

Your Touchstone Energy® Cooperative 📈

# COMMONWEALTH OF KENTUCKY

# BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017

Case No. 2018-00023

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Responses to Commission Staff's Request for Information dated February 16, 2018

FILED: March 1, 2018

### ELECTRONCI EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### VERIFICATION

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

Jason C. Burden

COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON )

SUBSCRIBED AND SWORN TO before me by Jason C. Burden on this the day of March, 2018.

Kather Rolary Notary Public, Kentucky State at Large

My Commission Expires /0-31-2020

### ELECTRONCI EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### VERIFICATION

I, Nicholas R. (Nick) Castlen, 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.

Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON )

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the  $\int f$  day of March, 2018.

Kathin Rosling Notary Public, Kentucky State at Large

My Commission Expires 10-31-2020

### ELECTRONCI EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### VERIFICATION

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

Ronald D. (Ron) Gregory

COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON )

SUBSCRIBED AND SWORN TO before me by Ronald D. (Ron) Gregory on this the day of March, 2018.

Kattur Aly Notary Public, Kentucky State at Large

My Commission Expires 10-31-2020

### ELECTRONCI EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### 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. MStepher

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, 2018.

Kathem Ribley

Notary Public, Kentucky State at Large

My Commission Expires 10-31-2020

### ELECTRONCI EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### VERIFICATION

I, Murray W. (Wayne) O'Bryan, 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.

Murray W. (Wayne) O'Bryan

COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON )

SUBSCRIBED AND SWORN TO before me by Murray W. (Wayne) O'Bryan on this the  $\swarrow$  day of March, 2018.

Kathurley Notary Public, Kentucky State at Large

My Commission Expires /0-36-2020

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

- 1 Item 1) For the period under review, provide the amount of coal
- 2 purchased in tons, and the percentage of purchases that were spot versus
- 3 contract.
- 4
- 5 **Response)** Please see the schedules below.
- 6

Purchase Vendor	Fuel Type	Purchase Tonnage	Contract Type
Alliance (BRE-15-010)	Coal	302,286.13	Contract
Foresight Coal (BRE-15-005)	Coal	130,793.68	Contract
KenAmerican Resources (BRE-15-006)	Coal	203,790.63	Contract
Peabody Coal Sales (BRE-15-018)	Coal	276,925.00	Contract
Rhino (BRE-15-009)	Coal	$222,\!453,\!20$	Contract
Oxbow Carbon (BRE-17-001)	Pet Coke	4,557.33	$\operatorname{Spot}$
TCP PetCoke (BRE-17-002)	Pet Coke	6,204.16	$\overline{\mathrm{Spot}}$
	—	1 1 45 010 10	
Total Tonnage	=	1,147,010.13	
Total Tonnage For the Period from M	= ay 1, 2017, throug	<u> </u>	
For the Period from M	= ay 1, 2017, throug	<u> </u>	
C	<del>-</del> ay 1, 2017, throug	h October 31, 2017	

- 9 Witness) Mark W. McAdams
- 10

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# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

1	Item 2)	For	the period under review, list each coal purchase made
2	under a lor	ıg-te	rm contract (one year or greater). For each purchase, list:
3			
4		a.	Contract or purchase order number;
5		<i>b</i> .	The supplier's name;
6		с.	The location(s) of production facilities from which the
7			coal is 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.	The tonnage requirement for the review period; and
11		g.	Current price paid per ton.
12			
13	Response)	Plea	ase see the attached schedule
14			
15			
16	Witness)	Mar	·k W. McAdams
17			

Case No. 2017-00287 Response to Staff Item 2 Witness: Mark W. McAdams Page 1 of 1

#### Foresight - BRE-15-005

A. CONTRACT NUMBER:	BRE-15-005
B. SUPPLIER'S NAME / ADDRESS:	Foresight Coal Sales, LLC 211 North Broadway, Suite 2600 St. Louis, MO 63102
C. PRODUCTION FACILITY:	Deer Run and/or Shay No. 1 in Montgomery and Macoupin, Illinois
D. METHOD OF DELIVERY:	Barge
E. ACTUAL TONNAGE:	2015       -       200,318       Tons         2016       -       239,969       Tons         2017       -       202,409       Tons (through October)
F. ANNUAL TONNAGE REQUIREMENTS:	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
PERCENT OF ANNUAL REQUIREMENTS:	2015       -       100.16 %         2016       -       99.99 %         2017       -       84.34 % (through October)
G. CURRENT PRICE ( <i>Base</i> ):	2015-\$ 34.0006per Ton2016-\$ 36.2491per Ton2017-\$ 38.4998per Ton2018-\$ 40.5497per Ton2019-\$ 42.3490per Ton
CURRENT PRICE (Contract):	2015-\$ 34.0006per Ton2016-\$ 36.2491per Ton2017-\$ 38.4998per Ton

Case No. 2018-00023 Attachment for Response to Staff Item 2 Witness: Mark W. McAdams Page 1 of 6

A.	CONTRACT NUMBER:	BRE-15-006
B.	SUPPLIER'S NAME/ADDRESS:	KenAmerican Resources, Inc. 46226 National Road St. Clairsville, OH 43950
C.	PRODUCTION FACILITY:	Paradise #9 Mine Muhlenberg County, Kentucky
D.	METHOD OF DELIVERY:	Truck
E.	ACTUAL TONNAGE:	2015 - $300,077$ Tons $2016$ - $500,015$ Tons $2017$ - $389,744$ Tons (through October)
F.	ANNUAL TONNAGE REQUIREMENTS:	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
	PERCENT OF ANNUAL REQUIREMENTS:	2015       -       100.03 %         2016       -       100.00 %         2017       -       77.95 % (through October)
G.	CURRENT PRICE ( <i>Base</i> ):	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
	CURRENT PRICE (Contract):	2015       -       \$ 49.2505       per Ton         2016       -       \$ 50.5000       per Ton         2017       -       \$ 51.7496       per Ton

### **KenAmerican Resources – BRE-15-006**

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#### Rhino Energy LLC and Pennyrile Energy LLC Coal Sales - BRE-15-009

A.	CONTRACT NUMBER:	BRE-15- 0	009			
B.	SUPPLIER'S NAME / ADDRESS:	Rhino Ener 424 Lewis Lexington,	Hargett	Circle, Su	00	, LLC.
C.	PRODUCTION FACILITY:	Pennyrile I Riveredge I McLean Co	Mine			
D.	METHOD OF DELIVERY:	Barge				
E.	ACTUAL TONNAGE:	2015 - 2016 - 2016 - 2017 -		$105,260 \\ 350,004 \\ 416,192$	Tons Tons Tons	(through October)
F.	ANNUAL TONNAGE REQUIREMENTS:	2015 -		105,000	Tons	(Start date for delivery 6-1-2015)
		2016 -		350,000	Tons	
		2017 -		450,000	Tons	
		2018 -		150,000	Tons	
	PERCENT OF ANNUAL	2015 –		100.25~%		
	REQUIREMENTS:	2016 -		100.00~%	· ·	h December)
		2017 -		92.49~%	(throug	h October)
G.	CURRENT PRICE (Base):	Rivered	ge 2015	_	\$ 43.7	494 per Ton
		Rivered	0	_	\$ 45.7	1
		Rivered	-	_	\$ 47.7	*
		Rivered	ge 2018	_	\$ 47.0	826 per Ton
	CURRENT PRICE (Contract):	Rivered	ge 2015	_	\$ 43.7	494 per Ton
		Rivered	-	_	\$ 45.7	-
		Rivered	ge 2017	_	\$ 47.7	500 per Ton

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#### Alliance Coal, LLC - BRE-15-010

A.	CONTRACT NUMBER:	BRE-15-010
В.	SUPPLIER'S NAME/ADDRESS:	Alliance Coal, LLC 1717 South Boulder, Suite 400 Tulsa, OK 74119
C.	PRODUCTION FACILITY:	Hopkins Cty. Coal, LLC – Elk Creek Mine Facility Sebree Mining, Onton No. 9 Mine Facility in Webster County, Kentucky; Warrior Coal LLC Mining Operations; Webster Coal, LLC – Dotiki Mine Facility in Webster County, Kentucky; Riverview Coal, LLC – River View Mine Facility
D.	METHOD OF DELIVERY:	Truck and/or Barge
E.	ACTUAL TONNAGE:	2015       -       0       Tons       (Option not exercised)         2016       -       249,968       Tons         2017       -       489,942       Tons       (through October)
F.	ANNUAL TONNAGE REQUIREMENTS:	2015 – 75,000 Tons (Option tons) 2016 – 250,000 Tons 2017 – 575,000 Tons
	PERCENT OF ANNUAL REQUIREMENTS:	2015 – 0.00 % (Option not exercised) 2016 – 99.99 % 2017 – 85.21 % (through October)
G.	CURRENT PRICE ( <i>Base</i> ):	<u>Quality A (11,900 BTU/lb.) – Hopkins Elk Creek</u> 2015 – \$ 53.2493 per Ton <u>Quality B (11,800 BTU/lb.) – Onton No. 9,</u> <u>Warrior Coal, &amp; Webster Coal</u> 2015 – \$ 50.8061 per Ton 2016 – \$ 52.7649 per Ton 2017 – \$ 54.7733 per Ton <u>Quality C (11,500 BTU/lb.) – Onton No. 9 &amp;</u> <u>River View Coal</u>
		$\frac{R100PV10WC001}{2015 - \$ 45.3491 \text{ per Ton}}$ $2015 - \$ 45.3491 \text{ per Ton}$ $2016 - \$ 47.2006 \text{ per Ton}$ $2017 - \$ 49.0498 \text{ per Ton}$ $\frac{Quality D (11,250 BTU/lb.) - Onton No. 9}{2015 - \$ 45.8000 \text{ per Ton}}$ $2016 - \$ 47.5505 \text{ per Ton}$ $2017 - \$ 49.4000 \text{ per Ton}$

Case No. 2018-00023 Attachment for Response to Staff Item 2 Witness: Mark W. McAdams Page 4 of 6

#### Alliance Coal, LLC – BRE-15-010 (continued)

	× ,
CURRENT PRICE ( <i>Base</i> ): ( <i>continued</i> )	<u>Quality E (11,000 BTU/lb.) – Onton No. 9</u> 2015 – \$ 44.0996 per Ton 2016 – \$ 45.8002 per Ton 2017 – \$ 47.5492 per Ton
CURRENT PRICE (Contract):	2015 – N/A (No option tons)
	<u>Quality A (11,900 BTU/lb.) – Hopkins Elk Creek</u> 2016 – N/A 2017 – N/A
	<u>Quality B (11,800 BTU/lb.) – Onton No. 9.</u> Warrior Coal, & Webster Coal
	2016 - \$52.7649  per Ton
	2017 – \$ 54.7733 per Ton
	<u>Quality C (11,500 BTU/lb.) – Onton No. 9 &amp;</u> Binny View Coul
	<u>River View Coal</u> 2016 – \$ 47.2006 per Ton
	2017 – \$ 49.0498 per Ton
	Quality D (11,250 BTU/lb.) – Onton No. 9
	2016 – \$ 47.5505 per Ton
	2017 – \$ 49.4000 per Ton
	$\frac{Quality \ E \ (11,000 \ BTU/lb.) - Onton \ No. \ 9}{0.000}$
	2016 – \$ 45.8002 per Ton 2017 – \$ 47.5492 per Ton

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### Peabody CoalSales - BRE-15-018

A. CONTRACT NUMBER:	BRE-15-018			
B. SUPPLIER'S NAME/ADDRESS:	Peabody COALSALES, LLC 701 Market Street St. Louis, MO 63101			
C. PRODUCTION FACILITY:	Somerville and Wild Boar Mining Complex, Surface Mining Operation, Warrick and Gibson Counties, Indiana			
D. METHOD OF DELIVERY:	Barge			
E. ACTUAL TONNAGE:	2016       -       350,001       Tons         2017       -       426,258       Tons       (through October)			
F. ANNUAL TONNAGE REQUIREMENTS:	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$			
PERCENT OF ANNUAL REQUIREMENTS:	2016       -       100.00 %         2017       -       81.19 % (through October)			
G. CURRENT PRICE (Base):	2016-\$ 40.4998per Ton2017-\$ 40.4998per Ton2018-\$ 40.4998per Ton			
CURRENT PRICE (Contract):	2016 – \$ 40.4998 per Ton 2017 – \$ 40.4998 per Ton			

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# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 3)		
2		а.	As of the last day of the review period, state the coal
3			inventory level in tons, and in number of days' supply.
4			Provide this information by generating station and in the
5			aggregate.
6		<b>b</b> .	Describe the criteria used to determine number of days'
7			supply.
8		с.	State the target coal inventory level for each generating
9			station, and for the total system.
10		d.	If actual coal inventory exceeds the target inventory by ten
11			days' supply, state the reasons for the excess inventory.
12		е.	
13			(1) State whether any significant changes in the current
14			coal inventory target are expected within the next 12
15			months.
16			(2) If so, state the expected change, and the reasons for
17			this change.
18			
19	Response)		
20		a.	As of October 31, 2017, Big Rivers' generating stations
21			individually and in the aggregate had the following inventory
22			levels and days' supply.

