



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

AN ELECTRONIC EXAMINATION)	
OF THE APPLICATION OF)	
THE FUEL ADJUSTMENT CLAUSE)	Case No.
OF BIG RIVERS ELECTRIC CORPORATION)	2021-00058
FROM)	
NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020)	

Responses to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

FILED: March 22, 2021



AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

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.

- C. Bul

Jason C. Burden

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

<u>SUBSCRIBED</u> AND SWORN TO before me by Jason C. Burden on this the day of March, 2021.

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Notary Public, Kentucky State at Large

KYNP16841 Detober 31, 2024

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

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"

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Ronald D. ("Ron") Gregory on this the \mathcal{V}_{nd} day of March, 2021.

Notary Public, Kentucky State at Large

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTBER 31, 2020 CASE NO. 2021-00058

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.

Valatie & Hankins

Natalie R. Hankins

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Natalie R. Hankins on this the 22nd day of March, 2021.

nuhsl

Notary Public, Kentucky State at Large

<u>KYNPI6841</u> October 31, 2024

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

VERIFICATION

I, Roger D. Hickman, 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.

Roger **Ø**. Hickman

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Roger D. Hickman on this the Mid day of March, 2021.

Notary Public, Kentucky State at Large

KYNP1684/ Defebor 3(, 2024

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

VERIFICATION

I, Mark W. McAdams, 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.

Mark W. MSHames

Mark W. McAdams

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Mark W. McAdams on this the day of March, 2021.

atheren Lola

Notary Public, Kentucky State at Large

My Commission Expires

Kentucky ID Number

KUNP16841]chber31, 2024

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMEBR 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

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)

<u>22nd</u> SUBSCRIBED AND SWORN TO before me by Jennifer M. Stone on this the day of March, 2021.

Tatherino Kolin

Notary Public, Kentucky State at Large

My Commission Expires

Kentucky ID Number

KYNP16841 October 36 2024

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

- 1 Item 1) For the period from May 1, 2020, to October 31, 2020 (the last six
- 2 months of the period under review), provide the amount of coal purchased in
- 3 tons and the percentage of purchases that were spot versus contract.
- 4

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

6

For the Period from May 1, 2020, through October 31, 2020							
Purchase Vendor ¹	Fuel Type	Purchase Tonnage	Contract Type				
WKCR / ACNR (BRE-20-001A)	Coal	63,014.08	Contract				
Rhino / Alliance (BRE-18-001A)	Coal	110,206.13	Contract				
Alliance (BRE-18-003)	Coal	185,764.16	Contract				
WKCR (BRE-19-002)	Coal	156,338.16	Contract				
Rhino / Alliance (BRE-19-003A)	Coal	62,056.49	Contract				
WKCR (BRE-20-001)	Coal	95,716.89	Contract				
WKCR / ACNR (BRE-19-002A)	Coal	39,801.80	Contract				
Total Tonnage		712,897.71					
For the Period from	May 1, 2020, thre	ough October 31, 2020					
Percentage Spot Purchase Tons		0.00 %					
Percentage Contract Purchase Tons		100.00 %					
Percentage Total Purchase Tons		100.00 %					

7

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

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1

2 Witness) Mark W. McAdams

3

Case No. 2021-00058 Response to PSC 1-1 Witness: Mark W. McAdams Page 2 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 2)	For the last six months of the period under review, list each coal
2	purchas	e made under a long-term contract (one year or greater). For each
3	purchas	e, list:
4	<i>a</i> .	Contract or purchase order number;
5	<i>b</i> .	The supplier's name;
6	C.	The location(s) of production facilities from which the coal is
7		sourced;
8	d.	The method of delivery, (i.e., barge, truck, rail. other);
9	е.	The actual quantity received during the review period;
10	f.	Current price paid per ton.
11		
12	Respons	e) Please see the attached schedule
13		
14		
15	Witness)	Mark W. McAdams
16		

Case No. 2021-00058 Response to PSC 1-2 Witness: Mark W. McAdams Page 1 of 1

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 Riveredge Mine, McLean County, Kentucky					
	River View Coal, LLC 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 Octool)	ber)				
ANNUAL TONNAGE	2018 – 350,000 Tons					
REQUIREMENTS :	$2019 - {150,000 \text{ min.}} \\ {350,000 \text{ max.}} $ Tons					
	$2020 - {150,000 \text{ min.}} \\ 350,000 \text{ max.} $ Tons					
PERCENT OF ANNUAL REQUIREMENTS:	2018 - 100.00 % 2019 - 97.85 % (through December) 2020 - 100.21 % (through October)	·				

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 1 of 10

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 <u>divided by</u> 350,000 tons = 97.85\%]

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

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

F. CURRENT PRICE (Base):	2018 -	\$ 37.5002	1
	2019 -	38.6302	per Ton (Jan. – Aug.)
Assigned Prices	2019 -	36.2710	per Ton (Sept. – Dec.)
	2020 -	37.4302	per Ton
CURRENT PRICE (Contract):	2018 -	37.5002	per Ton
			1
	2019 -	\$ 38.6302	per Ton (<i>Jan. – Aug.</i>)
Assigned Prices	2019 – 2019 –	\$ 38.6302 \$ 36.2710	per Ton (Jan. – Aug.) per Ton (Sept. – Dec.)

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 2 of 10

Sun Energy Group LLC

A. CONTRACT NUMBER:	BRE-18-002
B. SUPPLIER'S NAME/ADDRESS:	Sun Energy Group LLC 2701 West 1100 South Huntingburg, Indiana 47542
C. PRODUCTION FACILITY:	Hilsmeyer #1 Surface Mine Pike and Dubois Counties, Indiana
D. METHOD OF DELIVERY:	Barge
E. ACTUAL TONNAGE:	2018 - 83,828 Tons 2019 - 61,786 Tons (through December)
ANNUAL TONNAGE REQUIREMENTS:	2018 - 80,000 Tons (Amendment One) 2019 - 80,000 Tons 3 2020 - 240,000 Tons Contract 2021 - 220,000 Tons terminated 4
PERCENT OF ANNUAL REQUIREMENTS:	2018 – 104.79 % 2019 – 77.23 % (through December)
F. CURRENT PRICE (<i>Base</i>):	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
CURRENT PRICE (Contract):	$\begin{array}{r} \underline{Quality \ A \ (11,200 \ BTU \ per \ lb.)}}\\ 2018 \ - & \$ \ 35.0000 \ \ per \ Ton \\ 2019 \ - & \$ \ 35.0000 \ \ per \ Ton \\ \underline{Quality \ B \ (10,600 \ BTU \ per \ lb.)}}\\ 2018 \ - & \$ \ 32.8791 \ \ per \ Ton \\ 2019 \ - & \$ \ 32.8791 \ \ per \ Ton \\ \end{array}$

 $^{\scriptscriptstyle 3}$ Big Rivers provided a quality suspension notice on August 15, 2019.

 4 Big Rivers provided a contract termination notice on February 13, 2020.

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 3 of 10

Alliance Coal, LLC

A. CONTRACT NUME	BER:	BRE-18	-003				
B. SUPPLIER'S NAMI	E/ADDRESS:	Alliance Coal, LLC 1717 South Boulder, Suite 400 Tulsa, OK 74119					
C. PRODUCTION FAC	CILITY:	Riverview Coal, LLC – River View Mine Union County, Kentucky				ine	
D. METHOD OF DELI	VERY:	Barge					
E. ACTUAL TONNAG	Е:	2018 2019 2020	_ _ _	590,897 676,162 296,364	Tons Tons Tons	(through October)	
ANNUAL TONNAG REQUIREMENTS:	E	2018	_	585,000	Tons	(effective date – February 12, 2018)	
		2019	_	300,000 min. 800,000 max.	Tons		
		2020	_	300,000 min. 800,000 max.	Tons		
PERCENT OF ANN	IUAL	2018	_	101.00 %			
REQUIREMENTS:		2019	_	100.17~%	(th	rough December) ⁵	
		2020	-	69.73~%	(t	hrough October) ⁶	
F. CURRENT PRICE ((Base):	2018	_	36.5010	per To	on	
		2019	_	37.7499	per To	on	
		2020	-	\$ 39.0011	per To	on	
CURRENT PRICE ((Contract):	2018	_	36.5010	per To	on	
		2019	_	37.7499	per To	on	
		2020	-	\$ 39.0011	per To	on	

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 4 of 10

 $^{^5}$ Calculated based on 675,000 nominated tons for 2019. [676,162 tons $\underline{divided\ by}$ 675,000 tons = 100.17%]

 $^{^6}$ Calculated based on 425,000 nominated tons for 2020. [296,364 tons $\underline{divided \ by}$ 425,000 tons = 69.73%]

Western Kentucky Consolidated Resources, LLC ("WKCR") / American Consolidated Natural Resources, Inc. ("ACNR")

A. CONTRACT NUMBER:	BRE–19	BRE–19–002 / BRE-19-002A ⁷				
B. SUPPLIER'S NAME / ADDRE	KenAme America 46226 N	Western Kentucky Consolidated Resources, LLC ⁷ KenAmerican Resources, Inc. American Consolidated Natural Resources, Inc. 46226 National Road St. Clairsville, OH 43950				
C. PRODUCTION FACILITY:	MCCC F KenAme	WKCC Genesis Mine MCCC Pride Mine KenAmerican Paradise Mine ACNR Pride Mine				
D. METHOD OF DELIVERY:	Truck a	Truck and/or barge				
E. ACTUAL TONNAGE:	2019 2020	_ _	$\begin{array}{c} 456,313\\ 361,343\end{array}$	Tons Tons		
ANNUAL TONNAGE REQUIREMENTS:	2019	_	400,000 min. 500,000 max.	Tons	i	
	2020	_	400,000 min. 500,000 max.	Tons	i -	
	2020 Option	_	0 min. 125,000 max.	Tons	1	
	2021	_	400,000 min. 500,000 max.	Tons	1	
	2021 Option	-	0 min. 125,000 max.	Tons	i	
PERCENT OF ANNUAL REQUIREMENTS:	$\begin{array}{c} 2019\\ 2020 \end{array}$	_	$\frac{101.40\ \%}{85.02\ \%}$	8	(through October) ⁹	

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

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 5 of 10

⁸ Calculated based on 456,313 nominated tons for 2019. No Option tons nominated. [456,313 tons divided by 450,000 tons = 101.40%]

⁹ Calculated based on 425,000 nominated tons for 2020. No Option tons nominated.

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

F.	CURRENT PRICE (Base):	$2019 \\ 2020 \\ 2021$	- - -	\$ 42.85 \$ 42.85 \$ 42.85	-
	CURRENT PRICE (Contract):	$\begin{array}{c} 2019 \\ 2020 \end{array}$	- -		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.

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 6 of 10

Rhino Energy LLC / Alliance Coal, LLC

A. C	CONTRACT NUMBER:	BRE-19	BRE–19–003 / BRE–19–003A ¹¹				
B. S	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. P	PRODUCTION FACILITY:	Pennyrile Energy LLC Riveredge Mine, McLean County, Kentucky River View Coal, LLC River View Mine, Union County, Kentucky					
D. M	IETHOD OF DELIVERY:	Barge					
E. A	ACTUAL TONNAGE:	$\begin{array}{c} 2019 \\ 2020 \end{array}$	_	69,186 182,075	Tons Tons	(through December) (through October)	
	NNUAL TONNAGE REQUIREMENTS:	2019	_	100,000 min. 150,000 max.	Tons		
		2020	-	100,000 min. 150,000 max.	Tons		
		2021	_	350,000 min. 500,000 max.	Tons		
		2022	_	200,000 min. 350,000 max.	Tons		
		2023	_	200,000 min. 350,000 max.	Tons		
	PERCENT OF ANNUAL REQUIREMENTS:	$\begin{array}{c} 2019\\ 2020 \end{array}$	_ _	$46.12\ \%$ 93.85\ \%		ough December) ¹² rough October) ¹³	

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

¹³ Calculated based on 112,500 nominated tons for 2020 <u>plus</u> 81,499 tons carryover from 2019 equaling 193,999 tons. [182,075 tons <u>divided by</u> 193,999 tons = 93.85%]

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 7 of 10

 $^{^{12}}$ Calculated based on 150,000 ton maximum for 2019 per assignment. [69,187 tons $\underline{divided\ by}$ 150,000 tons = 46.12%]

Rhino Energy LLC / Alliance Coal, LLC (continued)

(Contract Numbers – BRE–19–003 / BRE–19–003A)

F.	CURRENT PRICE (Base): Assigned Prices	2019 - 2019 - 2019 - 2020 -	\$ 40.67 \$ 38.31 \$ 39.37	per Ton (<i>Jan. – Aug.</i>) per Ton (<i>Sept. – Dec.</i>) per Ton
		2021 -	\$ 40.10	per Ton
		2022 - 2023 -		per Ton per Ton
	CURRENT PRICE (Contract):	2019 -	40.67	per Ton (Jan. – Aug.)
	CURRENT PRICE (Contract): Assigned Prices	2019 – 2019 –	40.67 38.31	per Ton (Jan. – Aug.) per Ton (Sept. – Dec.)
	· · · · · · · · · · · · · · · · · · ·		·	1 ()
	· · · · · · · · · · · · · · · · · · ·	2019 -	\$ 38.31	per Ton (Sept. – Dec.)
	· · · · · · · · · · · · · · · · · · ·	2019 - 2020 -	38.31 39.37	per Ton (<i>Sept. – Dec.</i>) per Ton

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 8 of 10

Western Kentucky Consolidated Resources, LLC ("WKCR") / American Consolidated Natural Resources, Inc. ("ACNR")

A.	CONTRACT NUMBER:	BRE–20–001 / BRE–20–001A $^{\rm 14}$				
B.	SUPPLIER'S NAME / ADDRESS:	Western Kentucky Consolidated Resources, LLC ¹⁴ 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				
D.	METHOD OF DELIVERY:	Truck and/or barge				
E.	ACTUAL TONNAGE:	2020	_	278,118	Tons	(through October)
	ANNUAL TONNAGE REQUIREMENTS:	2020	-	300,000 min. 400,000 max.	Tons	
		2020 Option	_	0 min. 100,000 max.	Tons	15
		2021	_	300,000 min. 400,000 max.	Tons	
		2021 Option	_	0 min. 100,000 max.	Tons	
		2022		300,000 min. 400,000 max.		
		2022 Option		0 min. 100,000 max.		
		2023		300,000 min. 400,000 max.		
		2023 Option		0 min. 100,000 max.		

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 9 of 10

 $^{^{14}}$ On September 10, 2020, this contract was assumed by ACNR and assigned Contract Number BRE–20–001A.

 $^{^{\}rm 15}$ No option tons nominated.

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

	PERCENT OF ANNUAL REQUIREMENTS:	2020	-	85.57~%	(through October) ¹⁶
F.	CURRENT PRICE (Base):	2020 2020 2021 2022 2023	- - - -	\$ 42.75 \$ 42.65 \$ 43.25 \$ 43.70 \$ 44.15	per Ton (<i>Jan. – May</i>) per Ton (<i>June – Dec.</i>) per Ton per Ton per Ton
	CURRENT PRICE (<i>Contract</i>):	2020 2020 2021 2022 2023	- - -	\$ 43.35 \$ 43.25 \$ 43.85 \$ 43.70 \$ 44.15	per Ton (<i>Jan. – May</i>) ¹⁷ per Ton (<i>June – Dec.</i>) ¹⁷ per Ton ¹⁷ per Ton per Ton
	OPTION PRICE (Contract):	2020 2020 2021 2022 2023	- - -	\$ 44.00 \$ 43.90 \$ 44.50 \$ 44.35 \$ 44.80	per Ton (<i>Jan. – May</i>) ¹⁷ per Ton (<i>June – Dec.</i>) ¹⁷ per Ton ¹⁷ per Ton per Ton

Case No. 2021-00058 Attachment for Response to PSC 1-2 Witness: Mark W. McAdams Page 10 of 10

 $^{^{16}}$ Calculated based on 325,000 nominated tons for 2020. No Option tons nominated. [278,118 tons divided by 325,000 tons = 85.57%]

¹⁷ Price increased by \$0.60 per ton for governmental imposition, Black Lung tax.

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Item 3)

2	<i>a</i> .	As of the last day of the review period, state the coal inventory level
3		in tons and in number of days' supply. Provide this information by
4		generating station and in the aggregate.
5	<i>b</i> .	Describe the criteria used to determine number of days' supply.
6	с.	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	е.	
11		(1) State whether any significant changes in the current coal
12		inventory target are expected within the next 12 months.
13		(2) If so, state the expected change and the reasons for this change.
14		
15	Respon	se)
16	a.	As of October 31, 2020, Big Rivers' generating stations individually and in
17		the aggregate had the following inventory levels and days' supply.
		Case No. 2021-00058 Response to PSC 1-3 Witness: Mark W. McAdams Page 1 of 4

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

Total System / Station ⁶	Inventory Level (Tons) ¹	Number of Days' Supply ²	Preceding Six-Month Operating Duration (In Days)	Preceding 6 Months Burn (In Tons)
Big Rivers	$536,\!676.49$	72	135	1,009,905.96
Electric System	550,070.49	12	100	1,009,905.90
Reid Station ³	0.00	0	0	0.00
Station Two ⁴	65,464.60	0	0	0.00
Green Station	182,679.81	55	115	379,277.04
Coleman Station ⁵	0.00	0	0	0.00
Wilson Station	288,532.08	80	176	630,628.92

March 22, 2021

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3

1

b. Number of Days' Supply =

Current Inventory (Tons)xDuration (In Days)Preceding 6 Months Burn (Tons)

4

5

c. Big Rivers Electric Corporation's Target Supply is the following range for

6 each Station in days based on the projected annual fuel burn

0	ectric Corporation ory Target Ranges
Total System	30 – 60 Days
Reid Station	0 Days
Station Two	$0 \mathrm{Days}$
Green	30-60 Days
Coleman	0 Days
Wilson	30-60 Days

7

Case No. 2021-00058 Response to PSC 1-3 Witness: Mark W. McAdams Page 2 of 4

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

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March 22, 2021

1	d.	Inventory is above target levels, exceeding ten (10) days excess, as a result
2		of reduced electricity demand during the last six months of the review
3		period, <i>i.e.</i> , May 1, 2020, through October 31, 2020, and as a result of the
4		COVID-19 pandemic. Big Rivers' coal inventory level is falling based upon
5		the resumption of business activity that had slowed due to COVID-19, along
6		with Big Rivers' efforts toward contract management. Big Rivers,
7		minimized several contract options in regard to existing coal supply, and
8		further, did not procure any spot coal during the last six months of the
9		review period in an effort to reduce its current inventories.
10	e.	
11		(1) No.
12		(2) Not Applicable.
13		

14

Case No. 2021-00058 Response to PSC 1-3 Witness: Mark W. McAdams Page 3 of 4

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1

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, 2020. Petroleum coke has not been purchased due to market pricing versus coal.
- 2.- Number of days' supply is rounded to reflect whole days.
- **3.** Reid Station Unit 1 was placed in Inactive Reserve Status effective April 1, 2016. The duration of generation was reduced to zero days. Big Rivers retired Reid Station Unit 1 effective September 30, 2020.
- **4.-** Station Two Units 1 and 2 were retired on February 1, 2019. The duration of generation was reduced to zero days. Big Rivers has relocated all coal inventory to its Green Station effective February 2021.
- 5.- Coleman Station Units 1 and 2 were placed on Inactive Reserve Status on May 1, 2014, and Coleman Station Unit 3 was placed on Inactive Reserve Status on May 8, 2014. The duration of generation was reduced to zero days. Big Rivers retired Coleman Station effective September 30, 2020.
- **6.-** In all reviews subsequent to Case No. 2021-00058, Big Rivers will remove notations for the Coleman Station, Reid Station, and Henderson Station Two and remove them from Big Rivers' inventory calculations.
- 2
- 3

4 Witness) Mark W. McAdams

5

Case No. 2021-00058 Response to PSC 1-3 Witness: Mark W. McAdams Page 4 of 4

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 4)	List each written coal-supply solicitation issued during the last
2	six mon	ths of the period under review.
3	а.	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	<i>b</i> .	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(s). Provide the bid tabulation sheet or
11		corresponding document that ranked the proposals. (This
12		document should identify all vendors who made offers.) State the
13		reasons for each selection. For each lowest-cost bid not selected,
14		explain why the bid was not selected.
15		

Case No. 2021-00058 Response to PSC 1-4 Witness: Mark W. McAdams Page 1 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Response)

2	a. and b.
3	There were no written coal-supply solicitations issued during the last six
4	months of the period under review, <i>i.e.</i> , May 1, 2020, through October 31,
5	2020.
6	
7	
8	Witness) Mark W. McAdams
9	

Case No. 2021-00058 Response to PSC 1-4 Witness: Mark W. McAdams Page 2 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 5)	List each oral coal-supply solicitation issued during the last six
2	months	of the period under review.
3	<i>a</i> .	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	<i>b</i> .	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.
10		

13

Case No. 2021-00058 Response to PSC 1-5 Witness: Mark W. McAdams Page 1 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Response)

2	a. and b.
3	There were no oral coal-supply solicitations issued during the last six
4	months of the period under review, <i>i.e.</i> , May 1, 2020, through October 31,
5	2020.
6	
7	
8	Witness) Mark W. McAdams
9	

Case No. 2021-00058 Response to PSC 1-5 Witness: Mark W. McAdams Page 2 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

Item 6) For the last six months of the period under review, list each
 vendor from whom natural gas was purchased for generation and the
 quantities and the nature of each purchase (i.e., spot or contract). Provide
 the percentage of purchases that were spot versus contract.

5

6 Response) Please see the listing on the following page for vendors from whom
7 natural gas was purchased for generation and the quantity and nature of each
8 purchase from May 1, 2020, through October 31, 2020. Also on the following page
9 please see the percentage of purchases that were either spot versus contract for the
10 period under review in total.

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

> Case No. 2021-00058 Response to PSC 1-6 Witness: Mark W. McAdams Page 1 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Big Rivers' Reid CT is called upon by MISO (the Midcontinent Independent

2 System Operator, Inc.) from time-to-time for reliability and for generation purposes.

3 Inasmuch, the Reid CT natural gas supply is on a spot basis for its generation fuel.

4

	Fuel Type	MCF	Contract Type
CIMA Energy, LTD	Natural Gas	31,301.00	Spot
For the Period	l from May 1, 2020, th	rough October 31,	2020
Percentage Spot	100.00~%		
Percentage Contract	0.00 %		
Percentage Total	100.00 %		

7 Witness) Mark W. McAdams

8

5

6

Case No. 2021-00058 Response to PSC 1-6 Witness: Mark W. McAdams Page 2 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Item 7) For the last six months of the period under review, state if there
2 were any instances in which a natural gas generating unit could not be
3 operated when it otherwise would have run due to pipeline constraints or
4 natural gas being unavailable.
5
6 Response) There were no instances during the last six months of the period under
7 review, *i.e.*, May 1, 2020, through October 31, 2020, that Big Rivers' gas generating
8 unit could not be operated, when it otherwise would have run, due to pipeline

9 constraints or natural gas being unavailable.

10

11

12 Witness) Mark W. McAdams

13

Case No. 2021-00058 Response to PSC 1-7 Witness: Mark W. McAdams Page 1 of 1

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

Item 8) State if there have been any changes to hedging activities for coal
 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.

11

12 Witness) Mark W. McAdams

13

Case No. 2021-00058 Response to PSC 1-8 Witness: Mark W. McAdams Page 1 of 1

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Item 9)

2	а.	Sta	te whether BREC has audited any of its fuel or transportation
3		con	tracts during the last six months of the period under review.
4	<i>b</i> .	If s	o, for each audited contract:
5		(1)	Identify the contract;
6		(2)	Identify the auditor; and
7		(3)	State the results of the audit, and describe the actions that
8			BREC took as a result of the audit.
9			
10	Respons	se)	

11 a.	Big Rivers has audited two of its coal supply source mine operations
12	(ACNR/Pride Mine September 2, 2020; and River View Mine, September
13	17, 2020) and associated sampling systems (Alliance River View sampling
14	system October 7, 2020; and ACNR/Pride sampling system October 14,
15	2020) during the period during the last six months of the period under
16	review, <i>i.e.</i> , May 1, 2020, through October 31, 2020. Big Rivers has not
17	audited any of its transportation contracts during that same period.

