Years	≤ 3 Years	≤ 500	No Limit	1500 MW-Year	No Limit
	Transmission	≤ 2 Years	≤ 3 Years	≤ 100*	No Limit	300 MW-Year	No Limit

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*Lesser of 100 MW or rights to transmission capacity owned by Big Rivers.

Energy, Capacity and Transmission Authority Matrix Explanations

- Transaction limits represent the MW volume per hour and dollars/MWH for each transaction executed.
- Aggregate Limits represent the sum total MWH volume and dollars for all physical and financial forward transactions, excluding options.



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- Lead time represents the time period from the date the transaction is executed to the start of the transaction.
- Authorized products include energy both forwards and options, transmission and capacity, including both physical and financial derivatives. Options may only be entered into by the Big Rivers CEO or his designee.
- Authority for PJM and MISO products is defined in the authority matrices below.

Delivery Locations

Transactions at delivery locations outside the eastern interconnect are not permitted, unless approved by the CEO. Transaction at delivery locations that are normal to the daily course of business for Big Rivers, to the extent transmission is available, are authorized as follows:

Unrestricted Delivery Locations

- SERC Reliability Region
- MISO
- PJM
- RFC Reliability Region
- SPP

Transaction at any other delivery locations within the eastern interconnection shall be restricted as follows:

Restricted Delivery Locations

Other eastern interconnection locations only with approval by the Big Rivers CEO.

Firmness of Energy

The product firmness of all transactions must be provided for in an executed agreement between Big Rivers and the appropriate counterparty. Sales commitments must never be more firm than the supply source, including the purchase side of back-to-back sales, swaps, sleeves or spreads unless the Big Rivers CEO gives explicit written authority to sell power that is more firm than the supply source. Energy purchased as firm liquidated damages may be resold as such.

Transmission Firmness and Volume

Transmission purchases need to be of equal firmness and volume to the energy component that such transmission purchase is associated with, unless pre-approved otherwise by the Big Rivers CEO. (Note: Purchasing small percentages of additional transmission to cover transmission losses is permitted.) In addition, transmission may be reserved but not utilized if an energy schedule is not confirmed prior to



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scheduling deadlines outside of Big Rivers' or ACES's control. When this occurs it is not considered a violation of this policy.



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5. MISO Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for MISO products.

		MISO Per Transaction Limits (up to)			
Title	Product	Delivery Lead Time	Term	MW Size	\$/MWh
Board	All MISO Products	No Limit	No Limit	No Max	No Max
CEO	Generation Awards	As Required by MISO	1 Operating Day	No Max	MISO Price Cap
	Demand Awards				
	Ancillary Service Awards				
	Capacity	≤ 3 Years	≤ 3 Years	500	
	Financial Transmission Rights	≤ 4 Years	≤ 4 Years	425	\$20
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	No Max	MISO Price Cap
Imports/Exports					

MISO Authority Matrix Explanations

- Virtual transaction award limits are per each bid/offer nodal point. Virtual purchase awards and virtual sales awards are monitored separately.
- Imports and exports are per location and are monitored separately.
- Generation Award Limits are per generating unit.
- Demand Award Limits are per each load nodal point.
- Limits for Ancillary Service Awards apply to the Regulation and Operating (Spinning and Supplemental) Reserve Market only.
- Capacity limits apply to capacity transacted via the MISO Capacity Auction for each generating unit and excludes the capacity required for Big Rivers' native load.
- Only Financial Transmission Rights that are bought and sold via the annual and monthly auctions or in the secondary market are monitored per the limits above. Participation in the Annual Allocation of financial transmission rights is not considered a transaction subject to this Policy.
- Delivery lead time represents the time period between trade execution and start of flow.



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Note that all MISO day-ahead transactions, such as price-sensitive offers and bids for importing and exporting from MISO, are financially firm. Hence an exception from the firmness of power for adjustments to these day ahead transactions intraday is acceptable due to the fact that these adjustments are hourly and non-firm.

6. PJM Transaction Authority (Non-Bilateral)

The following outlines transaction limits, definitions, and procedural requirements for PJM products.

		PJM Per Transaction Limits (up to)			
Title	Product	Delivery Lead Time	Term	MW Size	\$/MWh
Board	All PJM Products	No Limit	No Limit	No Max	No Max
CEO	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity	≤ 4 Years	≤ 4 Years	425	\$20
	Financial Transmission Rights	As Required by PJM	1 Operating Day	No Max	PJM Price Cap
	Virtual Transaction Awards				
	Imports/Exports				

PJM Authority Matrix Explanations

- Virtual transaction award limits are per each bid/offer nodal point. Incremental purchase awards and decremental sales awards are monitored separately.
- Imports and exports are per location and are each monitored separately.
- Only financial transmission rights that are bought and sold via the annual and monthly auctions or in the secondary market are monitored per the limits above. Participation in the Annual Allocation of financial transmission rights is not considered a transaction subject to this Policy.

Note that PJM RTO day-ahead transactions, such as price-sensitive offers and bids for importing and exporting from PJM are financially firm. Hence an exception from the firmness of power for adjustments to these day ahead transactions intraday is acceptable due to the fact that these adjustments are hourly and non-firm.



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7. Natural/Synthetic Gas and Transportation Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for natural/synthetic gas (Gas) and transportation transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Physical Volume per Day MMBtu	\$/ MMBtu	Total Physical Volume MMBtu	Total \$
Board	Gas Products	No Limit	No Limit	No Max.	No Max.	No Max.	No Max.
CEO	Physical	> 1 Year ≤ 2 Years	≤ 2 Years	25,000	\$15	1.2 million	\$18 million
		≤ 1 Year		No Max.	No Max.		

Gas Authority Matrix Explanations

- Transaction limits represent the physical MMBtu volume per day and dollars/MMBtu for each transaction executed.
- Aggregate limits represent the total physical MMBtu volume and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.
- The dollar limits are based upon commodity gas only and do not include transportation, however, the term, lead time, and volume limits do apply to transportation.
- Gas products include physical gas, as well as transportation, imbalance and storage. The above authority matrix applies to both exchange transacted and OTC derivative products.

Gas Firmness

The product firmness of all transactions must be provided for in an executed agreement between Big Rivers and the appropriate counterparty. Sales commitments of Gas must never be more firm than the Gas supply source unless pre-approved by the Big Rivers CEO.

Transportation Firmness and Volume



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Transportation purchases need to be of equal firmness and volume to the Gas component that such transportation purchase is associated with, unless pre-approved otherwise by the Big Rivers CEO.

Delivery Locations

Gas transactions may only be executed at the following locations:

- Pipelines and hubs that serve Big Rivers' gas powered generation unit(s).

Physical Gas transactions may only be executed at other locations upon approval of the Big Rivers CEO and such transactions must support the hedging needs of Big Rivers.



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8. Renewable Energy Credits Trading Authority

The following outlines transaction limits, definitions, and procedural requirements for renewable energy credit transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Total Volume MWh	\$/MWh	Total Volume MWh	Total \$
Board of Directors	Renewable Energy Credits	No Limit	No Limit	No Max.	No Max.	No Max.	No Max.
CEO	Renewable Energy Credits	≤ 3 Years	≤ 4 Years	400,000	\$15	800,000	\$12 Million

Renewable Energy Credits Trading Authority Matrix Explanations

- The authority matrix above addresses authority for Renewable Energy Credits (RECs).
- Transaction Limits represent the total MWh volume and dollars/MWh for each REC transaction executed.
- Aggregate Limits represent the sum total MWh volume and dollars for all forward transactions.
- Term limits only apply to forward transactions, not spot transactions.
- Lead time represents the time period between trade execution and delivery of the RECs. Lead time limits only apply to forward transactions and not to spot transactions.



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9. Fuel Oil Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for physical fuel oil transactions.

Fuel oil hedging will be conducted to hedge price risk associated with fuel oil used for plant start-up or to hedge potential fuel oil or diesel fuel price risk contained within solid fuel contracts.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Physical - Volume Gallons	\$/Gallon	Total Physical - Volume Gallons	Total \$
Board	Physical Fuel Oil	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Fuel Oil	> 1 Year	≤ 2 Years	1,000,000	\$6	6,000,000	\$36 million
		≤ 3 Years		No Max	No Max		

Fuel Oil Authority Matrix Explanations

- Transaction limits represent the total gallons and dollars/gallon for each transaction executed.
- Aggregate limits represent the sum total gallon volume and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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10. Solid Fuel Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for solid fuel transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/MMBtu	Total Volume Tons	Total \$
Board	Physical Solid Fuel	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Solid Fuel	> 3 Months	≤ 2 Years	2,500,000	\$2.50	4 million	\$240 million
		≤ 3 Years		200,000	\$2.85		

Solid Fuel Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars/MMBtu for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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11. Transportation Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for transportation transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Barge, Rail or Truck Transportation	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Barge, Rail or Truck Transportation	> 1 Year	≤ 2 Years	3 million	\$25	6 million	\$150 million
		≤ 3 Years		No Max	No Max		

Transportation Authority Matrix Explanations

- Authorized products include barge, rail and truck transportation transactions.
- Per transaction limits represent the total quantity in tons and dollars/ton for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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12. Emission Allowances Transaction Authority*

The following outlines transaction limits, definitions, and procedural requirements for emissions transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Federal SO ₂ and NO _x Emission Allowances	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Federal SO ₂ Emission Allowances	> 1 Year ≤ 2 Years	≤ 2 Years	5,000	\$500	20,000	\$10 million
		≤ 1 Year		No Max	No Max		
	Federal NO _x Emission Allowances	> 1 Year ≤ 2 Years		2,500	\$2,500	12,500	\$30 million
		≤ 1 Year		No Max	No Max		

Emission Allowance Authority Matrix Explanations

- The authority matrix above represents authority for SO₂ and NO_x emission allowances.
- Per transaction limits represent the total quantity in tons and dollars/ton for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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13. Limestone Reagent Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for limestone reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Physical Limestone Reagent	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Limestone Reagent	> 3 Months ≤ 3 Years	≤ 2 Years	750,000	\$20	1.50 million	\$30 million
		≤ 3 Months		No Max	No Max		

Limestone Reagent Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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14. Bulk Lime and Lime Hydrate Reagent Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for bulk lime and lime hydrate reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	Physical Lime Reagent	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	Physical Lime Reagent	> 3 Months	≤ 2 Years	750,000	\$200	750,000	\$150 million
		≤ 3 Years		No Max	No Max		

Bulk Lime and Lime Hydrate Reagent Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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15. MATS Reagent Transaction Authority

The following outlines transaction limits, definitions, and procedural requirements for MATS reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
Board	MATS Reagent	No Limit	No Limit	No Max	No Max	No Max	No Max
CEO	MATS Reagent	> 3 Months	≤ 2 Years	25,000	\$4,000	25,000	\$100 million
		≤ 3 Years		No Max			

MATS Reagent Authority Matrix Explanations

- Authorized products include physical spot and forward transactions and options on physical forwards.
- Per transaction limits represent the total quantity in tons and dollars for each transaction executed.
- Aggregate limits represent the sum total quantity in tons and dollars for all forward transactions.
- Lead time represents the time period from the date a transaction is executed to the start of the transaction.