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### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### **Response to Commission Staff's Request for Information** dated February 16, 2018

#### March 1, 2018

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Total System/Station	Inventory Level (Tons) <sup>1</sup>	Number of Days' Supply <sup>2</sup>	Duration (In Days)	Preceding 6 Months Burn (In Tons)
Big Rivers Electric				
System	850,633.44	85	130	1,304,577.57
Reid Station <sup>3</sup>	0.00	0	0	0.00
Station Two <sup>4</sup>	206,310.25	262	100	78,796.41
Green Station <sup>5</sup>	$231,\!474.62$	58	152	603,586.60
Coleman Station <sup>6</sup>	0.00	0	0	0.00
Wilson Station <sup>7</sup>	412,848.57	97	147	622, 194.56
	Current Inventor ceding 6 Months I		– x Duratior	n (In Days)
c. Big Riv	vers Electric Cor	poration's Ta	rget Supply i	s the followir
range f	or each Station i	n days based	on the projec	ted annual fu
burn				
		Electric Corp		
	tal System	ntory Target H	anges	

Total System	30-60 Days
Reid Station	0 Days
Station Two	30-60 Days
Green	30-60 Days
Coleman	0 Days
Wilson	30-60 Days

- 9 d. The actual inventory for Station Two exceeds the target range by 10
  - 202 days as a result of reduced demand for electricity and

Case No. 2018-00023 **Response to Staff Item 3** Witnesses: Mark W. McAdams Page 2 of 5

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

1	scheduled and unscheduled maintenance outages. At various
2	times during the period under review, the Station Two Units were
3	placed into Reserve shutdown due to market conditions, as it was
4	more economic for Station Two to purchase its power during those
5	times. Reserve shutdown (economic) hours totaled 1,737 hours
6	during the period under review. Station Two Unit 1 had a
7	Planned Outage which began on April 18, 2017, and ended June
8	3, 2017, resulting in 810 outage hours during the review period for
9	that outage. There were an additional 392 scheduled
10	maintenance hours for Station Two during the review period.
11	There were also unscheduled outages on Station Two Unit 1 and
12	Unit 2 during the review period totaling 1,092 hours.
13	Wilson Station exceeded its target range by 37 days due to
14	the impact of electricity market conditions and demand. Wilson
15	had unscheduled outages during the period under review of 646
16	hours, other scheduled outages of 34 hours, and reserve outages of
17	220 hours.
18	Big Rivers' Total System exceeded its target range by 25
19	days.
20	е.
21	(1) Yes.
22	(2) Big Rivers, as part of its continuing solid fuel procurement

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# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	and inventory reduction plans, reduced its solid fuel
2	procurement to a minimum. Big Rivers did not enter into any
3	contractual agreement for delivery of coal for the remainder
4	of 2017. Since the prior FAC review, <sup>1</sup> Big Rivers has
5	experienced reduced generation demand hindering the pace
6	previously targeted for more rapid inventory reduction.
7	Nonetheless, by the end of 2017, Big Rivers reduced its
8	system inventory by 187,000 tons of coal. The Company
9	remains focused during the first quarter of 2018 on continued
10	inventory reductions at Station Two and Wilson generating
11	stations. Big Rivers anticipates being within its inventory
12	targets at Green and Wilson Stations during the first quarter
13	of 2018. Achieving inventory target will be later in 2018 for
14	Station Two units due to reduced generation plans. Market
15	conditions are, and will, continue to play a significant role in
16	the pace and overall quantity of inventory reduction in 2018.
17	

18

Case No. 2018-00023 Response to Staff Item 3 Witnesses: Mark W. McAdams Page 4 of 5

<sup>&</sup>lt;sup>1</sup> 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 April 30, 2017 – Case No. 2017-00278.

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

#### 1

#### Footnotes to table in sub-part a. above -

- 1.- Green Station had a pet coke inventory of 4,537.80 tons as of October 31, 2017, and had a target blend of 18% with Green coal. Wilson Station had a pet coke inventory of 12,638.90 tons as of October 31, 2017, and had a target blend of 15% with Wilson 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. Change in the status of this unit is unknown at this time. The duration of generation was reduced to 0 days.
- 4.- Station Two Units 1 and 2 had 1,484 unscheduled and scheduled maintenance hours. Unit 1 had a Planned Outage that commenced on April 18 and continued through June 3, 2017, which resulted in 810 outage hours during the review period. Station Two Units 1 and 2 had 1,737 Reserve hours during the review period. All of these hours were equivalent to 84 days. The duration of generation was reduced to 100 days. Inventory is being reduced to meet the new target; however, due to existing inventory and contract coal, the reduction target will require possibly to the end of the third quarter in 2018.
- **5.-** Green Station Units 1 and 2 had 378 unscheduled and scheduled maintenance hours and 1,139 Reserve hours during the period under review. These hours were equivalent to 32 days. The duration of generation was reduced to 152 days.
- **6.** Coleman Station Units 1, 2 and 3 were placed on Inactive Reserve Status on May 8, 2014. The duration of generation was reduced to 0 days. Change in the status of this unit is unknown at this time.
- 7.- Wilson Station had 680 scheduled and unscheduled maintenance hours and 220 reserve outage hours during the period under review. These hours were equivalent to 37 days. The duration of generation was reduced to 147 days.
- 2
- 3

#### 4 Witnesses) Mark W. McAdams

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### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 4)	List each written coal-supply solicitation issued during the
2	period und	er review.
3		
4		a. For each solicitation, provide the date of the solicitation,
5		the type of solicitation (contract or spot), the quantities
6		solicited, a general description of the quality of coal
7		solicited, the time period over which deliveries were
8		requested, and the generating unit(s) for which the coal
9		was intended.
10		b. For each solicitation, state the number of vendors to
11		whom the solicitation was sent, the number of vendors
12		who responded, and the selected vendor. Provide the bid
13		tabulation sheet or corresponding document that ranked
14		the proposals. (This document should identify all vendors
15		who made offers.) State the reasons for each selection.
16		For each lowest-cost bid not selected, explain why the bid
17		was not selected.
18		
19	Response)	
20		BREC-18-01 (Spot and Term Solicitation)
21		a.
22		i. Date solicitation was issued: June 16, 2017.

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# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

1		Date solicitation was returned: June 27, 2017.
2	ii.	Type of solicitation: Spot 2017 and term $(2018 - 2021)$ written
3		bid solicitation (web-based distribution).
4	iii.	Quantities solicited: Spot up to 200,000 tons; Term - up to
5		500,000 tons per year.
6	iv.	Quality of coal and pet coke solicited:
7		(a) BTU/lb.: 10,500 to 13,500;
8		(b) Ash (lbs/MMBTU): 0.74 to 14.29;
9		(c) Moisture (lbs/MMBTU): 8.89 to 11.90;
10		(d) Sulfur (lbs SO2): 5.50 to 6.50 (coal); and
11		(e) Sulfur (lbs SO2): up to 8.50 (petroleum coke).
12	v.	Time period over which deliveries were requested:
13		(a) Spot solicitation: July 1 – December 31, 2017.
14		(b) Term solicitation: Years 2018 through 2021.
15	vi.	Generating units for which the coal was intended include:
16		Green, Station Two, and Wilson.
17	b.	
18	i.	Number of vendors solicited: The coal solicitation was posted
19		to Big Rivers' web site for supplier review, print-out, and
20		written bid proposal submission. Big Rivers also notified coal
21		and petroleum coke newsletters and journals for industry
22		notification of the placement of the solicitation on the web site

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# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

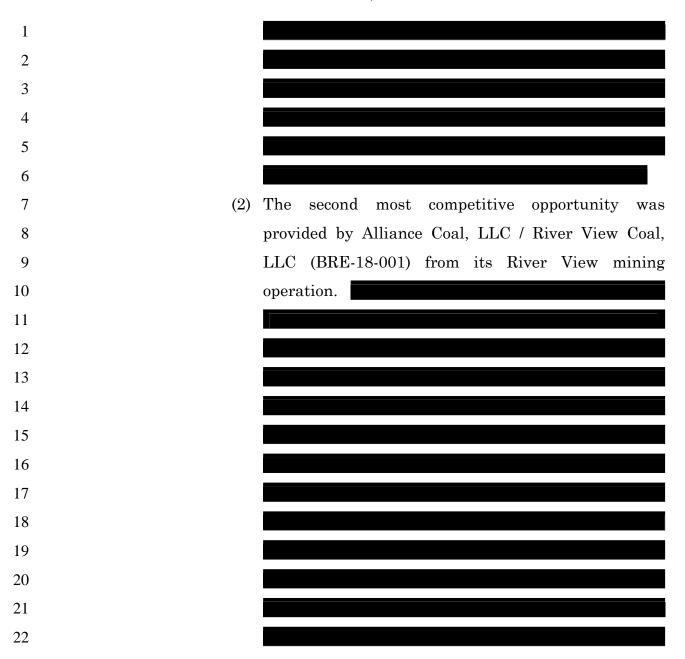
### March 1, 2018

1		and referral to the web address for review and download. For
2		bid BREC-18-01 there were seventeen (17) page views and/or
3		request for copy of the bid document. Responding vendors: Ten
4		(10) vendors replied to the spot and term bid solicitation
5		(excluding no bid responses), to include twelve (12) bids that
6		contained twenty (20) offers of coal and/or petroleum coke.
7	ii.	Selected vendors:
8		(a) Spot fuel supply: No spot fuel was selected pursuant to
9		this bid due to reduced generation levels and continued
10		focus on inventory reclamation (reduction).
11		(b) Term fuel supply: Three (3) term contract awards were
12		made pursuant to this bid solicitation, those being:
13		Alliance Coal; Rhino Energy; and Sun Energy.
14	iv.	The bid tabulation spreadsheet is being provided under a
15		Petition for Confidential Treatment.
16	v.	The rationale for each selection is as follows:
17		(a) Selected spot coal vendors: N/A.
18		(b) <i>Selected term coal vendors</i> : Three (3) term coal awards.
19		(1) Sun Energy (BRE-18-002)
20		
21		
22		

Case No. 2018-00023 Response to Staff Item 4 Witness: Mark W. McAdams Page 3 of 7

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018



March 1, 2018

Case No. 2018-00023 Response to Staff Item 4 Witness: Mark W. McAdams Page 4 of 7

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

Response to Commission Staff's Request for Information dated February 16, 2018



March 1, 2018

Case No. 2018-00023 Response to Staff Item 4 Witness: Mark W. McAdams Page 5 of 7

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018



March 1, 2018

21

Case No. 2018-00023 Response to Staff Item 4 Witness: Mark W. McAdams Page 6 of 7

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1 2 3 **Witness)** Mark W. McAdams 4

> Case No. 2018-00023 Response to Staff Item 4 Witness: Mark W. McAdams Page 7 of 7

In the Matter of:

ELECTRONIC EXAMINATION OF THE ) APPLICATION OF THE FUEL ADJUSTMENT ) CLAUSE OFBIG RIVERS ELECTRIC ) CORPORATION FROM ) MAY 1, 2017 THROUGH OCTOBER 31, 2017 )

Case No. 2018-00023

# **CONFIDENTIAL RESPONSE**

to Item 4.b.iv of the Commission Staff's Data Request dated February 16, 2018 FILED: March 1, 2018

# INFORMATION SUBMITTED UNDER PETITION FOR CONFIDENTIAL TREATMENT



### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 5)	List each oral coal-supply solicitation issued during the
2	period und	ler review.
3		
4		a. For each solicitation, state why the solicitation was not
5		written, the date(s) of the solicitation, the quantities
6		solicited, a general description of the quality of coal
7		solicited, the time period over which deliveries were
8		requested, and the generating unit(s) for which the coal
9		was intended.
10		b. For each solicitation, identify all vendors solicited and
11		the vendor selected. Provide the tabulation sheet or other
12		document that ranks the proposals. (This document
13		should identify all vendors who made offers.) State the
14		reasons for each selection. For each lowest-cost bid not
15		selected, explain why the bid was not selected.
16		
17	Response)	
18		a. and b.
19		Big Rivers issued no oral coal supply solicitations during the
20		period under review.
21		
22	Witness)	Mark W. McAdams

Case No. 2018-00023 Response to Staff Item 5 Witness: Mark W. McAdams Page 1 of 1

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

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

4

5 **Response)** Please see the listing on the following page for vendors from whom 6 natural gas was purchased for generation and the quantity and nature of each 7 purchase from May 1, 2017, through October 31, 2017. Also on the following page 8 please see the percentage of purchases that were either spot versus contract for 9 the period under review in total.

10 Starting in July 2010, Big Rivers began purchasing natural gas under a North American Energy Standard Board ("NAESB") base contract for sale and 11 12 purchase of natural gas. Actual purchases of gas are made using transaction 13 confirmations that are governed by the NAESB contract. Big Rivers also entered into a contract with Texas Gas Transmission, LLC for the transportation and 14 15 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 16 17 Commission.

- 18
- 19
- 20

Case No. 2018-00023 Response to Staff Item 6 Witness: Wayne O'Bryan Page 1 of 2

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

1

Purchase Vendor	Fuel Type	MCF	Contract Type	
CIMA Energy, LTD	Natural Gas	25,347	$\operatorname{Spot}$	
For the Period fro	om May 1, 2017, thro	ugh October 3	81, 2017	
Percentage Contract	0.00 %			
Percentage Spot	100.00~%			
Percentage Total	100.00 %			

4 5

2

3

Case No. 2018-00023 Response to Staff Item 6 Witness: Wayne O'Bryan Page 2 of 2

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

1	Item 7) For the period under review, state if there were any instances
2	in which a natural gas generating unit could not be operated when it
3	otherwise would have run, due to pipeline constraints or natural gas
4	being unavailable.
5	
6	Response) There were no instances during this review period that Big Rivers'
7	gas generating unit could not be operated when it otherwise would have run, due
8	to pipeline constraints or natural gas being unavailable.
9	
10	
11	Witness) Wayne O'Bryan
12	

Case No. 2018-00023 Response to Staff Item 7 Witness: Wayne O'Bryan Page 1 of 1

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

- 1 Item 8) State if there have been any changes to hedging activities for
- 2 coal or natural gas purchases used for generation since the previous FAC

3 review proceeding. If so, describe the changes in detail.