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	b.		
2		(1)	WKCR/ACNR contracts BRE-19-002 and BRE-20-001 (source Pride
3			Mine); and Rhino/Alliance and Alliance contracts BRE-18-001, BRE-
4			18-003, and BRE-19-003 (source River View Mine).
5		(2)	Mine reviews were performed by Associated Engineers,
6			Madisonville, Kentucky and sampling system reviews by SGS
7			Laboratories, Henderson, Kentucky.
8		(3)	Big Rivers requested a mine engineering review of the WKCR/ACNR
9			Pride Mine and the Alliance River View mining operations to ensure
10			that both mines had the ability to continue to perform pursuant to
11			the coal supply agreements in regard to quality and quantity
12			obligations of each agreement. Associated Engineers reviewed both
13			company's mining operations and provided a positive review of the
14			mining firm's abilities to perform under the coal supply agreements.
15			SGS Laboratories performed a review of the sampling systems to
16			ensure that the systems were performing properly per design to

Case No. 2021-00058 Response to PSC 1-9 Witness: Mark W. McAdams Page 2 of 3

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1			provide an appropriate and representative sample for determination
2			of coal quality.
3	((4)	SGS Laboratories reviewed the sampling systems, finding the systems
4			in good order and appropriate for obtaining samples.
5			
6			
7	Witness)	Ma	ark W. McAdams
8			

Case No. 2021-00058 Response to PSC 1-9 Witness: Mark W. McAdams Page 3 of 3

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Item 10)

2	а.	State whether BREC is currently involved in any litigation with its
3		current or former fuel suppliers or transportation vendors.
4	<i>b</i> .	If yes, 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	с.	State the current status of all litigation with suppliers or vendor.
15		

16

Case No. 2021-00058 Response to PSC 1-10 Witness: Mark W. McAdams Page 1 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

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) Mark W. McAdams
10		

Case No. 2021-00058 Response to PSC 1-10 Witness: Mark W. McAdams Page 2 of 2

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Item 11)

2	a.	For the last six months of the period under review, state if there have
3		been any changes to BREC's written policies and procedures
4		regarding its fuel procurement.
5	<i>b</i> .	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		

Case No. 2021-00058 Response to PSC 1-11 Witness: Mark W. McAdams Page 1 of 4

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Response)

2	a. Yes, during the last six months of the period under review, <i>i.e.</i> , May 1, 2020,
3	through October 31, 2020, Big Rivers made changes to Policy No. 105 $-$
4	Energy–Related Transaction Authority Policy, Policy No. 111 – Hedge Policy,
5	and Policy No. 120 – Fuel Procurement Policies and Procedures.
6	b. (1) through (4)
7	<u> Policy No. 105 – Energy–Related Transaction Authority Policy</u>
8	On August 21, 2020, Big Rivers made punctuation changes on page
9	11 of 21, and on page 19 of 21.
10	
11	<u>Policy No. 111 – Hedge Policy</u>
12	On August 21, 2020, Big Rivers modified the ranges for the hedging
13	percentages in the table on page 2 of 4 of this policy, and made a minor
14	punctuation change on that same page. The hedging percentages were
15	modified to provide Big Rivers greater flexibility to manage inventory levels
16	and/or future spot coal procurement opportunities.
17	

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1		<u> Policy No. 120 – Fuel Procurement Policies and Procedures</u>
2		On August 21, 2020, Big Rivers replaced the term 'VP Production
3		with 'Executive Vice President of Operations' and made a minor
4		punctuation change on page 3 of 9.
5		
6		Copies of these three policies are attached to this response along with
7		redlines thereof showing the changes from the prior versions of these
8		policies.
9	c.	Big Rivers' other fuel procurement policies and procedures were not
10		changed during the last six months of the period under review, <i>i.e.</i> , May 1,
11		2020, through October 31, 2020. In the table on the following page, Big
12		Rivers lists these other written policies and procedures regarding fuel
13		procurement, the date of their last changes, and the proceedings in which
14		Big Rivers provided them to the Commission.
15		

16

Case No. 2021-00058 Response to PSC 1-11 Witness: Mark W. McAdams Page 3 of 4

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1

Big Rivers Electric Corporation Policies and Procedures for Fuel Procurement							
DateDateNumberNameDateLastProvidedDDateDDateDLastProvidedDDNameChangeInProvided							
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			

2

3

4 Witness) Mark W. McAdams

5



Policy Number: 105

Energy Related Transaction Authority Policy								
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by							
Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD								

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.



BOARD POLICY ____

Policy Number: 105

Energy Related Transaction Authority Policy								
Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved b								
Original Approval Date06/15/2007Date Last Revised08/21/2020BOARD								

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.



Policy Number: 105

Energy Related Transaction Authority Policy								
Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Appr								
Original Approval Date	08/21/2020	BOARD						

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.

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:



Policy Number: 105

Energy Related Transaction Authority Policy							
Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 App							
Original Approval Date	BOARD						

- 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.



Policy Number: 105

Energy Related Transaction Authority Policy									
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by								
Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD									

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. \$/MWH	Total Volume MWH	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
	Energy	\leq 2 Years	\leq 3 Years	≤400	≤\$150	7,008,000	\$350.4 million
CEO	Capacity	≤3 Years	\leq 3 Years	≤100	\leq \$8	1,752,000	\$14.016 million
	Transmission	\leq 2 Years	\leq 3 Years	≤100	Tariff	1,752,000	Tariff

Sales		Per Transaction Limits (up to)				Aggregate Limits (up to)	
Title	Product	Term	Lead Time	MW Size	Min. \$/MWH	Total Volume MWH	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
	Energy	\leq 2 Years	\leq 3 Years	\leq 400	No Limit	11,100,000	No Limit
CEO	Capacity	\leq 2 Years	\leq 3 Years	\leq 500	No Limit	13,140,000	No Limit
	Transmission	\leq 2 Years	\leq 3 Years	≤100 *	No Limit	2,628,000	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.



Policy Number: 105

Energy Related Transaction Authority Policy							
Original Effective Date	Original Effective Date06/15/2007Date Last Reviewed08/21/2020						
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

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



Policy Number: 105

Energy Related Transaction Authority Policy							
Original Effective Date	06/15/2007	Date Last Reviewed	08/21/2020	Approved by			
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

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		
	Generation Awards						
	Demand Awards	As Required by MISO	1 Operating Day	No Max	MISO Price Cap		
	Ancillary Service Awards						
CEO	Capacity	\leq 3 Years	\leq 3 Years	500			
	Financial Transmission Rights	\leq 4 Years	\leq 4 Years	425	\$20		
	Virtual Transaction Awards	As Required by	1 Operating	No Max	MISO Price Cap		
	Imports/Exports	MISO	Day		wilso i nee 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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy							
Original Effective Date	06/15/2007	Date Last Reviewed	08/21/2020	Approved by			
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

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		
	Generation Awards						
	Demand Awards	Not Presently	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted		
	Ancillary Service Awards	Transacted					
CEO	Capacity						
	Financial Transmission Rights	\leq 4 Years	\leq 4 Years	425	\$20		
	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.



Policy Number: 105

Energy Related Transaction Authority Policy							
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Appl						
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

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.

			Per Transae (up	Aggregate Limits (up to)				
Title	Product	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 m		1.2 million	\$18 million		
		\leq 1 Year		No Max.	No Max.		million	

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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy							
Original Effective Date	06/15/2007	Date Last Reviewed	08/21/2020	Approved by			
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy							
Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Appro							
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

8. Renewable Energy Credits Trading Authority

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

		Per Transaction Limits (up to)			Aggregate Limits (up to)		
Title	Product	Term	Time 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	<u><</u> 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.



Policy Number: 105

Energy Related Transaction Authority Policy							
Original Effective Date	06/15/2007	Date Last Reviewed	08/21/2020	Approved by			
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

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.

		Per Transaction Limits (up to)				Aggregate Limits (up to)	
Title	Product	Term	Term Lead Physic Time Gallo		\$/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 $\leq 3 $ Years $\leq 1 $ Year	≤2 Years	1,000,000 No Max	\$6 No Max	6,000,000	\$36 million

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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy								
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by							
Original Approval Date	Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD							

<u>10. Solid Fuel Transaction Authority</u>

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

		Per Transaction Limits (up to)			Aggregate Limits (up to)		
Title	Product	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
		\leq 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.



Policy Number: 105

Energy Related Transaction Authority Policy								
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by							
Original Approval Date	Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD							

11. Transportation Transaction Authority

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

		Per Transaction Limits (up to)			Aggregate Limits (up to)			
Title	Product	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	> 1 Year \leq 3 Years	< 2 Years	3 million	\$25	6 million	\$150	
020	Transportation	≤ 1 Year		No Max	No Max	0	million	

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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy								
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by							
Original Approval Date	Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD							

12. Emission Allowances Transaction Authority*

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

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

Emission Allowance Authority Matrix Explanations

- The authority matrix above represents authority for SO2 and NOx 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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy							
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by						
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD			

13. Limestone Reagent Transaction Authority

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

		Per Transaction Limits (up to)			Aggregate Limits (up to)		
Title	Product	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	> 3 Months ≤ 3 Years	≤2 Years	750,000	\$20	1.50	\$30 million
	Reagent	\leq 3 Months		No Max	No Max	million	

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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy								
Original Effective Date	Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by							
Original Approval Date	Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD							

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.

						gate Limits up to)	
Title	Product	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 \leq 3 Years	\leq 2 Years	750,000	\$200	750,000	\$150 million
	Keageni	\leq 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.



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy								
Original Effective Date	Original Effective Date06/15/2007Date Last Reviewed08/21/2020Approved by							
Original Approval Date	Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD							

15. MATS Reagent Transaction Authority

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

		Per Transaction Limits (up to)			Aggregate Limits (up to)		
Title	Product	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 \leq 3 Years	\leq 2 Years	25,000	\$4,000	25,000	\$100 million
		\leq 3 Months		No Max	No Max		mmon

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.



Policy Number: 105

Energy Related Transaction Authority Policy						
Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by						
Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD						

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.



Policy Number: <u>105</u>

	En	nergy Related	Transaction Author	rity Policy	
Original Effe	ctive Date	06/15/2007	Date Last Reviewed	08/21/2020	Approved by
Original App	roval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD
Number	Date	Notes			Approved by
		Replaced I Supply	Risk Management Policy	for Power	Board
Original	06/15/200	07 Trading A	uthority Policy w/o matr	ices	Board
Rev 1	10/16/200		nge to Energy Related Tr Policy with matrices	ransaction	Board
Rev 2	11/19/20	10 MISO Tra	nsaction Authority addee	ł	Board
Rev 3	12/17/20	10 Updated S	olid Fuel Transaction Au	uthority	Board
Rev 4	03/18/20	11 Added lim	estone and lime, general	cleanup	Board
Rev 5	02/21/20		sions to account for retire Energy Services	ement of	Board
Rev 6	02/14/20	Officer. C Governme Manageme changed A	/P Production to Chief C changed Vice President of ntal Relations and Enter- ent to Director Enterprise ent/Strategic Planning. U aggregate Planning Resonource Credits.	of prise Risk e Risk Jnder MISO,	
Rev 7	03/21/20		ast reviewed line and con with Appendix	rrect section 4	Board
Rev 8	08/15/20	14 Remove re	eference to Chief Operati	ng Officer	Board
Rev 9	02/20/20	updated tra	ATS reagents transaction ansaction authority for b transmission and lime re	ilateral electric	Board
Rev 10	02/23/20	purchases transmission inclusive of bulk by ba	nges to clarify transaction and sales for energy, cap on. Changes implemente of transportation for item rge, rail and truck. Upda amounts for various lime	bacity and d to be s shipped in ted transaction	Board
Rev 11	12/16/20	16 Made char Eliminated capacity an transaction	nges to clarify language f l daily limits for both bil nd transmission purchase as and natural/synthetic g ion transactions.	ateral energy, es and sales	Board
Rev 12	8/16/2019		newable Energy Credits	trading	Board
Rev 13	08/21/202	•	on Changes		Board



Policy Number: <u>105</u>

Energy Related Transaction Authority Policy						
Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by						
Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD						



Policy Number: 105

Energy Related Transaction Authority Policy					
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD	
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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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BOARD	POLICY	_	
Policy Nu	mber: 105		

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Energy Related Transaction Authority Policy					
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD	

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,* $\underline{1}$

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.

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Rivers	BOARD POLICY						
ELECTRIC CORPORATION	Policy Number: <u>105</u>						
Er	nergy Related	Transaction Autho	rity Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <u>21</u> /20 <u>20</u>	Approved by		Deleted: 16	
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD		Deleted: 19	

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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.

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:

Page 3 of 21



Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD

- 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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electric corporation			Policy N	umber: <u>105</u>	
Er	nergy Related	Transaction Autho	rity Policy		
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	Deleted: 16
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD	Deleted: 19
					Deleted: 16

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. \$/MWH	Total Volume MWH	Total \$	
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	
	Energy	\leq 2 Years	\leq 3 Years	\leq 400	≤\$150	7,008,000	\$350.4 million	
CEO	Capacity	≤3 Years	\leq 3 Years	≤ 100	≤ \$ 8	1,752,000	\$14.016 million	
	Transmission	\leq 2 Years	\leq 3 Years	≤ 100	Tariff	1,752,000	Tariff	

	Sales	Per Transaction Limits (up to)				Aggregate Limits (up to)		
Title	Product	Term	Lead Time	MW Size	Min. \$/MWH	Total Volume MWH	Total \$	
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	
	Energy	\leq 2 Years	\leq 3 Years	\leq 400	No Limit	11,100,000	No Limit	
CEO	Capacity	\leq 2 Years	\leq 3 Years	≤ 500	No Limit	13,140,000	No Limit	
	Transmission	\leq 2 Years	\leq 3 Years	≤ 100 *	No Limit	2,628,000	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.



Policy Number: 105

Er	nergy Related	Transaction Autho	rity Policy]
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <u>21</u> /20 <u>20</u>	Approved by	
Original Approval Date	06/15/2007	Date Last Revised	08/ <u>21</u> /20 <u>20</u>	BOARD	
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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 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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Original Approval Date	06/15/2007	Date Last Revised	08/ <u>21</u> /20 <u>20</u>	BOARD	
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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		
	Generation Awards						
	Demand Awards	As Required by MISO	1 Operating Day	No Max			
	Ancillary Service Awards				MISO Price Cap		
CEO	Capacity	\leq 3 Years	\leq 3 Years	500			
	Financial Transmission Rights	\leq 4 Years	\leq 4 Years	425	\$20		
	Virtual Transaction Awards	As Required by	1 Operating No Max MISO Price		MISO Price Cap		
	Imports/Exports	ts MISO D	Day				

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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Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	D
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6. PJM Transaction Authority (Non-Bilateral)

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

			PJM Per Tran	saction Limits			
		(up to)					
Title	Product	Delivery Lead Time	Term	MW Size	\$/MWh		
Board	All PJM Products	No Limit	No Limit	No Max	No Max		
	Generation Awards						
	Demand Awards	Not Presently	Not Presently	Not Presently	Not Presently		
	Ancillary Service Awards	Transacted	Transacted	Transacted	Transacted		
CEO	Capacity						
	Financial Transmission Rights	\leq 4 Years	\leq 4 Years	425	\$20		
	Virtual Transaction Awards	As Required by PIM	1 Operating	No Max	PJM Price Cap		
	Imports/Exports	1 5101	Day				

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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Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD		Deleted: 19
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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.

				ction Limits to)		Aggregate Limits (up to)	
Title	Product	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	\leq 2 Years	25,000	\$15	1.2 million	\$18
		≤ 1 Year		No Max.	No Max.		million

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.

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ELECTRIC CORPORATION			Policy N	lumber: <u>105</u>		
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Driginal Effective Date	06/15/2007	Date Last Reviewed	08/ <u>21</u> /20 <mark>20</mark>	Approved by		Deleted: 16
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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.

Page **10** of **21**



BOARD POLICY _ Policy Number: <u>105</u>

Energy Related Transaction Authority Policy							
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <u>21</u> /20 <u>20</u>	Approved by		De	
Original Approval Date	06/15/2007	Date Last Revised	08/ <u>21</u> /20 <u>20</u>	BOARD		De	

8. Renewable Energy Credits Trading Authority

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

	Per Transaction Limits Aggregate Limits (up to) (up to)						
Title	Product	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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Page **11** of **21**



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Er	nergy Related	Transaction Autho	rity Policy		
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <u>21</u> /20 <mark>20</mark>	Approved by	
Original Approval Date	06/15/2007	Date Last Revised	08/ <u>21</u> /20 <u>20</u>	BOARD	

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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.

			Per Transa (up	00 0	te Limits to)		
Title	Product	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 $\leq 3 \text{ Years}$ $\leq 1 \text{ Year}$	\leq 2 Years	1,000,000 No Max	\$6 No Max	6,000,000	\$36 million

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.



BOARD POLICY Policy Number: <u>105</u>

Energy Related Transaction Authority Policy						
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by		
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD		

10. Solid Fuel Transaction Authority

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

	Per Transaction Limits Aggregate Limi (up to) (up to)						
Title	Product	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	\leq 2 Years	2,500,000	\$2.50	4 million	\$240 million
		\leq 3 Months		200,000	\$2.85		minon

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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BOARD POLICY Policy Number: <u>105</u>

Energy Related Transaction Authority Policy						
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by		
Original Approval Date	06/15/2007	Date Last Revised	08/ <u>21</u> /20 <u>20</u>	BOARD		
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11. Transportation Transaction Authority

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

		Per Transaction Limits (up to)			Aggregate Limits (up to)		
Title	Product	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	> 1 Year ≤ 3 Years	\leq 2 Years	3 million	\$25	6 million	\$150
Transportation	≤ 1 Year		No Max	No Max		million	

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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Page **14** of **21**



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Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by		De	
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12. Emission Allowances Transaction Authority*

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

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

Emission Allowance Authority Matrix Explanations

- The authority matrix above represents authority for SO2 and NOx 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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BOARD POLICY Policy Number: <u>105</u>

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Original Effective Date	06/15/2007	Date Last Reviewed	08/ <u>21</u> /20 <u>20</u>	Approved by			
Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD							
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13. Limestone Reagent Transaction Authority

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

			Per Transaction Limits (up to)			Aggregate Limits (up to)		
Title	Product	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	> 3 Months \leq 3 Years	≤2 Years	750,000	\$20	1.50	\$30	
	Reagent	\leq 3 Months		No Max	No Max	million	million	

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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BOARD POLICY Policy Number: <u>105</u>

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Original Effective Date 06/15/2007 Date Last Reviewed 08/21/2020 Approved by						
Original Approval Date 06/15/2007 Date Last Revised 08/21/2020 BOARD						
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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.

		Per Transaction Limits (up to)					
Title	Product	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	> 3 Months $\leq$ 3 Years	≤2 Years	750,000	\$200	750,000	\$150 million
	Reagent	$\leq$ 3 Months		No Max	No Max		million

#### **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.

Page **17** of **21** 



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Er	nergy Related	Transaction Autho	rity Policy		
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD	

#### 15. MATS Reagent Transaction Authority

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

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

#### **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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ELECTRIC CORPORATION			Policy N	umber: <u>105</u>	
Er	nergy Related [·]	Transaction Autho	rity Policy		]
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	
Original Approval Date	06/15/2007	Date Last Revised	08/ <u>21</u> /20 <u>20</u>	BOARD	

#### 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.

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Energy Related Transaction Authority Policy						
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by		
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD		

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Number	Date	Notes	Approved by	Deleted: 19
		Replaced Risk Management Policy for Power	Board	
		Supply		
Original	06/15/2007	Trading Authority Policy w/o matrices	Board	
Rev 1	10/16/2009	Name change to Energy Related Transaction	Board	
		Authority Policy with matrices		
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	Board	
		Senior VP Energy Services		
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	Board	
		to comply with Appendix		
Rev 8	08/15/2014	Remove reference to Chief Operating Officer	Board	
Rev 9	02/20/2015	Added MATS reagents transaction authority;	Board	
		updated transaction authority for bilateral electric		
		power and transmission and lime reagent; general		
		clean up.		
<b>Rev 10</b>	02/23/2016	Made changes to clarify transaction authority for	Board	
		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.		
<b>Rev 11</b>	12/16/2016	Made changes to clarify language for speculation.	Board	
		Eliminated daily limits for both bilateral energy,		
		capacity and transmission purchases and sales		
		transactions and natural/synthetic gas and		
		transportation transactions.		
<b>Rev 12</b>	8/16/2019	Added Renewable Energy Credits trading	Board	Formatted Table
		authority		
<u>Rev 13</u>	08/21/2020	Punctuation Changes		

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Page **20** of **21** 

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ELECTRIC CORPORATION			Policy N	umber: <u>105</u>		
Er	nergy Related	Transaction Autho	rity Policy			
Original Effective Date	06/15/2007	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by		Deleted: 16
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD		Deleted: 19
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Page **21** of **21** 



Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/21/2020	Approved by
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD

## 1. Objective

The Big Rivers Electric Corporation ("Big Rivers") Hedge Policy will guide disciplined hedging of forward natural gas, solid fuel, fuel oil and purchased power resources ("Commodity/Commodities"). This Hedge Policy is designed to reduce Member-Owners' wholesale rate volatility and to maintain rates within desired tolerances. The primary purpose of this policy is to identify specific time and volume (as a percent of total projected generation) criteria for procuring projected Commodity-related needs.

This policy largely employs a price-averaging strategy of declining percentage of Commodity supply positions held over forward time periods. This strategy protects Big Rivers from potential adverse impacts that could result in either significant Commodity price increases or decreases. The strategy also maintains some elements of procurement flexibility. For example, during times of extremely attractive market conditions, this policy allows for increasing the amount of forward Commodities hedged above the stated ranges with the concurrence of the Board of Directors ("Board"). A key component of the policy is a monthly compliance report for the Board, which is outlined herein.

Although this document is primarily concerned with managing Commodity costs and risks, a limited amount of discussion on capacity adequacy, transmission congestion risk, emission allowances and fuel transportation based on similar principles is included.

### 2. Hedge Policy Criteria

The hedging criteria identified within this policy address the primary Commodity supply portfolio components that affect rates and reliability the most. Accordingly, the hedge criteria in the following sections represent the risk tolerance of Big Rivers and identify the processes Big Rivers will employ to manage these key Commodity supply risks.

### a. Volumetric and Lead Time Criteria for Hedging

This policy employs a total Commodity hedging methodology whereby the MWh equivalent of all Commodity hedges are compared to the expected generation of Big Rivers. To apply as a Commodity hedge, fuel purchases must be combined with physical generation ownership or contracted capacity. The MWh equivalent hedge from fuel purchases will be the volume of mmBTUs of fuel procured for the unit or contract divided by the expected average heat rate of the generation unit or contract divided by 1,000. The total Commodity hedge is the MWh equivalent of the sum of fuel purchases and electricity purchases.

### **Rolling Monthly Hedge Ranges**

One criteria of this policy is to have Commodities procured within defined volumetric ranges during the following rolling timeframes. These ranges identify the percentage of Big Rivers' projected total Commodity needs that will be procured with fixed price Commodities over a given time period. For purposes of this policy, Commodity needs are considered hedged or procured to the extent that the projected need is met by 1) authorized purchase transactions as defined in the Big Rivers Energy Related Transaction Authority Policy (Board Policy 105), or 2) authorized fuel transactions combined with physical generation unit ownership, heat rate transactions, or physical capacity transactions.



Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/21/2020	Approved by
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD

Additionally, Commodity option transactions with out of the money strike prices may be used to hedge forward volumes, provided that they do not account for more than 15 percent of the projected Commodity needs in any given month, and they are not more than 50 percent out of the money at the time of the transaction.

Lead Time	Months 1 thru 3	Months 4 thru 12	Quarters 5 thru 8	Quarters 9 thru 12	Years 4 thru 5
Measurement Period	Rolling	Rolling	Rolling	Rolling	Calendar Year
Hedging Frequency	Monthly	Monthly	Quarterly	Quarterly	Annual
Range (%)	75-100	50-100	25-75	0-75	0-50

For the above table, Big Rivers will hedge projected Commodity needs based on the following criteria:

- <u>Lead Time</u>: The amount of time from the current period. Defined in months, quarters, or years.
- <u>Measurement Period</u>: This is the mechanism under which this volumetric range is measured. There are two measures - rolling, where the measurement period changes monthly and calendar year, where the measurement period is only changed at the change of a calendar year. In the case of conflict, the rolling criterion has precedence over calendar year.
- <u>Hedging Frequency</u>: This is primarily useful in conjunction with the rolling measurement period. This is the frequency that the rolling measurement period changes for policy compliance reporting purposes. The hedging frequency period prevents, for example, a situation where the transaction execution staff would have to hedge month 36 (the last month of quarter 12) at a time where monthly purchases are very illiquid (not readily available).
- <u>Range</u>: This is the range of overall Commodity needs that will be hedged with fixed price Commodities, of which up to 15 percent may be covered with options.

Commodity procurements that deviate from the stated range will require approval of the Board, and will be part of the regular reporting to the Board.

Commodity hedging will be a complementary hedging activity since Big Rivers has natural gas and coalfired generation. Big Rivers may also hedge with Commodities if it enters a transaction that uses a natural gas, fuel oil, or coal index price to derive its electricity cost. Such natural gas, fuel oil, and coal-related generation or purchase transactions, while considered capacity, would not be considered Commodity hedges until the projected Commodity volumes are procured. In order to allow flexibility in overall Commodity hedging decisions, specific sub-targets for natural gas hedging are not set within this policy.



Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/21/2020	Approved by
Original Approval Date	06/15/2007	Date Last Revised	08/21/2020	BOARD

### b. MISO Resource Adequacy Requirements

Big Rivers will comply with all MISO capacity requirement rules.

### c. Congestion Hedging with Financial Transmission Rights (FTR)

It will be Big Rivers' policy to actively participate in the MISO FTR allocation and auction process with a prudent and predetermined strategy for addressing the planning year congestion risk.

Big Rivers will target to mitigate a minimum of 50% of congestion risk (measured by annual native load and non-member sales requirements) prior to or by the end of the MISO annual FTR auction.

Big Rivers will target to mitigate a minimum of 70% of congestion risk prior to the month of delivery.

### d. Emission Allowance Hedging

This hedging policy calls for the establishment of an emission allowance procurement process to meet expected future requirements. Fixed price hedges for emission allowances include 1) actual or expected emission allowances allocated to Big Rivers from the EPA, 2) fixed price allowance purchases and sales, and 3) projected, budgeted, and Board-approved emission control equipment additions. Big Rivers will price average into its emission allowance position when purchasing emission allowances. Emission allowance needs will be managed similar to its approach for Commodities. Big Rivers will maintain fixed price allowance hedges based on the following table.

Lead Time	Current Calendar Year	Calendar Year Two	Calendar Year Three
Minimum (%)	80	70	60

Per applicable regulatory requirements, Big Rivers will hold enough allowances in all compliance accounts to cover emissions for the current reporting period. Specifically, all compliance accounts shall be populated with sufficient allowances to cover emissions for the current reporting period prior to the accounts being closed by the EPA, which is currently two (2) consecutive calendar months after the end of the reporting period. Furthermore, the Designated Representative will ensure that all compliance accounts have an adequate number of allowances prior to running "Final Compliance True up" after the accounts have been closed by the EPA.

Big Rivers will not buy emission allowances from the market for any given year if it results in emission allowances that exceed 105 percent of its expected needs without prior CEO approval.

### e. Resource Diversity Management

Big Rivers will manage its resource diversity concentration risks on a rolling 12-month basis by diversifying its Commodity supply resources as follows:



Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/21/2020	Approved by
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Fuel supply contracts will be diversified such that no more than 60 percent (but not more than 1.5 million tons) will be from a single supplier that has the ability to source coal from multiple coal mining operations to supply Big Rivers for any rolling 12-month period. For fuel suppliers that have the ability to source coal from a single mining operation, no more than 35% (but not more than 1.0 million tons) will be from such supplier to supply Big Rivers for any rolling 12-month period.

Exceptions to these limits shall require approval of Big Rivers' Board.

### f. Risk Measurement and Compliance Reporting

Risk measurement and policy compliance within the volumetric and lead time criteria will be provided to Big Rivers' Board monthly. This report will generally cover five years of projections.

### **Responsibility**

It shall be the responsibility of the Board, CEO and IRMC to ensure compliance with this policy. Implementation of this policy shall adhere to the authority granted in the Energy Related Transaction Authority Policy (Board Policy 105).

Number	Date	Notes	Approved by
Original	06/15/2007	Approved to be effective at close of unwind	Board
Rev 1	03/16/2012	Update out-of-date language (joining MISO, old policy reference), general cleanup	Board
Rev 2	09/18/2015	Update terminology (I.E. energy to Commodity, coal to solid fuel, electricity to purchased power), removed Appendix A (out-of-date examples) and Appendix B (no longer applicable), updated emission allowance section to be more concise and clarified resource diversity language.	Board
Rev 3	09/16/2016	Clarified Policy Reference	Board
Rev 4	08/10/2018	Removed capacity resources from resource diversity management	Board
Rev 5	08/16/2019	Modified the resource diversity management requirements	Board
Rev 6	08/21/2020	Coal hedge percentage changes	Board



Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by
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#### 1. Objective

The Big Rivers Electric Corporation ("Big Rivers") Hedge Policy will guide disciplined hedging of forward natural gas, solid fuel, fuel oil and purchased power resources ("Commodity/Commodities"). This Hedge Policy is designed to reduce Member-Owners' wholesale rate volatility and to maintain rates within desired tolerances. The primary purpose of this policy is to identify specific time and volume (as a percent of total projected generation) criteria for procuring projected Commodity-related needs.

This policy largely employs a price-averaging strategy of declining percentage of Commodity supply positions held over forward time periods. This strategy protects Big Rivers from potential adverse impacts that could result in either significant Commodity price increases or decreases. The strategy also maintains some elements of procurement flexibility. For example, during times of extremely attractive market conditions, this policy allows for increasing the amount of forward Commodities hedged above the stated ranges with the concurrence of the Board of Directors ("Board"). A key component of the policy is a monthly compliance report for the Board, which is outlined herein.

Although this document is primarily concerned with managing Commodity costs and risks, a limited amount of discussion on capacity adequacy, transmission congestion risk, emission allowances and fuel transportation based on similar principles is included.

#### 2. Hedge Policy Criteria

The hedging criteria identified within this policy address the primary Commodity supply portfolio components that affect rates and reliability the most. Accordingly, the hedge criteria in the following sections represent the risk tolerance of Big Rivers and identify the processes Big Rivers will employ to manage these key Commodity supply risks.

#### a. Volumetric and Lead Time Criteria for Hedging

This policy employs a total Commodity hedging methodology whereby the MWh equivalent of all Commodity hedges are compared to the expected generation of Big Rivers. To apply as a Commodity hedge, fuel purchases must be combined with physical generation ownership or contracted capacity. The MWh equivalent hedge from fuel purchases will be the volume of mmBTUs of fuel procured for the unit or contract divided by the expected average heat rate of the generation unit or contract divided by 1,000. The total Commodity hedge is the MWh equivalent of the sum of fuel purchases and electricity purchases.

#### **Rolling Monthly Hedge Ranges**

One criteria of this policy is to have Commodities procured within defined volumetric ranges during the following rolling timeframes. These ranges identify the percentage of Big Rivers' projected total Commodity needs that will be procured with fixed price Commodities over a given time period. For purposes of this policy, Commodity needs are considered hedged or procured to the extent that the projected need is met by 1) authorized purchase transactions as defined in the Big Rivers Energy Related Transaction Authority Policy (Board Policy 105), or 2) authorized fuel transactions, or physical capacity transactions.

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Policy Number: 111

Hedge Policy					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved by					
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD	
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Additionally, Commodity option transactions with out of the money strike prices may be used to hedge forward volumes, provided that they do not account for more than 15 percent of the projected Commodity needs in any given month, and they are not more than 50 percent out of the money at the time of the transaction.

Lead	Months	Months	Quarters	Quarters	Years
Time	1 thru 3	4 thru 12	5 thru 8	9 thru 12	4 thru 5
Measurement Period	Rolling	Rolling	Rolling	Rolling	Calendar Year
Hedging Frequency	Monthly	Monthly	Quarterly	Quarterly	Annual
Range (%)	<u>75</u> -100	<u>50</u> -100	<u>25-75</u>	<u>0</u> -75	0-50

For the above table, Big Rivers will hedge projected Commodity needs based on the following criteria:

- <u>Lead Time</u>: The amount of time from the current period. Defined in months, quarters, or years.
- <u>Measurement Period</u>: This is the mechanism under which this volumetric range is measured. There are two measures - rolling, where the measurement period changes monthly and calendar year, where the measurement period is only changed at the change of a calendar year. In the case of conflict, the rolling criterion has precedence over calendar year.
- <u>Hedging Frequency</u>: This is primarily useful in conjunction with the rolling measurement period. This is the frequency that the rolling measurement period changes for policy compliance reporting purposes. The hedging frequency period prevents, for example, a situation where the transaction execution staff would have to hedge month 36 (the last month of quarter 12) at a time where monthly purchases are very illiquid (not readily available).
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		Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by		Deleted: 16
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD		Deleted: 19
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Big Rivers will comply with all MISO capacity requirement rules.

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ELECTRIC CORPORATION			Policy N	umber: <u>111</u>		
		Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	08/ <mark>21</mark> /20 <mark>20</mark>	Approved by	Deleted: 16	
Original Approval Date	06/15/2007	Date Last Revised	08/ <mark>21</mark> /20 <mark>20</mark>	BOARD	Deleted: 19	

Fuel supply contracts will be diversified such that no more than 60 percent (but not more than 1.5 million tons) will be from a single supplier that has the ability to source coal from multiple coal mining operations to supply Big Rivers for any rolling 12-month period. For fuel suppliers that have the ability to source coal from a single mining operation, no more than 35% (but not more than 1.0 million tons) will be from such supplier to supply Big Rivers for any rolling 12-month period.

Exceptions to these limits shall require approval of Big Rivers' Board.

#### f. Risk Measurement and Compliance Reporting

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#### **Responsibility**

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Original	06/15/2007	Approved to be effective at close of unwind	Board
Rev 1	03/16/2012	Update out-of-date language (joining MISO, old policy reference), general cleanup	Board
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Page 4 of 4



Policy Number: 120

Fuel Procurement Policies and Procedures						
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved by						
Original Approval Date12/20/2007Date Last Revised08/21/2020BOARD						

### Policy Purpose

The purpose of Big Rivers Electric Corporation ("Big Rivers") Fuel Procurement Policies and Procedures is to present the principles that govern the procurement of fuel, reagent, and associated transportation. This policy is not intended to provide a step-by-step procedural flow, but place an emphasis on procurement policies and a concise overview of appropriate procurement practices. The awarding of Contracts and Purchase Orders will comply with business controls including corporate governance, authority limit matrices, auditing recommendations, and other established practices and limitations.

### FUEL PROCUREMENT POLICIES AND PROCEDURES

### A. **Definitions:**

- 1. "Agreement" means a legally binding document, in which one party agrees to sell and the other agrees to buy fuel, reagent, or transportation services for such, which is executed by both Buyer and Seller.
- 2. "Award Recommendation" means Big Rivers' approval process for the review and approval by Senior Management of a recommended fuel, reagent, or transportation purchase that fall outside the limits established in Big Rivers' granted authority limits outlined in the Energy Related Transaction Authority Policy (Board Policy 105).
- 3. "Contract" is an Agreement, Letter Agreement, Purchase Order, or Spot Contract for fuel supply, reagent, or such transportation with certain terms and conditions that describe the business transaction under which the Company procures fuel, reagent, and related transportation.
- 4. "Contract purchase" means any purchase of fuel, reagent, or transportation on behalf of the Company under a contract, typically more than one year's duration.
- 5. "Department" means the Big Rivers' Fuels Procurement Department.
- 6. "Director" means the Big Rivers' Director Fuels Procurement.
- 7. "Emergency" means extraordinary conditions affecting fuel production, transportation, or usage, including but not limited to strikes, lockouts or other labor problems, embargoes, mining impediments and other problems affecting the production or transportation of fuel, existing and/or forecasted extreme weather conditions, or any other conditions or circumstances that could be reasonably foreseen as impairing the continued supply of fuel to Big Rivers facilities.
- 8. "Environmental standards" mean the legal requirements for compliance with emission levels or other environmental requirements applicable to one or more of the Big Rivers' generating units.
- 9. "Fuel" means combustibles purchased by Big Rivers for one or more of its generating stations.
- 10. "Executive Vice President of Operations" means Big Rivers' principal individual responsible for power generation and fuel procurement, among other duties.



Policy Number: 120

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved by					
Original Approval Date 12/20/2007 Date Last Revised 08/21/2020 BOARD					

- 11. "Solicitation" means the process of soliciting bids (written or oral) for the supply of fuel, reagent, and/or related transportation services.
- 12. "Spot Contract" is a type of agreement that may be issued by Big Rivers for the supply of fuel, reagent, or related transportation of such with a term of typically one year or less.
- 13. "Spot Purchase" means any purchase of fuel, reagent, or related transportation on behalf of Big Rivers where the terms and conditions are incorporated in the Letter Agreement, Purchase Order or Spot Contract and the term is typically of one year or less.
- 14. "Station" means one of Big Rivers' generating facilities.
- 15. "Supplier" means the seller or counterparty to an agreement who is obligated to comply with and fulfill the agreement's terms and conditions.
- 16. "Unit" means a generating unit at a station.
- 17. "Unit bus bar cost" is the total variable production cost including the maintenance cost associated with burning the fuel.

### B. <u>Fuel Procurement Policies</u>:

This policy provides guidance to ensure an adequate supply of fuel and reagent of sufficient quality at the most competitive overall evaluated cost on a unit bus bar basis consistent with Big Rivers' obligations to provide adequate and reliable service to its customers, to meet operational and environmental standards, and to meet any other applicable legal requirements. Big Rivers will use its best efforts to secure its fuel and reagent supply at competitive prices through solicitation for such.

Implementation of this policy is of highest priority to Big Rivers. The Department shall be organized and staffed, and fuel procurement procedures and administration shall be conducted, in an efficient and practical manner consistent with this policy. Fuel, reagent, and related transportation shall be purchased at competitive prices considering all material factors. The factors include but are not limited to: quantity needed to maintain an adequate supply, quality necessary to ensure generating unit operating and maintenance characteristics and environmental standards, reliability of the supplier, creditworthiness, and forward planning to meet projected system requirements, and meeting emergency or other unusual circumstances that might affect operating conditions. From time to time, the Director will review this policy and recommend updates as appropriate.

### C. <u>Organization</u>:

1. <u>Department Structure.</u> The Department shall be organized and staffed to effectively administer Big Rivers' fuel procurement function.



Policy Number: 120

Fuel Procurement Policies and Procedures						
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved by						
Original Approval Date 12/20/2007 Date Last Revised 08/21/2020 BOARD						

- 2. <u>Organizational Responsibility</u>. The Executive Vice President of Operations to whom the Director reports, has the responsibility for fuel procurement. The Director is responsible for the Department. Other departments may be called upon by the Department to the extent the Director or Executive Vice President of Operations considers advisable in the execution of the functions of the Department.
- 3. <u>Approval Authority (Award Recommendation)</u>. An Award Recommendation will be prepared for all fuel purchases that exceed the term, tenor, or notional amount of authority of the Director which is specified in the Energy Related Transaction Authority Policy (Board Policy 105). The Award Recommendation will be drafted by the Director. Contractual agreements and amendments for procurement shall be reviewed by legal counsel, and executed by the Executive Vice President of Operations within the authority granted by Appendix A to the Energy Related Transaction Authority Policy (Board Policy 105). Greater expenditures shall require the signature of Big Rivers' President and Chief Executive Officer when such expenditure is within his trading authority as established by the Board of Directors ("Board"). These levels of authority may be amended, supplemented, or superseded as dictated by Big Rivers.
- 4. <u>Reports.</u> The Director will instruct the Department to prepare, maintain and distribute reports to management and others as deemed necessary for business operations and regulatory requirements.
- 5. <u>Records.</u> The Department shall maintain the following records:
  - a. <u>Open Contract Files.</u> The Department shall maintain the following on open status for at least one-year or longer as the contract term or other conditions warrant:
    - 1. For each current contract supplier, the files will contain:
      - a) Contract documents, amendments, purchase orders and escalation documentation;
      - b) General correspondence;
      - c) Invoices and invoice verification data;
      - d) Delivery records and quality analyses data;
      - e) Inspection reports and other data.
    - 2. A record of transportation equipment owned or leased by Big Rivers (as applicable).
    - 3. A list containing current suppliers and known potential Suppliers of fuel.
  - b. <u>Closed Contract Files.</u> The Department shall maintain its files according to Big Rivers' record retention plan.
- 6. <u>General Administrative Duties.</u> The Department shall subscribe to and have membership in appropriate trade and industry publications and/or associations, to include reports of governmental or consulting agencies concerning fuel, reagent, and related transportation market information, to include fuel prices and/or projections. Department personnel shall use their best efforts to keep current with fuel market conditions, prices and availability, and other developments relating to fuel procurement.



Policy Number: 120

Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	08/21/2020	Approved by
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD

### D. <u>Fuel Supply Procedures</u>:

- 1. <u>Projections.</u> In conjunction with other departments of Big Rivers, the Department shall prepare annually a projection of fuel usage and cost at each Station for the number of years required for use in Big Rivers' planning process.
- 2. <u>Contract/Spot Mix.</u> Subject to the approval of the Executive Vice President of Operations, the Director shall determine whether a contract purchase is advisable, considering the following factors: (a) the availability of adequate supplies from qualified suppliers, (b) the advisability or need to have an adequate supply committed for an existing or planned unit (subject to inventory limits specified by Big Rivers), (c) the desire to maintain practical flexibility as to market conditions and other factors affecting price and availability, (d) existing and anticipated environmental standards, (e) such other factors as may reasonably affect the implementation of this policy and (f) fuel impact on generation facilities' operation and maintenance.
- 3. <u>Current Requirements.</u> The Department shall review and analyze the data available to the Department for purposes of conducting fuel and reagent purchases in a timely manner to meet the requirements of Big Rivers.
- 4. <u>Supplier Qualifications.</u> Big Rivers shall select potential suppliers on the basis of evaluation, market intelligence, performance information (as available), industry research, and creditworthiness, as determined by the Director and his staff. No potential qualified supplier shall be preferred or discriminated against because of race, religion, color, sex, age or marital status of the supplier or any of its representatives.

A supplier evaluation (to include site visit and mine engineering and/or performance report) may be performed to determine if a supplier has the ability to deliver in the time frame requested the quantity and quality of coal or reagent bid at the offered price.

5. Solicitations. The Department shall maintain a current list of Suppliers and shall review that list from time to time to ensure that it remains current. Normally, Big Rivers shall purchase its fuel and reagent through sealed bid solicitations; however, Big Rivers reserves the right to utilize its market intelligence to seize opportunity purchases of fuels and reagent, request oral, written, or electronic offers, potentially followed by negotiations, when in its judgment market conditions provide an opportunity to obtain fuel or reagent more advantageously than through mailed bid solicitations and usual procedures. When Big Rivers foregoes the solicitation process, documentation shall be appended to the resulting purchase order file describing the conditions. A notice of a request for quotation ("RFQ") shall be provided to normal industry newsletters and information postings. The normal solicitation process shall require that potential suppliers be notified in writing as to the general quantities, terms and quality specifications required. An RFQ number will be assigned to for the quotation package. An RFQ will include: instructions to bidders (date and time due); scope of supply (quantity and quality); potential term; standard terms and conditions of typical agreements.

Offers from potential suppliers shall be returned by the requested date and time or they will be rejected. A bid log shall be kept for logging in receipt of bid offers. Attendees viewing the



Policy Number: 120

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approve					
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

opening of the bid shall initial the bid document as opened and the log as at the completion of the opening. Offers shall be opened and logged in the presence of the Executive Vice President of Operations and Director or their representative in their absence, and another selected representative outside of the Department.

All appropriate bid data shall be documented and electronically categorized for the process of evaluation of the various offerings of fuel and reagent. The documents shall be maintained in a secured area and shall be kept pursuant to normal record keeping practices.

6. <u>Contract Awards.</u> The Department shall review and analyze each Contract offer. The Director, or his/her representative, may engage in preliminary negotiations to determine which offers warrant further consideration. The Director and/or representative shall investigate the potential supplier and proposed source of supply; and, as to any offer for fuel, the Department shall verify the adequacy of the proposed source of supply as to quantity, quality, and timely deliverability.

The evaluation shall include, but not necessarily be limited to, the response to the RFQ (items required by the RFQ for satisfactory operational, environmental, and economic criteria); diversity of supply; supplier credit assessment; transportation mode and cost; and diversity of suppliers to provide the lowest evaluated cost of electrical energy to the Unit bus bar over the long term consistent with Kentucky Public Service Commission regulations.

From this initial evaluation, a select group of potential suppliers (a "short-list") of suppliers shall be developed for more in-depth evaluation. The Department may then engage in preliminary discussions to ensure that the offer warrants further evaluation and consideration. The objective of the negotiating discussions is to ensure that Big Rivers achieves balanced terms and conditions and the lowest evaluated electrical energy delivered to the Unit bus bar and reliable supply consistent with other qualifiers related to supplier reliability, environmental restraints, transportation options, legal requirements, etc.

The recommended Supplier(s) shall be selected based upon the evaluation criteria and the results of the negotiating discussions. The Department shall prepare a detailed Award Recommendation for approval. The Award Recommendation shall document the selection criteria and pertinent factors, and in circumstances where more than one company is selected, the recommendation shall describe the tonnage requirements and other responsibilities of each of the other recommended Suppliers.

All contracts for which the term, tenor or notional amount exceed the limits specified for the Director must be approved and signed by individual(s) authorized per the Energy Related Transaction Authority Policy (Board Policy 105).

- 7. <u>Spot Purchases</u>. Spot purchases may be made by Big Rivers whenever considered advisable by the Director in furtherance of Big Rivers' fuel and reagent needs, subject to the limit of authority as outlined by Energy Related Transaction Authority Policy (Board Policy 105).
- 8. <u>Documentation</u>. Contracts shall be signed by a duly appointed officer of the Supplier and an Officer of Big Rivers. A purchase order may be issued for a spot purchase. A purchase order



Policy Number: 120

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved by					
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

shall contain all terms of that purchase. Further, the Department shall maintain documentation of the final list (log) of bidders, a copy of the entire bid package; bidder's responses; and the bid evaluation summary used for decision support.

9. <u>Fuel Oil</u>. Fuel Supply Procedures principally address procurement of solid fuel. Fuel oil is procured on an "as-needed" basis due to the infrequency of use of this fuel and the nature of the oil markets. When the need for oil arises, the Department shall act to solicit vendors for offers. Orders are assigned on the basis of lowest delivered cost per gallon and ability to fill the order. Solicitation results shall be documented and purchase orders issued in the Department for those purchases initiated and completed by the Department.

### E. <u>Fuel Supply and Reagent Agreement Administration</u>:

- 1. <u>Compliance.</u> The Department shall review and analyze daily business and operational reports to properly administer all fuel and transportation agreements.
- 2. <u>Coal weights.</u> Coal weights shall be obtained by either Big Rivers or by Supplier, upon agreement by Big Rivers. Coal weight is obtained by scale or draft method, depending upon Big Rivers' site or methodology employed by Supplier to ascertain weights. In either event, coal weights are obtained by industry-accepted standards, and in cases where scales are utilized, are duly tested and maintained in proper order for such purpose. In cases where draft weights are utilized, Big Rivers employs processes to verify actions to obtain draft weights and that such measures are by industry-accepted standards. Coal quantity is obtained by Station personnel and reported through the fuels information system or is provided by the Supplier pursuant to the contract agreement.
- 3. <u>Coal sampling.</u> Coal sampling and analysis shall be performed by either Big Rivers or the Supplier, upon agreement by Big Rivers. Coal sampling and analysis shall be performed according to procedures adopted by Big Rivers' laboratory in accordance with A.S.T.M. standards for coal sampling, coal sample preparation, coal sample identification, handling of sample, and coal analysis. Coal quality is assessed and reported through the fuels information system by Big Rivers' laboratory personnel or is provided by the Supplier pursuant to the contract agreement.
- 4. <u>Amendments.</u> A contract shall not be materially amended except after analysis by the Department and recommendation of the Director or the Executive Vice President of Operations. No material contract or purchase order addendum shall be made except upon legal review of such amendment, recommendation of the Director and the approval of the Executive Vice President of Operations pursuant to the limits of the Energy Related Transaction Authority Policy (Board Policy 105). Material amendments to contracts that were originally approved by the Board shall also be approved by the Board.
- 5. <u>Contract Administration</u>. The Director and the Department shall remain informed as to the terms and conditions of each current contract, and maintain the necessary data to administer the contracts. Every supplier request for a change in terms, conditions, or prices must be written and



Policy Number: 120

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approve					
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

supported by adequate data in conformity with the contract. Each such request shall be analyzed by the Department against the contract provisions, and reported with recommendations to the Director. After review by the Director, the supplier request and Department's recommendations shall be approved as required by Big Rivers. If any request is not approved in whole or in part, the Director shall advise the supplier, specifying Big Rivers' objections with an adequate explanation. If the supplier's request is not approved, negotiation between the supplier and Big Rivers as dictated by contract terms shall be the primary method of resolving the issue.

- 6. <u>Force Majeure.</u> A supplier's claim for relief from compliance with fuel supply agreement terms due to force majeure conditions must be in writing with an adequate description of conditions warranting nonperformance. Each force majeure claim shall be reviewed by the Director and Big Rivers' legal counsel.
- 7. <u>Inspections.</u> The Director shall request inspections of mining and other facilities of a contract fuel and/or reagent supplier or other facilities as required or deemed necessary to manage the performance and contractual relationship (Contract Administration).