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16. Acknowledgements

Clear Authority and Staff and ACES Authority Delegations

Where authority is further downward delegated, it must be approved by written signature of the next authority level up prior to any execution. In no case will the delegation of authority to Big Rivers' staff or ACES exceed that of the Big Rivers CEO.

Violations and Sanctions

Violations of this Authority Policy must not occur. Any person covered by this policy who becomes aware of a violation of the Authority Policy has an affirmative duty to report the violation to their immediate supervisor and to the Director Strategic Planning and Risk Management who in turn shall inform the Big Rivers CEO. However, if it is believed that the Big Rivers CEO is involved, then the Big Rivers Chairman of the Board shall be notified. The responsible party (ies) will be sanctioned according to Big Rivers Risk Management Sanctions Policy (for Big Rivers Employees only, ACES employees are governed by the ACES Power Marketing Trading Sanctions Policy).

Policy Effective

This Transaction Authority Policy is in effect upon the Board's approval and shall remain in effect until a revised policy has been approved by the Board.

Responsibility

It shall be the responsibility of the Board, the CEO, the Big Rivers-IRMC and the ACES-IRMC to ensure compliance with this policy.

Number	Date	Notes	Approved by
		Replaced Risk Management Policy for Power Supply	Board
Original	06/15/2007	Trading Authority Policy w/o matrices	Board
Rev 1	10/16/2009	Name change to Energy Related Transaction Authority Policy with matrices	Board
Rev 2	11/19/2010	MISO Transaction Authority added	Board
Rev 3	12/17/2010	Updated Solid Fuel Transaction Authority	Board
Rev 4	03/18/2011	Added limestone and lime, general cleanup	Board



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Rev 5	02/21/2012	Made revisions to account for retirement of Senior VP Energy Services	Board
Rev 6	02/14/2013	Changed VP Production to Chief Operating Officer. Changed Vice President of Governmental Relations and Enterprise Risk Management to Director Enterprise Risk Management/Strategic Planning. Under MISO, changed Aggregate Planning Resource Credits to Zonal Resource Credits.	
Rev 7	03/21/2014	Add date last reviewed line and correct section 4 to comply with Appendix	Board
Rev 8	08/15/2014	Remove reference to Chief Operating Officer	Board
Rev 9	02/20/2015	Added MATS reagents transaction authority; updated transaction authority for bilateral electric power and transmission and lime reagent; general clean up.	Board
Rev 10	02/23/2016	Made changes to clarify transaction authority for purchases and sales for energy, capacity and transmission. Changes implemented to be inclusive of transportation for items shipped in bulk by barge, rail and truck. Updated transaction authority amounts for various lime and MATS reagents.	Board
Rev 11	12/16/2016	Made changes to clarify language for speculation. Eliminated daily limits for both bilateral energy, capacity and transmission purchases and sales transactions and natural/synthetic gas and transportation transactions.	Board
Rev 12	8/16/2019	Added Renewable Energy Credits trading authority	Board
Rev 13	08/21/2020	Punctuation Changes	Board
Rev 14	<u>11/20/20</u>	<u>Updated capacity purchase transaction trading authority limits and revised units for capacity and transmission transactions</u>	<u>Board</u>

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission’s Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 12)** *For the period under review, list all firm power commitments for*
2 *(a) purchases and (b) sales. This list shall identify the electric utility, the*
3 *amount of commitment in megawatts, and the purpose of the commitment*
4 *(i.e., peaking, emergency).*

5

6 **Response)**

7 (a) Purchases:

8 Big Rivers has a contract with Southeastern Power Administration
9 (“SEPA”) to purchase up to 178 MWs of energy. A force majeure, previously
10 in effect due to dam safety issues on SEPA’s Cumberland River System,
11 ceased on January 1, 2020. The lifting of the force majeure raised Big
12 Rivers’ SEPA Cumberland hydropower allocation of dependable capacity
13 from 154 MWs to 178 MWs.

14 Big Rivers has a Grandfathered Transmission Agreement with
15 Associated Electric Cooperative, Inc. (“AECI”) under which Big Rivers may
16 purchase (or sell) [REDACTED]. Big Rivers reimburses AECI at
17 the locational marginal price at the AECI/MISO interface, plus a share of

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1 MISO congestion and losses between the AECI/MISO interface and Big
2 Rivers load. If Big Rivers is the seller, AECI reimburses Big Rivers at the
3 locational marginal price at a Big Rivers generator, plus a share of MISO
4 congestion and losses between the Big Rivers generator and the
5 AECI/MISO interface. Big Rivers uses this agreement for economic energy
6 when AECI market prices are below the cost of purchasing load from MISO.

7 Big Rivers has a Grandfathered Transmission Agreement with
8 Southern Illinois Power Cooperative, Inc. ("SIPC") under which Big Rivers
9 may [REDACTED] during the months of March,
10 April, October, and November. Big Rivers may [REDACTED]
11 [REDACTED]. Big Rivers reimburses SIPC at the locational
12 marginal price at SIPC generator node, plus a share of MISO congestion
13 and losses between the SIPC generator and Big Rivers load. If Big Rivers
14 is the seller, SIPC reimburses Big Rivers at the locational marginal price
15 at a Big Rivers generator, plus a share of MISO congestion and losses
16 between the Big Rivers generator and SIPC load. Big Rivers uses this

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1 agreement for economic energy when SIPC market prices are below the cost
2 of purchasing load from MISO.

3 Additional purchases are shown on the table below. Please note, the
4 purchases listed were made to support firm Off-System Sales and to adjust
5 the amount of sales in selected months. The listed purchases were not
6 passed through Big Rivers' FAC.

7
8

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1 (a) Purchases:

Big Rivers Electric Corporation Power Purchases November 1, 2020 through April 30, 2021			
Date	Electric Utility	MW Commitment	Purpose
Nov – Dec 2020		50 MWs – Off Peak 39,600 Total	Off-System Sales Adjustments
Nov – Dec 2020		50 MWs – Off-Peak 39,600 Total	Off-System Sales Adjustments
Jan – Apr 2021		25 MWs – 7 x 24 72,000 Total	Off-System Sales Adjustments
Jan – Apr 2021		25 MWs – 7 x 24 72,000 Total	Off-System Sales Adjustments
Jan – Apr 2021		50 MWs – 7 x 24 144,000 Total	Off-System Sales Adjustments
Nov – Dec 2020	MISO	50 MWs – Off-Peak 39,600 Total	Purchases for Off-System Sales
Nov – Dec 2020	MISO	50 MWs – Off-Peak 39,600 Total	Purchases for Off-System Sales
Nov 2020	MISO	50 MWs – 7 x 24 36,000 Total	Purchases for Off-System Sales
Nov 2020	MISO	50 MWs – 7 x 24 36,000 Total	Purchases for Off-System Sales
Jan – Feb 2021	MISO	150 MWs – 7 x 24 212,400 Total	Purchases for Off-System Sales
Jan – Feb 2021	MISO	50 MWs – On-Peak 32,000 Total	Purchases for Off-System Sales

2

3

BIG RIVERS ELECTRIC CORPORATION

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1 (a) Purchases: (continued)

Big Rivers Electric Corporation Power Purchases November 1, 2020 through April 30, 2021			
Date	Electric Utility	MW Commitment	Purpose
Jan – Feb 2021	MISO	50 MWs – Off-Peak 38,800 Total	Purchases for Off-System Sales
Mar – Apr 2021	MISO	150 MWs – On-Peak 108,000 Total	Purchases for Off-System Sales
Mar – Apr 2021	MISO	50 MWs – 7 x 24 73,200 Total	Purchases for Off-System Sales

2

3

4

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1 (b) Sales:

2 Big Rivers has a contract to [REDACTED] to the Kentucky
3 Municipal Energy Agency ("KYMEA"). KYMEA uses this as a baseload
4 resource.

5 Big Rivers has a second contract to [REDACTED] to
6 KYMEA. KYMEA uses this agreement for economic energy, when the
7 contract price is below the cost of their other resources.

8 On June 1, 2020, Owensboro Municipal Utilities ("OMU") began
9 taking energy from Big Rivers under a contract in which Big Rivers
10 supplies full requirements service, net of OMU's SEPA allocation of
11 capacity and energy. The price is contractually specified.