- 4
- 5 **Response)** Big Rivers does not engage in financial hedging activities regarding
- 6 its coal or natural gas purchases used for generation. Big Rivers does, however,
- 7 stagger its purchases of coal to create a natural hedge on price volatility pursuant
- 8 to Policy No. 111 Hedge Policy. There have been no changes to these hedging
- 9 activities since the previous FAC review.
- 10
- 11

12 Witnesses) Mark W. McAdams (Coal) and

- 13 Wayne O'Bryan (*Natural Gas*)
- 14

Case No. 2018-00023 Response to Staff Item 8 Witnesses: Mark W. McAdams (*Coal*) and Wayne O'Bryan (*Natural Gas*) Page 1 of 1

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 9)		
2		a.	State whether Big Rivers has audited any of its fuel or
3			transportation contracts during the period under review.
4		<i>b</i> .	If so, 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
8			that Big Rivers took as a result of the audit.
9			
10	Response)		
11		a.	Big Rivers has not audited any of its fuel or transportation
12			contracts during the period from May 1, 2017, through October
13			31, 2017.
14		b.	(1) - (4)
15			Not Applicable.
16			
17			
18	Witnesses)	Mai	rk W. McAdams ( <i>Coal</i> ) and
19		Way	yne O'Bryan ( <i>Natural Gas</i> )
20			

Case No. 2018-00023 Response to Staff Item 9 Witnesses: Mark W. McAdams (*Coal*) and Wayne O'Bryan (*Natural Gas*) Page 1 of 1

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

# March 1, 2018

1	Item 10)		
2	(	a. ,	State whether Big Rivers is currently involved in any
3			litigation with its current or former fuel suppliers or
4		i	transportation vendors.
5	l	<b>b</b> .	If yes, for each litigation:
6			(1) Identify the supplier or vendor;
7			(2) Identify the contract involved;
8			(3) State the potential liability or recovery to Big Rivers;
9		(	(4) List the issues presented; and
10		(	(5) Provide a copy of the complaint or other legal
11			pleading that initiated the litigation and any
12			answers or counterclaims. If a copy has previously
13			been filed with the Commission, provide the date on
14			which it was filed and the case in which it was filed.
15	(	c. /	State the current status of all litigation with suppliers or
16		ł	vendor.
17			
18	Response)		
19	8	a. ]	Big Rivers is not currently involved in any litigation with its
20		(	current or former fuel suppliers or transportation vendors.
21			
22			

Case No. 2018-00023 Response to Staff Item 10 Witnesses: Mark W. McAdams (*Coal*) Wayne O'Bryan (*Natural Gas*) Page 1 of 2

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

1			
2		b.	(1) - (5)
3			Not applicable.
4		c.	Not applicable.
5			
6			
7	Witnesses)	Mar	k W. McAdams ( <i>Coal</i> ) and
8		Way	ne O'Bryan (Natural Gas)
9			

Case No. 2018-00023 Response to Staff Item 10 Witnesses: Mark W. McAdams (*Coal*) Wayne O'Bryan (*Natural Gas*) Page 2 of 2

# ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

# Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 11)	
2	<i>a</i> .	For the period under review, state if there have been any
3		changes to Big River'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
8		changed;
9		(3) State the date(s) the changes were made; and
10		(4) Explain why the changes were made.
11	c.	If no, provide the date Big River's current fuel
12		procurement policies and procedures were last changed,
13		when they were last provided to the Commission, and
14		identify the proceeding in which they were provided.
15		
16	Response)	
17	a.	Yes. During the period May 1, 2017, through October 31, 2017,
18		Big Rivers made changes to Policy No. 121 – Solid Fuel
19		Inventory Policy.
20		
21		

Case No. 2018-00023 Response to Staff Item 11 Witnesses: Mark W. McAdams (*Coal*) and Wayne O'Bryan (*Natural Gas*) Page 1 of 3

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1		
2	b.	(1) through (4)
3		<u> Policy No. 121 – Solid Fuel Inventory Policy</u>
4		On August 18, 2017, Big Rivers revised Reid Station's
5		targeted inventory levels - minimum, midpoint, and maximum.
6		Those targeted inventory levels are now zero.
7	c.	Big Rivers' other fuel procurement policies and procedures were
8		not changed during the period of May 1, 2017, through October
9		31, 2017. In the table at the top of the following page, Big
10		Rivers lists those unchanged policies and procedures, the dates
11		of their last changes, and the proceedings in which Big Rivers
12		provided them to the Commission.
13		
14		
15		

Case No. 2018-00023 Response to Staff Item 11 Witnesses: Mark W. McAdams (*Coal*) and Wayne O'Bryan (*Natural Gas*) Page 2 of 3

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1

Big Rivers Electric Corporation Policies and Procedures for Fuel Procurement				
Number	Name	Date Last Change	Provided In	Date Provided
105	Energy–Related Transaction Authority Policy	2016-12-16	Case No. 2017-00287	2017-09-13
105	Appendix A: Energy–Related Transaction Authority Policy	2016-12-21	Case No. 2017-00287	2017-09-13
111	Hedge Policy	2016-09-16	Case No. 2017-00006	2017-02-20
120	Fuel Procurement Policy and Procedure	2016-09-16	Case No. 2017-00006	2017-02-20
122	Energy–Related Transaction Credit Policy <sup>2</sup>	2015-11-19	Case No. 2016-00235	2016-08-26
122	Addendum: Energy-Related Transaction Credit Policy <sup>3</sup>	2014-08-15	Case No. 2016-00235	2016-08-26

2 3

4 Witness) Mark W. McAdams (*Coal*) and
5 Wayne O'Bryan (*Natural Gas*)

6

 $<sup>^2</sup>$  Due to a typographical error, previously reported 'Date Last Change' was 2015-11-15. That error is corrected with this filing.

<sup>&</sup>lt;sup>3</sup> Policy No. 122 and Policy No. 122–Addendum are within the same Word file. As such, when Policy No. 122 was filed in CN 2016-00235, with a 'Date Last Change' of 2015-11-19, that date was incorrectly listed for Policy No. 122 – Addendum. The Addendum's 'Date Last Change' is corrected with this filing.



**BOARD POLICY** 

Policy Number: <u>121</u>

Solid Fuel Inventory Policy				
Original Effective Date	01/15/1994	Date Last Reviewed	08/18/2017	Approved by
Original Approval Date	01/15/1994	Date Last Revised	08/18/2017	BOARD

#### **Scope**

To provide guidelines for the Fuels Procurement section in planning fuel procurement and deliveries such that the rate of receipt of solid fuel, in regard to actual and projected solid fuel burn, provides a desired inventory level at each generating station.

#### **Desired Solid Fuel Inventory Level**

Under normal circumstances, the solid fuel inventories shall be maintained within the minimum and maximum ranges, optimizing around the midpoint, as follows:

Day's Inventory

			, ,
<u>Station</u>	<u>Minimum</u>	Midpoint	<u>Maximum</u>
Coleman	0	0	0
Green	30	45	60
HMPL Station II	30	45	60
Reid	0	0	0
Wilson	30	45	60
System	30	45	60

Solid fuel inventory, by Station or by System, may be decreased or increased from the levels shown in the above table as deemed necessary in preparation for planned maintenance (outage), expected interruptions (weather, logistics, etc.) to solid fuel supply or market conditions.

#### **Calculation of Number of Days Supply**

The number of "days" of solid fuel inventory at each generating station plant shall be calculated by dividing the total tons in inventory by the projected average daily burn rate.

#### **Projection of Average Daily Burn Rate**

The projected average daily burn rate for each generating station shall be calculated by dividing the total tons projected to be burned for the year at that plant by the number of days in the year. The total tons projected to be burned for a given year for each plant shall be that projected in the process of preparing the annual budget and this projection may be revised from time-to-time during the year as more current information affecting the projection becomes available.



BOARD POLICY

Policy Number: <u>121</u>

Solid Fuel Inventory Policy				
Original Effective Date	01/15/1994	Date Last Reviewed	08/18/2017	Approved by
Original Approval Date	01/15/1994	Date Last Revised	08/18/2017	BOARD

Number	Date	Notes	Approved by
Original	01/15/1994	Originally Coal Inventory Policy	President/CEO
Rev 1	03/18/2011	Revised and renamed Solid Fuel Inventory	Board
Rev 2	10/17/2014	Inventory level change for Coleman and HMPL; update HMPL name	Board
Rev 3	08/21/2015	Added weather, logistics and market conditions as reasons for deviating from solid fuel inventory level ranges	Board
Rev 4	08/18/2017	Inventory level change for Reid	Board



BOARD POLICY Policy Number: 121

Solid Fuel Inventory Policy					
Original Effective Date	01/15/1994	Date Last Reviewed	08/21/2015	Approved by	
Original Approval Date	01/15/1994	Date Last Revised	08/21/2015	BOARD	

#### **Scope**

To provide guidelines for the Fuels Procurement section in planning fuel procurement and deliveries such that the rate of receipt of solid fuel, in regard to actual and projected solid fuel burn, provides a desired inventory level at each generating station.

#### **Desired Solid Fuel Inventory Level**

Under normal circumstances, the solid fuel inventories shall be maintained within the minimum and maximum ranges, optimizing around the midpoint, as follows:

#### Day's Inventory

Station	Minimum	<u>Midpoint</u>	<u>Maximum</u>
Coleman	0	0	0
Green	30	45	60
HMPL Station II	30	45	60
Reid	<u>0</u>	<u>)</u> 0	
Wilson	30	45	60
System	30	45	60

Solid fuel inventory, by Station or by System, may be decreased or increased from the levels shown in the above table as deemed necessary in preparation for planned maintenance (outage), expected interruptions (weather, logistics, etc.) to solid fuel supply or market conditions.

#### Calculation of Number of Days Supply

The number of "days" of solid fuel inventory at each generating station plant shall be calculated by dividing the total tons in inventory by the projected average daily burn rate.

#### Projection of Average Daily Burn Rate

The projected average daily burn rate for each generating station shall be calculated by dividing the total tons projected to be burned for the year at that plant by the number of days in the year. The total tons projected to be burned for a given year for each plant shall be that projected in the process of preparing the annual budget and this projection may be revised from time-to-time during the year as more current information affecting the projection becomes available.

-(	Deleted:	16
	Deleted: 1	8
	Deleted:	20



BOARD POLICY

PORATION Policy Number: <u>121</u> Solid Fuel Inventory Policy

		• •	•	
Original Effective Date	01/15/1994	Date Last Reviewed	08/21/2015	Approved by
Original Approval Date	01/15/1994	Date Last Revised	08/21/2015	BOARD

Number	Date	Notes	Approved by
Original	01/15/1994	Originally Coal Inventory Policy	President/CEO
Rev 1	03/18/2011	Revised and renamed Solid Fuel Inventory	Board
Rev 2	10/17/2014	Inventory level change for Coleman and HMPL; update HMPL name	Board
Rev 3	08/21/2015	Added weather, logistics and market conditions as reasons for deviating from solid fuel inventory level ranges	Board
Rev 4	08/18/2017	Inventory level change for Reid	Board

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### **Response to Commission Staff's Request for Information** dated February 16, 2018

#### March 1, 2018

1	Item 12)	For the period under review, list all firm power commitments
2	for (a) pur	chases and (b) sales. This list shall identify the electric utility,
3	the amoun	t of commitment in MW, and the purpose of the commitment
4	(i.e., peakin	ng, emergency).
5		
6	Response)	

7

#### Purchases: (a)

8 Big Rivers has a contract with Southeastern Power Administration ("SEPA") to purchase up to 178 MWs of energy. 9 A force majeure, previously declared by SEPA for this contract 10 due to dam safety issues at Wolf Creek and Center Hill dams on 11 12 the Cumberland System, remained in effect from May 1, 2017, 13 through October 31, 2017. For the period under review, Big Rivers has operated under an annual contract in which we have 14 to schedule the purchases under the terms of weekly capacity 15 declarations. These are limited to 154 MWs due to ongoing 16 17 repairs on the Center Hill dam. The repairs currently are expected to last until 2019. 18

Additional purchases are shown on the table which 19 20 follows. Please note, the purchases listed were made to support 21 firm Off-System Sales and to adjust the amount of sales in 22 selected months. The listed purchases were not passed through 23 Big Rivers' FAC.

> Case No. 2017-00287 **Response to Staff Item 12** Witness: Wayne O'Bryan Page 1 of 5

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

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

1

2

Big Rivers Electric Corporation Power Purchases May 1, 2017, through October 31, 2017													
Date	Electric Utility	MW Commitment	Purpose										

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

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

Big Rivers Electric Corporation Power Purchases ( <i>continued</i> ) May 1, 2017, through October 31, 2017													
Date	Electric Utility	MW Commitment	Purpose										
June	ADM	100 MWs – On Peak	Off-System Sales										
2017		35,200 Total	Adjustments										
June	ADM	100 MWs – Off Peak	Off-System Sales										
2017		36,800 Total	Adjustments										
June	ADM	50 MWs – On Peak	Off-System Sales										
2017		17,600 Total	Adjustments										
June	ADM	50 MWs – On-Peak	Off-System Sales										
2017		17,600 Total	Adjustments										
June	EDF	50 MWs – On-Peak	Off-System Sales										
2017		17,600 Total	Adjustments										
July	ADM	100 MWs – On Peak	Off-System Sales										
2017		32,000 Total	Adjustments										

1

2

3 4

5

Case No. 2017-00287 Response to Staff Item 12 Witness: Wayne O'Bryan Page 3 of 5

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

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

1 2

Big Rivers Electric Corporation Firm Off-System Sales May 1, 2017, through October 31, 2017													
DateElectric UtilityMW CommitmentPurpose													

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

### March 1, 2018

#### 1 (b) <u>Sales (continued)</u>:

2

Big Rivers Electric Corporation Firm Off-System Sales (continued) November 1, 2016, through April 30, 2017													
Date	<b>Electric Utility</b>	MW Commitment	Purpose										
June 2017	${ m EDF}$	100 MWs – On Peak	Off System Sales- 100 MW Call Option										
Jul-Aug 2017	EDF	100 MWs – On Peak	Off-System Sales- 100 MW Call Option										

3

4

5 Witness) Wayne O'Bryan

6

Case No. 2017-00287 Response to Staff Item 12 Witness: Wayne O'Bryan Page 5 of 5

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

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

3

4 Response) Please see the attached monthly billing summaries for sales to all 5 electric utilities for the period May 1, 2017, through October 31, 2017. Please note 6 that certain identifying information has been redacted from these billing 7 summaries pursuant to 807 KAR 5:001 Section 4(10), which relates to privacy 8 protection for filings.