### F. <u>Fuel and Reagent Supply Agreement Enforcement:</u>

- 1. <u>General Enforcement Policy.</u> Supplier obligations under Fuel or Reagent Supply Agreements shall be enforced by Big Rivers in a reasonable, fair, and practical manner to achieve supplier compliance with Big Rivers' overall procurement policy and the continuing supply of fuel to meet current and anticipated system requirements.
- 2. <u>Director Responsibility</u>. Whenever it is determined that a shipment does not meet Fuel Supply or Reagent Agreement terms, the Director, or his/her designee, shall inform the supplier and direct that subsequent shipments be in compliance. When necessary the Executive Vice President of Operations and the Director may determine, or receive advice, as to further action needed to assure fuel or reagent supply agreement compliance.
- 3. <u>Legal Assistance.</u> The Department shall have access to, and shall receive advice from, legal counsel as provided by Big Rivers on any matter relating to fuel, reagent, and related transportation procurement, contracts and amendments thereto, administration, and enforcement. Should a dispute as to a supplier's performance fail to be satisfactorily resolved by the Director, the matter shall be referred to legal counsel. Legal counsel may consider further negotiation, arbitration (if provided by the contract), or litigation. No arbitration or litigation shall commence except on the advice of said counsel with approval by Senior Management.

### G. <u>Inventory Levels</u>:

Big Rivers has an obligation to ensure continuous low cost, reliable service to its Member-Owners. Decisions affecting fuel inventory shall consider these obligations.

Big Rivers shall maintain an adequate inventory while allowing for enough flexibility to permit inventory levels to be responsive to known and anticipated changes in conditions in an attempt to avoid risks and stoppages due to unforeseen conditions. Inventory shall be recommended based



Policy Number: 120

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved					
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

upon, but not limited to, supplier performance, environmental conditions, labor matters, logistical issues and concerns, and generation requirements and dispatch. The general level of inventory shall be monitored for such matters and recommendations to adjust inventory to meet anticipated conditions shall be made from time to time. Such inventory recommendations shall be made by the Director for approval by Senior Management and shall be in accordance with or modify concurrently Solid Fuel Inventory Policy (Board Policy 121).

Solid fuel inventories and reagent shall be monitored and reported regularly via Big Rivers' fuel information system(s).

### H. <u>Emergency Procurement:</u>

Any one or more of the procedures described herein may be waived by the Executive Vice President of Operations, when, in the informed judgment of the Director, and on his recommendation, fuel must be purchased without complying with one or more of such provisions due to extraordinary conditions including strikes, lockouts or other labor problems affecting fuel production, embargoes, mining or other problems affecting production or transportation, existing and/or forecasted extreme weather conditions, or any other conditions or circumstances that can be reasonably foreseen as impairing the continued supply of fuel and reagent to Big Rivers from its existing suppliers. When such a purchase is made, documentation of circumstances will be appended to the purchase order and/or contract file.

### I. <u>Transportation Services Contracts</u>:

Transportation services bids shall be requested and Contracts negotiated whenever appropriate. Consideration shall be given to plant requirements, supplier loading capabilities, relative location of supplier to Stations, transportation mix, unloading capabilities and capacities at Stations, logistic constraints, transportation provider economics, Station material handling economics, and any other factor which might affect the delivery of Fuel and reagent to the Stations.

Unless otherwise dictated by Emergency situations, the Solicitation process will be utilized for transportation services. The selection of transportation provider will generally be based upon, but not necessarily limited to cost, reliability, insurance, past / current performance, container availability and suitability for purpose, material handling capacities and constraints, transportation mix, and any other mitigating factors in terms of logistics.

All transportation service agreements shall be in written contractual form duly executed by an authorized supplier of service and Big Rivers.

### J. <u>Ethics and Conduct</u>:

Big Rivers recognizes the importance of following appropriate business ethics to guide the conduct of the Department in the performance of its duties and responsibilities. Fuels staff shall adhere to the ethical standards and policies of Big Rivers including, but not limited to, the Board of Directors Ethics Policy (Board Policy 102) and the Conflicts of Interest Policy (Board Policy 108) for Big



Policy Number: <u>120</u>

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved by					
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

Rivers' Employees. Also, each contractual document shall denote that the contract was prepared and executed in ethical dealing.

Fuels staff shall endeavor to serve the best interests of Big Rivers, its Member-Owners, and stakeholders in the performance of their duties and responsibilities.

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Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	08/21/2020	Approved by
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD

#### Policy Purpose

The purpose of Big Rivers Electric Corporation ("Big Rivers") Fuel Procurement Policies and Procedures is to present the principles that govern the procurement of fuel, reagent, and associated transportation. This policy is not intended to provide a step-by-step procedural flow, but place an emphasis on procurement policies and a concise overview of appropriate procurement practices. The awarding of Contracts and Purchase Orders will comply with business controls including corporate governance, authority limit matrices, auditing recommendations, and other established practices and limitations.

#### FUEL PROCUREMENT POLICIES AND PROCEDURES

#### A. <u>Definitions</u>:

- 1. "Agreement" means a legally binding document, in which one party agrees to sell and the other agrees to buy fuel, reagent, or transportation services for such, which is executed by both Buyer and Seller.
- 2. "Award Recommendation" means Big Rivers' approval process for the review and approval by Senior Management of a recommended fuel, reagent, or transportation purchase that fall outside the limits established in Big Rivers' granted authority limits outlined in the Energy Related Transaction Authority Policy (Board Policy 105).
- 3. "Contract" is an Agreement, Letter Agreement, Purchase Order, or Spot Contract for fuel supply, reagent, or such transportation with certain terms and conditions that describe the business transaction under which the Company procures fuel, reagent, and related transportation.
- 4. "Contract purchase" means any purchase of fuel, reagent, or transportation on behalf of the Company under a contract, typically more than one year's duration.
- 5. "Department" means the Big Rivers' Fuels Procurement Department.
- 6. "Director" means the Big Rivers' Director Fuels Procurement.
- 7. "Emergency" means extraordinary conditions affecting fuel production, transportation, or usage, including but not limited to strikes, lockouts or other labor problems, embargoes, mining impediments and other problems affecting the production or transportation of fuel, existing and/or forecasted extreme weather conditions, or any other conditions or circumstances that could be reasonably foreseen as impairing the continued supply of fuel to Big Rivers facilities.
- "Environmental standards" mean the legal requirements for compliance with emission levels or other environmental requirements applicable to one or more of the Big Rivers' generating units.
- 9. "Fuel" means combustibles purchased by Big Rivers for one or more of its generating stations.
- 10. "<u>Executive Vice President of Operations</u>" means Big Rivers' principal individual responsible for power generation and fuel procurement, among other duties.

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Page 1 of 9



ELECTRIC CORPORATION			Policy N	umber: <u>120</u>
Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	<u>08/21/2020</u>	Approved by
Original Approval Date	12/20/2007	Date Last Revised	<u>08/21/2020</u>	BOARD

- 11. "Solicitation" means the process of soliciting bids (written or oral) for the supply of fuel, reagent, and/or related transportation services.
- 12. "Spot Contract" is a type of agreement that may be issued by Big Rivers for the supply of fuel, reagent, or related transportation of such with a term of typically one year or less.
- 13. "Spot Purchase" means any purchase of fuel, reagent, or related transportation on behalf of Big Rivers where the terms and conditions are incorporated in the Letter Agreement, Purchase Order or Spot Contract and the term is typically of one year or less.
- 14. "Station" means one of Big Rivers' generating facilities.
- 15. "Supplier" means the seller or counterparty to an agreement who is obligated to comply with and fulfill the agreement's terms and conditions.
- 16. "Unit" means a generating unit at a station.
- 17. "Unit bus bar cost" is the total variable production cost including the maintenance cost associated with burning the fuel.

#### B. <u>Fuel Procurement Policies</u>:

This policy provides guidance to ensure an adequate supply of fuel and reagent of sufficient quality at the most competitive overall evaluated cost on a unit bus bar basis consistent with Big Rivers' obligations to provide adequate and reliable service to its customers, to meet operational and environmental standards, and to meet any other applicable legal requirements. Big Rivers will use its best efforts to secure its fuel and reagent supply at competitive prices through solicitation for such.

Implementation of this policy is of highest priority to Big Rivers. The Department shall be organized and staffed, and fuel procurement procedures and administration shall be conducted, in an efficient and practical manner consistent with this policy. Fuel, reagent, and related transportation shall be purchased at competitive prices considering all material factors. The factors include but are not limited to: quantity needed to maintain an adequate supply, quality necessary to ensure generating unit operating and maintenance characteristics and environmental standards, reliability of the supplier, creditworthiness, and forward planning to meet projected system requirements, and meeting emergency or other unusual circumstances that might affect operating conditions. From time to time, the Director will review this policy and recommend updates as appropriate.

#### C. <u>Organization</u>:

1. <u>Department Structure</u>. The Department shall be organized and staffed to effectively administer Big Rivers' fuel procurement function.



Policy Number: 120

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Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	<u>08/21/2020</u>	Approved by
Original Approval Date	12/20/2007	Date Last Revised	<u>08/21/2020</u>	BOARD

- Organizational Responsibility. The Executive Vice President of Operations to whom the Director reports, has the responsibility for fuel procurement. The Director is responsible for the Department. Other departments may be called upon by the Department to the extent the Director or Executive Vice President of Operations considers advisable in the execution of the functions of the Department.
- 3. <u>Approval Authority (Award Recommendation)</u>. An Award Recommendation will be prepared for all fuel purchases that exceed the term, tenor, or notional amount of authority of the Director which is specified in the Energy Related Transaction Authority Policy (Board Policy 105). The Award Recommendation will be drafted by the Director. Contractual agreements and amendments for procurement shall be reviewed by legal counsel, and executed by the <u>Executive Vice President of Operations</u>, within the authority granted by Appendix A to the Energy Related Transaction Authority Policy (Board Policy 105). Greater expenditures shall require the signature of Big Rivers' President and Chief Executive Officer when such expenditure is within his trading authority as established by the Board of Directors ("Board"). These levels of authority may be amended, supplemented, or superseded as dictated by Big Rivers.
- 4. <u>Reports.</u> The Director will instruct the Department to prepare, maintain and distribute reports to management and others as deemed necessary for business operations and regulatory requirements.
- 5. <u>Records.</u> The Department shall maintain the following records:
  - a. <u>Open Contract Files.</u> The Department shall maintain the following on open status for at least one-year or longer as the contract term or other conditions warrant:
    - 1. For each current contract supplier, the files will contain:
      - a) Contract documents, amendments, purchase orders and escalation documentation;
      - b) General correspondence;
      - c) Invoices and invoice verification data;
      - d) Delivery records and quality analyses data;
      - e) Inspection reports and other data.
    - 2. A record of transportation equipment owned or leased by Big Rivers (as applicable).
    - 3. A list containing current suppliers and known potential Suppliers of fuel.
  - b. <u>Closed Contract Files.</u> The Department shall maintain its files according to Big Rivers' record retention plan.
- 6. <u>General Administrative Duties.</u> The Department shall subscribe to and have membership in appropriate trade and industry publications and/or associations, to include reports of governmental or consulting agencies concerning fuel, reagent, and related transportation market information, to include fuel prices and/or projections. Department personnel shall use their best efforts to keep current with fuel market conditions, prices and availability, and other developments relating to fuel procurement.



Policy Number: 120

Fuel Procurement Policies and Procedures					
Original Effective Date 07/16/2009 Date Last Reviewed 08/21/2020 Approved b					
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

#### D. <u>Fuel Supply Procedures</u>:

- 1. <u>Projections.</u> In conjunction with other departments of Big Rivers, the Department shall prepare annually a projection of fuel usage and cost at each Station for the number of years required for use in Big Rivers' planning process.
- 2. <u>Contract/Spot Mix.</u> Subject to the approval of the <u>Executive Vice President of Operations</u>, the Director shall determine whether a contract purchase is advisable, considering the following factors: (a) the availability of adequate supplies from qualified suppliers, (b) the advisability or need to have an adequate supply committed for an existing or planned unit (subject to inventory limits specified by Big Rivers), (c) the desire to maintain practical flexibility as to market conditions and other factors affecting price and availability, (d) existing and anticipated environmental standards, (e) such other factors as may reasonably affect the implementation of this policy and (f) fuel impact on generation facilities' operation and maintenance.
  - 3. <u>Current Requirements.</u> The Department shall review and analyze the data available to the Department for purposes of conducting fuel and reagent purchases in a timely manner to meet the requirements of Big Rivers.
  - 4. <u>Supplier Qualifications.</u> Big Rivers shall select potential suppliers on the basis of evaluation, market intelligence, performance information (as available), industry research, and creditworthiness, as determined by the Director and his staff. No potential qualified supplier shall be preferred or discriminated against because of race, religion, color, sex, age or marital status of the supplier or any of its representatives.

A supplier evaluation (to include site visit and mine engineering and/or performance report) may be performed to determine if a supplier has the ability to deliver in the time frame requested the quantity and quality of coal or reagent bid at the offered price.

5. Solicitations. The Department shall maintain a current list of Suppliers and shall review that list from time to time to ensure that it remains current. Normally, Big Rivers shall purchase its fuel and reagent through sealed bid solicitations; however, Big Rivers reserves the right to utilize its market intelligence to seize opportunity purchases of fuels and reagent, request oral, written, or electronic offers, potentially followed by negotiations, when in its judgment market conditions provide an opportunity to obtain fuel or reagent more advantageously than through mailed bid solicitations and usual procedures. When Big Rivers foregoes the solicitation process, documentation shall be appended to the resulting purchase order file describing the conditions. A notice of a request for quotation ("RFQ") shall be provided to normal industry newsletters and information postings. The normal solicitation process shall require that potential suppliers be notified in writing as to the general quantities, terms and quality specifications required. An RFQ number will be assigned to for the quotation package. An RFQ will include: instructions to bidders (date and time due); scope of supply (quantity and quality); potential term; standard terms and conditions of typical agreements.

Offers from potential suppliers shall be returned by the requested date and time or they will be rejected. A bid log shall be kept for logging in receipt of bid offers. Attendees viewing the

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ELECTRIC CORPORATION			Policy N	umber: <u>120</u>	
Fuel Procurement Policies and Procedures					
Original Effective Date	07/16/2009	Date Last Reviewed	<u>08/21/2020</u>	Approved by	
Original Approval Date	12/20/2007	Date Last Revised	08/21/2020	BOARD	

opening of the bid shall initial the bid document as opened and the log as at the completion of the opening. Offers shall be opened and logged in the presence of the Executive Vice President of Operations, and Director or their representative in their absence, and another selected representative outside of the Department.

All appropriate bid data shall be documented and electronically categorized for the process of evaluation of the various offerings of fuel and reagent. The documents shall be maintained in a secured area and shall be kept pursuant to normal record keeping practices.

6. <u>Contract Awards.</u> The Department shall review and analyze each Contract offer. The Director, or his/her representative, may engage in preliminary negotiations to determine which offers warrant further consideration. The Director and/or representative shall investigate the potential supplier and proposed source of supply; and, as to any offer for fuel, the Department shall verify the adequacy of the proposed source of supply as to quantity, quality, and timely deliverability.

The evaluation shall include, but not necessarily be limited to, the response to the RFQ (items required by the RFQ for satisfactory operational, environmental, and economic criteria); diversity of supply; supplier credit assessment; transportation mode and cost; and diversity of suppliers to provide the lowest evaluated cost of electrical energy to the Unit bus bar over the long term consistent with Kentucky Public Service Commission regulations.

From this initial evaluation, a select group of potential suppliers (a "short-list") of suppliers shall be developed for more in-depth evaluation. The Department may then engage in preliminary discussions to ensure that the offer warrants further evaluation and consideration. The objective of the negotiating discussions is to ensure that Big Rivers achieves balanced terms and conditions and the lowest evaluated electrical energy delivered to the Unit bus bar and reliable supply consistent with other qualifiers related to supplier reliability, environmental restraints, transportation options, legal requirements, etc.

The recommended Supplier(s) shall be selected based upon the evaluation criteria and the results of the negotiating discussions. The Department shall prepare a detailed Award Recommendation for approval. The Award Recommendation shall document the selection criteria and pertinent factors, and in circumstances where more than one company is selected, the recommendation shall describe the tonnage requirements and other responsibilities of each of the other recommended Suppliers.

All contracts for which the term, tenor or notional amount exceed the limits specified for the Director must be approved and signed by individual(s) authorized per the Energy Related Transaction Authority Policy (Board Policy 105).

- 7. <u>Spot Purchases</u>. Spot purchases may be made by Big Rivers whenever considered advisable by the Director in furtherance of Big Rivers' fuel and reagent needs, subject to the limit of authority as outlined by Energy Related Transaction Authority Policy (Board Policy 105).
- 8. <u>Documentation</u>. Contracts shall be signed by a duly appointed officer of the Supplier and an Officer of Big Rivers. A purchase order may be issued for a spot purchase. A purchase order

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Fuel Procurement Policies and Procedures						
Original Effective Date	07/16/2009	Date Last Reviewed	<u>08/21/2020</u>	Approved by		
Original Approval Date	12/20/2007	Date Last Revised	<u>08/21/2020</u>	BOARD		

shall contain all terms of that purchase. Further, the Department shall maintain documentation of the final list (log) of bidders, a copy of the entire bid package; bidder's responses; and the bid evaluation summary used for decision support.

9. <u>Fuel Oil</u>. Fuel Supply Procedures principally address procurement of solid fuel. Fuel oil is procured on an "as-needed" basis due to the infrequency of use of this fuel and the nature of the oil markets. When the need for oil arises, the Department shall act to solicit vendors for offers. Orders are assigned on the basis of lowest delivered cost per gallon and ability to fill the order. Solicitation results shall be documented and purchase orders issued in the Department for those purchases initiated and completed by the Department.

#### E. <u>Fuel Supply and Reagent Agreement Administration</u>:

- 1. <u>Compliance.</u> The Department shall review and analyze daily business and operational reports to properly administer all fuel and transportation agreements.
- 2. <u>Coal weights.</u> Coal weights shall be obtained by either Big Rivers or by Supplier, upon agreement by Big Rivers. Coal weight is obtained by scale or draft method, depending upon Big Rivers' site or methodology employed by Supplier to ascertain weights. In either event, coal weights are obtained by industry-accepted standards, and in cases where scales are utilized, are duly tested and maintained in proper order for such purpose. In cases where draft weights are utilized, Big Rivers employs processes to verify actions to obtain draft weights and that such measures are by industry-accepted standards. Coal quantity is obtained by Station personnel and reported through the fuels information system or is provided by the Supplier pursuant to the contract agreement.
- 3. <u>Coal sampling</u>. Coal sampling and analysis shall be performed by either Big Rivers or the Supplier, upon agreement by Big Rivers. Coal sampling and analysis shall be performed according to procedures adopted by Big Rivers' laboratory in accordance with A.S.T.M. standards for coal sampling, coal sample preparation, coal sample identification, handling of sample, and coal analysis. Coal quality is assessed and reported through the fuels information system by Big Rivers' laboratory personnel or is provided by the Supplier pursuant to the contract agreement.
- 4. <u>Amendments.</u> A contract shall not be materially amended except after analysis by the Department and recommendation of the Director or the <u>Executive Vice President of Operations</u>, No material contract or purchase order addendum shall be made except upon legal review of such amendment, recommendation of the Director and the approval of the <u>Executive Vice President of Operations</u>, pursuant to the limits of the Energy Related Transaction Authority Policy (Board Policy 105). Material amendments to contracts that were originally approved by the Board shall also be approved by the Board.
- 5. <u>Contract Administration</u>. The Director and the Department shall remain informed as to the terms and conditions of each current contract, and maintain the necessary data to administer the contracts. Every supplier request for a change in terms, conditions, or prices must be written and

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Page **6** of **9** 



BOARD POLICY _____ Policy Number: 120

Fuel Procurement Policies and Procedures						
Original Effective Date	07/16/2009	Date Last Reviewed	<u>08/21/2020</u>	Approved by		
Original Approval Date	12/20/2007	Date Last Revised	<u>08/21/2020</u>	BOARD		

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- 6. <u>Force Majeure</u>. A supplier's claim for relief from compliance with fuel supply agreement terms due to force majeure conditions must be in writing with an adequate description of conditions warranting nonperformance. Each force majeure claim shall be reviewed by the Director and Big Rivers' legal counsel.
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Page **7** of **9** 

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O ELECTRIC CORPORATION Policy Number: 120						
Fuel Procurement Policies and Procedures						
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BOARD POLICY _____ Policy Number: <u>120</u>

Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	<u>08/21/2020</u>	Approved by
Original Approval Date	12/20/2007	Date Last Revised	<u>08/21/2020</u>	BOARD

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### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 12) For the last six months of the period under review and for the
2	years 2021 and 2022, list all firm power commitments for a) purchases and
3	(b) sales. This list shall identify the electric utility, the amount of
4	commitment in MW, and the purpose of the commitment (i.e., peaking,
5	emergency).

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#### 7 Response)

#### 8 (a) <u>Purchases:</u>

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

15 Big Rivers has a Grandfathered Transmission Agreement with 16 Associated Electric Cooperative, Inc. ("AECI") under which Big Rivers may 17 purchase (or sell)

> Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 1 of 10

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	the locational marginal price at the AECI/MISO interface, plus a share of
2	MISO congestion and losses between the AECI/MISO interface and Big
3	Rivers load. If Big Rivers is the seller, AECI reimburses Big Rivers at the
4	locational marginal price at a Big Rivers generator, plus a share of MISO
5	congestion and losses between the Big Rivers generator and the
6	AECI/MISO interface. Big Rivers uses this agreement for economic energy
7	when AECI market prices are below the cost of purchasing load from MISO.
8	Big Rivers has a Grandfathered Transmission Agreement with
9	Southern Illinois Power Cooperative, Inc. ("SIPC") under which Big Rivers
10	may during the months of March,
10 11	may during the months of March, April, October, and November. Big Rivers may
11	April, October, and November. Big Rivers may
11 12	April, October, and November. Big Rivers may
11 12 13	April, October, and November. Big Rivers may
11 12 13 14	April, October, and November. Big Rivers may April April, October, and November. Big Rivers may April
11 12 13 14 15	April, October, and November. Big Rivers may Big Rivers reimburses SIPC at the locational marginal price at SIPC generator node, plus a share of MISO congestion and losses between the SIPC generator and Big Rivers load. If Big Rivers is the seller, SIPC reimburses Big Rivers at the locational marginal price

Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 2 of 10

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

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.