12

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission’s Request for Information
dated August 18, 2021**

September 1, 2021

1 (b) Sales (continued) –

Big Rivers Electric Corporation Firm Off-System Sales November 1, 2020 through April 30, 2021			
Date	Electric Utility	MW Commitment	Purpose
Nov - Dec, 2020		50 MWs – Off-Peak 39,600 Total	Off-System Sales
Nov – Dec 2020		50 MWs – Off-Peak 39,600 Total	Off-System Sales
Nov 2020		50 MWs – 7 x 24 36,000 Total	Off-System Sales
Nov 2020		50 MWs – 7 x 24 36,000 Total	Off-System Sales
Nov 2020		50 MWs – Off-Peak 800 Total	Off-System Sales
Dec 2020		50 MWs – Off-Peak 800 Total	Off-System Sales
Nov – Dec 2020	MISO	50 MWs – Off-Peak 39,600 Total	Off-System Sales
Nov – Dec 2020	MISO	50 MWs – Off-Peak 39,600 Total	Off-System Sales
Jan – Feb 2021		150 MWs – 7 x 24 212,400 Total	Off-System Sales
Jan – Feb 2021		50 MWs – On-Peak 32,000 Total	Off-System Sales
Jan – Feb 2021		50 MWs – Off-Peak 38,800 Total	Off-System Sales
Jan – Feb 2021		100 MWs – On-Peak 9,600 Total	Off-System Sales 100 MW Call Option

2

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission’s Request for Information
dated August 18, 2021**

September 1, 2021

1 (b) Sales (continued) –

Big Rivers Electric Corporation Firm Off-System Sales (continued) November 1, 2020 through April 30, 2021			
Date	Electric Utility	MW Commitment	Purpose
Mar – Apr 2021		150 MWs – On-Peak 108,000 Total	Off-System Sales
Mar – Apr 2021		50 MWs – 7 x 24 73,200 Total	Off-System Sales
Feb 2021		50 MWs – On-Peak 4,000 Total	Off-System Sales
Feb 2021		50 MWs – Off-Peak 1,600 Total	Off-System Sales
Feb 2021		50 MWs – Off-Peak 1,600 Total	Off-System Sales
Jan – Apr 2021	MISO	25 MWs – 7 x 24 72,000 Total	Off-System Sales
Jan – Apr 2021	MISO	25 MWs – 7 x 24 72,000 Total	Off-System Sales
Jan – Apr 2021	MISO	50 MWs – 7 x24 144,000 Total	Off-System Sales

2

3

4 **Witness)** Natalie R. Hankins

5

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 13)** *Provide a monthly billing summary of sales to all electric*
2 *utilities for the period under review.*

3

4 **Response)** Please see the attached monthly billing summaries for sales to all
5 electric utilities for the period November 1, 2020, through April 30, 2021.

6

7

8 **Witness)** Jennifer M. Stone

9

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - November 2020**

	KW Billed (a)	kWh (b)	Demand Revenue (c)	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
1 Member Billing November 2020					
2					
3 JP RURALS	98,688	43,706,358	1,362,387.84	\$ 1,966,786.11	\$ 3,329,173.95
4 KENERGY	184,501	79,853,263	2,547,036.31	3,593,396.84	6,140,433.15
5 MEADE CO. RURALS	81,467	34,489,163	1,124,651.94	1,552,012.34	2,676,664.28
6					
7 TOTAL RURALS	364,656	158,048,784	\$ 5,034,076.09	\$ 7,112,195.29	\$ 12,146,271.38
8					
9	4,778	1,794,649	51,196.27	\$ 68,286.39	\$ 119,482.66
10	0	0	-	-	-
11	40,800	17,564,222	437,172.00	668,318.65	1,105,490.65
12	1,907	380,261	20,433.51	14,468.93	34,902.44
13	15,000	10,798,511	160,725.00	410,883.34	571,608.34
14	60	23,711	642.90	902.20	1,545.10
15	1,380	32,639	14,786.70	1,241.91	16,028.61
16	100	19,029	1,071.50	724.05	1,795.55
17	35,640	23,080,750	381,882.60	878,222.54	1,260,105.14
18	0	0	-	-	-
19	3,326	1,444,383	35,638.09	54,958.77	90,596.86
20	0	0	-	-	-
21	250	22,439	2,678.75	853.80	3,532.55
22	7,174	4,178,187	76,869.41	158,980.02	235,849.43
23	12,461	5,948,012	133,519.62	226,321.86	359,841.48
24	2,090	1,174,156	22,394.35	44,676.64	67,070.99
25	3,000	206,484	32,145.00	7,856.72	40,001.72
26	2,760	16,146	29,573.40	614.36	30,187.76
27	800	10,934	8,572.00	416.04	8,988.04
28	7,200	543,344	77,148.00	20,674.24	97,822.24
29					
30 TOTAL INDUSTRIALS	138,726	67,237,857	\$ 1,486,449.10	\$ 2,558,400.46	\$ 4,044,849.56
31					
32 GRAND TOTAL	503,382	225,286,641	\$ 6,520,525.19	\$ 9,670,595.75	\$ 16,191,120.94

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - November 2020**

	Net Green Power (f)	Power Factor Penalty (g)	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	Environmental Surcharge (ES) (j)
1 Member Billing November 2020					
2					
3 JP RURALS	\$ 6.00	\$ -	\$ -	\$ (34,921.38)	\$ 199,763.59
4 KENERGY	-	-	-	(63,802.76)	368,410.62
5 MEADE CO. RURALS	-	-	-	(27,556.84)	160,576.50
6					
7 TOTAL RURALS	\$ 6.00	\$ -	\$ -	\$ (126,280.98)	\$ 728,750.71
8					
9	\$ -	\$ -	\$ -	\$ (1,433.92)	\$ 7,181.22
10	-	-	-	-	-
11	-	-	(118,161.81)	(14,033.81)	59,483.60
12	-	-	-	(303.83)	2,090.22
13	-	-	-	(8,628.01)	34,470.53
14	-	107.15	-	(18.95)	92.89
15	-	-	-	(26.08)	952.51
16	-	-	-	(15.20)	107.50
17	-	-	-	(18,441.52)	75,952.18
18	-	-	-	-	-
19	-	-	-	(1,154.06)	5,449.47
20	-	-	-	-	-
21	-	-	-	(17.93)	210.72
22	-	-	-	(3,338.37)	14,208.31
23	-	-	-	(4,752.46)	21,655.73
24	-	-	-	(938.15)	4,039.83
25	-	-	-	(164.98)	2,383.65
26	-	-	48.00	(12.90)	1,791.56
27	-	-	-	(8.74)	533.74
28	-	-	6,700.68	(434.13)	5,831.09
29					
30 TOTAL INDUSTRIALS	\$ -	\$ 107.15	\$ (111,413.13)	\$ (53,723.04)	\$ 236,434.75
31					
32 GRAND TOTAL	\$ 6.00	\$ 107.15	\$ (111,413.13)	\$ (180,004.02)	\$ 965,185.46

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - November 2020**

1	Member Billing November 2020	Non-FAC PPA (k)	Revenue (l) = \sum (e) to (k)	MRSM - ER Adjustment (m)	Revenue Net of MRSM Adjustments (n) = (l) + (m)
2					
3	JP RURALS	\$ 73,339.27	\$ 3,567,361.43	\$ (149,552.84)	\$ 3,417,808.59
4	KENERGY	133,993.78	6,579,034.79	(273,239.01)	6,305,795.78
5	MEADE CO. RURALS	57,872.82	2,867,556.76	(118,013.77)	2,749,542.99
6					
7	TOTAL RURALS	\$ 265,205.87	\$ 13,013,952.98	\$ (540,805.62)	\$ 12,473,147.36
8					
9		\$ 3,011.42	\$ 128,241.38	\$ (3,790.93)	\$ 124,450.45
10		-	-	-	-
11		29,472.76	1,062,251.39	(37,101.75)	1,025,149.64
12		638.08	37,326.91	(803.25)	36,523.66
13		18,119.90	615,570.76	(22,810.21)	592,760.55
14		39.79	1,765.98	(50.09)	1,715.89
15		54.77	17,009.81	(68.94)	16,940.87
16		31.93	1,919.78	(40.20)	1,879.58
17		38,729.50	1,356,345.30	(48,754.57)	1,307,590.73
18		-	-	-	-
19		2,423.67	97,315.94	(3,051.04)	94,264.90
20		-	-	-	-
21		37.65	3,762.99	(47.39)	3,715.60
22		7,011.00	253,730.37	(8,825.78)	244,904.59
23		9,980.76	386,725.51	(12,564.27)	374,161.24
24		1,970.23	72,142.90	(2,480.23)	69,662.67
25		346.48	42,566.87	(436.16)	42,130.71
26		27.09	32,041.51	(34.10)	32,007.41
27		18.35	9,531.39	(23.09)	9,508.30
28		911.73	110,831.61	(1,147.73)	109,683.88
29					
30	TOTAL INDUSTRIALS	\$ 112,825.11	\$ 4,229,080.40	\$ (142,029.73)	\$ 4,087,050.67
31					
32	GRAND TOTAL	\$ 378,030.98	\$ 17,243,033.38	\$ (682,835.35)	\$ 16,560,198.03

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - December 2020**

	KW Billed (a)	kWh (b)	Demand Revenue (c)	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
1 Member Billing December 2020					
2					
3 JP RURALS	104,733	57,325,303	1,445,839.07	\$ 2,579,638.64	\$ 4,025,477.71
4 KENERGY	214,097	105,929,972	2,955,609.09	4,766,848.74	7,722,457.83
5 MEADE CO. RURALS	106,392	49,747,398	1,468,741.56	2,238,632.91	3,707,374.47
6					
7 TOTAL RURALS	425,222	213,002,673	\$ 5,870,189.72	\$ 9,585,120.29	\$ 15,455,310.01
8					
9	4,725	1,741,406	50,628.38	\$ 66,260.50	\$ 116,888.88
10	0	0	-	-	-
11	40,800	19,300,445	437,172.00	734,381.93	1,171,553.93
12	2,294	511,024	24,580.21	19,444.46	44,024.67
13	15,000	11,143,458	160,725.00	424,008.58	584,733.58
14	60	22,992	642.90	874.85	1,517.75
15	0	0	-	-	-
16	100	27,252	1,071.50	1,036.94	2,108.44
17	34,646	23,770,250	371,231.89	904,458.01	1,275,689.90
18	0	0	-	-	-
19	3,334	1,130,562	35,723.81	43,017.88	78,741.69
20	0	0	-	-	-
21	250	21,839	2,678.75	830.97	3,509.72
22	7,258	4,305,063	77,769.47	163,807.65	241,577.12
23	11,586	6,164,118	124,143.99	234,544.69	358,688.68
24	1,984	1,111,063	21,258.56	42,275.95	63,534.51
25	3,000	296,438	32,145.00	11,279.47	43,424.47
26	2,760	13,049	29,573.40	496.51	30,069.91
27	800	7,022	8,572.00	267.19	8,839.19
28	7,200	764,094	77,148.00	29,073.78	106,221.78
29					
30 TOTAL INDUSTRIALS	135,797	70,330,075	\$ 1,455,064.86	\$ 2,676,059.36	\$ 4,131,124.22
31					
32 GRAND TOTAL	561,019	283,332,748	\$ 7,325,254.58	\$ 12,261,179.65	\$ 19,586,434.23