9 This information also is redacted pursuant to the customer privacy 10 discussion in the joint utilities' report<sup>4</sup> filed by the utilities in Case No. 2012-11 00428.<sup>5</sup> The Commission's Order dated April 16, 2013 ("the April 2013 Order"), in 12 that case concurred with the position of the joint utilities. Finally, this redaction 13 is consistent with Big Rivers' Customer Information and Privacy Policy filed with

<sup>&</sup>lt;sup>4</sup> See Report of the Joint Utilities: Atmos Energy Corporation, Big Rivers Electric Corporation, Big Sandy Rural Electric Cooperative Corporation, Blue Grass Energy Cooperative Corporation, Clark Energy Cooperative, Inc., Columbia Gas of Kentucky, Inc., Cumberland Valley Electric, Delta Natural Gas Company, Inc., Duke Energy Kentucky, Inc., East Kentucky Power Cooperative, Inc., Farmers Rural Electric Cooperative Corporation, Fleming-Mason Energy Cooperative, Inter-County Energy Cooperative Corporation, Jackson Energy Cooperative Corporation, Jackson Purchase Energy Corporation, Kenergy Corp, Kentucky Power Company, Kentucky Utilities Company, Licking Valley Rural Electric Cooperative Corporation, Louisville Gas and Electric Company, Meade County Rural Electric Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, Owen Electric Cooperative, Inc., Salt River Electric Cooperative Corporation, Shelby Energy Cooperative Corporation with Comments by: The Attorney General of the Commonwealth of Kentucky by and through His Office of Rate Intervention and the Community Action Council for Lexington-Fayette, Bourbon, Harrison and Nicholas Counties, Inc., filed June 30, 2014, in Case No. 2012-00428.

<sup>&</sup>lt;sup>5</sup> In the Matter of: Consideration of the Implementation of Smart Grid and Smart Meter Technologies, Case No. 2012-00428

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

- 1 the Commission on June 13. 2016, pursuant to Ordering Paragraph No. 4 of the
- 2 April 2013 Order.

3

- 4
- 5 Witness) Nicholas R. Castlen

6

Case No. 2018-00023 Response to Staff Item 13 Witness: Nicholas R. Castlen Page 2 of 2

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members May 2017

	Member Billing May 2017	KW Billed (a)	kWh (b)	Demand Revenue (c)	I	Base Energy Revenue (d)	(	Total Demand & Energy (e) = (c) + (d)		Net Green Power (f)
2 3 JP RURAI	LS	108,539	47,349,131	 1,498,380.90	\$	2,130,710.90	\$	3,629,091.80	\$	5.00
4 KENERGY	ζ.	182,503	84,118,901	2,519,453.92		3,785,350.55		6,304,804.47	·	-
5 MEADE C	O. RURALS	64,210	31,562,992	886,419.05		1,420,334.64		2,306,753.69		-
6 7 TOTAL R	URALS	355,252	163,031,024	\$ 4,904,253.87	\$	7,336,396.09	\$	12,240,649.96	\$	5.00
8 9		5,337	2,342,460	 57,185.96	\$	89,130.60	\$	146,316.56	\$	
10		63	35,670	675.05		1,357.24		2,032.29	·	-
11		30,900	17,370,700	331,093.50		660,955.14		992,048.64		-
12		1,672	526,000	17,915.48		20,014.30		37,929.78		-
13		11,233	4,485,930	120,361.60		170,689.64		$291,\!051.24$		-
14		2,766	951,270	29,637.69		36,195.82		$65,\!833.51$		-
15		800	$297,\!830$	8,572.00		11,332.43		19,904.43		-
16		3,434	$565,\!220$	36,795.31		21,506.62		58,301.93		-
17		15,000	11,110,928	160,725.00		422,770.81		$583,\!495.81$		-
18		60	12,170	642.90		463.07		1,105.97		-
19		100	24,010	1,071.50		913.58		1,985.08		-
20		37,066	23,776,110	397,162.19		904,680.99		1,301,843.18		-
21		4,662	1,922,430	49,953.33		73,148.46		123,101.79		-
22		3,379	1,515,470	36,205.99		$57,\!663.63$		93,869.62		-
23		100	42,690	1,071.50		$1,\!624.35$		$2,\!695.85$		-
<b>24</b>		250	41,310	2,678.75		1,571.85		4,250.60		-
25		6,955	4,032,590	$74,\!522.83$		$153,\!440.05$		227,962.88		-
26		13,148	7,450,310	140,880.82		283,484.30		$424,\!365.12$		-
27 28		1,965	1,083,780	21,054.98		41,237.83		62,292.81		-
29 Sub-Total	l Kenergy Industrials	138,890	77,586,878	\$ 1,488,206.38	\$	2,952,180.71	\$	4,440,387.09	\$	_
30 31		3,154	954,140	33,795.11		36,305.03		70,100.14		-
	NDUSTRIALS	142,044	78,541,018	\$ 1,522,001.49	\$	2,988,485.74	\$	4,510,487.23	\$	_
34 35 GRAND T	OTAL	497,296	241,572,042	\$ 6,426,255.36	\$	10,324,881.83	\$	16,751,137.19	\$	5.00

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 1 of 24

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members May 2017

1	Member Billing May 2017	er Factor Penalty (g)	A	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)	No	on-FAC PPA (k)	(1)	Revenue $f = \sum (e) $ to (m)
2 3 4	JP RURALS KENERGY	\$ - - -	\$	 - -	\$ $23,153.73 \\ 41,134.14 \\ 15,134.14$	\$ 284,515.27 494,546.93	\$	63,258.44 112,382.85	\$	4,000,024.24 6,952,868.39
5 6	MEADE CO. RURALS	 -		-	 15,434.30	 181,050.93		42,168.16		2,545,407.08
7 8	TOTAL RURALS	\$ -	\$	-	\$ 79,722.17	\$ 960,113.13	\$	217,809.45	\$	13,498,299.71
9 10 11 12 13 14 15		\$ - 642.90 - - - -	\$	(22,691.16) $(22,691.16)$ $17,002.17$ $2,062.49$ $622.71$	\$ 1,145.46 $17.44$ $8,494.27$ $257.21$ $2,193.62$ $465.17$ $145.64$ $2562$	\$ $11,531.57\\160.61\\76,656.24\\2,977.99\\22,914.20\\5,174.15\\1,565.81$	\$	3,129.53 47.66 23,207.26 702.74 5,993.20 1,270.90 397.90	\$	$162,123.12 \\ 2,900.90 \\ 1,077,715.25 \\ 41,867.72 \\ 339,154.43 \\ 74,806.22 \\ 22,636.49 \\ 24,510.20 \\ 1000 $
16 17		835.77		-	$276.39 \\ 5,433.24$	$\begin{array}{c} 4,543.47\\ 46,234.03\end{array}$		755.13 14,844.20		64,712.69 650,007.28
18 19		-		-	$5.95 \\ 11.74$	86.39 155.36		$16.26 \\ 32.08$		1,214.57 2,184.26
20 21 22		-		-	$11,626.52 \\940.07 \\741.06$	$103,011.54 \\9,695.20 \\7,399.87$		31,764.88 2,568.37 2,024.67		1,448,246.12 136,305.43 104,035.22
 23 24 25		-		-	$20.88 \\ 20.20 \\ 1,971.94$	$212.40 \\ 331.26 \\ 18,019.85$		57.03 55.19 5,387.54		$2,986.16 \\ 4,657.25 \\ 253,342.21$
26 27 28		2,635.89		-	3,643.20 529.97	33,537.00 4,921.54		9,953.61 1,447.93		471,498.93 71,828.14
29	Sub-Total Kenergy Industrials	\$ 4,114.56	\$	(3,003.79)	\$ 37,939.97	\$ 349,128.48	\$	103,656.08	\$	4,932,222.39
30 31 32		-		-	 466.57	5,501.27		1,274.73		77,342.71
33	TOTAL INDUSTRIALS	\$ 4,114.56	\$	(3,003.79)	\$ 38,406.54	\$ 354,629.75	\$	104,930.81	\$	5,009,565.10
34 35	GRAND TOTAL	\$ 4,114.56	\$	(3,003.79)	\$ 118,128.71	\$ 1,314,742.88	\$	322,740.26	\$	18,507,864.81

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# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members May 2017

1	Member Billing May 2017	Expense Mitigation Adjustment (EMA) (m)	MRSM Adjustment Fuel Roll-In (n)	ŋ	MRSM - ER Fransmission Rural Adjustment (0)	r	MRSM - ER Fransmission Industrial Adjustment (p)	ł	Total ljustments for ER & RER on Power Bill (q) = (o) + (p)	Revenue Net of MRSM Adjustments (r) = (l) + (q)
2 3 4 5	JP RURALS KENERGY MEADE CO. RURALS	\$ $\begin{array}{c} 426,142.18\\757,070.11\\284,066.93\end{array}$	\$ (483,529.33) (859,022.21) (322,321.26)	\$	(74,158.56) (129,530.63) (47,685.66)	\$		\$	(74,158.56) (129,530.63) (47,685.66)	\$ 3,925,865.68 6,823,337.76 2,497,721.42
6 7	TOTAL RURALS	\$ 1,467,279.22	\$ (1,664,872.80)	\$	(251,374.85)	\$		\$	(251,374.85)	\$ 13,246,924.86
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\end{array}$		\$ $\begin{array}{c} 21,082.14\\ 321.03\\ 156,336.30\\ 4,734.00\\ 40,373.37\\ 8,561.43\\ 2,680.47\\ 5,086.98\\ 99,998.35\\ 109.53\\ 216.09\\ 213,984.99\\ 17,301.87\\ 13,639.23\\ 384.21\\ 371.79\\ 36,293.31\\ 67,052.79\\ 9,754.02\\ \end{array}$	\$ $\begin{array}{c} (23,921.20)\\ (364.26)\\ (177,389.59)\\ (5,371.51)\\ (45,810.32)\\ (9,714.37)\\ (3,041.44)\\ (5,772.03)\\ (113,464.80)\\ (124.28)\\ (245.19)\\ (242,801.64)\\ (19,631.86)\\ (15,475.98)\\ (435.95)\\ (421.86)\\ (41,180.81)\\ (76,082.57)\\ (11,067.56)\end{array}$	\$	- - - - - - - - - - - - - - - - - - -	\$	$\begin{array}{c} (2,098.07)\\ (29.92)\\ (14,360.76)\\ (523.66)\\ (4,130.23)\\ (918.44)\\ (280.23)\\ (744.36)\\ (8,807.31)\\ (14.48)\\ (26.52)\\ (19,397.78)\\ (1,753.15)\\ (1,753.15)\\ (1,349.17)\\ (38.54)\\ (54.29)\\ (3,364.15)\\ (6,248.46)\\ (914.76)\end{array}$	\$	$\begin{array}{c} (2,098.07)\\ (29.92)\\ (14,360.76)\\ (523.66)\\ (4,130.23)\\ (918.44)\\ (280.23)\\ (744.36)\\ (8,807.31)\\ (14.48)\\ (26.52)\\ (19,397.78)\\ (1,753.15)\\ (1,349.17)\\ (38.54)\\ (54.29)\\ (3,364.15)\\ (6,248.46)\\ (914.76)\end{array}$	\$ $\begin{array}{c} 160,025.05\\ 2,870.98\\ 1,063,354.49\\ 41,344.06\\ 335,024.20\\ 73,887.78\\ 22,356.26\\ 63,968.33\\ 641,199.97\\ 1,200.09\\ 2,157.74\\ 1,428,848.34\\ 134,552.28\\ 102,686.05\\ 2,947.62\\ 4,602.96\\ 249,978.06\\ 465,250.47\\ 70,913.38\end{array}$
28 29	Sub-Total Kenergy Industrials	\$ 698,281.90	\$ (792,317.22)	\$		\$	(65,054.28)	\$	(65,054.28)	\$ 4,867,168.11
30 31 32		 8,587.26	 (9,743.68)		-		(963.33)		(963.33)	 76,379.38
32 33 34	TOTAL INDUSTRIALS	\$ 706,869.16	\$ (802,060.90)	\$	-	\$	(66,017.61)	\$	(66,017.61)	\$ 4,943,547.49
34 35		\$ 2,174,148.38	\$ (2,466,933.70)	\$	(251,374.85)	\$	(66,017.61)	\$	(317,392.46)	\$ 18,190,472.35

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### Big Rivers Electric Corporation Monthly Billing Summary Sales to Members June 2017

1	Member Billing June 2017	KW Billed (a)	kWh (b)	Demand Revenue (c)	1	Base Energy Revenue (d)		Total Demand & Energy (e) = (c) + (d)		Net Green Power (f)
2 3	JP RURALS	131,415	56,566,259	 1,814,184.08	\$	2,545,481.66	\$	4,359,665.74	\$	5.00
4	KENERGY	238,670	100,846,249	3,294,839.35	Ŧ	4,538,081.21	т	7,832,920.56	Ŧ	-
5	MEADE CO. RURALS	84,139	36,209,664	1,161,538.90		1,629,434.88		2,790,973.78		-
6 7	TOTAL RURALS	454,224	193,622,172	\$ 6,270,562.33	\$	8,712,997.75	\$	14,983,560.08	\$	5.00
8 9		5,496	2,398,546	 58,889.64	\$	91,264.68	\$	150,154.32	\$	
10		55	33,299	589.33		1,267.03		1,856.36		-
11		30,327	13,864,809	$324,\!953.81$		527,555.98		$852,\!509.79$		-
12		1,667	535,333	17,861.91		20,369.42		38,231.33		-
13		11,000	4,682,341	117,865.00		178,163.08		296,028.08		-
14		2,760	$948,\!567$	29,573.40		36,092.97		$65,\!666.37$		-
15		800	294,971	8,572.00		$11,\!223.65$		19,795.65		-
16		3,361	581,709	36,013.12		22,134.03		58,147.15		-
17		15,000	10,787,434	160,725.00		410,461.86		571,186.86		-
18		60	12,842	642.90		488.64		1,131.54		-
19		100	20,076	1,071.50		763.89		1,835.39		-
20		37,109	24,999,400	397,622.94		$951,\!227.17$		1,348,850.11		-
<b>21</b>		4,757	1,827,354	50,971.26		69,530.82		120,502.08		-
22		3,425	$1,\!452,\!047$	36,698.88		$55,\!250.39$		91,949.27		-
<b>23</b>		100	36,946	1,071.50		1,405.80		2,477.30		-
<b>24</b>		250	39,813	2,678.75		1,514.88		4,193.63		-
<b>25</b>		7,258	4,299,318	77,769.47		$163,\!589.05$		$241,\!358.52$		-
26		13,511	7,594,413	144,770.37		288,967.41		433,737.78		-
27		1,936	1,061,344	20,744.24		40,384.14		61,128.38		-
28 29 30		138,972	75,470,562	\$ 1,489,085.02	\$	2,871,654.89	\$	4,360,739.91	\$	_
30 31 32		1,901	445,288	 20,369.22		16,943.21		37,312.43		-
32 33 34		140,873	75,915,850	\$ 1,509,454.24	\$	2,888,598.10	\$	4,398,052.34	\$	-
	GRAND TOTAL	595,097	269,538,022	\$ 7,780,016.57	\$	11,601,595.85	\$	19,381,612.42	\$	5.00