	Big Rivers Electric Corporation Power Purchases May 1, 2020 through October 31, 2020				
Date	Electric Utility	MW Commitment	Purpose		
$\begin{array}{c} May-Oct\\ 2020 \end{array}$		50 MWs – Off-Peak 117,600 Total	Off-System Sales Adjustments		
May – Oct 2020		50 MWs – Off-Peak 117,600 Total	Off-System Sales Adjustments		
June 2020		$100 { m ~MWs} - 7 { m ~x} { m ~24} { m ~72,000 Total}$	Purchases for Off-System Sales		
October 2020		$100 \text{ MWs} - 7 \ge 24$ 74,400 Total	Purchases for Off-System Sales		
$\frac{May-Oct}{2020}$	MISO	50 MWs – Off-Peak 117,600 Total	Purchases for Off-System Sales		
May - Oct 2020	MISO	50 MWs – Off-Peak 117,600 Total	Purchases for Off-System Sales		

(a) <u>Purchases:</u>

Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 3 of 10

7

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

#### (a) <u>Purchases (continued):</u>

Big Rivers Electric Corporation Power Purchases January 1, 2021 through December 31, 2022				
Date	Electric Utility	MW Commitment	Purpose	
Jan – Feb 2021	MISO	$\frac{150 \text{ MWs} - 7 \text{ x } 24}{212,400 \text{ Total}}$	Purchases for Off-System Sales	
Jan – Feb 2021	MISO	50 MWs – On-Peak 32,000 Total	Purchases for Off-System Sales	
Jan – Feb 2021	MISO	50 MWs – Off-Peak 38,800 Total	Purchases for Off-System Sales	

Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 4 of 10

1

3

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

#### (a) <u>Purchases (continued)</u>:

Big Rivers Electric Corporation Power Purchases January 1, 2021 through December 31, 2022			
Date	Electric Utility	MW Commitment	Purpose

2

1

3

Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 5 of 10

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	(b)	Sales:
2		Big Rivers has a contract to the Kentucky
3		Municipal Energy Agency ("KYMEA"). KYMEA uses this as a baseload
4		resource.
5		Big Rivers has a second contract to to
6		KYMEA. KYMEA uses this agreement for economic energy, when the
7		contract price is below the cost of their other resources.
8		Big Rivers had a contract to to Owensboro
9		Municipal Utilities ("OMU"). OMU used this agreement for economic
10		energy when the contract price was below the cost of running OMU's Elmer
11		Smith Generating Station, or when the Elmer Smith Generating Station
12		was unavailable. The contract terminated on
13		
14		, net of OMU's SEPA
15		allocation of capacity and energy. The price is contractually specified.
16		

Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 6 of 10

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

#### (b) <u>Sales (continued) –</u>

Big Rivers Electric Corporation Firm Off-System Sales May 1, 2020 through October 31, 2020				
Date	Electric Utility	MW Commitment	Purpose	
May – Oct 2020		50 MWs – Off-Peak 117,600 Total	Off-System Sales	
May – Oct 2020		50 MWs – Off-Peak 117,600 Total	Off-System Sales	
July 2020		2 MWs - On-Peak 672 Total	Off-System Sales	
July 2020		23 MWs – On-Peak 7,728 Total	Off-System Sales	
July 2020		50 MWs – On-Peak 800 Total	Off-System Sales	
August 2020		50 MWs – On-Peak 4,000 Total	Off-System Sales	
October 2020		50 MW – Off-Peak 800 Total	Off-System Sales	
May – Oct 2020	MISO	50 MWs – Off-Peak 117,600 Total	Off-System Sales	
May – Oct 2020	MISO	50 MWs – Off-Peak 117,600 Total	Off-System Sales	
June 2020	MISO	$\frac{100 \text{ MWs} - 7 \text{ x } 24}{72,000 \text{ Total}}$	Off-System Sales	
October 2020	MISO	100 MWs – 7 x 24 74,400 Total	Off-System Sales	

1

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

#### 1 (b) <u>Sales (continued) –</u>

	Big Rivers Electric Corporation Firm Off-System Sales January 1, 2021 through December 31, 2022			
Date	Electric Utility	MW Commitment	Purpose	
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	

2

3

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

#### 1 (b) <u>Sales (continued) –</u>

	Big Rivers Electric Corporation Firm Off-System Sales January 1, 2021 through December 31, 2022			
Date	Electric Utility	MW Commitment	Purpose	
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	

2

3

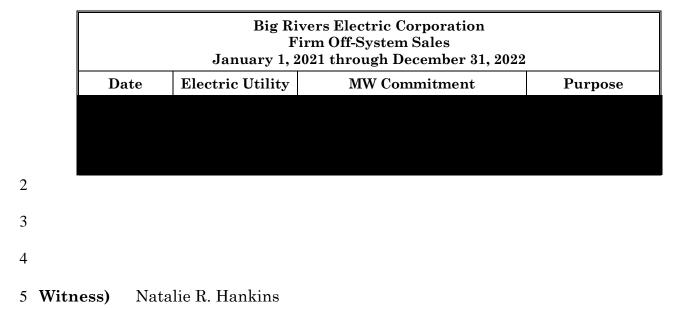
Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 9 of 10

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 (b) <u>Sales (continued) –</u>



6

Case No. 2021-00058 Response to PSC 1-12 Witness: Natalie R. Hankins Page 10 of 10

### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 13) Provide a monthly billing summary of sales to all electric
2	utilities for the last six months of the period under review.
3	
4	Response) Please see the attached monthly billing summaries for sales to all
5	electric utilities for the period May 1, 2020, through October 31, 2020.
6	
7	
8	Witness) Jennifer M. Stone
9	

Case No. 2021-00058 Response to PSC 1-13 Witness: Jennifer M. Stone Page 1 of 1

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - May 2020

Member Billing May 2020	KW Billed (a)	kWh (b)	Demand Revenue (c)	I	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
2 3 JP RURALS	105,900	42,067,681	 1,461,949.50	\$	1,893,045.65	\$ 3,354,995.15
4 KENERGY	$197,\!042$	76,035,721	2,720,164.81		$3,\!421,\!607.45$	6,141,772.26
5 MEADE CO. RURALS	$75,\!280$	31,352,148	1,039,240.40		1,410,846.66	2,450,087.06
7 TOTAL RURALS	378,222	149,455,550	\$ 5,221,354.71	\$	6,725,499.76	\$ 11,946,854.47
3 )	4,680	1,304,625	 50,146.20	\$	49,640.98	\$ 99,787.18
	3	23	32.15		0.88	33.03
	40,800	10,097,496	$437,\!172.00$		384,209.72	$821,\!381.72$
	1,620	$325,\!359$	$17,\!358.30$		$12,\!379.91$	29,738.21
	15,000	5,493,460	160,725.00		209,026.15	369,751.15
	85	27,918	910.78		1,062.28	1,973.06
	2,759	973,884	29,562.69		37,056.29	66, 618.98
	100	18,168	1,071.50		691.29	1,762.79
	36,288	$25,\!640,\!687$	388,825.92		$975,\!628.14$	1,364,454.06
	135	$67,\!055$	1,446.53		$2,\!551.44$	3,997.97
	3,357	1,266,828	35,970.26		48,202.81	84,173.07
	100	0	1,071.50		-	1,071.50
	250	24,893	$2,\!678.75$		947.18	3,625.93
	7,258	4,441,937	77,769.47		169,015.70	246,785.17
	12,662	6,759,017	$135,\!673.33$		257, 180.60	392,853.93
	6,346	3,200,190	67,997.39		121,767.23	189,764.62
	3,000	$118,\!547$	32,145.00		4,510.71	$36,\!655.71$
	2,760	14,108	29,573.40		536.81	30,110.21
7	800	9,493	8,572.00		361.21	8,933.21
8	7,200	818,574	77,148.00		31,146.74	108,294.74
9 0 Sub-Total Kenergy Industrials	145,203	60,602,262	\$ 1,555,850.17	\$	2,305,916.07	\$ 3,861,766.24
	100	4,344	1,071.50		165.29	1,236.79
3 4 TOTAL INDUSTRIALS	145,303	60,606,606	\$ 1,556,921.67	\$	2,306,081.36	\$ 3,863,003.03
5 6 GRAND TOTAL	523,525	210,062,156	\$ 6,778,276.38	\$	9,031,581.12	\$ 15,809,857.50

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 1 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - May 2020

Member Billing May 2020	N	let Green Power (f)	er Factor Penalty (g)	A	Billing Adjustment (h)	ł	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)
JP RURALS	\$	6.00	\$ 	\$		\$	(131,671.84)	\$ 151,658.12
KENERGY		-	-		-		(237, 991.81)	$277,\!663.25$
MEADE CO. RURALS		-	-		-		(98,132.22)	110,731.88
TOTAL RURALS	\$	6.00	\$ 	\$	_	\$	(467,795.87)	\$ 540,053.25
	\$		\$ 	\$		\$	(4,083.48)	\$ 4,508.96
		-	-				(0.07)	1.51
		-	-		(118, 161.81)		(31, 605.16)	31,745.38
		-	-		-		(1,018.37)	1,345.86
		-	85.72		-		(17, 194.53)	16,685.48
		-	-		-		(87.38)	89.08
		-	-		-		(3,048.26)	3,006.80
		-	-		-		(56.87)	79.82
		-	-		-		(80, 255.35)	61,393.41
		-	-		-		(209.88)	180.16
		-	-		-		(3,965.17)	3,797.87
		-	-		-		-	48.88
		-	-		-		(77.92)	164.59
		-	-		-		(13,903.26)	11,110.60
		-	-		-		(21, 155.72)	17,697.23
		-	-		-		(10,016.59)	8,550.65
		-	-		-		(371.05)	1,668.36
		-	-		36.42		(44.16)	1,373.23
		-	-		38.56		(29.71)	407.24
		- 	 -		3,100.49		(2,562.14)	 4,913.33
Sub-Total Kenergy Industrials	\$	-	\$ 85.72	\$	(114,986.34)	\$	(189,685.07)	\$ 168,768.44
		-	-		-		(13.60)	56.28
TOTAL INDUSTRIALS	\$		\$ 85.72	\$	(114,986.34)	\$	(189,698.67)	\$ 168,824.72
GRAND TOTAL	\$	6.00	\$ 85.72	\$	(114,986.34)	\$	(657,494.54)	\$ 708,877.97

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 2 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - May 2020

1	Member Billing May 2020	No	on-FAC PPA (k)	(1	Revenue ) = $\sum$ (e) to (k)	MRSM - ER Adjustment (m)	1	Revenue Net of MRSM Adjustments n) = (l) + (m)
2 3	JP RURALS	 \$	100,878.30	\$	3,475,865.73	\$ (153,824.26)	\$	3,322,041.47
4	KENERGY	, i	182,333.66		6,363,777.36	(278,031.46)		6,085,745.90
5	MEADE CO. RURALS		75,182.45		2,537,869.17	(114,641.95)		2,423,227.22
6 7	TOTAL RURALS	\$	358,394.41	\$	12,377,512.26	\$ (546,497.67)	\$	11,831,014.59
8 9		\$	3,128.49	\$	103,341.15	\$ (3,089.53)	\$	100,251.62
10			0.06		34.53	(0.05)		34.48
11			$24,\!213.80$		727,573.93	(23,912.23)		703,661.70
12			780.21		30,845.91	(770.49)		30,075.42
13			$13,\!173.32$		382,501.14	(13,009.25)		369,491.89
14			66.95		2,041.71	(66.11)		1,975.60
15			2,335.37		68,912.89	(2, 306.29)		66,606.60
16			43.57		1,829.31	(43.02)		1,786.29
17			$61,\!486.37$		1,407,078.49	(60, 720.60)		1,346,357.89
18			160.80		4,129.05	(158.80)		3,970.25
19			3,037.85		87,043.62	(3,000.02)		84,043.60
20			-		1,120.38	-		1,120.38
<b>21</b>			59.69		3,772.29	(58.95)		3,713.34
<b>22</b>			$10,\!651.76$		$254,\!644.27$	(10,519.11)		$244,\!125.16$
<b>23</b>			$16,\!208.12$		405,603.56	(16,006.26)		389,597.30
<b>24</b>			7,674.06		$195,\!972.74$	(7,578.48)		188,394.26
<b>25</b>			284.28		38,237.30	(280.74)		$37,\!956.56$
26			33.83		31,509.53	(33.41)		31,476.12
27			22.76		9,372.06	(22.48)		9,349.58
28 29			1,962.94		115,709.36	 (1,938.49)		113,770.87
29 30 31	Sub-Total Kenergy Industrials	\$	145,324.23	\$	3,871,273.22	\$ (143,514.31)	\$	3,727,758.91
32			10.42		1,289.89	(10.30)		1,279.59
33 34	TOTAL INDUSTRIALS	\$	145,334.65	\$	3,872,563.11	\$ (143,524.61)	\$	3,729,038.50
35 36		\$	503,729.06	\$	16,250,075.37	\$ (690,022.28)	\$	15,560,053.09

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 3 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - June 2020

1 Member Billing June 2020	KW Billed (a)	kWh (b)	Demand Revenue (c)	]	Base Energy Revenue (d)		Total Demand & Energy (e) = (c) + (d)
2 3 JP RURALS	127,018	55,267,767	 1,753,483.49	\$	2,487,049.52	\$	4,240,533.01
4 KENERGY	222,604	99,672,305	3,073,048.22	·	4,485,253.73	•	7,558,301.95
5 MEADE CO. RURALS	86,949	37,221,708	1,200,330.95		1,674,976.86		2,875,307.81
6 7 TOTAL RURALS	436,571	192,161,780	\$ 6,026,862.66	\$	8,647,280.11	\$	14,674,142.77
8 9	4,884	1,567,031	 52,332.06	\$	59,625.53	\$	111,957.59
0	3	17	32.15		0.65		32.80
1	40,800	17,950,886	437,172.00		683,031.21		1,120,203.21
2	1,620	315,460	$17,\!358.30$		12,003.25		29,361.55
3	15,000	9,086,504	160,725.00		345,741.48		506,466.48
4	84	33,511	900.06		1,275.09		$2,\!175.15$
5	3,396	1,067,973	36,388.14		40,636.37		77,024.51
6	100	16,475	1,071.50		626.87		$1,\!698.37$
7	$36,\!245$	$22,\!801,\!680$	388, 365.18		867,603.92		1,255,969.10
3	126	63,508	1,350.09		2,416.48		3,766.57
	3,387	1,626,696	$36,\!291.71$		61,895.78		98,187.49
	100	0	1,071.50		-		1,071.50
	250	$23,\!677$	$2,\!678.75$		900.91		3,579.66
	7,416	4,397,875	79,462.44		167,339.14		$246,\!801.58$
3	13,388	7,502,652	$143,\!452.42$		285,475.91		428,928.33
	2,081	1,138,484	$22,\!297.92$		43,319.32		$65,\!617.24$
5	3,000	128,922	$32,\!145.00$		4,905.48		$37,\!050.48$
3	2,760	13,621	$29,\!573.40$		518.28		30,091.68
7	800	10,520	8,572.00		400.29		8,972.29
8	7,200	490,933	77,148.00		18,680.00		95,828.00
29 30 Sub-Total Kenergy Industrials 31	142,640	68,236,425	\$ 1,528,387.62	\$	2,596,395.96	\$	4,124,783.58
2	100	5,375	1,071.50		204.52		1,276.02
3 4 TOTAL INDUSTRIALS	142,740	68,241,800	\$ 1,529,459.12	\$	2,596,600.48	\$	4,126,059.60
85 86 GRAND TOTAL	579,311	260,403,580	\$ 7,556,321.78	\$	11,243,880.59	\$	18,800,202.37

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 4 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - June 2020

1 Member Billing June 2020		t Green Power (f)		er Factor enalty (g)	A	Billing Adjustment (h)	ł	Fuel Adjustment Clause (FAC) (i)		vironmental Surcharge (ES) (j)
2 3 JP RURALS	<u></u>	6.00	 \$		\$		\$	(92,407.71)	<u> </u>	218,838.21
4 KENERGY	Ŷ	-	Ŷ	-	Ψ	-	Ψ	(166, 652.09)	Ψ	390,099.16
5 MEADE CO. RURALS		-		-		-		(62,234.70)		148,374.61
6 7 TOTAL RURALS	\$	6.00	\$	_	\$	_	\$	(321,294.50)	\$	757,311.98
8 9	\$		\$		\$		\$	(2,620.08)	\$	5,781.72
10		-	·	-				(0.03)	·	1.68
11		-		-		(118, 161.81)		(30,013.88)		$51,\!893.18$
12		-		375.03		-		(527.45)		1,512.75
13		-		-		-		(15, 192.63)		26,229.11
14		-		128.58		-		(56.03)		112.44
15		-		-		-		(1,785.65)		3,977.33
L6		-		-		-		(27.55)		87.44
17		-		-		-		(38, 124.41)		65,054.65
8		-		-		-		(106.19)		194.91
.9		-		407.17		-		(2,719.84)		5,079.97
20		-		-		-		-		54.78
21		-		-		-		(39.59)		183.88
22		-		-		-		(7, 353.25)		12,780.36
3		-		-		-		(12, 544.43)		22,206.38
4		-		-		-		(1,903.55)		3,396.78
5		-		-		-		(215.56)		1,898.90
6		-		-		49.32		(22.77)		1,538.87
7		-		-		(17.67)		(17.59)		459.08
		-		-		1,648.76		(820.84)		4,917.19
29 30 Sub-Total Kenergy Industrials	\$		\$	910.78	\$	(116,481.40)	\$	(114,091.32)	\$	207,361.40
		-		-		-		(8.99)		65.43
33 34 TOTAL INDUSTRIALS	\$		\$	910.78	\$	(116,481.40)	\$	(114,100.31)	\$	207,426.83
35 36 GRAND TOTAL	\$	6.00	\$	910.78	\$	(116,481.40)	\$	(435,394.81)	\$	964,738.81

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 5 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - June 2020

1	Member Billing June 2020	No	on-FAC PPA (k)	(1	Revenue ) = $\sum$ (e) to (k)		MRSM - ER Adjustment (m)	I	Revenue Net of MRSM Adjustments n) = (l) + (m)
$2 \\ 3$	JP RURALS	\$	132,532.11	\$	4,499,501.62	\$	(163,477.78)	<u> </u>	4,336,023.84
4	KENERGY	Ŷ	239,014.19	Ŷ	8,020,763.21	Ŷ	(294,822.95)	Ŷ	7,725,940.26
5	MEADE CO. RURALS		89,257.66		3,050,705.38		(110,098.93)		2,940,606.45
6 7	TOTAL RURALS	\$	460,803.96	\$	15,570,970.21	\$	(568,399.66)	\$	15,002,570.55
8 9		\$	3,757.74	\$	118,876.97	\$	(3,427.83)	\$	115,449.14
10			0.04		34.49		(0.04)		34.45
11			43,046.22		1,066,966.92		(39, 266.98)		1,027,699.94
12			756.47		$31,\!478.35$		(690.06)		30,788.29
13			21,789.44		$539,\!292.40$		(19, 876.43)		$519,\!415.97$
<b>14</b>			80.36		2,440.50		(73.31)		2,367.19
15			2,561.00		81,777.19		(2, 336.15)		79,441.04
<b>16</b>			39.51		1,797.77		(36.04)		1,761.73
17			$54,\!678.43$		1,337,577.77		(49, 877.93)		$1,\!287,\!699.84$
18			152.29		4,007.58		(138.92)		3,868.66
19			3,900.82		104,855.61		(3,558.35)		$101,\!297.26$
20			-		1,126.28		-		1,126.28
<b>21</b>			56.78		3,780.73		(51.79)		3,728.94
<b>22</b>			10,546.10		262,774.79		(9,620.20)		$253,\!154.59$
23			17,991.36		456,581.64		(16, 411.81)		440,169.83
24			2,730.08		69,840.55		(2,490.40)		67,350.15
25			309.15		39,042.97		(282.01)		38,760.96
26			32.66		31,689.76		(29.79)		31,659.97
27			25.23		9,421.34		(23.01)		9,398.33
28 29			1,177.26		102,750.37		(1,073.89)		101,676.48
30 31	Sub-Total Kenergy Industrials	\$	163,630.94	\$	4,266,113.98	\$	(149,264.94)	\$	4,116,849.04
32 33			12.89		1,345.35		(11.76)		1,333.59
34	TOTAL INDUSTRIALS	\$	163,643.83	\$	4,267,459.33	\$	(149,276.70)	\$	4,118,182.63
35 36	GRAND TOTAL	\$	624,447.79	\$	19,838,429.54	\$	(717,676.36)	\$	19,120,753.18

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 6 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - July 2020

1	Member Billing July 2020	KW Billed (a)	kWh (b)	Demand Revenue (c)	]	Base Energy Revenue (d)	(	Total Demand & Energy e) = (c) + (d)
2 3	JP RURALS	134,488	67,459,733	 1,856,606.84		3,035,687.99	\$	4,892,294.83
4	KENERGY	235,088	120,947,704	3,245,389.84	Ŷ	5,442,646.68	Ŧ	8,688,036.52
5	MEADE CO. RURALS	90,717	45,912,565	1,252,348.19		2,066,065.43		3,318,413.62
6 7	TOTAL RURALS	460,293	234,320,002	\$ 6,354,344.87	\$	10,544,400.10	\$	16,898,744.97
8 9		5,103	2,029,969	 54,678.65	 \$	77,240.32	\$	131,918.97
10		3	16	32.15	т	0.61	т	32.76
11		40,800	17,397,198	437,172.00		661,963.38		1,099,135.38
12		1,726	421,381	18,494.09		16,033.55		34,527.64
13		15,000	11,160,000	160,725.00		424,638.00		585,363.00
14		91	$37,\!254$	975.07		1,417.51		2,392.58
15		1,800	247,750	19,287.00		9,426.89		28,713.89
16		100	16,082	1,071.50		611.92		$1,\!683.42$
17		$34,\!258$	18,119,242	$367,\!074.47$		689,437.16		1,056,511.63
18		100	$27,\!550$	1,071.50		1,048.28		2,119.78
19		3,372	$1,\!594,\!257$	36,130.98		60,661.48		96,792.46
20		19	0	203.59		-		203.59
<b>21</b>		250	$24,\!807$	$2,\!678.75$		943.91		3,622.66
<b>22</b>		7,477	4,560,813	80,116.06		$173,\!538.93$		$253,\!654.99$
<b>23</b>		$14,\!217$	$7,\!564,\!944$	$152,\!335.16$		287,846.12		440,181.28
<b>24</b>		2,011	1,136,000	$21,\!547.87$		43,224.80		64,772.67
<b>25</b>		3,000	150,422	$32,\!145.00$		5,723.56		37,868.56
<b>26</b>		2,760	15,046	$29,\!573.40$		572.50		30,145.90
<b>27</b>		800	13,660	8,572.00		519.76		9,091.76
28 29		7,200	403,081	77,148.00		15,337.23		92,485.23
30	TOTAL INDUSTRIALS	140,087	64,919,472	\$ 1,501,032.24	\$	2,470,185.91	\$	3,971,218.15
$\begin{array}{c} 31\\ 32 \end{array}$		600,380	299,239,474	\$ 7,855,377.11	\$	13,014,586.01	\$	20,869,963.12

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 7 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - July 2020

1 2	Member Billing July 2020	et Green Power (f)	ver Factor Penalty (g)	A	Billing Adjustment (h)	ł	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)
2 3	JP RURALS	\$ 6.00	\$ 	\$		\$	(117,245.02)	\$ 381,796.20
4 5	KENERGY MEADE CO. RURALS	-	-		-		(210,207.11) (79,796.04)	678,075.67 258,977.93
6 7 8	TOTAL RURALS	\$ 6.00	\$ 	\$	_	\$	(407,248.17)	\$ 1,318,849.80
8 9		\$ 	\$ 	\$	-	\$	(3,528.09)	\$ 10,305.76
10		-	-				(0.03)	2.53
11		-	-		(118,161.81)		(30,236.33)	76,753.04
12		-	-		-		(732.36)	2,691.75
$\begin{array}{c} 13\\14\end{array}$		-	- 139.30		-		(19,396.08) (64.75)	$\begin{array}{r} 45,839.55 \\ 186.94 \end{array}$
14		-	109.00		-		(430.59)	2,233.28
16		-	-		_		(430.93) (27.95)	131.01
17		-	-		-		(31,491.24)	82,631.74
18		-	-		-		(47.88)	165.34
19		-	1,242.94		-		(2,770.82)	7,566.96
20		-	-		-		-	15.74
<b>21</b>		-	-		-		(43.11)	281.43
22		-	-		-		(7,926.69)	19,849.58
23		-	-		-		(13, 147.87)	34,428.21
24		-	-		-		(1,974.37)	5,067.27
25 26		-	-		-		(261.43)	2,936.30
26 27		-	-		30.76 (45.42)		(26.15) (23.74)	$2,332.15 \\ 703.82$
28		-	-		(45.42) 1,973.21		(23.74) (700.55)	7,173.06
29 30		\$ 	\$ 1,382.24	\$	(116,203.26)	\$	(112,830.03)	\$ 301,295.46
$\begin{array}{c} 31\\ 32 \end{array}$		\$ 6.00	\$ 1,382.24	\$	(116,203.26)	\$	(520,078.20)	\$ 1,620,145.26

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 8 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - July 2020

1	Member Billing July 2020	No	on-FAC PPA (k)	(1	Revenue ) = $\sum$ (e) to (k)	MRSM - ER Adjustment (m)	1	Revenue Net of MRSM Adjustments n) = (l) + (m)
2 3 4	JP RURALS KENERGY	\$	$161,768.44 \\290,032.59$	\$	5,318,620.45 9,445,937.67	\$ (151,979.79) (272,482.63)	\$	5,166,640.66 9,173,455.04
5	MEADE CO. RURALS		110,098.33		3,607,693.84	(103, 436.25)		3,504,257.59
6 7	TOTAL RURALS	\$	561,899.36	\$	18,372,251.96	\$ (527,898.67)	\$	17,844,353.29
8				+ 		 		
9		\$	4,867.87	\$	143,564.51	\$ (4,335.14)	\$	139,229.37
10			0.04		35.30	(0.04)		35.26
11			41,718.48		1,069,208.76	(37, 152.93)		1,032,055.83
12			1,010.47		37,497.50	(899.89)		36,597.61
13			26,761.68		638,568.15	(23,832.96)		614,735.19
14			89.34		2,743.41	(79.56)		2,663.85
15			594.10		31,110.68	(529.08)		30,581.60
16			38.56		1,825.04	(34.35)		1,790.69
17			43,449.94		1,151,102.07	(38,694.91)		1,112,407.16
18			66.06		2,303.30	(58.83)		2,244.47
19 20			3,823.03		106,654.57	(3,404.65)		103,249.92
20 21			59.49		219.33 3,920.47	- (52.07)		$219.33 \\ 3,867.50$
²¹ 22			10,936.83		3,920.47 276,514.71	(52.97) (9,739.93)		266,774.78
23			10,330.83 18,140.74		479,602.36	(16,155.47)		463,446.89
23 24			2,724.13		70,589.70	(10,135.47) (2,426.01)		68,163.69
24 25			360.71		40,904.14	(2,420.01) (321.23)		40,582.91
26 26			36.08		32,518.74	(32.13)		32,486.61
20 27			32.76		9,759.18	(29.17)		9,730.01
28			966.59		101,897.54	(860.80)		101,036.74
29 30	TOTAL INDUSTRIALS	\$	155,676.90	\$	4,200,539.46	\$ (138,640.05)	\$	4,061,899.41
$\begin{array}{c} 31\\ 32 \end{array}$	GRAND TOTAL	\$	717,576.26	\$	22,572,791.42	\$ (666,538.72)	\$	21,906,252.70