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - December 2020**

	Net Green Power (f)	Power Factor Penalty (g)	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	Environmental Surcharge (ES) (j)
1	Member Billing December 2020				
2					
3	\$ 6.00	\$ -	\$ -	\$ (116,026.41)	\$ 246,986.19
4	-	-	-	(214,402.26)	473,903.42
5	-	-	-	(100,688.73)	227,533.76
6					
7	\$ 6.00	\$ -	\$ -	\$ (431,117.40)	\$ 948,423.37
8					
9	-	-	-	(3,524.61)	7,170.17
10	-	-	-	-	-
11	-	-	(118,161.81)	(39,064.10)	64,539.94
12	-	-	-	(1,034.31)	2,703.64
13	-	-	-	(22,554.36)	35,816.68
14	-	10.72	-	(46.54)	93.09
15	-	-	-	-	-
16	-	-	-	(55.16)	129.42
17	-	-	-	(48,110.99)	78,151.36
18	-	-	-	-	-
19	-	-	-	(2,288.26)	4,831.06
20	-	-	-	-	-
21	-	-	-	(44.20)	215.94
22	-	-	-	(8,713.45)	14,803.69
23	-	-	-	(12,476.17)	21,985.08
24	-	-	-	(2,248.79)	3,893.81
25	-	-	-	(599.99)	2,671.21
26	-	-	24.00	(26.41)	1,853.82
27	-	-	-	(14.21)	544.87
28	-	-	2,548.44	(1,546.53)	6,533.29
29					
30	\$ -	\$ 10.72	\$ (115,589.37)	\$ (142,348.08)	\$ 245,937.07
31					
32	\$ 6.00	\$ 10.72	\$ (115,589.37)	\$ (573,465.48)	\$ 1,194,360.44

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - December 2020**

1	Member Billing December 2020	Non-FAC PPA (k)	Revenue (l) = \sum (e) to (k)	MRSM - ER Adjustment (m)	Revenue Net of MRSM Adjustments (n) = (l) + (m)
2					
3	JP RURALS	\$ 96,191.86	\$ 4,252,635.35	\$ (142,014.60)	\$ 4,110,620.75
4	KENERGY	177,750.49	8,159,709.48	(262,425.16)	7,897,284.32
5	MEADE CO. RURALS	83,476.13	3,917,695.63	(123,241.50)	3,794,454.13
6					
7	TOTAL RURALS	\$ 357,418.48	\$ 16,330,040.46	\$ (527,681.26)	\$ 15,802,359.20
8					
9		\$ 2,922.08	\$ 123,456.52	\$ (3,431.38)	\$ 120,025.14
10		-	-	-	-
11		32,386.15	1,111,254.11	(38,030.84)	1,073,223.27
12		857.50	46,551.50	(1,006.96)	45,544.54
13		18,698.72	616,694.62	(21,957.79)	594,736.83
14		38.58	1,613.60	(45.30)	1,568.30
15		-	-	-	-
16		45.73	2,228.43	(53.70)	2,174.73
17		39,886.48	1,345,616.75	(46,838.44)	1,298,778.31
18		-	-	-	-
19		1,897.08	83,181.57	(2,227.74)	80,953.83
20		-	-	-	-
21		36.65	3,718.11	(43.03)	3,675.08
22		7,223.90	254,891.26	(8,482.97)	246,408.29
23		10,343.39	378,540.98	(12,146.18)	366,394.80
24		1,864.36	67,043.89	(2,189.31)	64,854.58
25		497.42	45,993.11	(584.12)	45,408.99
26		21.90	31,943.22	(25.71)	31,917.51
27		11.78	9,381.63	(13.83)	9,367.80
28		1,282.15	115,039.13	(1,505.61)	113,533.52
29					
30	TOTAL INDUSTRIALS	\$ 118,013.87	\$ 4,237,148.43	\$ (138,582.91)	\$ 4,098,565.52
31					
32	GRAND TOTAL	\$ 475,432.35	\$ 20,567,188.89	\$ (666,264.17)	\$ 19,900,924.72

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Sales to Members - January 2021**

	KW Billed (a)	kWh (b)	Demand Revenue (c)	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
1	Member Billing January 2021				
2					
3	102,217	59,482,225	1,411,105.69	\$ 2,676,700.13	\$ 4,087,805.82
4	197,877	108,834,603	2,731,691.99	4,897,557.14	7,629,249.13
5	104,659	52,311,616	1,444,817.50	2,354,022.72	3,798,840.22
6					
7	404,753	220,628,444	\$ 5,587,615.18	\$ 9,928,279.99	\$ 15,515,895.17
8					
9	4,725	1,986,282	50,628.38	\$ 75,578.03	\$ 126,206.41
10	0	0	-	-	-
11	40,800	19,862,454	437,172.00	755,766.37	1,192,938.37
12	2,246	616,190	24,065.89	23,446.03	47,511.92
13	15,000	11,143,140	160,725.00	423,996.48	584,721.48
14	60	25,879	642.90	984.70	1,627.60
15	0	0	-	-	-
16	100	27,867	1,071.50	1,060.34	2,131.84
17	34,949	23,582,250	374,478.54	897,304.61	1,271,783.15
18	0	0	-	-	-
19	3,296	1,406,133	35,316.64	53,503.36	88,820.00
20	0	0	-	-	-
21	230	21,355	2,464.45	812.56	3,277.01
22	7,363	4,370,687	78,894.55	166,304.64	245,199.19
23	11,489	6,259,053	123,104.64	238,156.97	361,261.61
24	2,026	1,141,734	21,708.59	43,442.98	65,151.57
25	3,000	266,687	32,145.00	10,147.44	42,292.44
26	2,760	12,973	29,573.40	493.62	30,067.02
27	800	36,516	8,572.00	1,389.43	9,961.43
28	7,200	750,406	77,148.00	28,552.95	105,700.95
29					
30	136,044	71,509,606	\$ 1,457,711.48	\$ 2,720,940.51	\$ 4,178,651.99
31					
32	540,797	292,138,050	\$ 7,045,326.66	\$ 12,649,220.50	\$ 19,694,547.16

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - January 2021**

	Net Green Power (f)	Power Factor Penalty (g)	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	Environmental Surcharge (ES) (j)
1 Member Billing January 2021					
2					
3 JP RURALS	\$ 6.00	\$ -	\$ -	\$ (78,516.54)	\$ 356,988.00
4 KENERGY	-	-	-	(143,661.68)	666,194.39
5 MEADE CO. RURALS	-	-	-	(69,051.33)	331,660.40
6					
7 TOTAL RURALS	\$ 6.00	\$ -	\$ -	\$ (291,229.55)	\$ 1,354,842.79
8					
9	\$ -	\$ -	\$ -	\$ (2,621.89)	\$ 11,026.26
10	-	-	-	-	-
11	-	-	(118,161.81)	(26,218.44)	93,991.57
12	-	-	-	(813.37)	4,146.88
13	-	-	-	(14,708.94)	51,145.66
14	-	85.72	-	(34.16)	142.21
15	-	-	-	-	-
16	-	-	-	(36.78)	186.08
17	-	-	-	(31,128.57)	111,222.68
18	-	-	-	-	-
19	-	-	-	(1,856.10)	7,760.18
20	-	-	-	-	-
21	-	-	-	(28.19)	285.36
22	-	-	-	(5,769.31)	21,438.21
23	-	-	-	(8,261.95)	31,580.14
24	-	-	-	(1,507.09)	5,695.71
25	-	-	-	(352.03)	3,682.55
26	-	-	24.00	(17.12)	2,612.55
27	-	-	-	(48.20)	866.56
28	-	-	2,692.69	(990.54)	9,206.36
29					
30 TOTAL INDUSTRIALS	\$ -	\$ 85.72	\$ (115,445.12)	\$ (94,392.68)	\$ 354,988.96
31					
32 GRAND TOTAL	\$ 6.00	\$ 85.72	\$ (115,445.12)	\$ (385,622.23)	\$ 1,709,831.75

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - January 2021**

1	Member Billing January 2021	Non-FAC PPA (k)	Revenue (l) = \sum (e) to (k)	MRSM - ER Adjustment (m)	Revenue Net of MRSM Adjustments (n) = (l) + (m)
2					
3	JP RURALS	\$ 99,811.17	\$ 4,466,094.45	\$ (235,842.29)	\$ 4,230,252.16
4	KENERGY	182,624.46	8,334,406.30	(431,520.52)	7,902,885.78
5	MEADE CO. RURALS	87,778.89	4,149,228.18	(207,411.39)	3,941,816.79
6					
7	TOTAL RURALS	\$ 370,214.52	\$ 16,949,728.93	\$ (874,774.20)	\$ 16,074,954.73
8					
9		\$ 3,332.98	\$ 137,943.76	\$ (7,046.20)	\$ 130,897.56
10		-	-	-	-
11		33,329.20	1,175,878.89	(53,137.46)	1,122,741.43
12		1,033.97	51,879.40	(2,185.89)	49,693.51
13		18,698.19	639,856.39	(39,529.49)	600,326.90
14		43.42	1,864.79	(91.80)	1,772.99
15		-	-	-	-
16		46.76	2,327.90	(98.86)	2,229.04
17		39,571.02	1,391,448.28	(83,656.34)	1,307,791.94
18		-	-	-	-
19		2,359.49	97,083.57	(4,988.16)	92,095.41
20		-	-	-	-
21		35.83	3,570.01	(75.75)	3,494.26
22		7,334.01	268,202.10	(15,504.69)	252,697.41
23		10,502.69	395,082.49	(22,203.54)	372,878.95
24		1,915.83	71,256.02	(4,050.22)	67,205.80
25		447.50	46,070.46	(946.05)	45,124.41
26		21.77	32,708.22	(46.02)	32,662.20
27		61.27	10,841.06	(129.53)	10,711.53
28		1,259.18	117,868.64	(2,662.00)	115,206.64
29					
30	TOTAL INDUSTRIALS	\$ 119,993.11	\$ 4,443,881.98	\$ (236,352.00)	\$ 4,207,529.98
31					
32	GRAND TOTAL	\$ 490,207.63	\$ 21,393,610.91	\$ (1,111,126.20)	\$ 20,282,484.71