### **Big Rivers Electric Corporation** Monthly Billing Summary Sales to Members **June 2017**

1	Member Billing June 2017		ver Factor Penalty (g)	A	Billing Adjustment (h)		Fuel Adjustment Clause (FAC) (i)		vironmental Surcharge (ES) (j)	No	on-FAC PPA (k)	(1)	Revenue $f(e) = \sum (e) \text{ to } (m)$
2 3 4 5	JP RURALS KENERGY MEADE CO. RURALS	\$	 - -	\$	- - -	\$	$19,119.40 \\ 34,086.03 \\ 12,238.87$	\$	$\begin{array}{c} 445,835.68\\ 800,892.11\\ 285,414.89\end{array}$	\$	$75,572.52 \\134,730.59 \\48,376.11$	\$	4,900,198.34 8,802,629.29 3,137,003.65
6 7	TOTAL RURALS	\$	-	\$		\$	65,444.30	\$	1,532,142.68	\$	258,679.22	\$	16,839,831.28
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\end{array}$		\$	739.34 	\$	(17,165.43) $16,137.04$ $1,281.07$ $556.70$ $(378.26)$ $(7.36)$ $(9,570.14)$ $(665.63)$ $(20.76)$ $(29.25)$ $(3,175.23)$	\$	$\begin{array}{c} 810.71\\ 11.26\\ 4,686.31\\ 180.94\\ 1,582.63\\ 320.62\\ 99.70\\ 196.62\\ 3,646.15\\ 4.34\\ 6.79\\ 8,449.80\\ 617.65\\ 490.79\\ 12.49\\ 13.46\\ 1,453.17\\ 2,566.91\end{array}$	\$	$\begin{array}{c} 15,430.79\\ 191.38\\ 85,932.49\\ 3,916.26\\ 30,413.91\\ 6,731.47\\ 2,030.76\\ 5,917.40\\ 58,977.40\\ 115.41\\ 187.07\\ 139,194.77\\ 12,367.20\\ 9,446.47\\ 254.14\\ 426.41\\ 24,877.87\\ 44,685.17\end{array}$	\$	3,204.46 44.49 18,523.38 715.20 6,255.61 1,267.29 394.08 777.16 14,412.01 17.16 26.82 33,399.20 2,441.34 1,939.93 49.36 53.19 5,743.89 10,146.14	\$	$\begin{array}{c} 169,600.28\\ 2,842.83\\ 944,486.54\\ 43,043.73\\ 360,360.79\\ 75,266.82\\ 22,876.89\\ 65,474.41\\ 648,222.42\\ 1,261.09\\ 2,056.07\\ 1,520,323.74\\ 135,928.27\\ 103,160.83\\ 2,772.53\\ 4,657.44\\ 273,433.45\\ 487,960.77\end{array}$
27 28 29		• •	2,593.03  14,090.23	 \$	(451.30) (13,488.55)	 \$	358.73  <b>25,509.07</b>		6,296.15  447,392.52	\$	1,417.96 <b>100,828.67</b>		71,342.95 <b>4,935,071.85</b>
30 31		Ť	-	¥	(475.26)	¥	150.51	¥	3,809.20	¥	594.90	Ψ	41,391.78
32 33	TOTAL INDUSTRIALS	\$	14,090.23	\$	(13,963.81)	\$	25,659.58	\$	451,201.72	\$	101,423.57	\$	4,976,463.63
34 35	GRAND TOTAL	\$	14,090.23	\$	(13,963.81)	\$	91,103.88	\$	1,983,344.40	\$	360,102.79	\$	21,816,294.91

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 5 of 24

### Big Rivers Electric Corporation Monthly Billing Summary Sales to Members June 2017

1	Member Billing June 2017	Expense Mitigation Adjustment (EMA) (m)	MRSM Adjustment Fuel Roll-In (n)	ŗ	MRSM - ER Transmission Rural Adjustment (0)	r	MRSM - ER Fransmission Industrial Adjustment (p)	E	Total justments for R & RER on Power Bill q) = (o) + (p)	Revenue Net of MRSM Adjustments (r) = (l) + (q)
2 3 4 5	JP RURALS KENERGY MEADE CO. RURALS	\$ 509,096.33 907,616.24 325,886.98	\$ (577,654.64) (1,029,841.88) (369,773.08)	\$	(75,300.29) (135,100.12) (48,205.07)	\$	 - - -	\$	(75,300.29) (135,100.12) (48,205.07)	\$ 4,824,898.05 8,667,529.17 3,088,798.58
6 7	TOTAL RURALS	\$ 1,742,599.55	\$ (1,977,269.60)	\$	(258,605.48)	\$		\$	(258,605.48)	\$ 16,581,225.80
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ \end{array}$		\$ $\begin{array}{c} 21,586.91\\ 299.69\\ 124,783.28\\ 4,818.00\\ 42,141.07\\ 8,537.10\\ 2,654.74\\ 5,235.38\\ 97,086.91\\ 115.58\\ 180.68\\ 224,994.60\\ 16,446.19\\ 13,068.42\\ 332.51\\ 358.32\\ 38,693.86\\ 68,349.72\\ 9,552.10\\ \end{array}$	\$ $\begin{array}{c} (24,493.95)\\ (340.05)\\ (141,587.43)\\ (5,466.82)\\ (47,816.07)\\ (9,686.77)\\ (3,012.24)\\ (5,940.41)\\ (110,161.28)\\ (131.14)\\ (205.02)\\ (255,293.87)\\ (18,660.94)\\ (14,828.30)\\ (377.29)\\ (406.57)\\ (43,904.64)\\ (77,554.15)\\ (10,838.44)\\ \end{array}$	\$		\$	$\begin{array}{c} (2,286.12)\\ (29.01)\\ (12,825.05)\\ (566.61)\\ (4,497.55)\\ (979.19)\\ (297.03)\\ (814.11)\\ (9,037.45)\\ (16.15)\\ (26.05)\\ (21,244.41)\\ (1,814.66)\\ (1,396.51)\\ (37.17)\\ (58.27)\\ (3,765.73)\\ (6,740.25)\\ (948.08)\end{array}$	\$	$\begin{array}{c} (2,286.12)\\ (29.01)\\ (12,825.05)\\ (566.61)\\ (4,497.55)\\ (979.19)\\ (297.03)\\ (814.11)\\ (9,037.45)\\ (16.15)\\ (26.05)\\ (21,244.41)\\ (1,814.66)\\ (1,396.51)\\ (37.17)\\ (58.27)\\ (3,765.73)\\ (6,740.25)\\ (948.08)\end{array}$	\$ $\begin{array}{c} 167,314.16\\ 2,813.82\\ 931,661.49\\ 42,477.12\\ 355,863.24\\ 74,287.63\\ 22,579.86\\ 64,660.30\\ 639,184.97\\ 1,244.94\\ 2,030.02\\ 1,499,079.33\\ 134,113.61\\ 101,764.32\\ 2,735.36\\ 4,599.17\\ 269,667.72\\ 481,220.52\\ 70,394.87\\ \end{array}$
28 29	Sub-Total Kenergy Industrials	\$ 679,235.06	\$ (770,705.38)	\$		\$	(67,379.40)	\$	(67,379.40)	\$ 4,867,692.45
30 31		4,007.59	(4,547.28)		-		(537.17)		(537.17)	40,854.61
32 33	TOTAL INDUSTRIALS	\$ 683,242.65	\$ (775,252.66)	\$		\$	(67,916.57)	\$	(67,916.57)	\$ 4,908,547.06
34 35	GRAND TOTAL	\$ 2,425,842.20	\$ (2,752,522.26)	\$	(258,605.48)	\$	(67,916.57)	\$	(326,522.05)	\$ 21,489,772.86

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# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members July 2017

1	Member Billing July 2017	KW Billed (a)	kWh (b)	Demand Revenue (c)	]	Base Energy Revenue (d)		Total Demand & Energy (e) = (c) + (d)		Net Green Power (f)
2 3	JP RURALS	148,366	68,638,872	 2,048,192.63	\$	3,088,749.24	\$	5,136,941.87	\$	5.00
4		259,166	120,392,274	3,577,786.63	Ŧ	5,417,652.33	Ŧ	8,995,438.96	т	
5	MEADE CO. RURALS	95,296	43,880,494	1,315,561.28		1,974,622.23		3,290,183.51		-
6 7	TOTAL RURALS	502,828	232,911,640	\$ 6,941,540.54	\$	10,481,023.80	\$	17,422,564.34	\$	5.00
8 9		5,526	2,434,736	 59,211.09	\$	92,641.70	\$	151,852.79		
10		55	34,173	589.33		1,300.28		1,889.61		
11		$28,\!547$	10,953,939	305,881.11		416,797.38		722,678.49		
12		1,853	621,082	19,854.90		$23,\!632.17$		43,487.07		
13		10,773	3,716,314	$115,\!432.70$		$141,\!405.75$		$256,\!838.45$		
14		2,810	865,155	30,109.15		32,919.15		63,028.30		
15		800	$297,\!637$	8,572.00		$11,\!325.09$		19,897.09		
16		3,512	564,805	37,631.08		21,490.83		59,121.91		
17		15,000	11,160,000	160,725.00		424,638.00		585, 363.00		
18		60	14,229	642.90		541.41		1,184.31		
19		100	24,562	1,071.50		934.58		2,006.08		
20		36,936	$25,\!886,\!676$	395,769.24		984, 988.02		1,380,757.26		
<b>21</b>		4,404	1,583,113	47,188.86		60,237.45		107,426.31		
22		3,402	$1,\!272,\!485$	36,452.43		48,418.05		84,870.48		
<b>23</b>		100	35,270	1,071.50		1,342.02		2,413.52		
<b>24</b>		250	38,872	2,678.75		1,479.08		4,157.83		
<b>25</b>		6,948	4,111,268	74,447.82		156,433.75		$230,\!881.57$		
26		13,712	$7,\!672,\!283$	146,924.08		$291,\!930.37$		$438,\!854.45$		
27 28		1,976	1,002,496	 21,172.84		38,144.97		59,317.81		
29	Sub-Total Kenergy Industrials	136,764	72,289,095	\$ 1,465,426.28	\$	2,750,600.05	\$	4,216,026.33		
30 31		3,089	568,965	33,098.64		21,649.12		54,747.76		
32 33	TOTAL INDUSTRIALS	139,853	72,858,060	\$ 1,498,524.92	\$	2,772,249.17	\$	4,270,774.09	\$	
34 35	GRAND TOTAL	642,681	305,769,700	\$ 8,440,065.46	\$	13,253,272.97	\$	21,693,338.43	\$	5.00

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members July 2017

1	Member Billing July 2017	ver Factor Penalty (g)	1	Billing Adjustment (h)	1	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)	No	n-FAC PPA (k)	(1)	Revenue ) = ∑ (e) to (m)
2 3 4 5	JP RURALS KENERGY MEADE CO. RURALS	\$ 	\$	 - -	\$	$100,830.50 \\176,856.25 \\64,460.45$	\$ 579,585.24 1,014,987.58 371,196.10	\$	$91,701.53 \\160,844.08 \\58,624.34$	\$	5,909,064.14 10,348,126.87 3,784,464.40
6 7	TOTAL RURALS	\$ 	\$		\$	342,147.20	\$ 1,965,768.92	\$	311,169.95	\$	20,041,655.41
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\end{array}$		\$ - 803.63 - - - 2,689.47 - - - - - - - - - - - - - - - - - - -	\$	- - - - - - - - - - - - - - - - - - -	\$	$\begin{array}{c} 3,576.63\\ 50.20\\ 16,091.34\\ 912.37\\ 5,459.27\\ 1,270.91\\ 437.23\\ 829.70\\ 16,394.04\\ 20.90\\ 36.08\\ 38,027.53\\ 2,325.59\\ 1,869.28\\ 51.81\\ 57.10\\ 6,039.45\\ 11,270.58\\ 1,472.67\end{array}$	\$ $\begin{array}{c} 17,256.84\\ 215.92\\ 81,933.42\\ 4,918.72\\ 29,065.07\\ 7,118.30\\ 2,254.62\\ 6,601.85\\ 67,063.09\\ 133.14\\ 225.65\\ 158,055.27\\ 12,165.63\\ 9,617.91\\ 273.23\\ 464.02\\ 26,362.71\\ 50,066.23\\ 6,756.67\end{array}$	\$	3,252.81 45.66 14,634.46 829.77 4,965.00 1,155.85 397.64 754.58 14,909.76 19.01 32.81 34,584.60 2,115.04 1,700.04 47.12 51.93 5,492.65 10,250.17 1,339.33	\$	$\begin{array}{c} 175,939.07\\ 3,005.02\\ 835,337.71\\ 50,147.93\\ 314,525.40\\ 74,591.75\\ 23,893.09\\ 69,997.51\\ 683,729.89\\ 1,357.36\\ 2,300.62\\ 1,611,424.66\\ 124,032.57\\ 98,057.71\\ 2,785.68\\ 4,730.88\\ 268,776.38\\ 510,441.43\\ 71,833.11\end{array}$
28 29	Sub-Total Kenergy Industrials	\$ 6,439.73	\$	21,122.51	\$	106,192.68	\$ 480,548.29	\$	96,578.23	\$	4,926,907.77
30 31		-		-		835.81	6,127.43		760.14		62,471.14
32 33 24	TOTAL INDUSTRIALS	\$ 6,439.73	\$	21,122.51	\$	107,028.49	\$ 486,675.72	\$	97,338.37	\$	4,989,378.91
34 35	GRAND TOTAL	\$ 6,439.73	\$	21,122.51	\$	449,175.69	\$ 2,452,444.64	\$	408,508.32	\$	25,031,034.32