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 9 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - August 2020

1	Member Billing August 2020	KW Billed (a)	kWh (b)	Demand Revenue (c)		Base Energy Revenue (d)		Total Demand & Energy (e) = (c) + (d)
4	JP RURALS KENERGY MEADE CO. RURALS	$\begin{array}{c} 136,466\\ 245,620\\ 87,083\end{array}$	58,281,668 105,166,594 39,735,868	 $1,883,913.13 \\3,390,784.10 \\1,202,180.82$	\$	2,622,675.06 4,732,496.73 1,788,114.06	\$	$\begin{array}{c} 4,506,588.19\\ 8,123,280.83\\ 2,990,294.88\end{array}$
	TOTAL RURALS	469,169	203,184,130	\$ 6,476,878.05	\$	9,143,285.85	\$	15,620,163.90
8 9		5,027	2,149,406	 53,864.31	\$	81,784.90	\$	135,649.21
10		3	16	32.15	т	0.61	т	32.76
11		40,800	$19,\!688,\!435$	437,172.00		749,144.95		1,186,316.95
12		1,732	351,624	18,558.38		13,379.29		31,937.67
13		15,000	11,153,374	160,725.00		424,385.88		585, 110.88
14		89	35,934	953.64		1,367.29		2,320.93
15		1,800	60,552	19,287.00		2,304.00		$21,\!591.00$
16		100	16,863	1,071.50		641.64		1,713.14
17		35,726	$13,\!540,\!641$	382,804.09		$515,\!221.39$		898,025.48
18		3,410	1,513,508	$36,\!538.15$		57,588.98		$94,\!127.13$
19		250	23,186	$2,\!678.75$		882.23		3,560.98
20		7,568	4,680,031	81,091.12		178,075.18		259,166.30
21		13,926	7,441,001	149,217.09		283, 130.09		432, 347.18
22		2,087	$1,\!175,\!657$	22,362.21		44,733.75		67,095.96
23		3,000	$170,\!656$	$32,\!145.00$		6,493.46		$38,\!638.46$
<b>24</b>		2,760	18,830	$29,\!573.40$		716.48		30,289.88
<b>25</b>		800	14,760	8,572.00		561.62		9,133.62
26 27		7,200	450,250	77,148.00		17,132.01		94,280.01
28 ′	TOTAL INDUSTRIALS	141,278	62,484,724	\$ 1,513,793.79	\$	2,377,543.75	\$	3,891,337.54
29 30	GRAND TOTAL	610,447	265,668,854	\$ 7,990,671.84	\$	11,520,829.60	\$	19,511,501.44

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 10 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - August 2020

1	Member Billing August 2020	Net Green Power (f)	Ро	ower Factor Penalty (g)	ł	Billing Adjustment (h)	I	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)
2 3 4	JP RURALS KENERGY	\$ 6.00	\$		\$		\$	$26,809.57 \\ 48,376.63$	\$ 391,501.08 705,721.00
5	MEADE CO. RURALS	-		-		-		$18,\!278.50$	260,030.74
6 7 8	TOTAL RURALS	\$ 6.00	\$		\$	-	\$	93,464.70	\$ 1,357,252.82
8 9 10		\$ _	\$		\$	-	\$	988.73	\$ 11,878.87
10 11		-		-		(118,161.81)		$0.01 \\ 9,056.68$	$\begin{array}{c} 2.75\\ 94,200.44\end{array}$
12		-		-		-		161.75	2,759.82
13		-		-		-		5,130.55	$51,\!689.07$
14		-		128.58		-		16.53	203.04
15		-		-		-		27.85	1,823.32
16		-		-		-		7.76	147.56
17		-		-		-		6,228.69	78,475.58
18		-		-		-		696.21	8,248.03
19		-		-		-		10.67	303.88
20		-		-		-		2,152.81	22,832.62
21 22		-		-		-		$3,422.86 \\ 540.80$	38,002.19
22 23		-		-		-		78.50	5,902.56 3,277.86
$\frac{23}{24}$				-				8.66	2,542.09
$\frac{24}{25}$		-		-		(86.10)		6.79	2,542.05 768.72
26		-		-		1,111.45		207.12	8,006.26
27 28 29		\$ 	\$	128.58	\$	(117,136.46)	\$	28,742.97	\$ 331,064.66
29 30		\$ 6.00	\$	128.58	\$	(117,136.46)	\$	122,207.67	\$ 1,688,317.48

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 11 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - August 2020

1	Member Billing August 2020	No	on-FAC PPA (k)	(1	Revenue ) = $\sum$ (e) to (k)	MRSM - ER Adjustment (m)	ł	Revenue Net of MRSM Adjustments n) = (l) + (m)
2 3	JP RURALS	\$	139,759.44	\$	5,064,664.28	\$ (148,570.63)	\$	4,916,093.65
4	KENERGY		$252,\!189.49$		$9,\!129,\!567.95$	(268, 088.86)		8,861,479.09
5	MEADE CO. RURALS		$95,\!286.61$		3,363,890.73	(101, 293.99)		3,262,596.74
6					17 550 199 00			
8	TOTAL RURALS	\$	487,235.54	\$	17,558,122.96	\$ (517,953.48)	\$	17,040,169.48
9		\$	5,154.28	\$	153,671.09	\$ (4,679.22)	\$	148,991.87
10			0.04		35.56	(0.03)		35.53
11			$47,\!212.87$		1,218,625.13	(42, 861.34)		1,175,763.79
12			843.19		35,702.43	(765.48)		$34,\!936.95$
13			26,745.79		668, 676.29	(24, 280.68)		$644,\!395.61$
14			86.17		2,755.25	(78.23)		$2,\!677.02$
15			145.20		$23,\!587.37$	(131.81)		$23,\!455.56$
16			40.44		1,908.90	(36.71)		1,872.19
17			32,470.46		1,015,200.21	(29, 477.71)		985,722.50
18			3,629.39		106,700.76	(3,294.88)		103,405.88
19			55.60		3,931.13	(50.47)		3,880.66
20			$11,\!222.71$		$295,\!374.44$	(10, 188.33)		285, 186.11
<b>21</b>			$17,\!843.52$		491,615.75	(16, 198.92)		$475,\!416.83$
<b>22</b>			2,819.23		76,358.55	(2,559.39)		73,799.16
<b>23</b>			409.23		42,404.05	(371.51)		42,032.54
<b>24</b>			45.15		32,885.78	(40.99)		$32,\!844.79$
<b>25</b>			35.39		9,858.42	(32.13)		9,826.29
26			1,079.70		104,684.54	(980.18)		103,704.36
27 28	TOTAL INDUSTRIALS	\$	149,838.36	\$	4,283,975.65	\$ (136,028.01)	\$	4,147,947.64
29 30	GRAND TOTAL	\$	637,073.90	\$	21,842,098.61	\$ (653,981.49)	\$	21,188,117.12

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 12 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - September 2020

1	Member Billing September 2020	KW Billed (a)	kWh (b)	Demand Revenue (c)	]	Base Energy Revenue (d)	Total Demand & Energy (e) = (c) + (d)
2 3	JP RURALS	120,548	47,871,490	 1,664,165.14	\$	2,154,217.05	\$ 3,818,382.19
4	KENERGY	220,841	88,266,122	3,048,710.01		3,971,975.49	7,020,685.50
5	MEADE CO. RURALS	80,117	32,780,560	1,106,015.19		1,475,125.20	2,581,140.39
6 7	TOTAL RURALS	421,506	168,918,172	\$ 5,818,890.34	\$	7,601,317.74	\$ 13,420,208.08
8 9		4,937	2,173,906	 52,899.96	\$	82,717.12	\$ 135,617.08
10		3	17	32.15		0.65	32.80
11		40,800	19,262,468	$437,\!172.00$		732,936.91	1,170,108.91
12		1,890	409,753	$20,\!251.35$		15,591.10	$35,\!842.45$
13		15,000	10,790,318	160,725.00		410,571.60	$571,\!296.60$
14		63	$27,\!227$	675.05		1,035.99	1,711.04
15		1,800	52,176	19,287.00		1,985.30	$21,\!272.30$
16		100	15,219	1,071.50		579.08	$1,\!650.58$
17		35,165	$22,\!130,\!472$	376,792.98		842,064.46	$1,\!218,\!857.44$
18		3,372	$1,\!577,\!679$	36,130.98		60,030.69	96,161.67
19		250	21,603	$2,\!678.75$		821.99	3,500.74
20		7,484	4,494,344	80,191.06		171,009.79	$251,\!200.85$
<b>21</b>		13,077	7,600,866	140,120.06		289,212.95	429,333.01
<b>22</b>		$2,\!249$	$1,\!220,\!359$	24,098.04		46,434.66	70,532.70
<b>23</b>		3,000	157,953	$32,\!145.00$		6,010.11	38,155.11
<b>24</b>		2,760	20,718	29,573.40		788.32	30,361.72
<b>25</b>		800	8,752	8,572.00		333.01	8,905.01
26		7,200	606,656	77,148.00		23,083.26	100,231.26
27 28	TOTAL INDUSTRIALS	139,950	70,570,486	\$ 1,499,564.28	\$	2,685,206.99	\$ 4,184,771.27
29 30	GRAND TOTAL	561,456	239,488,658	\$ 7,318,454.62	\$	10,286,524.73	\$ 17,604,979.35

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 13 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - September 2020

1	Member Billing September 2020	Net Green Power (f)	Po	ower Factor Penalty (g)	A	Billing Adjustment (h)	ł	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)
2 3	JP RURALS	\$ 6.00	\$		\$		\$	(48,110.85)	\$ 286,952.81
4	KENERGY	-		-		-		(88,707.45)	527,619.46
5 6	MEADE CO. RURALS	 -		-		-		(32,944.46)	193,994.73
7	TOTAL RURALS	\$ 6.00	\$	-	\$	-	\$	(169,762.76)	\$ 1,008,567.00
8 9		\$ 	\$		\$		\$	(2,184.78)	\$ 10,215.43
10		-		-				(0.02)	2.45
11		-		-		(118,161.81)		(19,358.78)	79,358.84
12		-		-		-		(411.80)	2,691.59
13		-		-		-		(10,844.27)	43,115.10
$\begin{array}{c} 14 \\ 15 \end{array}$		-		182.16		-		(27.36) (52.44)	$128.88 \\ 1,587.86$
15 16		-		-		-		(15.30)	1,587.80 123.77
10		-		-		_		(10.00) (22,241.12)	91,941.10
18		-		-		-		(1,585.57)	7,245.25
19		-		-		-		(21.71)	261.96
20		-		-		-		(4,516.82)	18,945.29
<b>21</b>		-		-		-		(7,638.87)	$32,\!375.78$
<b>22</b>		-		-		-		(1,226.46)	5,317.41
<b>23</b>		-		-		-		(158.74)	2,851.30
<b>24</b>		-		-		23.81		(20.82)	2,263.64
<b>25</b>		-		-		-		(8.80)	664.05
26 27		-		-		149.26		(609.69)	 7,499.82
21 28 29	TOTAL INDUSTRIALS	\$ -	\$	182.16	\$	(117,988.74)	\$	(70,923.35)	\$ 306,589.52
29 30	GRAND TOTAL	\$ 6.00	\$	182.16	\$	(117,988.74)	\$	(240,686.11)	\$ 1,315,156.52

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 14 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - September 2020

1	Member Billing September 2020	No	on-FAC PPA (k)	(1	Revenue ) = $\sum$ (e) to (k)	MRSM - ER Adjustment (m)	A	Revenue Net of MRSM Adjustments n) = (l) + (m)
2 3	JP RURALS	\$	80,328.36	\$	4,137,558.51	\$ (149,519.96)	\$	3,988,038.55
4	KENERGY		$148,\!110.55$		7,607,708.06	(275, 686.98)		7,332,021.08
5	MEADE CO. RURALS		55,005.78		2,797,196.44	(102, 385.53)		2,694,810.91
6								
7 8	TOTAL RURALS	\$	283,444.69	\$	14,542,463.01	\$ (527,592.47)	\$	14,014,870.54
9		\$	3,647.81	\$	147,295.54	\$ (4,268.29)	\$	143,027.25
10			0.03		35.26	(0.04)		35.22
11			32, 322.42		1,144,269.58	(37, 820.31)		1,106,449.27
12			687.57		38,809.81	(804.52)		38,005.29
13			18,106.15		$621,\!673.58$	(21, 185.92)		600,487.66
14			45.69		2,040.41	(53.46)		1,986.95
15			87.55		$22,\!895.27$	(102.44)		22,792.83
16			25.54		1,784.59	(29.89)		1,754.70
17			$37,\!134.93$		1,325,692.35	(43, 451.40)		$1,\!282,\!240.95$
18			$2,\!647.35$		104,468.70	(3,097.65)		101,371.05
19			36.25		3,777.24	(42.41)		3,734.83
20			7,541.51		$273,\!170.83$	(8,824.28)		264, 346.55
<b>21</b>			12,754.25		466,824.17	(14, 923.69)		$451,\!900.48$
<b>22</b>			2,047.76		76,671.41	(2,396.08)		$74,\!275.33$
<b>23</b>			265.05		41,112.72	(310.12)		40,802.60
<b>24</b>			34.76		32,663.11	(40.67)		$32,\!622.44$
<b>25</b>			14.69		9,574.95	(17.18)		9,557.77
26			1,017.97		108,288.62	(1,191.11)		107,097.51
27 28		\$	118,417.28	\$	4,421,048.14	\$ (138,559.46)	\$	4,282,488.68
29 30		\$	401,861.97	\$	18,963,511.15	\$ (666,151.93)	\$	18,297,359.22

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 15 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - October 2020

1 2	Member Billing October 2020	KW Billed (a)	kWh (b)	Demand Revenue (c)	F	Base Energy Revenue (d)	(	Total Demand & Energy (e) = (c) + (d)
2 3	JP RURALS	76,023	41,570,515	 1,049,497.52	\$	1,870,673.18	\$	2,920,170.70
4	KENERGY	137,611	76,249,600	1,899,719.86	т	3,431,232.00	т	5,330,951.86
5	MEADE CO. RURALS	52,753	30,431,978	728,255.17		1,369,439.01		2,097,694.18
6 7 8	TOTAL RURALS	266,387	148,252,093	\$ 3,677,472.55	\$	6,671,344.19	\$	10,348,816.74
8 9		4,785	1,963,438	 51,271.28	\$	74,708.82	\$	125,980.10
10		40,800	20,295,863	437,172.00		$772,\!257.59$		1,209,429.59
11		2,069	492,677	22,169.34		18,746.36		40,915.70
12		15,000	11,121,804	160,725.00		423,184.64		$583,\!909.64$
13		60	$24,\!566$	642.90		934.74		1,577.64
14		1,800	50,881	$19,\!287.00$		1,936.02		$21,\!223.02$
15		100	$18,\!615$	1,071.50		708.30		1,779.80
16		36,331	$22,\!969,\!625$	$389,\!286.67$		873,994.23		1,263,280.90
17		3,357	$1,\!652,\!181$	35,970.26		62,865.49		98,835.75
18		250	23,775	$2,\!678.75$		904.64		3,583.39
19		7,401	4,583,219	79,301.72		174,391.48		$253,\!693.20$
20		12,960	$7,\!265,\!655$	138,866.40		276,458.17		$415,\!324.57$
<b>21</b>		2,370	1,362,750	$25,\!394.55$		$51,\!852.64$		$77,\!247.19$
<b>22</b>		3,000	174,969	32,145.00		$6,\!657.57$		$38,\!802.57$
<b>23</b>		2,760	21,763	$29,\!573.40$		828.08		30,401.48
<b>24</b>		800	$15,\!678$	8,572.00		596.55		9,168.55
25 26		7,200	596,344	77,148.00		22,690.89		99,838.89
26 27	TOTAL INDUSTRIALS	141,043	72,633,803	\$ 1,511,275.77	\$	2,763,716.21	\$	4,274,991.98
28 29	GRAND TOTAL	407,430	220,885,896	\$ 5,188,748.32	\$	9,435,060.40	\$	14,623,808.72

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 16 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - October 2020

1	Member Billing October 2020	Net Green Power (f)	Po	wer Factor Penalty (g)	A	Billing Adjustment (h)	1	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)
2 3	JP RURALS	\$ 6.00	\$		\$		\$	(78,194.14)	\$ 116,478.45
4	KENERGY	-		-		-		(143, 425.50)	$212,\!635.67$
5	MEADE CO. RURALS	-		-		-		(57, 242.55)	83,667.25
0 7 8	TOTAL RURALS	\$ 6.00	\$	-	\$		\$	(278,862.19)	\$ 412,781.37
8 9		\$ 	\$		\$	-	\$	(3,693.23)	\$ 5,023.66
10		-		-		(118,161.81)		(38, 176.52)	43,489.33
11		-		-		-		(926.73)	$1,\!632.76$
12		-		-		-		(20, 920.11)	$23,\!267.91$
13		-		150.01		-		(46.21)	62.91
14		-		-		-		(95.71)	848.57
15		-		-		-		(35.01)	71.05
16		-		-		-		(43, 205.86)	50,348.69
17		-		-		-		(3, 107.75)	3,940.32
18		-		-		-		(44.72)	143.15
19		-		-		-		(8,621.03)	10,111.31
20		-		-		-		(13, 666.70)	$16,\!555.29$
<b>21</b>		-		-		-		(2,563.33)	3,079.06
22		-		-		-		(329.12)	1,550.80
<b>23</b>		-		-		48.00		(40.94)	1,215.98
<b>24</b>		-		-		-		(29.49)	366.64
25 26		-		-		1,408.60		(1,121.72)	 3,989.03
20 27 28	TOTAL INDUSTRIALS	\$ -	\$	150.01	\$	(116,705.21)	\$	(136,624.18)	\$ 165,696.46
28 29		\$ 6.00	\$	150.01	\$	(116,705.21)	\$	(415,486.37)	\$ 578,477.83

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 17 of 25

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members - October 2020

1	Member Billing October 2020	No	on-FAC PPA (k)	(1	Revenue ) = $\sum$ (e) to (k)		MRSM - ER Adjustment (m)	ł	Revenue Net of MRSM Adjustments n) = (l) + (m)
2 3	JP RURALS	\$	69,755.32	\$	3,028,216.33	\$	(144,679.28)	\$	2,883,537.05
4	KENERGY	т	127,946.83	т	5,528,108.86	т	(265, 374.08)	т	5,262,734.78
5	MEADE CO. RURALS		51,064.86		2,175,183.74		(105,913.45)		2,069,270.29
6 7	TOTAL RURALS	\$	248,767.01	\$	10,731,508.93	\$	(515,966.81)	\$	10,215,542.12
8 9		\$	3,294.65	 \$	130,605.18	\$	(3,663.01)	\$	126,942.17
10		Ŧ	34,056.46	Ŧ	1,130,637.05	Ŧ	(37,864.10)	т	1,092,772.95
11			826.71		42,448.44		(919.15)		41,529.29
12			$18,\!662.39$		604,919.83		(20,748.91)		$584,\!170.92$
13			41.22		1,785.57		(5.82)		1,779.75
14			85.38		22,061.26		(94.92)		21,966.34
15			31.24		1,847.08		(34.73)		1,812.35
16			$38,\!543.03$		1,308,966.76		(42,852.29)		1,266,114.47
17			2,772.36		102,440.68		(3,082.32)		99,358.36
18			39.89		3,721.71		(44.35)		3,677.36
19			$7,\!690.64$		262,874.12		(8,550.48)		$254,\!323.64$
20			12,191.77		430,404.93		(13, 554.86)		$416,\!850.07$
<b>21</b>			$2,\!286.69$		80,049.61		(2,542.36)		77,507.25
<b>22</b>			293.60		40,317.85		(326.42)		39,991.43
<b>23</b>			36.52		31,661.04		(40.60)		$31,\!620.44$
<b>24</b>			26.31		9,532.01		(29.24)		9,502.77
25 26			1,000.67		105,115.47		(1, 112.54)		104,002.93
26 27	TOTAL INDUSTRIALS	\$	121,879.53	\$	4,309,388.59	\$	(135,466.10)	\$	4,173,922.49
28 29	GRAND TOTAL	\$	370,646.54	\$	15,040,897.52	\$	(651,432.91)	\$	14,389,464.61

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 18 of 25

## Big Rivers Electric Corporation Monthly Billing Summary Other Sales May 2020

1	May 2020 - Other Sales MW	/H	REVENUE
2 3	SPECIAL SALES - ENERGY		 
4		2,140	\$ 50,885.08
5	MISO	86,362	\$ 1,863,216.35
6			\$ 352, 353.36
7			\$ 8,081.90
8			\$ 30,209.97
9			\$ 45,495.92
10		6,300.000	\$ 1,585,175.50
11			 
12	TOTAL SPECIAL SALES - ENERGY	94,802	\$ 3,935,418.08
<b>13</b>			
14	SPECIAL SALES - BILATERAL		
15			\$ (943,400.00)
16			\$ 1,044,100.00
17	MISO - CONTRA REVENUE		\$ (50, 275.80)
18			 <b>X</b> 0.404.00
19 20	TOTAL SPECIAL SALES - BILATERAL		\$ 50,424.20

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 19 of 25

## Big Rivers Electric Corporation Monthly Billing Summary Other Sales May 2020

1	May 2020 - Other Sales	MWH	1	REVENUE
2 3	SPECIAL SALES - CAPACITY			
4			\$	62,500.00
5			\$	500.00
6			\$	29,500.00
7			\$	$24,\!250.00$
8			\$	7,750.00
9			\$	285,043.00
10	MISO - CAPACITY SALES		\$	(1, 158.78)
11			\$	318,500.00
12			\$	(18, 932.50)
$13 \\ 14 \\ 15$	TOTAL SPECIAL SALES - BILATERAL		\$	707,951.72
15 16	TOTAL	94,802	\$	4,693,794.00

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 20 of 25

### Big Rivers Electric Corporation Monthly Billing Summary Other Sales June 2020

1	June 2020 - Other Sales MWH		REVENUE
2 3	SPECIAL SALES - ENERGY		
4	6,3	816	\$ 147,729.35
5		372	\$ 19,317.96
6	MISO 105,0	)66	\$ 2,647,738.14
7			\$ 463,377.95
8	77,0	008	\$ 2,916,109.51
9			\$ $124,\!680.84$
10			\$ 90,154.91
$\frac{11}{12}$	20,0	600	\$ 1,947,477.00
13	TOTAL SPECIAL SALES - ENERGY 209,3	362	\$ 8,356,585.66
$\begin{array}{c} 14 \\ 15 \end{array}$	SPECIAL SALES - BILATERAL		
16			\$ (818,800.00)
17			\$ 906,200.00
18			\$ (1,510,200.00)
19	MISO - CONTRA REVENUE		\$ $1,\!618,\!736.92$
<b>20</b>			 
<b>21</b>	TOTAL SPECIAL SALES - BILATERAL		\$ $195,\!936.92$
22			
23	SPECIAL SALES - CAPACITY		
<b>24</b>	MISO - CAPACITY SALES		\$ (1,415.10)
<b>25</b>			\$ 315,000.00
26			 
27 28	TOTAL SPECIAL SALES - BILATERAL		\$ 313,584.90
28 29	TOTAL 209,3	862	\$ 8,866,107.48

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 21 of 25

## Big Rivers Electric Corporation Monthly Billing Summary Other Sales July 2020

1	July 2020 - Other Sales	MWH		REVENUE
2 3	SPECIAL SALES - ENERGY			
4		21,317	\$	655, 170.94
5			\$	(10, 650.36)
6			\$	1,316.00
7	MISO	117,390	\$	$3,\!654,\!419.27$
8			\$	442,649.12
9		90,174	\$	3,440,863.99
10			\$	60,994.09
11			\$	53,122.54
12		33,925	\$	2,265,428.50
13				
14	TOTAL SPECIAL SALES - ENERGY	262,806	\$	10,563,314.09
15				
16	SPECIAL SALES - BILATERAL		¢	
17			\$	925,900.00
18			\$ ¢	(836,600.00)
19 20	MISO - CONTRA REVENUE		\$	24,925.03
20 21	TOTAL SPECIAL SALES - BILATERAL		\$	114,225.03
$\frac{21}{22}$	IUIAL SPECIAL SALES - DILATERAL		Φ	114,220.00
$\frac{22}{23}$	SPECIAL SALES - CAPACITY			
$\frac{23}{24}$	MISO - CAPACITY SALES		\$	(1,462.27)
24 25	MIDO - CALACITI DALLED		ս \$	315,000.00
25 26			ψ	515,000.00
$\frac{20}{27}$	TOTAL SPECIAL SALES - BILATERAL		\$	313,537.73
28			Ψ	515,551.10
20 29	TOTAL	262,806	\$	10,991,076.85