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - February 2021**

	KW Billed (a)	kWh (b)	Demand Revenue (c)	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
1 Member Billing February 2021					
2					
3 JP RURALS	143,339	61,715,699	1,978,794.90	\$ 2,777,206.46	\$ 4,756,001.36
4 KENERGY	245,290	111,272,430	3,386,228.45	5,007,259.35	8,393,487.80
5 MEADE CO. RURALS	105,374	52,260,891	1,454,688.07	2,351,740.10	3,806,428.17
6					
7 TOTAL RURALS	494,003	225,249,020	\$ 6,819,711.42	\$ 10,136,205.91	\$ 16,955,917.33
8					
9	4,589	1,737,343	49,171.14	\$ 66,105.90	\$ 115,277.04
10	0	0	-	-	-
11	40,800	18,695,578	437,172.00	711,366.74	1,148,538.74
12	2,350	618,875	25,180.25	23,548.19	48,728.44
13	15,000	10,053,668	160,725.00	382,542.07	543,267.07
14	60	27,441	642.90	1,044.13	1,687.03
15	0	0	-	-	-
16	100	27,590	1,071.50	1,049.80	2,121.30
17	34,301	20,349,000	367,535.22	774,279.45	1,141,814.67
18	3,644	1,454,218	39,045.46	55,332.99	94,378.45
19	100	37,020	1,071.50	1,408.61	2,480.11
20	7,091	4,067,375	75,980.07	154,763.62	230,743.69
21	11,197	5,406,228	119,975.86	205,706.98	325,682.84
22	2,304	975,125	24,687.36	37,103.51	61,790.87
23	3,000	295,438	32,145.00	11,241.42	43,386.42
24	2,760	11,661	29,573.40	443.70	30,017.10
25	800	21,553	8,572.00	820.09	9,392.09
26	7,200	665,469	77,148.00	25,321.10	102,469.10
27					
28 TOTAL INDUSTRIALS	135,296	64,443,582	\$ 1,449,696.66	\$ 2,452,078.30	\$ 3,901,774.96
29					
30 GRAND TOTAL	629,299	289,692,602	\$ 8,269,408.08	\$ 12,588,284.21	\$ 20,857,692.29

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - February 2021**

	Net Green Power (f)	Power Factor Penalty (g)	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	Environmental Surcharge (ES) (j)
1	Member Billing February 2021				
2					
3	\$ 6.00	\$ -	\$ -	\$ (32,585.89)	\$ 276,295.48
4	-	-	-	(58,751.84)	487,766.92
5	-	-	-	(27,593.75)	221,319.65
6					
7	\$ 6.00	\$ -	\$ -	\$ (118,931.48)	\$ 985,382.05
8					
9	-	-	-	(917.32)	6,712.81
10	-	-	-	-	-
11	-	-	(118,161.81)	(9,871.27)	60,209.31
12	-	-	-	(326.77)	2,829.95
13	-	-	-	(5,308.34)	31,758.34
14	-	257.16	-	(14.49)	98.37
15	-	-	-	-	-
16	-	-	-	(14.57)	123.24
17	-	-	-	(10,744.27)	66,696.84
18	-	-	-	(767.83)	5,497.94
19	-	-	-	(19.55)	144.40
20	-	-	-	(2,147.57)	13,475.48
21	-	-	-	(2,854.49)	18,997.92
22	-	-	-	(514.87)	3,601.09
23	-	-	-	(155.99)	2,502.88
24	-	-	24.00	(6.16)	1,718.94
25	-	-	144.00	(11.38)	539.02
26	-	-	2,951.57	(351.37)	5,909.13
27					
28	\$ -	\$ 257.16	\$ (115,042.24)	\$ (34,026.24)	\$ 220,815.66
29					
30	\$ 6.00	\$ 257.16	\$ (115,042.24)	\$ (152,957.72)	\$ 1,206,197.71

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - February 2021**

1	Member Billing February 2021	Non-FAC PPA (k)	Revenue (l) = \sum (e) to (k)	MRSM - ER Adjustment (m)	Revenue Net of MRSM Adjustments (n) = (l) + (m)
2					
3	JP RURALS	\$ 103,558.94	\$ 5,103,275.89	\$ (239,678.29)	\$ 4,863,597.60
4	KENERGY	186,715.14	9,009,218.02	(432,136.18)	8,577,081.84
5	MEADE CO. RURALS	87,693.78	4,087,847.85	(202,959.73)	3,884,888.12
6					
7	TOTAL RURALS	\$ 377,967.86	\$ 18,200,341.76	\$ (874,774.20)	\$ 17,325,567.56
8					
9		\$ 2,915.26	\$ 123,987.79	\$ (6,909.77)	\$ 117,078.02
10		-	-	-	-
11		31,371.18	1,112,086.15	(54,402.94)	1,057,683.21
12		1,038.47	52,270.09	(2,461.40)	49,808.69
13		16,870.05	586,587.12	(39,985.47)	546,601.65
14		46.05	2,074.12	(109.14)	1,964.98
15		-	-	-	-
16		46.30	2,276.27	(109.73)	2,166.54
17		34,145.62	1,231,912.86	(80,932.09)	1,150,980.77
18		2,440.18	101,548.74	(5,783.72)	95,765.02
19		62.12	2,667.08	(147.24)	2,519.84
20		6,825.06	248,896.66	(16,176.77)	232,719.89
21		9,071.65	350,897.92	(21,501.66)	329,396.26
22		1,636.26	66,513.35	(3,878.27)	62,635.08
23		495.74	46,229.05	(1,175.01)	45,054.04
24		19.57	31,773.45	(46.37)	31,727.08
25		36.17	10,099.90	(85.72)	10,014.18
26		1,116.66	112,095.09	(2,646.70)	109,448.39
27					
28	TOTAL INDUSTRIALS	\$ 108,136.34	\$ 4,081,915.64	\$ (236,352.00)	\$ 3,845,563.64
29					
30	GRAND TOTAL	\$ 486,104.20	\$ 22,282,257.40	\$ (1,111,126.20)	\$ 21,171,131.20

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - March 2021**

1	Member Billing March 2021	KW Billed (a)	kWh (b)	Demand Revenue (c)	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
2						
3	JP RURALS	92,115	43,750,547	1,271,647.58	\$ 1,968,774.62	\$ 3,240,422.20
4	KENERGY	169,950	79,068,178	2,346,159.75	3,558,068.01	5,904,227.76
5	MEADE CO. RURALS	85,034	34,913,756	1,173,894.37	1,571,119.02	2,745,013.39
6						
7	TOTAL RURALS	347,099	157,732,481	\$ 4,791,701.70	\$ 7,097,961.65	\$ 11,889,663.35
8						
9		4,680	2,316,657	50,146.20	\$ 88,148.80	\$ 138,295.00
10		0	0	-	-	-
11		40,800	18,624,648	437,172.00	708,667.86	1,145,839.86
12		2,128	654,351	22,801.52	24,898.06	47,699.58
13		15,000	11,141,903	160,725.00	423,949.41	584,674.41
14		69	34,133	739.34	1,298.76	2,038.10
15		0	0	-	-	-
16		100	23,697	1,071.50	901.67	1,973.17
17		33,610	22,024,398	360,131.15	838,028.34	1,198,159.49
18		3,447	1,756,266	36,934.61	66,825.92	103,760.53
19		100	49,462	1,071.50	1,882.03	2,953.53
20		7,333	4,390,875	78,573.10	167,072.79	245,645.89
21		11,871	6,823,145	127,197.77	259,620.67	386,818.44
22		2,326	1,181,797	24,923.09	44,967.38	69,890.47
23		3,000	206,219	32,145.00	7,846.63	39,991.63
24		2,760	13,791	29,573.40	524.75	30,098.15
25		800	14,061	8,572.00	535.02	9,107.02
26		7,200	565,562	77,148.00	21,519.63	98,667.63
27						
28	TOTAL INDUSTRIALS	135,224	69,820,965	\$ 1,448,925.18	\$ 2,656,687.72	\$ 4,105,612.90
29						
30	GRAND TOTAL	482,323	227,553,446	\$ 6,240,626.88	\$ 9,754,649.37	\$ 15,995,276.25