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 8 of 24

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members July 2017

1	Member Billing July 2017	Expense Mitigation Adjustment (EMA) (m)	MRSM Adjustment Fuel Roll-In (n)	,	MRSM - ER Transmission Rural Adjustment (0)	ſ	MRSM - ER Fransmission Industrial Adjustment (p)	]	Total djustments for ER & RER on Power Bill (q) = (o) + (p)	Revenue Net of MRSM Adjustments (r) = (l) + (q)
2 3 4 5 6	JP RURALS KENERGY MEADE CO. RURALS	\$ 617,749.85 1,083,530.47 394,924.45	\$ (700,940.16) (1,229,445.89) (448,107.59)	\$	(89,949.98) (157,583.11) (57,583.51)			\$	(89,949.98) (157,583.11) (57,583.51)	\$ 5,819,114.16 10,190,543.76 3,726,880.89
0 7	TOTAL RURALS	\$ 2,096,204.77	\$ (2,378,493.64)	\$	(305,116.60)	\$	-	\$	(305,116.60)	\$ 19,736,538.81
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 20\\ 27\\ 26\\ 26\\ 27\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26$		\$ $\begin{array}{c} 21,912.62\\ 307.56\\ 98,585.45\\ 5,589.74\\ 33,446.83\\ 7,786.40\\ 2,678.73\\ 5,083.25\\ 100,440.00\\ 128.06\\ 221.06\\ 232,980.08\\ 14,248.02\\ 11,452.37\\ 317.43\\ 349.85\\ 37,001.41\\ 69,050.55\\ 9,022.46\end{array}$	\$ $\begin{array}{c} (24,863.52)\\ (348.97)\\ (111,861.63)\\ (6,342.49)\\ (37,951.00)\\ (8,834.96)\\ (3,039.47)\\ (5,767.79)\\ (113,965.92)\\ (145.31)\\ (250.83)\\ (264,354.74)\\ (16,166.75)\\ (12,994.62)\\ (360.18)\\ (396.96)\\ (41,984.27)\\ (78,349.35)\\ (10,237.49)\\ \end{array}$			\$	$\begin{array}{c}(2,794.52)\\(36.13)\\(13,077.16)\\(773.55)\\(4,585.61)\\(1,108.87)\\(358.65)\\(953.58)\\(11,394.89)\\(20.12)\\(34.24)\\(26,724.81)\\(1,928.07)\\(1,530.88)\\(43.21)\\(66.76)\\(4,392.51)\\(8,299.24)\\(1,109.66)\end{array}$	\$	$\begin{array}{c} (2,794.52)\\ (36.13)\\ (13,077.16)\\ (773.55)\\ (4,585.61)\\ (1,108.87)\\ (358.65)\\ (953.58)\\ (11,394.89)\\ (20.12)\\ (34.24)\\ (26,724.81)\\ (1,928.07)\\ (1,530.88)\\ (43.21)\\ (66.76)\\ (4,392.51)\\ (8,299.24)\\ (1,109.66)\end{array}$	\$ $\begin{array}{c} 173,144.55\\2,968.89\\822,260.55\\49,374.38\\309,939.79\\73,482.88\\23,534.44\\69,043.93\\672,335.00\\1,337.24\\2,266.38\\1,584,699.85\\122,104.50\\96,526.83\\2,742.47\\4,664.12\\264,383.87\\502,142.19\\70,723.45\end{array}$
28 29	Sub-Total Kenergy Industrials	\$ 650,601.87	\$ (738,216.25)			\$	(79,232.46)	\$	(79,232.46)	\$ 4,847,675.31
30 31		5,120.69	(5,810.27)				(899.15)		(899.15)	61,571.99
32 33	TOTAL INDUSTRIALS	\$ 655,722.56	\$ (744,026.52)	\$	_	\$	(80,131.61)	\$	(80,131.61)	\$ 4,909,247.30
34 35		\$ 2,751,927.33	\$ (3,122,520.16)	\$	(305,116.60)	\$	(80,131.61)	\$	(385,248.21)	\$ 24,645,786.11

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 9 of 24

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members August 2017

1	Member Billing August 2017	KW Billed (a)	kWh (b)	Demand Revenue (c)	I	Base Energy Revenue (d)		Total Demand & Energy (e) = (c) + (d)		Net Green Power (f)
2 3	JP RURALS	133,825	58,504,452	 1,847,454.13		2,632,700.34		4,480,154.47		5.00
4	KENERGY	234,975	104,945,190	3,243,829.88	Ψ	4,722,533.55	Ψ	7,966,363.43	Ψ	0.00
5	MEADE CO. RURALS	84,924	38,489,675	1,172,375.82		1,732,035.38		2,904,411.20		-
6 7	TOTAL RURALS	453,724	201,939,317	\$ 6,263,659.83	\$	9,087,269.27	\$	15,350,929.10	\$	5.00
8 9		5,360	2,543,134	 57,432.40	\$	96,766.25	\$	154,198.65		
10		55	32,772	589.33		1,246.97		1,836.30		
11		$28,\!547$	12,657,848	305,881.11		481,631.12		787,512.23		
12		1,879	695,356	20,133.49		26,458.30		46,591.79		
13		10,496	4,464,157	112,464.64		169,861.17		$282,\!325.81$		
14		2,898	910,985	$31,\!052.07$		$34,\!662.98$		65,715.05		
15		800	290,718	8,572.00		11,061.82		$19,\!633.82$		
16		3,474	591,488	$37,\!223.91$		22,506.12		59,730.03		
17		15,000	11,158,888	160,725.00		$424,\!595.69$		585, 320.69		
18		68	14,417	728.62		548.57		$1,\!277.19$		
19		100	26,363	1,071.50		1,003.11		2,074.61		
20		37,238	26,308,094	399,005.17		1,001,022.98		1,400,028.15		
<b>21</b>		4,419	1,630,735	47,349.59		62,049.47		109,399.06		
<b>22</b>		3,447	$1,\!664,\!655$	36,934.61		63,340.12		100,274.73		
<b>23</b>		100	42,799	1,071.50		$1,\!628.50$		2,700.00		
<b>24</b>		250	34,901	2,678.75		1,327.98		4,006.73		
<b>25</b>		7,273	4,440,644	77,930.20		168,966.50		$246,\!896.70$		
26		13,861	7,936,890	$148,\!520.62$		301,998.66		$450,\!519.28$		
27		2,061	1,106,618	22,083.62		42,106.81		64,190.43		
28 29 20		137,326	76,551,462	\$ 1,471,448.13	\$	2,912,783.12	\$	4,384,231.25		
30 31		1,814	420,619	19,437.01		16,004.55		35,441.56		
32 33		139,140	76,972,081	\$ 1,490,885.14	\$	2,928,787.67	\$	4,419,672.81	\$	
34 35	GRAND TOTAL	592,864	278,911,398	\$ 7,754,544.97	\$	12,016,056.94	\$	19,770,601.91	\$	5.00

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 10 of 24

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members August 2017

1	Member Billing August 2017	ver Factor Penalty (g)	А	Billing djustment (h)	1	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)	No	on-FAC PPA (k)	(1)	Revenue $f = \sum (e)$ to (m)
2 3	JP RURALS	\$ 	\$		\$	112,153.03	\$ 401,720.58	\$	78,161.95	\$	5,072,195.03
4 5	KENERGY MEADE CO. RURALS	-		-		201,179.93 73,784.71	714,573.60 260,586.21		$140,\!206.77\\51,\!422.21$		9,022,323.73 3,290,204.33
6 7	TOTAL RURALS	\$ -	\$	-	\$	387,117.67	\$ 1,376,880.39	\$	269,790.93	\$	17,384,723.09
8 9		\$ 	\$		\$	4,875.19	\$ 13,974.64	\$	3,397.63	\$	176,446.11
10		739.34		-		62.82	167.11		43.78		2,849.35
11		-		-		$24,\!265.09$	$71,\!277.87$		16,910.88		899,966.07
12		1,189.37		-		1,333.00	4,202.06		929.00		$54,\!245.22$
13		-		20,218.14		8,557.79	$25,\!532.73$		5,964.11		$342,\!598.58$
14		-		3,373.93		1,746.36	5,907.24		1,217.08		$77,\!959.66$
15		-		1,008.66		557.31	1,770.10		388.40		$23,\!358.29$
16		1,735.83		-		1,133.88	5,303.05		790.23		$68,\!693.02$
17		-		-		$21,\!391.59$	53,467.38		$14,\!908.27$		$675,\!087.93$
18		225.02		-		27.64	113.89		19.26		1,663.00
19		-		-		50.54	185.82		35.22		2,346.19
20		-		-		$50,\!432.62$	127,781.47		$35,\!147.61$		$1,\!613,\!389.85$
21		-		-		3,126.12	9,866.01		2,178.66		$124,\!569.85$
<b>22</b>		-		-		3,191.14	9,090.69		2,223.98		114,780.54
<b>23</b>		-		-		82.05	244.21		57.18		3,083.44
<b>24</b>		-		-		66.91	354.40		46.63		4,474.67
<b>25</b>		-		-		8,512.71	22,478.79		5,932.70		$283,\!820.90$
26		-		-		$15,\!215.02$	40,971.21		10,603.69		$517,\!309.20$
27 28		 3,396.66		-		2,121.39	 5,830.84		1,478.44		77,017.76
29		\$ 7,286.22	\$	24,600.73	\$	146,749.17	\$ 398,519.51	\$	102,272.75	\$	5,063,659.63
30 31		-		-		806.33	3,166.12		561.95		39,975.96
32 33	TOTAL INDUSTRIALS	\$ 7,286.22	\$	24,600.73	\$	147,555.50	\$ 401,685.63	\$	102,834.70	\$	5,103,635.59
34 35	GRAND TOTAL	\$ 7,286.22	\$	24,600.73	\$	534,673.17	\$ 1,778,566.02	\$	372,625.63	\$	22,488,358.68

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 11 of 24

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members August 2017

1	Member Billing August 2017	Expense Mitigation Adjustment (EMA) (m)	MRSM Adjustment Fuel Roll-In (n)	MRSM - ER Transmission Rural Adjustment (0)	MRSM - ER Fransmission Industrial Adjustment (p)	ł	Total djustments for ER & RER on Power Bill (q) = (o) + (p)	Revenue Net of MRSM Adjustments (r) = (l) + (q)
2 3 4 5 6	JP RURALS KENERGY MEADE CO. RURALS	\$ 526,540.07 944,506.71 346,407.08	\$ (597,447.46) (1,071,700.27) (393,056.55)	(92,570.83) (165,098.52) (60,315.52)	 	\$	(92,570.83) $(165,098.52)$ $(60,315.52)$	\$ 4,979,624.20 8,857,225.21 3,229,888.81
0 7	TOTAL RURALS	\$ 1,817,453.86	\$ (2,062,204.28)	\$ (317,984.87)	\$ -	\$	(317,984.87)	\$ 17,066,738.22
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ \end{array}$		\$ $\begin{array}{c} 22,888.21\\ 294.95\\ 113,920.63\\ 6,258.20\\ 40,177.41\\ 8,198.87\\ 2,616.46\\ 5,323.39\\ 100,429.99\\ 129.75\\ 237.27\\ 236,772.85\\ 14,676.62\\ 14,981.90\\ 385.19\\ 314.11\\ 39,965.80\\ 71,432.01\\ 9,959.56\end{array}$	\$ $\begin{array}{c} (25,970.48)\\ (334.67)\\ (129,261.94)\\ (7,100.98)\\ (45,587.97)\\ (9,302.98)\\ (2,968.81)\\ (6,040.28)\\ (113,954.56)\\ (147.23)\\ (269.22)\\ (268,658.26)\\ (16,653.07)\\ (16,999.46)\\ (437.06)\\ (356.41)\\ (45,347.86)\\ (81,051.52)\\ (11,300.78)\\ \end{array}$		\$ $\begin{array}{c}(2,850.57)\\(35.04)\\(14,411.87)\\(828.94)\\(5,134.05)\\(1,138.26)\\(348.29)\\(929.79)\\(11,487.40)\\(20.66)\\(34.87)\\(27,307.09)\\(1,945.50)\\(1,858.53)\\(49.14)\\(60.25)\\(4,727.56)\\(8,552.92)\\(1,207.89)\end{array}$	\$	$\begin{array}{c} (2,850.57)\\ (35.04)\\ (14,411.87)\\ (828.94)\\ (5,134.05)\\ (1,138.26)\\ (348.29)\\ (929.79)\\ (11,487.40)\\ (20.66)\\ (34.87)\\ (27,307.09)\\ (1,945.50)\\ (1,858.53)\\ (49.14)\\ (60.25)\\ (4,727.56)\\ (8,552.92)\\ (1,207.89)\\ \end{array}$	\$ $\begin{array}{c} 173,595.54\\ 2,814.31\\ 885,554.20\\ 53,416.28\\ 337,464.53\\ 76,821.40\\ 23,010.00\\ 67,763.23\\ 663,600.53\\ 1,642.34\\ 2,311.32\\ 1,586,082.76\\ 122,624.35\\ 112,922.01\\ 3,034.30\\ 4,414.42\\ 279,093.34\\ 508,756.28\\ 75,809.87\end{array}$
28 29	Sub-Total Kenergy Industrials	\$ 688,963.17	\$ (781,743.54)	 	\$ (82,928.62)	\$	(82,928.62)	\$ 4,980,731.01
30 31		3,785.57	(4,295.36)		(582.56)		(582.56)	39,393.40
32 33	TOTAL INDUSTRIALS	\$ 692,748.74	\$ (786,038.90)	\$ -	\$ (83,511.18)	\$	(83,511.18)	\$ 5,020,124.41
34 35	GRAND TOTAL	\$ 2,510,202.60	\$ (2,848,243.18)	\$ (317,984.87)	\$ (83,511.18)	\$	(401,496.05)	\$ 22,086,862.63