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 22 of 25

## Big Rivers Electric Corporation Monthly Billing Summary Other Sales August 2020

1	August 2020 - Other Sales	MWH		REVENUE
2 3	SPECIAL SALES - ENERGY			
4		12,664	\$	342,728.34
5			\$	(33, 318.25)
6	MISO	149,098	\$	4,147,090.67
7			\$	$504,\!359.87$
8		81,132	\$	2,960,369.35
9			\$	92,344.62
10			\$	70,302.62
11		27,675	\$	$2,\!117,\!707.25$
$\frac{12}{13}$	TOTAL SPECIAL SALES - ENERGY	270,569	\$	10,201,584.47
14		210,000	Ψ	10,201,001.11
15	SPECIAL SALES - BILATERAL			
16			\$	1,004,700.00
17	MISO - CONTRA REVENUE		\$	6,190.05
18			\$	(907, 800.00)
19				
20	TOTAL SPECIAL SALES - BILATERAL		\$	103,090.05
<b>21</b>				
22	SPECIAL SALES - CAPACITY			(
23	MISO - CAPACITY SALES		\$	(1,462.27)
24			\$	315,000.00
25 26	TOTAL SPECIAL SALES - BILATERAL		\$	313,537.73
$\frac{20}{27}$	TOTAL STEOTAL SALES - DILATEITAL		φ	010,007.70
28	TOTAL	270,569	\$	10,618,212.25

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 23 of 25

## Big Rivers Electric Corporation Monthly Billing Summary Other Sales September 2020

1	September 2020 - Other Sales	MWH	REVENUE	
2 3	SPECIAL SALES - ENERGY			
4		15,342	\$	327,265.06
5			\$	$52,\!847.35$
6	MISO	49,865	\$	1,224,613.09
7			\$	$597,\!640.04$
8		$71,\!631$	\$	$2,\!583,\!701.55$
9			\$	121,163.46
10			\$	84,307.09
$\frac{11}{12}$		15,275	\$	1,809,058.50
12 13	TOTAL SPECIAL SALES - ENERGY	152,113	\$	6,800,596.14
<b>14</b>				
15	SPECIAL SALES - BILATERAL			
16			\$	$945,\!600.00$
17	MISO - CONTRA REVENUE		\$	(8,886.69)
18			\$	(854, 400.00)
19				
20	TOTAL SPECIAL SALES - BILATERAL		\$	82,313.31
<b>21</b>				
22	SPECIAL SALES - CAPACITY			
<b>23</b>	MISO - CAPACITY SALES		\$	(1,415.10)
<b>24</b>			\$	315,000.00
<b>25</b>				
26 27	TOTAL SPECIAL SALES - BILATERAL		\$	313,584.90
27 28	TOTAL	152,113	\$	7,196,494.35

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 24 of 25

### Big Rivers Electric Corporation Monthly Billing Summary Other Sales October 2020

1	October 2020 - Other Sales	MWH	REVENUE
2 3	SPECIAL SALES - ENERGY		
4		5,959	\$ 168,847.65
5			\$ 3,810.00
6	MISO	140,677	\$ 4,193,845.05
7			\$ 336,970.57
8		56,609	\$ $407,\!536.48$
9			\$ $51,\!850.38$
10			\$ 39,142.48
$\frac{11}{12}$		26,775	\$ 2,088,565.25
13	TOTAL SPECIAL SALES - ENERGY	230,020	\$ 7,290,567.86
$\begin{array}{c} 14 \\ 15 \end{array}$	SPECIAL SALES - BILATERAL		
16			\$ 965,300.00
17	MISO - CONTRA REVENUE		\$ 1,918,590.48
18 19			\$ (872,200.00)
20	TOTAL SPECIAL SALES - BILATERAL		\$ 2,011,690.48
21 22	SPECIAL SALES - CAPACITY		
<b>23</b>	MISO - CAPACITY SALES		\$ (1, 462.27)
24			\$ 315,000.00
25 26	TOTAL SPECIAL SALES - BILATERAL		\$ 313,537.73
27 28	TOTAL	230,020	\$ 9,615,796.07

Case No. 2021-00058 Attachment for Response to PSC 1-13 Witness: Jennifer M. Stone Page 25 of 25

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 14)	Describe the effect on the FAC calculation of line losses related
2	to:	
3	<i>a</i> .	Intersystem sales when using a third-party transmission system,
4		and
5	<i>b</i> .	Intersystem sales when not using a third-party transmission system.
6		
7	Respons	e)
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

Case No. 2021-00058 Response to PSC 1-14 Witnesses: Natalie R. Hankins (a. only) and Jennifer M. Stone (b. only) Page 1 of 2

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 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	

Case No. 2021-00058 Response to PSC 1-14 Witnesses: Natalie R. Hankins (a. only) and Jennifer M. Stone (b. only) Page 2 of 2

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

Item 15) Provide a list, in chronological order, showing by unit, any
 scheduled, actual, and forced outages between for the last six months of the
 period under review. Provide a key for any information that is abbreviated.

4

5 Response) Please see the attached summary for the requested information
6 regarding scheduled ("S"), actual ("A"), and forced ("F") outages. As noted in footnotes
7 2 and 3 on page 5 of 5 of Big Rivers' response to Item 3, Big Rivers retired Reid Station
8 Unit 1, and Coleman Station Units 1, 2, and 3, effective September 30, 2020.

9

10

11 Witness) Ronald D. Gregory

12

Case No. 2021-00058 Response to PSC 1-15 Witness: Ronald D. Gregory Page 1 of 1

Big Rivers Electric Corporation Reid Station Unit #1 - Coal - 65MW Net May 1 2020, through October 31 2020 Schedule vs. Actual

			MAINTE	NANCE		UOUD		ΑΤΙΟΝ	REASON FO
		Scheduled		Actual			- HOURS OF DURATION		
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	OUTAGE AS
May 2020		No Outages							
June 2020		No Outages							D
July 2020		No Outages							Rei
August 2020		No Outages							
September 2020	)	No Outages							
October 2020		No Outages							Rei

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 1 of 9

### OR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED AS APPROPRIATE

### eid Unit #1 was idled on April 1, 2016.

eid Unit 1 was retired on September 30, 2020.

#### **Big Rivers Electric Corporation** Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net May 1 2020, through October 31 2020

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION MAINTENANCE OR REASON FOR FORCED Scheduled Actual MONTH TYPE FROM TO FROM ТО OUTAGE AS APPROPRIATE Scheduled Forced Actual May 2020 No Outages  $\mathbf{F}$ June 2020 A Starting Failure was declared when the Unit would 6/10/2020 12:17 6/10/2020 13:11 0:540:54not synchronize, due to a bus ground alarm.  $\mathbf{F}$ 0:12July 2020 7/29/2020 11:23 0:12A Starting Failure was declared when the Unit would 7/29/2020 11:35 not synchronize, due to a bus ground alarm. August 2020 The Unit was placed in MO (Maintenance Outage) S.A 8/27/2020 09:30 8/27/2020 19:00 8/27/2020 9:30 8/27/2020 19:00 9:30 9:30 status to repair an oil leak. The MO work was completed and the Unit was returned to RS (Reserve Standby) status. September 2020 F The Unit was removed from service, due to Air 9/16/2020 16:00 9/17/2020 14:00 22:0022:00Compressor issues discovered during regular scheduled inspections, repairs were made and the Unit was returned to RS (Reserve Standby) status.

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 2 of 9

Schedule vs. Actual

No Outages

October 2020

Schedule vs. Actual

#### Big Rivers Electric Corporation Green Station Unit #1 - Coal/Pet coke - 231MW Net May 1 2020, through October 31 2020

			MAINT	ENANCE				MION	REASON FO MAINTENAI
		Schedu	led	Act	ual	HOURS	S OF DURA	ATION	
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	OUTAGE AS
May 2020	$\mathbf{F}$			5/5/2020 2:10	5/5/2020 3:19		1:09	1:09	Starting Fail start limit du
	$\mathbf{F}$			5/26/2020 0:40	5/26/2020 2:10		1:30	1:30	Starting Fail start limit du
June 2020		No Outages							
July 2020	F			7/22/2020 13:58	7/22/2020 16:15		2:17	2:17	The Unit trip that caused a frequency co online.
August 2020	F			8/1/2020 0:29	8/2/2020 18:30		42:01	42:01	The Unit wa Outlet boiler leading edge
	F			8/22/2020 15:53	8/23/2020 0:22		8:29	8:29	The Unit trip when the (B) unexpectedly off.
September 2020		No Outages							
October 2020	$\mathbf{F}$			10/30/2020 3:12	10/31/2020 6:09		26:57	26:57	Unit taken or leak. Tube fa

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 3 of 9

#### FOR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED AS APPROPRIATE

ailure (SF) declared due to exceeding the cold during start-up

ailure (SF) declared due to exceeding the cold during start-up

ripped, due to an event outside of the plant d a frequency variation and the Unit compensators were unable to keep the Unit

vas removed from service, due to a Reheat er tube leak in the 4th tube back from the ge in the 24th bank from east.

ripped offline, due to high furnace pressure B) Induced Draft (ID) fan damper closed lly from the control arm locking nut backing

Unit taken offline, due to a Reheat Outlet boiler tube leak. Tube failure was the 3rd tube from leading edge in the 16th panel from the east wall @ elevation 598'.

Schedule vs. Actual

#### Big Rivers Electric Corporation Green Station Unit #2 - Coal/Pet coke - 223MW Net May 1 2020, through October 31 2020

				ENANCE		HOURS	S OF DUR	ΔΤΙΟΝ	REASON FO
	I		duled		tual	ļ			MAINTENA
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	OUTAGE AS
May 2020		No Outages							
June 2020	F			6/4/2020 20:00	6/5/2020 1:30		5:30	5:30	(A) Air Heate damaged dur pressure issu
	F			6/5/2020 2:14	6/6/2020 22:48		44:34	44:34	(A) Air Heate tolerance iss spun against
	F			6/7/2020 16:45	6/8/2020 1:34		8:49	8:49	Starting Fail 16 hour start pulverizer for were found to fuel.
	F			6/8/2020 6:06	6/8/2020 16:00		9:54	9:54	Boiler upset of O2 causing the unit.
	S, A	6/25/2020 07:00	6/27/2020 18:00	6/25/2020 7:00	6/27/2020 18:00	59:00		59:00	While the Ur was placed in water wall to on the south boiler at elev was complete Standby) stat
July 2020		No Outages							

August 2020 No Outages

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 4 of 9

#### FOR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED AS APPROPRIATE

ater Upper Guide bearing was found to be uring inspection for lube oil pump low sues.

ater Upper Guide Bushing failed due to low ssues with the bushing installed. The bushing st the outer race, due to these tolerances.

ailure (SF) was declared, due to exceeding the art time after not being able to line up a for unit tie on. The 2B and 2D Pulverizers to have pluggage in the throat ring from wet

et due to 2B pulverizer resulted in low boiler the control room operator (CRO) to trip the

Unit was offline, due to economics, the Unit in MO (Maintenance Outage) to a repair a tube leak. The tube failure was the 25th tube the wall counting from the west corner of the evation 510ft. The maintenance outage work eted and the unit was returned to RS (Reserve tatus.

**Big Rivers Electric Corporation** Green Station Unit #2 - Coal/Pet coke - 223MW Net May 1 2020, through October 31 2020

MAINTENANCE HOURS OF DURATION Scheduled Actual MONTH TYPE FROM ТО FROM ТО Scheduled Forced Actual

September 2020 F 9/23/2020 3:50 9/26/2020 21:00 89:10 89:10 The Unit was removed from service, due to a Secondary Super-Heat (SSH) boiler tube failure of the 11th tube from the leading edge in the 21st panel from the east @ elevation 600ft. October 2020 No Outages

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 5 of 9

Schedule vs. Actual

#### REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE

Big Rivers Electric Corporation Coleman Station Unit #1 - Coal - 150MW Net May 1 2020, through October 31 2020 Schedule vs. Actual

			MAINTE				REASON FO		
		Scheduled					Actual		MAINTENAN
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	OUTAGE AS
May 2020 June 2020 July 2020 August 2020 September 2020		No Outages No Outages No Outages No Outages No Outages							Coler
October 2020		No Outages							Colem

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 6 of 9

### OR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED AS APPROPRIATE

### eman Unit #1 was idled on May 1, 2014.

### man Unit #1 was retired on September 30, 2020

Big Rivers Electric Corporation Coleman Station Unit #2 - Coal - 138MW Net May 1 2020, through October 31 2020 Schedule vs. Actual

			MAINTE	NANCE		UOUD			REASON FO
	ſ	Scheduled		Actual		HOURS	HOURS OF DURATION		
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	OUTAGE AS
May 2020		No Outages							
June 2020		No Outages							
July 2020		No Outages							Coler
August 2020		No Outages							
September 2020		No Outages							
October 2020		No Outages							Colema

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 7 of 9

### OR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED S APPROPRIATE

### eman Unit #2 was idled on May 1, 2014.

### nan Unit #2 was retired on September 30, 2020.

Big Rivers Electric Corporation Coleman Station Unit #3 - Coal - 155MW Net May 1 2020, through October 31 2020 Schedule vs. Actual

			MAINTE	NANCE		HOURS OF DURATION			REASON FOR	
		Sche	duled	Act	ual	HOUR	S OF DUR	ATION	MAINTENAN	
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	OUTAGE AS	
May 2020 June 2020 July 2020 August 2020 September 2020		No Outages No Outages No Outages No Outages No Outages							Colem	
October 2020		No Outages							Colem	

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 8 of 9

### OR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED S APPROPRIATE

### man Unit #3 was idled on May 8, 2014.

man Unit #3 was retired on September 30, 2020.

Schedule vs. Actual

#### Big Rivers Electric Corporation Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net May 1 2020, through October 31 2020

	-	0.1		ENANCE	1	HOURS	S OF DUR	ATION	REASON FO
MONTH	TYPE	FROM	eduled TO	Act FROM	rual TO	Scheduled	Forced	Actual	MAINTENA OUTAGE AS
May 2020	F			5/19/2020 13:00	5/19/2020 21:24	Soneduleu	8:24	8:24	Control Syst Temperature caused a Un
	F			5/25/2020 19:07	5/26/2020 1:51				The Auxillar valve failed to operate in m recirculaton drum water
June 2020		No Outages							
July 2020	S, A	7/3/2020 00:00	7/6/2020 00:00	7/3/2020 0:00	7/5/2020 22:37	72:00		70:37	The Unit wa (Maintenanc in the Rehea
August 2020		No Outages							
September 2020	)	No Outages							
October 2020	F			10/19/2020 1:04	10/19/2020 5:37		4:33	4:33	Unit tripped lube oil pres broke.
	F			10/19/2020 9:41	10/19/2020 12:13		2:32	2:32	Unit tripped Pump (BFP)
	F			10/19/2020 21:29	10/20/2020 5:08		7:39	7:39	Unit tripped (ID) fan trip lube oil syste
Case No	F	0050		10/23/2020 17:20	10/24/2020 1:24		8:04	8:04	Unit was rer Hydraulic) c when an o-ri

Case No. 2020-00058 Attachment for Response to PSC 1-15 Witness: Ronald D. Gregory Page 9 of 9

### FOR DEVIATION FROM SCHEDULED ANCE OR REASON FOR FORCED AS APPROPRIATE

stem signal from two generator Resistance are Detectors (RTD) went to bad quality and nit trip.

ary Boiler Feed Pump (BFP) recirculation d to operate in automatic and would not manual from the control room. The BFP n valve issue resulted in a Unit trip, due to or level.

vas removed from service and placed in MO nce Outage) status to repair a boiler tube leak eater Section of the boiler.

ed, due to loss of #2 Boiler Feed Pump (BFP) essure when the lube oil pump drive coupling

ed on low drum level, due to a #2 Boiler Feed P) trip for vibration.

ed on low drum level, due to #1 Induced Draft ap caused by the relief valve failure on the stem.

emoved from service, due to an EH (Electro control system leak on #2 Governor Valve ring failed.

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 16)	For the last six months of the period under review, provide the
2	monthly ca	pacity factor at which each generating unit operated.
3		
4	Response)	Please see the table and the footnotes on following pages.
5		

6

Case No. 2021-00058 Response to PSC 1-16 Witness: Jason C. Burden Page 1 of 3

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1

	Mo	0	ers Electric city Factor	-			
Generating Unit	Metric a	May 2020	June 2020	July 2020	Aug. 2020	Sept. 2020	Oct. 2020
Station Two Unit # 1	GCF NCF		1	Retired Febr	uary 1, 2019	)	
Station Two Unit # 2	GCF NCF		Ι	Retired Febr	uary 1, 2019	)	
Reid Station Unit # 1 ^b	GCF NCF		Retired in N	VERC GADS	d on Decem	ber 1, 2019	
Reid Station Unit # 2 CT	GCF NCF	0.0%	0.7%	1.7% 1.7%	0.6%	0.0%	0.7% 0.5%
Green Station Unit # 1	GCF NCF	13.7% 12.3%	55.4% 52.1%	64.6% 61.5%	58.8% 55.7%	44.6% 41.7%	34.1% 32.4%
Green Station Unit # 2	GCF NCF	0.0%	38.5% 36.1%	64.0% 61.5%	62.0% 59.4%	5.4% 4.2%	31.5% 30.3%
Wilson Station Unit # 1	GCF NCF	57.5% 56.9%	71.9% 71.2%	72.0% 71.2%	81.6% 81.2%	75.0% 74.5%	80.3% 79.9%
Coleman Station	GCF NCF	0.0%	0.0%	0.0%	0.0%	0.0%	
Unit # 1 ^c Coleman Station	GCF NCF	0.0%	0.0%	0.0%	0.0%	0.0%	Not Applicable
Unit # 2 ° Coleman Station	GCF	0.0%	0.0%	0.0%	0.0%	0.0%	Apŗ
Unit # 3 °	NCF	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	

2

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1

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

	NCE (Not Composite Easter)		Net Actual Generation x 100%	
a	NCF (Net Capacity Factor)	= -	PH (Period Hours) x NMC (Net Maximum Capacity	
			Gross Actual Generation x 100%	
	GCF (Gross Capacity Factor)	= -	PH (Period Hours) x GMC (Gross Maximum Capacity	

**b.-** Reid 1 was put in Idled Status effective April 1, 2016. Big Rivers retired Reid Station Unit 1 effective September 30, 2020.

Coleman Station Units 1 and 2 were placed in Idled Status on May 1, 2014; Coleman
c.- Station Unit 3 was placed in Idled Status on May 8, 2014. Big Rivers retired Coleman Station Units 1, 2, and 3 effective September 30, 2020.

- **d.-** NERC GADS = North American Electric Reliability Corporation Generating Availability Data System
- 2
- 3

4 Witness) Jason C. Burden

5

Case No. 2021-00058 Response to PSC 1-16 Witness: Jason C. Burden Page 3 of 3

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1 Item 17)

2	<i>a</i> .	For the last six months of the period under review, explain whether
3		BREC made any changes to its maintenance and operation
4		practices or completed any specific generation efficiency
5		improvements that affect fuel usage at BREC's generation facilities.
6	<i>b</i> .	Describe the impact of these changes on BREC's fuel usage.
7		

8 Response)

9	a.	For the last six months of the period under review, <i>i.e.</i> , May 1, 2020,
10		through October 31, 2020, Big Rivers has not made any changes to its
11		maintenance and operation practices, or completed any specific generation
12		efficiency improvements that affect fuel usage at Big Rivers' generation
13		facilities.

- 14 b. Not Applicable.
- 15
- 16 Witnesses) Ronald D. Gregory (a. only) and
- 17 Jason C. Burden (b. only)

Case No. 2021-00058 Response to PSC 1-17 Witnesses: Ronald D. Gregory (a. only) and Jason C. Burden (b. only) Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 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 last six months of the 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 last six months of the period

7 under review, *i.e.*, May 1, 2020, through October 31, 2020. Big Rivers is also unaware

8 of any unreported violation prior to the current period under review.

9

10

11 Witness) Mark W. McAdams

12

Case No. 2021-00058 Response to PSC 1-18 Witness: Mark W. McAdams Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 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 last six months of the period under

3 review.

4

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

6 prior to or during the last six months of the period under review, *i.e.*, May 1, 2020,

7 through October 31, 2020.

8

9

10 Witness) Jennifer M. Stone

11

Case No. 2021-00058 Response to PSC 1-19 Witness: Jennifer M. Stone Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 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	<b>Response)</b> All of Big Rivers' fuel and transportation contracts have been filed with
6	the Commission.
7	
8	
9	Witness) Mark W. McAdams

10

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

#### 1 Item 21) For each generating station, state the methods of coal delivery

- 2 currently available.
- 3

4 Response) The currently available methods for coal deliveries to Big Rivers
5 generating stations is shown below. Station Two is not shown since it was retired
6 February 1, 2019. Coleman Station and Reid Station are not shown since they were
7 retired on September 30, 2020.

8

9

10

11

12

		Rail	Truck	Barge
Gre	en	Not Available	Available	Available
Wilson		Not Available	Available	Available
Witness)	Mark W	. McAdams		

Case No. 2021-00058 Response to PSC 1-21 Witness: Mark W. McAdams Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1 Item 22) If a change in the base fuel cost is proposed, state the month to
2 be used as the base period (b). If the base period results in a fuel cost other
3 than one representative of current costs as prescribed by 807 KAR 5:056,
4 Section 1(2), explain why this base period was selected. If no change is
5 proposed, include an explanation of the reason(s) BREC believes the current
6 base period fuel cost should remain unchanged.

7

8 **Response**) Big Rivers is proposing, and recommends the Commission approve, no 9 change in Big Rivers' base fuel cost and that it, therefore, remain unchanged at \$0.020932 per kWh. Big Rivers believes the history of its monthly Fuel Adjustment 10 Clause ("FAC") factor during the period under review, and Big Rivers' projections of 11 12 its monthly FAC factor for 2021 and 2022, support this position. Big Rivers' Member-Owners have concurred with this position when presented the aforementioned 13 historical and forecasted information. Also, Big Rivers' current portfolio of fuel 14 contracts, and anticipated changes to that portfolio support this position. Finally, 15 16 Big Rivers believes this position is consistent with the standard which the Commission has applied to Big Rivers' prior two-year FAC reviews. 17

> Case No. 2021-00058 Response to PSC 1-22 Witnesses: Roger D. Hickman and Mark W. McAdams Page 1 of 7

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1 Big Rivers reviewed its historical, monthly FAC performance for the last period under review, *i.e.*, from November 1, 2018 through October 31, 2020. Big 2 3 Rivers also reviewed its forecasted monthly FAC factor for 2021 and 2022. These reviews are comparable to Big Rivers' analysis in its prior two-year FAC Reviews – 4 Case No. 2010-00495.² Case No. 2012-00555.³ Case No. 2014-00455.⁴ Case No. 2017-5 6 00006,⁵ and Case No. 2019-00007.⁶ Attachment 1 to this response shows the performance of Big Rivers' FAC factor for the twenty-four (24) months of the two-year 7 8 period under review. **CONFIDENTIAL** Attachment 2 shows Big Rivers' forecasted monthly FAC factor for 2021 and 2022. 9 10

² See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from July 17, 2009 through October 31, 2010, Case No. 2010-00495.

³ See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2010 through October 31, 2012. Case No. 2012-00555.

⁴ See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2012 through October 31, 2014. Case No. 2014-00455.

⁵ See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2014 through October 31, 2016. Case No. 2017-00006.

⁶ See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2016 through October 31, 2018. Case No. 2019-00007.

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	As Attachment 1 shows, the twenty-four (24) month historical average for Big
2	Rivers' FAC factor is (\$0.000010), negative one thousandth of a penny.
3	<b>CONFIDENTIAL</b> Attachment 2, filed with a Motion for Confidential Treatment,
4	shows that the <i>projected</i> twenty-four month average for Big Rivers' FAC factor for
5	the expense months in 2021 and 2022 is <b>projected</b> monthly FAC
6	factors range from <b>an an a</b>
7	the expense month.
8	The forecasted expense month is driven by Big Rivers'
9	
10	
11	. Big Rivers'
12	
13	. Past the
14	expense month, as shown in <b>CONFIDENTIAL</b> Attachment 2, the monthly FAC
15	factors .
16	Adjusting the <i>projected</i> FAC factor by excluding the expense month
17	from the analysis due to the unique factors driving it, the <i>adjusted</i> , <i>projected</i> monthly
	Case No. 2021-00058 Response to PSC 1-22 Witnesses: Roger D. Hickman and Mark W. McAdams

Page 3 of 7

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021 1 FAC factors range from to and the *adjusted*, *projected* twentyfour month average for Big Rivers' FAC factor for the expense months in 2021 and 2 2022 from to . Big Rivers believes these values -a3 twenty-four (24) month historical average FAC factor of (\$0.000010) and the 4 adjusted, projected twenty-four month average FAC factor, of – clearly 5 6 support no change in its current base fuel cost of \$0.020932 per kWh.