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - March 2021**

1	Member Billing March 2021	Net Green Power (f)	Power Factor Penalty (g)	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	Environmental Surcharge (ES) (j)
2						
3	JP RURALS	\$ 6.00	\$ -	\$ -	\$ (301,222.52)	\$ 261,814.64
4	KENERGY	-	-	-	(544,384.41)	477,333.80
5	MEADE CO. RURALS	-	-	-	(240,381.21)	222,759.39
6						
7	TOTAL RURALS	\$ 6.00	\$ -	\$ -	\$ (1,085,988.14)	\$ 961,907.83
8						
9		\$ -	\$ -	\$ -	\$ (15,950.18)	\$ 10,970.35
10		-	-	-	-	-
11		-	-	(118,161.81)	(128,230.70)	80,883.52
12		-	-	-	(4,505.21)	3,849.28
13		-	-	-	(76,712.00)	45,769.87
14		-	428.60	-	(235.01)	161.68
15		-	-	-	-	-
16		-	-	-	(163.15)	160.76
17		-	-	-	(151,637.98)	94,160.95
18		-	-	-	(12,091.89)	8,222.68
19		-	-	-	(340.55)	234.30
20		-	-	-	(30,231.17)	19,361.18
21		-	-	-	(46,977.35)	30,529.29
22		-	-	-	(8,136.67)	5,539.13
23		-	-	-	(1,419.82)	3,382.20
24		-	-	24.00	(94.95)	2,609.47
25		-	-	24.00	(96.81)	785.09
26		-	-	2,140.65	(3,893.89)	8,318.90
27						
28	TOTAL INDUSTRIALS	\$ -	\$ 428.60	\$ (115,973.16)	\$ (480,717.33)	\$ 314,938.65
29						
30	GRAND TOTAL	\$ 6.00	\$ 428.60	\$ (115,973.16)	\$ (1,566,705.47)	\$ 1,276,846.48

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - March 2021**

1	Member Billing March 2021	Non-FAC PPA (k)	Revenue (l) = \sum (e) to (k)	MRSM - ER Adjustment (m)	Revenue Net of MRSM Adjustments (n) = (l) + (m)
2					
3	JP RURALS	\$ 73,413.42	\$ 3,274,433.74	\$ (242,637.73)	\$ 3,031,796.01
4	KENERGY	132,676.40	5,969,853.55	(438,507.02)	5,531,346.53
5	MEADE CO. RURALS	58,585.28	2,785,976.85	(193,629.45)	2,592,347.40
6					
7	TOTAL RURALS	\$ 264,675.10	\$ 12,030,264.14	\$ (874,774.20)	\$ 11,155,489.94
8					
9		\$ 3,887.35	\$ 137,202.52	\$ (8,532.21)	\$ 128,670.31
10		-	-	-	-
11		31,252.16	1,011,583.03	(47,796.81)	963,786.22
12		1,098.00	48,141.65	(2,409.97)	45,731.68
13		18,696.11	572,428.39	(41,035.45)	531,392.94
14		57.28	2,450.65	(125.71)	2,324.94
15		-	-	-	-
16		39.76	2,010.54	(87.28)	1,923.26
17		36,956.94	1,177,639.40	(81,115.50)	1,096,523.90
18		2,947.01	102,838.33	(6,468.30)	96,370.03
19		83.00	2,930.28	(182.16)	2,748.12
20		7,367.89	242,143.79	(16,171.52)	225,972.27
21		11,449.24	381,819.62	(25,129.54)	356,690.08
22		1,983.06	69,275.99	(4,352.54)	64,923.45
23		346.04	42,300.05	(759.50)	41,540.55
24		23.14	32,659.81	(50.78)	32,609.03
25		23.59	9,842.89	(51.78)	9,791.11
26		949.01	106,182.30	(2,082.95)	104,099.35
27					
28	TOTAL INDUSTRIALS	\$ 117,159.58	\$ 3,941,449.24	\$ (236,352.00)	\$ 3,705,097.24
29					
30	GRAND TOTAL	\$ 381,834.68	\$ 15,971,713.38	\$ (1,111,126.20)	\$ 14,860,587.18

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - April 2021**

	KW Billed (a)	kWh (b)	Demand Revenue (c)	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)	
1	Member Billing April 2021					
2						
3	JP RURALS	87,413	38,795,926	1,206,736.47	\$ 1,745,816.67	\$ 2,952,553.14
4	KENERGY	161,153	70,821,804	2,224,717.17	3,186,981.18	5,411,698.35
5	MEADE CO. RURALS	81,114	30,069,333	1,119,778.77	1,353,119.99	2,472,898.76
6						
7	TOTAL RURALS	329,680	139,687,063	\$ 4,551,232.41	\$ 6,285,917.84	\$ 10,837,150.25
8						
9		5,088	1,952,250	54,517.92	\$ 74,283.11	\$ 128,801.03
10		0	0	-	-	-
11		40,800	19,569,587	437,172.00	744,622.79	1,181,794.79
12		2,069	570,298	22,169.34	21,699.84	43,869.18
13		15,000	10,779,230	160,725.00	410,149.70	570,874.70
14		73	33,903	782.20	1,290.01	2,072.21
15		0	0	-	-	-
16		100	17,985	1,071.50	684.33	1,755.83
17		33,696	23,149,750	361,052.64	880,847.99	1,241,900.63
18		3,349	1,444,640	35,884.54	54,968.55	90,853.09
19		100	26,968	1,071.50	1,026.13	2,097.63
20		7,273	4,210,063	77,930.20	160,192.90	238,123.10
21		12,636	6,531,342	135,394.74	248,517.56	383,912.30
22		2,216	1,103,328	23,744.44	41,981.63	65,726.07
23		948	140,437	10,157.82	5,343.63	15,501.45
24		411	22,410	4,403.87	852.70	5,256.57
25		242	11,427	2,593.03	434.80	3,027.83
26		2,970	394,281	31,823.55	15,002.39	46,825.94
27						
28	TOTAL INDUSTRIALS	126,971	69,957,899	\$ 1,360,494.29	\$ 2,661,898.06	\$ 4,022,392.35
29						
30	GRAND TOTAL	456,651	209,644,962	\$ 5,911,726.70	\$ 8,947,815.90	\$ 14,859,542.60

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - April 2021**

	Net Green Power (f)	Power Factor Penalty (g)	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	Environmental Surcharge (ES) (j)
1	Member Billing April 2021				
2					
3	\$ 6.00	\$ -	\$ -	\$ (41,666.82)	\$ 137,637.65
4	-	-	-	(76,062.62)	252,266.35
5	-	-	-	(32,294.46)	115,210.13
6					
7	\$ 6.00	\$ -	\$ -	\$ (150,023.90)	\$ 505,114.13
8					
9	-	-	-	(2,096.72)	6,011.51
10	-	-	-	-	-
11	-	-	(31,370.31)	(21,017.74)	53,753.15
12	-	246.45	-	(612.50)	2,044.86
13	-	-	-	(11,576.89)	26,703.74
14	-	353.60	-	(36.41)	96.79
15	-	-	-	-	-
16	-	-	-	(19.32)	81.71
17	-	-	-	(24,862.83)	58,083.88
18	-	407.17	-	(1,551.54)	4,242.26
19	-	-	-	(28.96)	97.77
20	-	-	-	(4,521.61)	11,130.66
21	-	-	-	(7,014.66)	17,938.18
22	-	-	-	(1,184.97)	3,070.61
23	-	889.35	-	(150.83)	720.86
24	-	-	24.00	(24.07)	243.74
25	-	-	408.00	(12.27)	140.35
26	-	-	1,967.35	(423.46)	2,176.69
27					
28	\$ -	\$ 1,896.57	\$ (28,970.96)	\$ (75,134.78)	\$ 186,536.76
29					
30	\$ 6.00	\$ 1,896.57	\$ (28,970.96)	\$ (225,158.68)	\$ 691,650.89

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members - April 2021**

1	Member Billing April 2021	Non-FAC PPA (k)	Revenue (l) = \sum (e) to (k)	MRSM - ER Adjustment (m)	Revenue Net of MRSM Adjustments (n) = (l) + (m)
2					
3	JP RURALS	\$ 65,099.56	\$ 3,113,629.53	\$ (242,955.03)	\$ 2,870,674.50
4	KENERGY	118,838.99	5,706,741.07	(443,513.42)	5,263,227.65
5	MEADE CO. RURALS	50,456.34	2,606,270.77	(188,305.75)	2,417,965.02
6					
7	TOTAL RURALS	\$ 234,394.89	\$ 11,426,641.37	\$ (874,774.20)	\$ 10,551,867.17
8					
9		\$ 3,275.88	\$ 135,991.70	\$ (6,715.40)	\$ 129,276.30
10		-	-	-	-
11		32,837.77	1,215,997.66	(63,025.05)	1,152,972.61
12		956.96	46,504.95	(1,961.73)	44,543.22
13		18,087.55	604,089.10	(37,078.66)	567,010.44
14		56.89	2,543.08	(116.62)	2,426.46
15		-	-	-	-
16		30.18	1,848.40	(61.87)	1,786.53
17		38,845.28	1,313,966.96	(79,631.08)	1,234,335.88
18		2,424.11	96,375.09	(4,969.31)	91,405.78
19		45.25	2,211.69	(92.77)	2,118.92
20		7,064.49	251,796.64	(14,481.87)	237,314.77
21		10,959.59	405,795.41	(22,466.67)	383,328.74
22		1,851.38	69,463.09	(3,795.26)	65,667.83
23		235.65	17,196.48	(483.08)	16,713.40
24		37.60	5,537.84	(77.08)	5,460.76
25		19.17	3,583.08	(39.30)	3,543.78
26		661.60	51,208.12	(1,356.25)	49,851.87
27					
28	TOTAL INDUSTRIALS	\$ 117,389.35	\$ 4,224,109.29	\$ (236,352.00)	\$ 3,987,757.29
29					
30	GRAND TOTAL	\$ 351,784.24	\$ 15,650,750.66	\$ (1,111,126.20)	\$ 14,539,624.46

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 November 2020**

1	November 2020 - Other Sales	MWH	REVENUE
2	<hr/>		
3	SPECIAL SALES - ENERGY		
4	[REDACTED]	12,944	\$ 319,028.20
5	[REDACTED]		\$ 1,686.00
6	MISO	81,960	\$ 2,199,921.92
7	[REDACTED]		\$ 290,840.98
8	[REDACTED]	53,189.000	\$ 3,722,592.09
9	[REDACTED]		\$ 32,902.71
10	[REDACTED]		\$ 36,574.84
11	[REDACTED]	29,275.000	\$ 2,143,334.00
12	<hr/>		
13	TOTAL SPECIAL SALES - ENERGY	177,368	\$ 8,746,880.74
14	<hr/>		
15	SPECIAL SALES - BILATERAL		
16	[REDACTED]		\$ 1,972,800.00
17	[REDACTED]		\$ 985,000.00
18	[REDACTED]		\$ (1,692,600.00)
19	MISO - CONTRA REVENUE		\$ (1,743,635.00)
20	[REDACTED]		\$ (890,000.00)
21	<hr/>		
22	TOTAL SPECIAL SALES - BILATERAL		\$ (1,368,435.00)
23	<hr/>		