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 12 of 24

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members September 2017

1	Member Billing September 2017	KW Billed (a)	kWh (b)	Demand Revenue (c)	I	Base Energy Revenue (d)	(	Total Demand & Energy (e) = (c) + (d)		Net Green Power (f)
2 3	JP RURALS	126,689	50,157,593	 1,748,941.65		2,257,091.69	\$	4,006,033.34	\$	5.00
4	KENERGY	228,342	90,862,529	3,152,261.31	Ψ	4,088,813.81	Ψ	7,241,075.12	Ψ	0.00
5	MEADE CO. RURALS	80,892	32,295,128	1,116,714.06		1,453,280.76		2,569,994.82		-
6 7	TOTAL RURALS	435,923	173,315,250	 \$ 6,017,917.02	\$	7,799,186.26	\$	13,817,103.28	\$	5.00
8										
9		5,405	2,254,720	57,914.58	\$	85,792.10	\$	143,706.68		
10		53	31,436	567.90		1,196.14		1,764.04		
11		32,660	16,417,306	349,951.90		624,678.49		974,630.39		
12		1,838	458,399	19,694.17		17,442.08 152 200 85		37,136.25		
13		10,893 $2,829$	4,002,887 789,710	$\frac{116,718.50}{30,312.74}$		$\frac{152,309.85}{30,048.47}$		269,028.35 60,361.21		
14 15		800	283,104	8,572.00		10,772.11		19,344.11		
15 16		3,503	512,917	37,534.65		10,772.11 19,516.49		57,051.14		
10		15,000	10,775,630	160,725.00		410,012.72		570,737.72		
18		60	12,106	642.90		460.63		1,103.53		
19		100	26,096	1,071.50		992.95		2,064.45		
20		37,152	24,567,690	398,083.68		934,800.60		1,332,884.28		
$\frac{1}{21}$		4,218	1,662,869	45,195.87		63,272.17		108,468.04		
$\frac{-1}{22}$		3,478	1,446,121	37,266.77		55,024.90		92,291.67		
23		100	39,588	1,071.50		1,506.32		2,577.82		
<b>24</b>		250	32,179	2,678.75		1,224.41		3,903.16		
<b>25</b>		7,431	4,396,167	79,623.17		$167,\!274.15$		246,897.32		
26		13,303	7,298,060	$142,\!541.65$		$277,\!691.18$		420,232.83		
27		2,465	1,233,233	26,412.48		46,924.52		73,337.00		
28 29	Sub-Total Kenergy Industrials	141,538	76,240,218	\$ 1,516,579.71	\$	2,900,940.28	\$	4,417,519.99		
30 31		1,771	371,648	18,976.27		14,141.21		33,117.48		
32 33	TOTAL INDUSTRIALS	143,309	76,611,866	\$ 1,535,555.98	\$	2,915,081.49	\$	4,450,637.47	\$	_
34 35	GRAND TOTAL	579,232	249,927,116	\$ 7,553,473.00	\$	10,714,267.75	\$	18,267,740.75	\$	5.00

# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members September 2017

1	Member Billing September 2017		ver Factor Penalty (g)	А	Billing Idjustment (h)	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)	No	on-FAC PPA (k)	(1)	Revenue $f = \sum (e) \text{ to } (m)$
2 3 4 5	JP RURALS KENERGY MEADE CO. RURALS	\$	- - - -	\$	- - - -	\$ $\begin{array}{c} 88,829.10\\ 160,917.54\\ 57,194.67\end{array}$	\$ $190,989.90 \\ 345,251.06 \\ 122,542.77$	\$	$\begin{array}{r} 67,712.75\\ 122,664.41\\ 43,598.42\end{array}$	\$	4,353,570.09 7,869,908.13 2,793,330.68
6 7	TOTAL RURALS	\$		\$	-	\$ 306,941.31	\$ 658,783.73	\$	233,975.58	\$	15,016,808.90
$\begin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\end{array}$		\$	567.90 - - - 1,746.55 - - 503.61 - - - - - - - - - - - - - - - - - - -	\$	(39,663.72) 20,018.71 4,000.49 1,298.33 - - - - - - - - - - - - - - - - - -	\$ $\begin{array}{c} 3,993.11\\ 55.67\\ 29,075.05\\ 811.82\\ 7,089.11\\ 1,398.58\\ 501.38\\ 908.38\\ 19,083.64\\ 21.44\\ 46.22\\ 43,509.38\\ 2,944.94\\ 2,561.08\\ 70.11\\ 56.99\\ 7,785.61\\ 12,924.86\\ 2,184.06\end{array}$	\$ $\begin{array}{c} 6,916.52\\ 85.44\\ 45,249.68\\ 1,769.55\\ 12,916.94\\ 2,882.62\\ 928.10\\ 2,691.11\\ 27,730.01\\ 52.37\\ 98.46\\ 64,674.32\\ 5,214.92\\ 4,441.67\\ 123.95\\ 183.70\\ 11,957.83\\ 20,326.47\\ 3,541.49\end{array}$	\$	3,043.87 42.44 22,163.36 618.84 5,403.90 1,066.11 382.19 692.44 14,547.10 16.34 35.23 33,166.38 2,244.87 1,952.26 53.44 43.44 5,934.83 9,852.38 1,664.86	\$	$\begin{array}{c} 157,660.18\\ 2,515.49\\ 1,031,454.76\\ 40,336.46\\ 314,457.01\\ 69,709.01\\ 22,454.11\\ 63,089.62\\ 632,098.47\\ 1,193.68\\ 2,244.36\\ 1,474,234.36\\ 119,376.38\\ 101,246.68\\ 2,825.32\\ 4,187.29\\ 272,575.59\\ 463,336.54\\ 84,027.63\end{array}$
28 29		<b>-</b> \$	6,118.28	\$	(14,346.19)	\$ 135,021.43	\$ 211,785.15	\$	102,924.28	 \$	4,859,022.94
30 31			-		-	658.19	1,572.74		501.72		35,850.13
32 33 24	TOTAL INDUSTRIALS	\$	6,118.28	\$	(14,346.19)	\$ 135,679.62	\$ 213,357.89	\$	103,426.00	\$	4,894,873.07
34 35	GRAND TOTAL	\$	6,118.28	\$	(14,346.19)	\$ 442,620.93	\$ 872,141.62	\$	337,401.58	\$	19,911,681.97

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# Big Rivers Electric Corporation Monthly Billing Summary Sales to Members September 2017

1	Member Billing September 2017		Expense Mitigation Adjustment (EMA) (m)	MRSM Adjustment Fuel Roll-In (n)	,	MRSM - ER Transmission Rural Adjustment (0)	ſ	MRSM - ER Fransmission Industrial Adjustment (p)	ł	Total ljustments for ER & RER on Power Bill (q) = (o) + (p)	Revenue Net of MRSM Adjustments (r) = (l) + (q)
2 3 4 5 6	JP RURALS KENERGY MEADE CO. RURALS	\$	$\begin{array}{c} 451,418.34\\ 817,762.76\\ 290,656.15\end{array}$	\$ (512,209.34) (927,888.14) (329,797.84)	\$	(92,646.14) (167,632.36) (59,535.26)			\$	(92,646.14) (167,632.36) (59,535.26)	\$ 4,260,923.95 7,702,275.77 2,733,795.42
6 7	TOTAL RURALS	\$	1,559,837.25	\$ (1,769,895.32)	\$	(319,813.76)	\$	-	\$	(319,813.76)	\$ 14,696,995.14
$egin{array}{cccccccccccccccccccccccccccccccccccc$		\$	$\begin{array}{c} 20,292.48\\ 282.92\\ 147,755.75\\ 4,125.59\\ 36,025.98\\ 7,107.39\\ 2,547.94\\ 4,616.25\\ 96,980.67\\ 108.95\\ 234.86\\ 221,109.21\\ 14,965.82\\ 13,015.09\\ 356.29\\ 289.61\\ 39,565.50\\ 65,682.54\\ 11,099.10\\ \end{array}$	\$ $\begin{array}{c} (23,025.20)\\ (321.02)\\ (167,653.53)\\ (4,681.17)\\ (40,877.48)\\ (8,064.52)\\ (2,891.06)\\ (5,237.91)\\ (110,040.73)\\ (123.63)\\ (266.49)\\ (250,885.25)\\ (16,981.22)\\ (14,767.79)\\ (404.27)\\ (328.61)\\ (44,893.66)\\ (74,527.79)\\ (12,593.78)\\ \end{array}$			\$	$\begin{array}{c}(2,593.06)\\(34.06)\\(17,909.24)\\(596.25)\\(4,724.78)\\(995.66)\\(336.92)\\(802.33)\\(11,380.43)\\(16.81)\\(33.51)\\(26,222.55)\\(1,934.06)\\(1,664.19)\\(46.00)\\(53.16)\\(4,765.46)\\(8,001.46)\\(1,372.37)\end{array}$	\$	$\begin{array}{c}(2,593.06)\\(34.06)\\(17,909.24)\\(596.25)\\(4,724.78)\\(995.66)\\(336.92)\\(802.33)\\(11,380.43)\\(16.81)\\(33.51)\\(26,222.55)\\(1,934.06)\\(1,664.19)\\(46.00)\\(53.16)\\(4,765.46)\\(8,001.46)\\(1,372.37)\end{array}$	\$ $\begin{array}{c} 155,067.12\\ 2,481.43\\ 1,013,545.52\\ 39,740.21\\ 309,732.23\\ 68,713.35\\ 22,117.19\\ 62,287.29\\ 620,718.04\\ 1,176.87\\ 2,210.85\\ 1,448,011.81\\ 117,442.32\\ 99,582.49\\ 2,779.32\\ 4,134.13\\ 267,810.13\\ 455,335.08\\ 82,655.26\end{array}$
28 29	Sub-Total Kenergy Industrials	\$	686,161.94	\$ (778,565.11)			\$	(83,482.30)	\$	(83,482.30)	\$ 4,775,540.64
30 31 32		l	3,344.83	 (3,795.27)	_			(509.65)		(509.65)	 35,340.48
33	TOTAL INDUSTRIALS	\$	689,506.77	\$ (782,360.38)	\$		\$	(83,991.95)	\$	(83,991.95)	\$ 4,810,881.12
34 35	GRAND TOTAL	\$	2,249,344.02	\$ (2,552,255.70)	\$	(319,813.76)	\$	(83,991.95)	\$	(403,805.71)	\$ 19,507,876.26

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### Big Rivers Electric Corporation Monthly Billing Summary Sales to Members October 2017

1	Member Billing October 2017	KW Billed (a)	kWh (b)	Demand Revenue (c)	I	Base Energy Revenue (d)		Total Demand & Energy (e) = (c) + (d)		Net Green Power (f)
2 3	JP RURALS	94,037	44,945,578	 1,298,180.79	\$	2,022,551.01	\$	3,320,731.80	\$	5.00
4		181,723	82,397,056	2,508,686.02	т	3,707,867.52	т	6,216,553.54	Ŧ	
5	MEADE CO. RURALS	62,111	31,697,828	857,442.36		1,426,402.26		2,283,844.62		-
6 7	TOTAL RURALS	337,871	159,040,462	\$ 4,664,309.17	\$	7,156,820.79	\$	11,821,129.96	\$	5.00
8 9		5,262	2,048,110	 56,382.33	\$	77,930.59	\$	134,312.92		
10		63	36,572	675.05		1,391.56		2,066.61		
11		31,687	17,106,023	339,526.21		650,884.18		990,410.39		
12		1,646	577,898	$17,\!636.89$		21,989.02		39,625.91		
13		10,439	3,982,382	111,853.89		$151,\!529.64$		263, 383.53		
<b>14</b>		2,760	$551,\!635$	29,573.40		20,989.71		50,563.11		
15		800	284,380	8,572.00		10,820.66		19,392.66		
16		3,676	$584,\!642$	39,388.34		$22,\!245.63$		$61,\!633.97$		
17		15,000	11,142,918	160,725.00		$423,\!988.03$		584,713.03		
18		60	11,363	642.90		432.36		1,075.26		
19		100	24,823	1,071.50		944.52		2,016.02		
20		36,374	$25,\!665,\!701$	389,747.41		$976,\!579.92$		1,366,327.33		
21		4,227	1,858,723	45,292.31		70,724.41		116,016.72		
22		3,478	1,676,132	37,266.77		63,776.82		101,043.59		
<b>23</b>		100	34,059	1,071.50		1,295.94		2,367.44		
<b>24</b>		250	34,742	$2,\!678.75$		1,321.93		4,000.68		
<b>25</b>		6,887	4,388,445	73,794.21		166,980.33		240,774.54		
26		12,804	7,484,093	137,194.86		284,769.74		421,964.60		
27 28		2,536	1,309,059	 27,173.24		49,809.69		76,982.93		
29	Sub-Total Kenergy Industrials	138,149	78,801,700	\$ 1,480,266.56	\$	2,998,404.68	\$	4,478,671.24		
30 31 29		1,760	136,445	18,858.40		5,191.73		24,050.13		
32 33	TOTAL INDUSTRIALS	139,909	78,938,145	\$ 1,499,124.96	\$	3,003,596.41	\$	4,502,721.37	\$	
34 35	GRAND TOTAL	477,780	237,978,607	\$ 6,163,434.13	\$	10,160,417.20	\$	16,323,851.33	\$	5.00