As a Member-Owned generation and transmission cooperative, Big Rivers 7 8 consulted with its Member-Owners⁷ about a possible change in Big Rivers' current 9 base fuel cost. Big Rivers informed its Member-Owners that it did not anticipate changing the current base fuel cost given the currently available information. After 10 reviewing the information describe earlier, all three Member-Owners concurred with 11 12 Big Rivers' position to not change its base fuel cost. Any change in Big Rivers' current base fuel cost would impact its Member-Owners' tariffs and their respective 13 Following the Member-Owners' issuance of notices to their billing systems. 14 15 respective retail members, and the retail members' receiving their initial monthly

⁷ Big Rivers' Member-Owners are Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative Corporation.

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1 billings reflecting any changes, in-person, e-mail, and phone inquiries from the

- 2 Member-Owners' retail members will increase.
- 3 Also, Big Rivers has entered into a series of coal supply agreements which Big

4 Rivers believes provide price hedges over the term of these agreements. At this time,

5 based upon bids received, contracts secured, and market indices, it does not appear

6 that coal pricing will escalate dramatically over the next two years, with the

7 exception of the anomalous expense month explained above, and as shown

#### 8 in **CONFIDENTIAL** Attachment 2.

9 Finally, in its orders approving no change to Big Rivers' base fuel costs in two

10 of Big Rivers' prior two-year FAC reviews,^{8,9} the Commission noted:

11

12 In establishing the appropriate level of base fuel cost to be included in

13 Big Rivers' rates, the Commission must determine whether the proposed

- 14 base period cost per kWh is representative of the level of fuel cost currently
- 15 being experienced by Big Rivers.^{10,11}

⁸ See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2014 through October 31, 2016 – Case No. 2017-00006.

⁹ See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2012 through October 31, 2014 – Case No. 2014-00455.

¹⁰ See Commission Order dated July 31, 2017, in Case No. 2017-00006 at page 2.

 $^{^{11}}$  See Commission Order dated July 27, 2015, in Case No. 2014-00455 at page 3.

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1 Similarly, in its most recent two-year review of Big Rivers' FAC,¹² the Commission

2 stated:

3

4 The Commission must determine whether the proposed base period cost 5 per kWh is representative of the level of fuel cost currently being 6 experienced by BREC when establishing the appropriate level of base fuel 7 cost to be included in BREC's rates.¹³

8

Based on the information presented in Attachment 1 and CONFIDENTIAL
Attachment 2, Big Rivers believes its current base fuel cost is representative of what
it has experienced in the last twenty-four months, and expects to experience in 2021
and 2022, especially considering the magnitude of the most recent and projected FAC
factors *versus* the operational difficulties required for Big Rivers, and particularly for
its Member-Owners, to implement a base fuel cost change. As noted above, any
change in Big Rivers' base fuel would require Big Rivers and its Member-Owners to
update their respective tariffs on file with the Commission and make changes to their

¹² See In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2016 through October 31, 2018 – Case No. 2019-00007.

 $^{^{\}rm 13}$  See Commission Order dated December 26, 2019, in Case No. 2019-00007 at page 2

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	respective billing systems. Any Member-Owner notices to their respective retail
2	members will most likely generate numerous in-person, e-mail, and phone inquiries.
3	
4	
5	Witnesses) Roger D. Hickman and
6	Mark W. McAdams

7

Case No. 2021-00058 Response to PSC 1-22 Witnesses: Roger D. Hickman and Mark W. McAdams Page 7 of 7

### Big Rivers Electric Corporation Summary of Fuel Adjustment Clause Calculation Components November 1, 2018 through October 31, 2020

(a)	(b)	(c)	(d) = (g) / (h)	(e) = (c) - (d)	(f)	(g)	(h)
Expense Month	Billing Month	Base Fuel Cost per kWh ¹	Total Fuel Cost per kWh	FAC Factor	Over/(Under) <u>Recovery</u> ²	Fuel Cost \$ Schedule ("Fm") ³	Sales(kWhs) Schedule ("Sm") ⁴
Nov 2018	Jan 2019	0.020932	0.021156	0.000224	\$51,995.00	$5,\!680,\!442$	268,504,658
Dec 2018	Feb 2019	0.020932	0.022490	0.001558	\$3,608.00	6,401,042	$284,\!611,\!169$
Jan 2019	Mar 2019	\$0.020932	0.021259	0.000327	\$39,145.00	6,584,544	309,736,436
Feb 2019	Apr 2019	\$0.020932	\$0.021462	\$0.000530	(\$16,968.00)	5,533,833	257,848,432
Mar 2019	May 2019	\$0.020932	\$0.020866	(\$0.000066)	\$5,531.00	5,598,024	268, 285, 675
Apr 2019	Jun 2019	0.020932	0.022454	0.001522	\$3,303.00	4,900,478	$218,\!249,\!664$
May 2019	Jul 2019	\$0.020932	\$0.021056	0.000124	\$40,089.00	5,150,140	244,589,676
Jun 2019	Aug 2019	0.020932	0.020159	(\$0.000773)	2,121.00	$5,\!275,\!440$	$261,\!693,\!255$
Jul 2019	Sep 2019	0.020932	\$0.021441	0.000509	(\$33,597.00)	6,542,928	$305,\!156,\!371$
Aug 2019	Oct 2019	\$0.020932	\$0.021987	0.001055	(\$4,880.00)	6,498,795	295,570,494
Sep 2019	Nov 2019	0.020932	0.022243	0.001311	(\$15, 626.00)	$6,\!245,\!061$	280,759,047
Oct 2019	Dec 2019	0.020932	0.023611	0.002679	(\$68,060.00)	5,403,330	228,844,685
Twelve-Mo	nth Average	\$0.020932	\$0.021682	0.000750	\$555.08	5,817,838	$268,\!654,\!130$
Nov 2019	Jan 2020	\$0.020932	0.022778	\$0.001846	\$91,216	$5,\!988,\!082$	262,893,206
Dec 2019	Feb 2020	\$0.020932	0.021325	\$0.000393	\$19,603	5,832,612	273,512,591
Jan 2020	Mar 2020	\$0.020932	\$0.020997	0.000065	\$4,368	5,976,371	284,626,649
Feb 2020	Apr 2020	\$0.020932	\$0.020450	(\$0.000482)	(\$1,206)	5,441,437	266,083,991
Mar 2020	May 2020	\$0.020932	0.019637	(\$0.001295)	\$15,493	4,593,887	233,940,269
Apr 2020	Jun 2020	\$0.020932	0.017802	(\$0.003130)	\$43,291	3,569,590	200,511,255
May 2020	Jul 2020	\$0.020932	\$0.019260	(\$0.001672)	(\$29,895)	4,045,783	210,062,156
Jun 2020	Aug 2020	0.020932	0.019194	(\$0.001738)	(\$84,171)	4,998,071	260,403,580
Jul 2020	Sep 2020	0.020932	0.021392	0.000460	(\$67,497)	6,401,192	299,239,474
Aug 2020	Oct 2020	\$0.020932	\$0.019927	(\$0.001005)	(\$15,442)	5,293,953	265,668,854
$\mathrm{Sep}\ 2020$	Nov 2020	0.020932	0.019051	(\$0.001881)	\$26,311	4,562,458	$239,\!488,\!658$
Oct 2020	Dec 2020	\$0.020932	\$0.020133	(\$0.000799)	\$34,992	4,447,200	220,885,896
Twelve-Mo	nth Average	\$0.020932	\$0.020162	(\$0.000770)	\$3,089	5,095,886	251,443,048
24-Month	n Average	\$0.020932	\$0.020922	(\$0.000010)	\$1,822	5,456,862	260,048,589

**Note(s):** 1.- See Big Rivers' Monthly Form A filings, page 1 of 2.

2.- See Big Rivers' Monthly Form A filings, page 2 of 4 and page 4 of 4.

3.- See Big Rivers' Monthly Form A filings, page 1 of 2 and page 2 of 4.

4.- See Big Rivers' Monthly Form A filings, page 1 of 2 and page 3 of 4.

Case No. 2021-00058

Attachment 1 for Response to PSC 1-22

Witnesses: Roger D. Hickman and Mark W. McAdams

Page 1 of 1

### Big Rivers Electric Corporation Summary of Fuel Adjustment Clause Calculation Components <u>Forecasted Expense Months</u> January 2021 through December 2022

(a)	(b)	(c)	(d) = (f) / (g)	(e) = (c) - (d)	(f)	(g)
Expense Month	Billing Month	Base Fuel Cost per <u>kWh</u> ¹	Total Fuel Cost per kWh	FAC Factor	Fuel Cost \$ Schedule ("Fm")	Sales(kWhs) Schedule ("Sm")
Jan 2021	Mar 2021	0.020932				
Feb 2021	Apr 2021	\$0.020932				
Mar 2021	May 2021	\$0.020932				
Apr 2021	Jun 2021	\$0.020932				
May 2021	Jul 2021	\$0.020932				
Jun 2021	Aug 2021	\$0.020932				
Jul 2021	Sep 2021	\$0.020932				
Aug 2021	Oct 2021	0.020932				
Sep 2021	Nov 2021	\$0.020932				
Oct 2021	Dec 2021	\$0.020932				
Nov 2021	Jan 2022	0.020932				
Dec 2021	Feb 2022	0.020932				
Twelve-Mor	nth Average	\$0.020932				
1 0000		<b>#0.00000</b>				
Jan 2022	Mar 2022	\$0.020932				
Feb 2022	Apr 2022	\$0.020932				
Mar 2022	May 2022	\$0.020932				
Apr 2022	Jun 2022	\$0.020932				
May 2022	Jul 2022	\$0.020932				
Jun 2022	Aug 2022	\$0.020932				
Jul 2022	Sep 2022	\$0.020932				
Aug 2022	Oct 2022	\$0.020932 \$0.020032				
Sep 2022	Nov 2022	\$0.020932				
Oct 2022	Dec 2022	\$0.020932 \$0.020032				
Nov 2022	Jan 2023	\$0.020932 \$0.020032				
Dec 2022	Feb 2023	\$0.020932				
I weive-Moi	nth Average	\$0.020932				
24-Month	Average	\$0.020932				



Case No. 2021-00058 <u>Attachment 2</u> for Response to PSC 1-22 Witnesses: Roger D. Hickman and Mark W. McAdams Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 23) Provide a calculation of the fossil fuel costs F(b) that BREC
2	proposes to use to calculate the base period fuel cost. This calculation shall
3	show each component of $F(b)$ as defined by 807 KAR 5:056. Explain why the
4	fuel cost in the selected base period is representative of the level of fuel cost
5	currently being experienced by BREC.
6	
7	<b>Response)</b> Please see Big Rivers' response to Item 22. As Big Rivers is proposing
8	no change to its current base fuel cost of \$0.020932 per kWh, Big Rivers considers
9	this information request not applicable.
10	
11	
12	Witness) Roger D. Hickman

13

Case No. 2021-00058 Response to PSC 1-23 Witness: Roger D. Hickman Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 24) Provide a schedule showing each component of sales as defined
2	by 807 KAR 5:056 in the selected base period (b). Explain why BREC believes
3	that the sales in the selected base period (b) are representative of the level
4	of kWh sales that BREC will derive from the level of fuel cost incurred
5	during the selected base period (b).
6	a. Separately provide the amounts of power purchases used in the
7	calculation of sales provided.
8	b. Separately provide the amounts of intersystem power sales used in
9	the calculation of sales provided.
10	
11	<b>Response)</b> Please see Big Rivers' response to Item 22. As Big Rivers is proposing
12	no change to its current base fuel cost of \$0.020932 per kWh, Big Rivers considers
13	this information request not applicable.
14	
15	
16	Witness) Roger D. Hickman
17	

Case No. 2021-00058 Response to PSC 1-24 Witness: Roger D. Hickman Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 25)	Provide a schedule showing the calculation of BREC's proposed
2	increase or	decrease in its base fuel cost per kWh to be incorporated into its
3	base rate.	
4		
5	Response)	Please see Big Rivers' response to Item 22. As Big Rivers is proposing
6	no change to	o its current base fuel cost of \$0.020932 per kWh, Big Rivers considers
7	this informa	tion request not applicable.
8		
9		
10	Witness)	Roger D. Hickman

11

Case No. 2021-00058 Response to PSC 1-25 Witness: Roger D. Hickman Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 26)	Provide a schedule of the present and proposed rates that BREC
2	seeks to ch	ange pursuant to 807 KAR 5:056, shown in comparative form.
3		
4	Response)	Please see Big Rivers' response to Item 23. As Big Rivers is proposing
5	no change t	o its current base fuel cost of \$0.020932 per kWh, Big Rivers considers
6	this informa	ation request not applicable.
7		
8		
9	Witness)	Roger D. Hickman
10		

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

- 1 Item 27) Provide a copy of the current tariff showing by cross-outs and
- 2 inserts all proposed changes in rates.
- 3
- 4 Response) Please see Big Rivers' response to Item 23. As Big Rivers is proposing
- 5 no change to its current base fuel cost of \$0.020932 per kWh, Big Rivers considers
- 6 this information request not applicable.
- 7
- 8
- 9 Witness) Roger D. Hickman

10

Case No. 2021-00058 Response to PSC 1-27 Witness: Roger D. Hickman Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

1	Item 28)	For the years ending October 31, 2019, and October 31, 2020,
2	provide:	
3	<i>a</i> .	Maximum annual system demand; and
4	<i>b</i> .	Average annual demand.
5		
6	Respons	e)
7	a.	November 1, 2018 through October 31, 2019 – 702 MW;
8		November 1, 2019 through October 31, 2020 – 566 MW.
9	b.	November 1, 2018 through October 31, 2019 – 385 MW;
10		November 1, 2019 through October 31, 2020 – 344 MW.
11	The figur	res above include only Big Rivers' native load and do not include other
12	transmiss	sion customers.
13		
14		
15	Witness)	Natalie R. Hankins

16

Case No. 2021-00058 Response to PSC 1-28 Witness: Natalie R. Hankins Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

2	<i>a</i> .	Provide a schedule of the calculation of the 12-month average line
3		loss by month for November 2018 through October 2020.
4	<i>b</i> .	Describe the actions that BREC has taken to reduce line loss during
5		this period.
6		

```
7 Response)
```

8	a. Pl	ease see the table attached to this response for calculations of the 12-
9	m	onth average line losses for November 2018 through October 2020.
10	b. Bi	g Rivers continues to design and operate its transmission system in the
11	m	ost efficient manner possible. No specific actions with the potential to
12	fu	rther reduce line losses were identified or implemented during the period
13	fro	om November 2018 through October 2020.
14		
15		
16	Witnesses)	Jennifer M. Stone (a. only) and
17		Christopher S. Bradley (b. only)

Case No. 2021-00058 Response to PSC 1-29 Witnesses: Jennifer M. Stone (a. only) and Christopher S. Bradley (b. only) Page 1 of 1

### Big Rivers Electric Corporation Case No. 2021-00058 12 Month Average Line Loss Calculation November 2018 - October 2020

	(a)	(b)	(c)	(d)
				12 Month Line Losses
Line	12 Months	12 Month Total kWh	12 Month Total kWh	as a Percent of Total
No.	Ended	Sources	Line Losses	Sources
				(c) / (b)
1	Nov-18	6,850,516,643	156, 591, 128	2.29%
2	Dec-18	6,564,511,627	$142,\!056,\!852$	2.16%
3	Jan-19	$6,\!481,\!243,\!318$	149,505,698	2.31%
4	Feb-19	6,620,790,137	160,026,991	2.42%
5	Mar-19	6,629,234,000	160,819,950	2.43%
6	Apr-19	6,487,701,639	151,160,767	2.33%
7	May-19	6,444,119,330	151,058,339	2.34%
8	Jun-19	6,374,492,419	$154,\!570,\!733$	2.42%
9	Jul-19	$6,\!381,\!538,\!197$	156,166,424	2.45%
10	Aug-19	$6,\!223,\!641,\!567$	157,371,086	2.53%
11	Sep-19	6,148,790,317	164,180,044	2.67%
12	Oct-19	6,121,821,618	158,518,487	2.59%
13	Nov-19	6,244,810,804	152,146,516	2.44%
14	Dec-19	$6,\!253,\!530,\!118$	162,725,876	2.60%
15	Jan-20	6,093,916,745	163,437,826	2.68%
16	Feb-20	5,884,264,719	151,437,088	2.57%
17	Mar-20	5,597,557,738	142,008,614	2.54%
18	Apr-20	5,406,179,956	144,883,088	2.68%
19	May-20	5,131,760,955	132,820,184	2.59%
20	Jun-20	5,032,236,141	119,185,812	2.37%
21	Jul-20	5,011,668,795	113,728,296	2.27%
22	Aug-20	5,068,484,268	119,273,904	2.35%
23	Sep-20	4,975,604,451	112,295,306	2.26%
24	Oct-20	5,055,707,640	116,860,481	2.31%

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE **OF BIG RIVERS ELECTRIC CORPORATION** FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

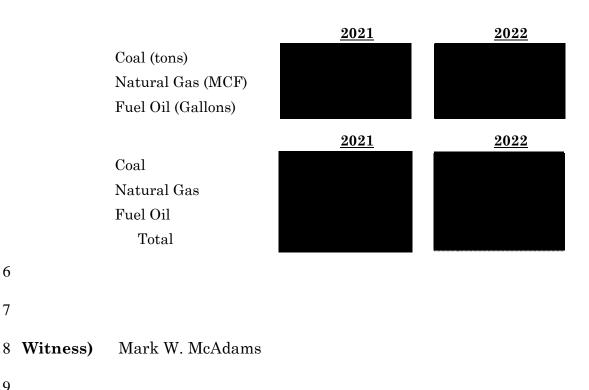
#### **Response to the Commission's Request for Information** in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

- 1 Item 30) Provide the most recent projected fuel requirements for the years
- 2 2021 and 2022 in tons for coal, MMBtu for natural gas, and dollars.

3

- 4 **Response**) Please see the schedule below.
- 5



9

Case No. 2021-00058 **Response to PSC 1-30** Witness: Mark W. McAdams Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

- 1 Item 31) Provide the most recent sales projections for the years 2021 and
- 2 2022 in kWh and dollars.

3

4 **Response)** Sales projections for the years 2021 and 2022 are provided in the table

5 below.

6

Year	Member Cooperative Energy (kWhs)	Member Cooperative Sales (\$)	Off-System Sales (kWhs)	Off-System Sales (\$)
2021	3,211,980,000	\$234,566,508		
2022	3,191,638,000	\$241,348,506		

9 Witness) Natalie R. Hankins

10

7

8

Case No. 2021-00058 Response to PSC 1-31 Witness: Natalie R. Hankins Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

March 22, 2021

#### 1 Item 32) Provide the planned maintenance schedule for each of the

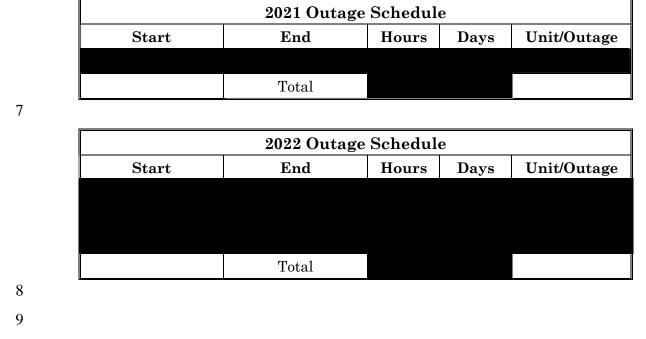
2 generating units for the years 2021 and 2022.

3

4 **Response)** Please see the redacted schedules below for the planned maintenance

5 schedule for Big Rivers' generating units for the years 2021 and 2022

6





Case No. 2021-00058 Response to PSC 1-32 Witness: Ronald D. Gregory Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 33) Identify any issues that could affect fuel costs for the two-year
2	period that remain unresolved or unsettled. Include in the response any
3	issues related to billings from a regional transmission operator. Consider
4	this a continuing request to inform the Commission if BREC becomes aware
5	of any issues during the course of this proceeding.
6	
7	<b>Response)</b> There are no unresolved or unsettled issues for the two-year period that
8	could affect fuel costs, including issues related to billing from the Midcontinent
9	Independent System Operator, Inc. ("MISO").
10	
11	
12	Witnesses) Mark W. McAdams and
13	Natalie R. Hankins ( <i>MISO billing only</i> )

14

Case No. 2021-00058 Response to PSC 1-33 Witnesses: Mark W. McAdams and Natalie R. Hankins (*MISO billing only*) Page 1 of 1

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

1	Item 34)	Provide the number of BREC's coal purchase contracts that
2	includeo	l transportation costs and those that did not from November 1, 2018,
3	through	October 31, 2020.
4	<i>a</i> .	Explain how it is determined whether transportation costs will be
5		included in the coal purchase contract.
6	<i>b</i> .	When transportation is contracted for separately from the coal
7		contract, explain whether BREC issues requests for proposals (RFP)
8		for this service.
9		(1) If yes, state how often this occurs, how many vendors are
10		included in the RFP, and how is it determined which vendors
11		will receive the RFP.
12		(2) State whether BREC uses or contracts with any related parties
13		far transportation of its coal purchases. If yes, provide the
14		name of the related party and nature of the relationship, the
15		period of time it has contracted with the party and copies of any
16		contracts with the related party if not previously filed with the
17		Commission.

#### AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2018 THROUGH OCTOBER 31, 2020 CASE NO. 2021-00058

#### Response to the Commission's Request for Information in Appendix B of the Commission's Order dated March 4, 2021

#### March 22, 2021

### 1 c. Explain in detail BREC's policies and procedures for entering into

#### 2 transportation contracts.

- 3
- 4 Response) Please see the table below for coal purchase contracts with and without
- 5 transportation.
- 6

Big Rivers Electric Corporation Coal Purchase Contracts with and without Transportation November 1, 2018, through October 31, 2020			
Time	With	Without	
Frame	Transportation	Transportation	
November –	Seven (7)	One (1)	Six (6)
December 2018	Contracts	Contract	Contracts
January –	Nine (9)	Three (3)	Six (6)
August 2019	Contracts	Contracts	Contracts
September –	Nine (9)	Four (4)	Five (5)
December 2019	Contracts	Contracts	Contracts
January 2020	Six (6)	Two (2)	Four (4)
	Contracts	Contracts	Contracts
February 2020	Five (5)	Two (2)	Three (3)
	Contracts	Contracts	Contracts
March –	Five (5)	Two (2)	Three (3)
October 2020	Contracts	Contracts	Contracts

7

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1	a.	Bidders of coal supply may provide Big Rivers coal pricing F.O.B. mine,
2		F.O.B. truck or barge, and F.O.B. generating station. Providers of trucked
3		coal often provide pricing F.O.B. truck or F.O.B. station. Coordinating day-
4		to-day loading of trucks is a very schedule intensive process sometimes
5		necessitating hourly communication with truckers in regard to loading,
6		transit time, return, re-load, etc. It is crucial for the mining operations to
7		be able to control the trucking process and schedule of trucking firms; thus,
8		they often present their bid offers inclusive of trucking transportation. Big
9		Rivers evaluates competitive offers provided, with or without the inclusion
10		of transportation, to procure the most reliable, appropriate quality, and
11		economic fuel available. In the event the bidder provides a transportation
12		offer as part of the fuel bid, Big Rivers evaluates it in light of the delivered
13		cost. Thus, given this evaluation, a supplier is seeking to provide its overall
14		best possible pricing within its bid. In almost every bid situation whereby
15		transportation is inclusive in the coal supply contract, the delivered pricing
16		is offered from local supplying mines that deliver their coal supply via
17		truck.

Case No. 2021-00058 Response to PSC 1-34 Witness: Mark W. McAdams Page 3 of 4

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1	b.	When transportation is contracted separately from the coal contract, Big
2		Rivers will request transportation rates from regional, reputable carriers
3		to provide transportation services.
4		(1) The frequency of bids may occur on a one–, two–, or three–year term,
5		depending upon the coordinating coal supply agreement. For spot coal
6		supply, the solicitation of transportation rates may occur on a more
7		frequent basis. The transportation services term may or may not
8		coordinate with the term of the supply agreement depending upon the
9		current market for the service.
10		(2) Big Rivers has not contracted with any related party for
11		transportation services.
12	c.	Big Rivers policies and procedures for soliciting and entering into
13		transportation contracts follows the same policies and procedures as those
14		set forth for fuel procurement.
15		
16		
17	Witness)	Mark W. McAdams

Case No. 2021-00058 Response to PSC 1-34 Witness: Mark W. McAdams Page 4 of 4