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 December 2020**

1	December 2020 - Other Sales	MWH	REVENUE
2	<hr/>		
3	SPECIAL SALES - ENERGY		
4	[REDACTED]	7,879	\$ 221,877.80
4	[REDACTED]		\$ 316.00
5	MISO	91,626	\$ 2,715,435.52
6	[REDACTED]		\$ 276,262.62
7	[REDACTED]	60,332.000	\$ 2,323,958.34
8	[REDACTED]		\$ 33,625.87
9	[REDACTED]		\$ 35,100.02
10	[REDACTED]	34,375.000	\$ 2,260,989.50
11	<hr/>		
12	TOTAL SPECIAL SALES - ENERGY	194,212	\$ 7,867,565.67
13	<hr/>		
14	SPECIAL SALES - BILATERAL		
15	[REDACTED]		\$ 965,300.00
16	[REDACTED]		\$ (872,200.00)
17	[REDACTED]		\$ (20,882.44)
18	MISO - CONTRA REVENUE		\$ (20,882.44)
19	<hr/>		
20	TOTAL SPECIAL SALES - BILATERAL		\$ 72,217.56
21	<hr/>		

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 January 2021**

1	January 2021 - Other Sales	MWH	REVENUE
2	<hr/>		
3	SPECIAL SALES - ENERGY		
4	[REDACTED]	4,521	\$ 128,070.12
5	MISO	39,960	\$ 1,106,848.78
6	[REDACTED]		\$ 248,231.29
7	[REDACTED]	61,751.000	\$ 2,364,829.03
8	[REDACTED]		\$ 42,853.27
9	[REDACTED]		\$ 33,567.40
10	[REDACTED]	41,125.000	\$ 2,384,274.00
11	<hr/>		
12	TOTAL SPECIAL SALES - ENERGY	147,357	\$ 6,308,673.89
13	<hr/>		
14	SPECIAL SALES - BILATERAL		
15	[REDACTED]		\$ 3,682,800.00
16	[REDACTED]		\$ 1,210,860.00
17	[REDACTED]		\$ (1,531,710.00)
18	MISO - CONTRA REVENUE		\$ (1,965,762.41)
19	[REDACTED]		\$ (516,150.00)
20	<hr/>		
21	TOTAL SPECIAL SALES - BILATERAL		\$ 880,037.59
22	<hr/>		

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 January 2021**

1	January 2021 - Other Sales	MWH	REVENUE
2			
3	SPECIAL SALES - CAPACITY		
4	[REDACTED]		\$ 120,000.00
5	MISO - CAPACITY SALES		\$ (1,462.27)
6	[REDACTED]		\$ 315,000.00
7			
8			
9	TOTAL SPECIAL SALES - BILATERAL		\$ 433,537.73
10			
11	TOTAL	147,357	\$ 7,622,249.21

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 February 2021**

1	February 2021 - Other Sales	MWH	REVENUE
2	<hr/>	<hr/>	<hr/>
3	SPECIAL SALES - ENERGY		
4	[REDACTED]	13,449	\$ 600,889.34
5	MISO	105,224	\$ 7,718,712.27
6	[REDACTED]		\$ (922,093.48)
7	[REDACTED]	56,205	\$ 1,246,601.52
8	[REDACTED]		\$ (272,530.66)
9	[REDACTED]		\$ (115,796.31)
10	[REDACTED]	49,650.000	\$ 2,606,736.00
11	[REDACTED]		\$ 812.00
12		<hr/>	<hr/>
13	TOTAL SPECIAL SALES - ENERGY	224,528	\$ 10,863,330.68
14			
15	SPECIAL SALES - BILATERAL		
16	[REDACTED]		\$ 3,326,400.00
17	[REDACTED]		\$ 1,108,080.00
18	[REDACTED]		\$ (1,383,480.00)
19	MISO - CONTRA REVENUE		\$ (5,833,809.44)
20	[REDACTED]		\$ 13,800.00
21		<hr/>	<hr/>
22	TOTAL SPECIAL SALES - BILATERAL		\$ (2,769,009.44)
23			

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 February 2021**

1	February 2021 - Other Sales	MWH	REVENUE
2	<hr/>	<hr/>	<hr/>
3	SPECIAL SALES - CAPACITY		
4			\$ 120,000.00
5	MISO - CAPACITY SALES		\$ (1,320.76)
6			\$ 315,000.00
7			
8		<hr/>	<hr/>
9	TOTAL SPECIAL SALES - BILATERAL		\$ 433,679.24
10			
11	TOTAL	<u>224,528</u>	<u>\$ 8,528,000.48</u>

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 March 2021**

1	March 2021 - Other Sales	MWH	REVENUE
2	<hr/>		
3	SPECIAL SALES - ENERGY		
4	[REDACTED]	8,766	\$ 223,198.32
5	MISO	29,222	\$ 637,562.68
6	[REDACTED]		\$ 171,435.56
7	[REDACTED]	56,805.000	\$ 2,165,013.37
8	[REDACTED]		\$ 22,553.47
9	[REDACTED]		\$ 26,492.34
10	[REDACTED]	39,375.000	\$ 2,342,856.50
11	<hr/>		
12	TOTAL SPECIAL SALES - ENERGY	134,168	\$ 5,589,112.24
13	<hr/>		
14	SPECIAL SALES - BILATERAL		
15	[REDACTED]		\$ 2,944,680.00
16	[REDACTED]		\$ (1,531,710.00)
17	MISO - CONTRA REVENUE		\$ (558,707.62)
18	[REDACTED]		\$ (516,150.00)
19	<hr/>		
20	TOTAL SPECIAL SALES - BILATERAL		\$ 338,112.38
21	<hr/>		

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 March 2021**

1	March 2021 - Other Sales	MWH	REVENUE
2	_____	_____	_____
3	SPECIAL SALES - CAPACITY		
4	MISO - CAPACITY SALES		\$ (1,462.27)
5			\$ 315,000.00
6			
7		_____	_____
8	TOTAL SPECIAL SALES - BILATERAL		\$ 313,537.73
9			
10	TOTAL	<u>134,168</u>	<u>\$ 6,240,762.35</u>

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Other Sales
 April 2021**

1	April 2021 - Other Sales	MWH	REVENUE
2	<hr/>		
3	SPECIAL SALES - ENERGY		
4	[REDACTED]	7,978	\$ 231,569.60
5	MISO	246,195	\$ 6,874,807.18
6	[REDACTED]		\$ 534,961.82
7	[REDACTED]	54,889.000	\$ 2,051,886.31
8	[REDACTED]		\$ 44,508.27
9	[REDACTED]		\$ 37,653.42
10	[REDACTED]	47,025.000	\$ 2,544,285.50
11	[REDACTED]		\$ (3,760.00)
12	<hr/>		
13	TOTAL SPECIAL SALES - ENERGY	356,087	\$ 12,315,912.10
14	<hr/>		
15	SPECIAL SALES - BILATERAL		
16	[REDACTED]		\$ 2,828,880.00
17	[REDACTED]		\$ (1,482,300.00)
18	MISO - CONTRA REVENUE		\$ (665,132.84)
19	[REDACTED]		\$ (499,500.00)
20	<hr/>		
21	TOTAL SPECIAL SALES - BILATERAL		\$ 181,947.16
22	<hr/>		

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 14)** *Describe the effect on the FAC calculation of line losses related*

2 *to:*

3 *a. intersystem sales when using a third-party transmission system,*

4 *and*

5 *b. intersystem sales when not using a third-party transmission system.*

6

7 **Response)**

8 a. Big Rivers had no intersystem sales during the period under review which
9 used a third-party transmission system.

10 b. Line losses related to intersystem sales, which did not use a third-party
11 transmission system, are included in Big Rivers' total System Losses
12 reported on page 3 of its monthly Form A filing. Big Rivers calculates an
13 overall system average fuel cost per kWh each month by dividing (1) the
14 total cost of fuel for generation by (2) the net kWh generated less total
15 System Losses. The overall system average fuel cost per kWh (which
16 accounts for total System Losses, including losses related to intersystem

BIG RIVERS ELECTRIC CORPORATION

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**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1 sales) is multiplied by the total intersystem sales volume to calculate the
2 cost of fuel allocated to intersystem sales in Big Rivers' FAC calculation.

3

4

5 **Witnesses)** Natalie R. Hankins (*a. only*) and

6 Jennifer M. Stone (*b. only*)

7

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 15)** *Provide a list, in chronological order, showing by unit, any*
2 *scheduled, actual, and forced outages for the period under review.*

3

4 **Response)** Please see the attached summary for the requested information
5 regarding scheduled ("S"), actual ("A"), and forced ("F") outages. Reid Station Unit 1
6 and Coleman Units 1, 2 and 3 were retired effective September 30, 2020. Station
7 Two Units 1 and 2 were retired on February 1, 2019. Therefore, Big Rivers has
8 removed them from the attached summary to this response.

9

10

11 **Witness)** Ronald D. Gregory

12

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1 2020, through April 30 2021

Big Rivers Electric Corporation
Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net
November 1 2020, through April 30 2021

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November 2020	F			11/2/2020 17:21	11/2/2020 17:33	0:12	0:12		Forced Outage due to an issue with sync scope caused by an electrical short in auto/man selector switch
	F			11/18/2020 2:36	11/18/2020 5:40	3:04	3:04		Forced Outage due to SF6 (sulfur hexafluoride) gas low alarm on the bus breaker.
December 2020		No Outages							
January 2021	F			1/29/2021 6:47	1/29/2021 11:14	4:27	4:27		Starting Failure due to sync switch failure.
February 2021		No Outages							
March 2021		No Outages							
April 2021		No Outages							

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1 2020, through April 30 2021

Big Rivers Electric Corporation
Green Station Unit #1 - Coal/Pet coke - 231MW Net
November 1 2020, through April 30 2021

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November 2020	F			11/16/2020 5:57	11/18/2020 15:30	57:33	57:33		Forced Outage due to a boiler waterwall tube leak. Tube failure was on the west side at elevation 565ft in a bend tube inspection port wall box above sootblower IR #77. The inspection port wall box, which consists of 6 tubes that were replaced during this outage.
	F			11/23/2020 18:34	11/24/2020 13:25	18:51	18:51		Forced Outage due to a electro hydraulic leak on the North Reheat Stop Valve.
December 2020		No Outages							
January 2021	F			1/8/2021 12:41	1/10/2021 4:39	39:58	39:58		Forced Outage due to a boiler tube failure in the reheat outlet element . The tube failure was in the 17th panel from east wall 3rd tube back from leading edge @ elevation 596'. The 2nd tube back from leading edge directly in-front of the blow-out was washed out.
February 2021	F			2/2/2021 4:18	2/2/2021 6:24	2:06	2:06		Starting Failure due to extended turbine soak time because the lube oil was at a lower than normal temperature due to the ambient temperature while the unit was off line on Reserve Standby
	F			2/19/2021 14:41	2/21/2021 5:35	38:54	38:54		Forced Outage due to a reheat outlet boiler tube failure. The tube failure was the 6th tube back from the leading edge in the 31st panel from the east wall at elevation 606ft. The 4th tube from leading edge in the 30th panel from east wall was also replaced with Dutchman due from wash out. The 5th tube in 31st panel from east wall and 5th, 7th, & 8th tubes in 30th panel were pad-welded due to wall thinning.
March 2021	F			3/16/2021 2:54	3/16/2021 3:22	0:28	0:28		Starting Failure due to extended soak time because a turbine reset when it rolled off gear while rolling up to 1,100 rpms.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1 2020, through April 30 2021

Big Rivers Electric Corporation
Green Station Unit #1 - Coal/Pet coke - 231MW Net
 November 1 2020, through April 30 2021

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
April 2021	F			4/14/2021 12:40	4/17/2021 0:40	60:00	60:00		Forced Outage due to reheat outlet boiler tube failure. The tube failure was the 6th tube back from leading edge in the 25th panel from the east wall. The 5th & 7th tubes in panel 25 were replaced from wash out and visible elephant hide. Tubes 4,5,6, & 7 from leading edge in panel 24 from the east wall were also replaced from wash out and visible elephant hide. A total of 7 Dutchmen were replaced during this outage.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1 2020, through April 30 2021

Big Rivers Electric Corporation
Green Station Unit #2 - Coal/Pet coke - 223MW Net
 November 1 2020, through April 30 2021

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November 2020	F			44150.39583	44153.00417		62:36	62:36	Forced Outage due to the B Primary Air Fan inboard bearing failure and resulting rotor issues.
December 2020		No Outages							
January 2021		No Outages							
February 2021	F			2/11/2021 12:36	2/13/2021 11:22		46:46	46:46	Forced Outage due to a reheat outlet boiler tube failure. Tube failure was the 3rd back in the 30th panel from the east wall at elevation 592'. The 21st screen-wall tube from the east at elevation 587' was washed out from blow-out. A total of 2 dutchmen was installed during this outage.
March 2021		No Outages							
April 2021	F			4/5/2021 13:04	4/7/2021 8:56		43:52	43:52	Forced Outage due to a water wall boiler tube leak . The tube failure was the 56th tube from the south on the east wall at elevation 490'. The 55th tube right beside the failure was replaced due from wash out.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1 2020, through April 30 2021

Big Rivers Electric Corporation
Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net
November 1 2020, through April 30 2021

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November 2020	S, A	11/9/2020 00:00	11/19/2020 0:00	11/9/2020 0:00	11/18/2020 23:19	240:00		239:19	Maintenance Outage to inspect and repair basket damage to the Turbine Left Hand Throttle Valve.
December 2020	F			12/4/2020 23:35	12/6/2020 1:18		25:43	25:43	Forced Outage due to waterwall tube leak on the bend tube at IR-16 soot blower
January 2021		No Outages							
February 2021	S, A	2/5/2021 00:00	2/7/2021 00:00	2/5/2021 22:39	2/7/2021 18:24	48:00		43:45	Maintenance Outage to replace the stub shaft, guide bushing and bearing housing on #1 Primary Air Heater
	F			2/25/2021 1:00	2/25/2021 7:30		6:30	6:30	Start Failure due to problem with the #1 Primary Air Heater Motor tripping on overload.
March 2021	S, A	3/11/2021 00:00	3/14/2021 0:00	3/11/2021 22:31	3/16/2021 12:23	72:00		109:52	Maintenance Outage to repair leaking economizer block valve on the west side of the boiler.
	F			3/17/2021 16:15	3/18/2021 17:21		25:06	25:06	Forced Outage due to boiler tube leak on economizer inlet header
	S, A	3/18/2021 18:00	3/20/2021 2:00	3/18/2021 17:21	3/20/2021 0:53	32:00		31:32	Maintenance Outage to perform preventative tube maintenance. Pad weld repairs were made where UT readings found thinning material.
April 2021	F			4/16/2021 0:43	4/16/2021 11:13		10:30	10:30	Forced Outage due to 12B12 feeder breaker tripped and the loss of #2 Secondary Air Heater air drive motor.

BIG RIVERS ELECTRIC CORPORATION

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FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission’s Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 16)** *For the period under review, provide the monthly capacity factor*
2 *at which each generating unit operated.*

3

4 **Response)** Please see the table and the footnotes which follow. As noted in Big
5 Rivers’ earlier responses to these information requests, Station Two Units 1 and 2,
6 Reid Station Unit 1, and Coleman Station Units 1, 2, and 3 were retired prior to
7 November 1, 2020. Therefore, Big Rivers has removed them from the table on the
8 following page.

9

Big Rivers Electric Corporation Monthly Capacity Factor by Generating Unit							
Generating Unit	Metric a.	Nov. 2020	Dec. 2020	Jan. 2021	Feb. 2021	Mar. 2021	Apr. 2021
Reid Station Unit # 2 CT	GCF	0.6%	0.1%	0.0%	0.3%	0.2%	0.0%
	NCF	0.5%	-0.1%	-0.2%	0.0%	-0.1%	-0.2%
Green Station Unit # 1	GCF	33.1%	36.6%	31.9%	70.5%	13.2%	65.0%
	NCF	30.8%	34.7%	30.1%	68.7%	11.9%	62.9%
Green Station Unit # 2	GCF	28.9%	26.9%	0.0%	53.5%	0.0%	62.7%
	NCF	27.0%	25.2%	-1.2%	51.9%	-1.2%	60.7%
Wilson Station Unit # 1	GCF	52.4%	88.2%	94.7%	76.9%	61.3%	93.8%
	NCF	51.6%	88.2%	94.8%	76.2%	60.6%	93.9%

10

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
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**Response to Commission's Request for Information
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September 1, 2021

1

Footnotes to Big Rivers Monthly Capacity Factor table on prior page:

a.- NCF (Net Capacity Factor) =
$$\frac{\text{Net Actual Generation} \times 100\%}{\text{PH (Period Hours)} \times \text{NMC (Net Maximum Capacity)}}$$

GCF (Gross Capacity Factor) =
$$\frac{\text{Gross Actual Generation} \times 100\%}{\text{PH (Period Hours)} \times \text{GMC (Gross Maximum Capacity)}}$$

2

3

4 **Witness)** Jason C. Burden

5

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2020 THROUGH APRIL 30, 2021
CASE NO. 2021-00297**

**Response to Commission's Request for Information
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September 1, 2021

1 **Item 17)**

2 **a. For the period under review, explain whether BREC made any**
3 **changes to its maintenance and operation practices or completed**
4 **any specific generation efficiency improvements that affect fuel**
5 **usage at BREC's generation facilities.**

6 **b. Describe the impact of these changes on BREC's fuel usage.**

7

8 **Response)**

9 a. In the period under review, November 1, 2020, through April 30, 2021, Big
10 Rivers has not made any changes to its maintenance and operation
11 practices, or completed any specific generation efficiency improvements
12 that affect fuel usage at Big Rivers' generation facilities.

13 b. Not Applicable.

14

15

16 **Witnesses)** Ronald D. Gregory (*a. only*) and

17 Jason C. Burden (*b. only*)

BIG RIVERS ELECTRIC CORPORATION

**AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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CASE NO. 2021-00297**

**Response to Commission's Request for Information
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September 1, 2021

1 **Item 18)** *State whether BREC is aware of any violations of its policies and*
2 *procedures regarding fuel procurement that occurred prior to or during the*
3 *period under review.*

4

5 **Response)** Big Rivers is unaware of any violations of its policies and procedures
6 regarding fuel procurement that occurred during the period November 1, 2020,
7 through April 30, 2021. Big Rivers is also unaware of any unreported violation prior
8 to the current period under review.

9

10

11 **Witness)** Vicky L. Payne

12

BIG RIVERS ELECTRIC CORPORATION

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ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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**Response to Commission's Request for Information
dated August 18, 2021**

September 1, 2021

1 **Item 19)** *State whether BREC is aware of any violations of 807 KAR 5:056*

2 *that occurred prior to or during the period under review.*

3

4 **Response)** Big Rivers is unaware of any violations of 807 KAR 5:056 that occurred

5 prior to or during the period under review.

6

7

8 **Witness)** Jennifer M. Stone

9

BIG RIVERS ELECTRIC CORPORATION

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CASE NO. 2021-00297**

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September 1, 2021

1 **Item 20)** *State whether all fuel contracts related to commodity and*
2 *transportation have been filed with the Commission. If any contracts have*
3 *not been filed, explain why they have not been filed, and provide a copy.*

4

5 **Response)** All of Big Rivers' fuel and transportation contracts have been filed with
6 the Commission.

7

8

9 **Witness)** Vicky L. Payne

10