### **Big Rivers Electric Corporation Monthly Billing Summary Sales to Members** October 2017

1	Member Billing October 2017		ver Factor Penalty (g)	А	Billing Adjustment (h)	Fuel Adjustment Clause (FAC) (i)	vironmental Surcharge (ES) (j)	No	n-FAC PPA (k)	(1)	Revenue = $\sum$ (e) to (m)
2 3 4 5	JP RURALS KENERGY MEADE CO. RURALS	\$	 - - -	\$	· - - -	\$ $93,127.24 \\170,726.70 \\65,677.90$	\$ $283,083.86 \\529,459.27 \\194,911.13$	\$	60,676.53 111,236.03 42,792.07	\$	3,757,624.43 7,027,975.54 2,587,225.72
6 7	TOTAL RURALS	\$		\$		\$ 329,531.84	\$ 1,007,454.26	\$	214,704.63	\$	13,372,825.69
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26		\$	642.90 825.06 1,360.81	\$	(30,280.59) 14,766.93 2,182.63 691.43 - - - - - - - - - - - - - - - - - - -	\$ $\begin{array}{c} 4,243.68\\ 75.78\\ 35,443.68\\ 1,197.40\\ 8,251.50\\ 1,142.99\\ 589.24\\ 1,211.38\\ 23,088.13\\ 23,088.13\\ 23,088.13\\ 53,179.33\\ 3,851.27\\ 3,472.95\\ 70.57\\ 71.99\\ 9,092.86\\ 15,507.04\\ 2,712.95\end{array}$	\$ $\begin{array}{c} 11,514.01\\ 178.57\\ 82,994.71\\ 3,389.60\\ 22,569.18\\ 4,273.37\\ 1,659.28\\ 5,184.56\\ 50,745.52\\ 90.77\\ 171.17\\ 118,475.66\\ 9,970.55\\ 8,699.72\\ 202.38\\ 335.64\\ 20,840.35\\ 36,465.68\\ 0,007,057\\ \end{array}$	\$	$\begin{array}{c} 2,764.95\\ 49.37\\ 23,093.13\\ 780.16\\ 5,376.22\\ 744.71\\ 383.91\\ 789.27\\ 15,042.94\\ 15.34\\ 33.51\\ 34,648.70\\ 2,509.28\\ 2,262.78\\ 45.98\\ 46.90\\ 5,924.40\\ 10,103.53\\ 1.727.99\end{array}$	\$	$\begin{array}{c} 152,835.56\\ 3,013.23\\ 1,101,661.32\\ 45,818.13\\ 314,347.36\\ 58,906.81\\ 22,716.52\\ 70,179.99\\ 673,589.62\\ 1,204.91\\ 2,272.13\\ 1,572,631.02\\ 132,347.82\\ 115,479.04\\ 2,686.37\\ 4,455.21\\ 276,632.15\\ 484,040.85\\ 01,402.92\end{array}$
27 28 29		• \$	<b>6,225.43</b>	 \$	(12,639.60)	\$ 2,712.37 <b>163,277.13</b>	\$ 6,637.07 384,397.79	\$	1,767.23  106,382.31		91,496.26 <b>5,126,314.30</b>
30 31			-		-	282.71	1,997.50		184.20		26,514.54
32 33 34	TOTAL INDUSTRIALS	\$	6,225.43	\$	(12,639.60)	\$ 163,559.84	\$ 386,395.29	\$	106,566.51	\$	5,152,828.84
34 35		\$	6,225.43	\$	(12,639.60)	\$ 493,091.68	\$ 1,393,849.55	\$	321,271.14	\$	18,525,654.53

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### Big Rivers Electric Corporation Monthly Billing Summary Sales to Members October 2017

1	Member Billing October 2017		Expense Mitigation Adjustment (EMA) (m)	MRSM Adjustment Fuel Roll-In (n)	,	MRSM - ER Transmission Rural Adjustment (0)	ן	MRSM - ER Fransmission Industrial Adjustment (p)	ł	Total djustments for ER & RER on Power Bill (q) = (o) + (p)	Revenue Net of MRSM Adjustments (r) = (l) + (q)
2 3 4 5 6	JP RURALS KENERGY MEADE CO. RURALS	\$	404,510.20 741,573.50 285,280.45	\$ (458,984.24) (841,438.73) (323,698.21)	\$	(85,208.18) (158,284.80) (59,156.50)			\$	(85,208.18) (158,284.80) (59,156.50)	\$ 3,672,416.25 6,869,690.74 2,528,069.22
6 7	TOTAL RURALS	\$	1,431,364.15	\$ (1,624,121.18)	\$	(302,649.48)	\$	-	\$	(302,649.48)	\$ 13,070,176.21
$egin{array}{c} 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 26\\ 27\\ \end{array}$		\$	$\begin{array}{c} 18,432.99\\ 329.15\\ 153,954.21\\ 5,201.08\\ 35,841.44\\ 4,964.72\\ 2,559.42\\ 5,261.78\\ 100,286.26\\ 102.27\\ 223.41\\ 230,991.31\\ 16,728.51\\ 15,085.19\\ 306.53\\ 312.68\\ 39,496.01\\ 67,356.84\\ 11,781.53\end{array}$	\$ $\begin{array}{c} (20,915.30)\\ (373.47)\\ (174,686.71)\\ (5,901.49)\\ (40,668.08)\\ (5,633.30)\\ (2,904.09)\\ (5,970.36)\\ (113,791.48)\\ (116.04)\\ (253.49)\\ (262,098.14)\\ (18,981.28)\\ (17,116.66)\\ (347.81)\\ (354.79)\\ (44,814.80)\\ (76,427.56)\\ (13,368.11)\\ \end{array}$			\$	$\begin{array}{c} (2,245.54)\\ (36.76)\\ (17,133.42)\\ (650.93)\\ (4,388.57)\\ (749.12)\\ (319.24)\\ (874.64)\\ (10,752.35)\\ (15.76)\\ (31.10)\\ (24,962.14)\\ (1,978.96)\\ (1,748.69)\\ (38.68)\\ (55.36)\\ (4,339.90)\\ (7,515.10)\\ (1,346.35)\\ \end{array}$	\$	$\begin{array}{c} (2,245.54)\\ (36.76)\\ (17,133.42)\\ (650.93)\\ (4,388.57)\\ (749.12)\\ (319.24)\\ (874.64)\\ (10,752.35)\\ (15.76)\\ (31.10)\\ (24,962.14)\\ (1,978.96)\\ (1,748.69)\\ (38.68)\\ (55.36)\\ (4,339.90)\\ (7,515.10)\\ (1,346.35)\\ \end{array}$	\$ $\begin{array}{c} 150,590.02\\ 2,976.47\\ 1,084,527.90\\ 45,167.20\\ 309,958.79\\ 58,157.69\\ 22,397.28\\ 69,305.35\\ 662,837.27\\ 1,189.15\\ 2,241.03\\ 1,547,668.88\\ 130,368.86\\ 113,730.35\\ 2,647.69\\ 4,399.85\\ 272,292.25\\ 476,525.75\\ 90,149.91\\ \end{array}$
28 29	Sub-Total Kenergy Industrials	\$	709,215.33	\$ (804,722.96)			\$	(79,182.61)	\$	(79,182.61)	\$ 5,047,131.69
30 31		I	1,228.01	(1,393.38)				(301.07)		(301.07)	26,213.47
32 33	TOTAL INDUSTRIALS	\$	710,443.34	\$ (806,116.34)	\$		\$	(79,483.68)	\$	(79,483.68)	\$ 5,073,345.16
34 35		\$	2,141,807.49	\$ (2,430,237.52)	\$	(302,649.48)	\$	(79,483.68)	\$	(382,133.16)	\$ 18,143,521.37

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### Big Rivers Electric Corporation Monthly Billing Summary Other Sales May 2017

1	May 2017 - Other Sales	KWH		REVENUE	MILLS/KWH
$2 \\ 3$	SPECIAL SALES TO RUS BORROWERS				
4					
5	KENERGY-DOMTAR COGEN	4,593,244	\$	$195,\!692.59$	42.60
6	HOOSIER ENERGY RURAL ELECTRIC COOP-			387,500.00	
7	-				
8	TOTAL SPECIAL SALES TO RUS BORROWERS	4,593,244	\$	583, 192.59	126.97
9	-				
10					
11	TO OTHER THAN RUS BORROWERS				
12			ф		
13	ADM INVESTOR SERVICES		\$	41,850.00	
14	DTE ENERGY TRADING	18,600,000		574,740.00	30.90
15	EDF TTRADING NORTH AMERICA	72,400,000		2,281,120.00	31.51
16	HENDERSON MUNICIPAL POWER & LIGHT	7,595,000		227, 329.15	29.93
17	INDIANA MUNICIPAL POWER AGENCY-CAPACITY			75,000.00	
18	MISO	61,039,041		$1,\!638,\!715.51$	26.85
19	MISO-CAPACITY SALES			341,926.90	
20	MORGAN STANLEY CAPITAL GROUP	130,200,000		3,950,640.00	30.34
<b>21</b>	NEXTERA ENERGY POWER MARKETING	72,400,000		2,367,100.00	32.69
22	NEXTERA ENERGY POWER MARKETING-CAPACITY SAI	LES		37,500.00	
<b>23</b>	_				
<b>24</b>	TOTAL TO OTHER THAN RUS BORROWERS	362,234,041	\$	$11,\!535,\!921.56$	31.85
<b>25</b>	-				
26	TOTAL	366,827,285	\$	12,119,114.15	33.04

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### Big Rivers Electric Corporation Monthly Billing Summary Other Sales June 2017

1	June 2017 - Other Sales	KWH		REVENUE	MILLS/KWH
2 3	– SPECIAL SALES TO RUS BORROWERS				
4					
5	KENERGY-DOMTAR COGEN	7,061,834	\$	204,336.98	28.94
6	HOOSIER ENERGY RURAL ELECTRIC COOP-		·	370,000.00	
7	WABASH VALLEY POWER ASSOCIATION-CAPACITY			1,750.00	
8	SOUTHERN ILLINOIS POWER COOPERATIVE-			1,300.00	
9	-				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	7,061,834	\$	577, 386.98	81.76
11	-				
12					
13	TO OTHER THAN RUS BORROWERS				
14			<b>*</b>		
15	ADM INVESTOR SERVICES	10,000,000	\$	(684,622.00)	
16	DTE ENERGY TRADING	18,000,000		556,200.00	30.90
17	DTE ENERGY TRADING-CAPACITY SALES			250,000.00	22.22
18	EDF TTRADING NORTH AMERICA	77,600,000		2,501,120.00	32.23
19	EDF TTRADING NORTH AMERICA-CAPACITY SALES			82,720.00	01 <b>75</b>
20	HENDERSON MUNICIPAL POWER & LIGHT	3,775,000		119,848.14	31.75
21	MISO MISO CADACITY CALES	$43,\!235,\!685$		1,147,370.02	26.54
$\begin{array}{c} 22\\ 23 \end{array}$	MISO-CAPACITY SALES MORGAN STANLEY CAPITAL GROUP	126,000,000		(306.00) 3,823,200.00	30.34
$\frac{23}{24}$	NEXTERA ENERGY POWER MARKETING	71,200,000		2,330,200.00	30.34 32.73
$\frac{24}{25}$	NEXTERA ENERGY POWER MARKETING NEXTERA ENERGY POWER MARKETING-CAPACITY SAI			2,350,200.00 275,000.00	04.10
25 26	SHELL ENERGY NORTH AMERICA (US) LP-			125,000.00	
$\frac{20}{27}$	CITY OF HANNIBAL, MO-CAPACITY SALES			85,500.00	
28	CITY OF KAHOKA, MO-CAPACITY SALES			14,250.00	
<b>2</b> 9	CITY OF CALIFORNIA, MO-CAPACITY SALES			29,500.00	
<u>-</u> • 30	CITY OF CENTRALIA, MO-CAPACITY SALES			24,250.00	
31	CITY OF MARCELINE, MO-CAPACITY SALES			7,750.00	
32	_			, 	
33	TOTAL TO OTHER THAN RUS BORROWERS	339,810,685	\$	10,686,980.16	31.45
$\begin{array}{c} 34 \\ 35 \end{array}$	TOTAL	346,872,519	\$	11,264,367.14	32.47
			Ŧ		

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### Big Rivers Electric Corporation Monthly Billing Summary Other Sales July 2017

1	July 2017 - Other Sales	KWH REVENUE		REVENUE	MILLS/KWH
2 3	SPECIAL SALES TO RUS BORROWERS				
4 5	KENERGY-DOMTAR COGEN	7,565,213	\$	260,224.98	34.40
6 7	HOOSIER ENERGY RURAL ELECTRIC COOP- WABASH VALLEY POWER ASSOCIATION-CAPACITY			$370,000.00 \\ 1,750.00$	
8 9	SOUTHERN ILLINOIS POWER COOPERATIVE-			1,300.00	
10	TOTAL SPECIAL SALES TO RUS BORROWERS	7,565,213	\$	633,274.98	83.71
$\begin{array}{c} 11 \\ 12 \end{array}$	—				
13	TO OTHER THAN RUS BORROWERS				
$\begin{array}{c} 14 \\ 15 \end{array}$	ADM INVESTOR SERVICES		\$	(24,506.00)	
16	DTE ENERGY TRADING	18,600,000	·	574,740.00	30.90
17 18	DTE ENERGY TRADING-CAPACITY SALES EDF TTRADING NORTH AMERICA	70,800,000		250,000.00 2,255,900.00	31.86
19	EDF TTRADING NORTH AMERICA-CAPACITY SALES	10,000,000		144,480.00	01.00
$\begin{array}{c} 20 \\ 21 \end{array}$	HENDERSON MUNICIPAL POWER & LIGHT MISO	$2,452,000 \\ 42,569,657$		88,796.43 1,316,373.43	$36.21 \\ 30.92$
$\frac{21}{22}$	MISO MISO-CAPACITY SALES	42,009,007		(316.20)	50.52
23	MORGAN STANLEY CAPITAL GROUP	130,200,000		3,950,640.00	30.34
$\begin{array}{c} 24 \\ 25 \end{array}$	NEXTERA ENERGY POWER MARKETING NEXTERA ENERGY POWER MARKETING-CAPACITY SAL	69,200,000 ES		2,255,200.00 275,000.00	32.59
26	SHELL ENERGY NORTH AMERICA (US) LP-			125,000.00	
27 28	CITY OF HANNIBAL, MO-CAPACITY SALES CITY OF KAHOKA, MO-CAPACITY SALES			$85,500.00 \\ 14,250.00$	
29	CITY OF CALIFORNIA, MO-CAPACITY SALES			29,500.00	
30 31	CITY OF CENTRALIA, MO-CAPACITY SALES CITY OF MARCELINE, MO-CAPACITY SALES			$24,250.00 \\ 7,750.00$	
32 33	TOTAL TO OTHER THAN RUS BORROWERS	333,821,657	\$	11,372,557.66	34.07
34 35	TOTAL	341,386,870	\$	12,005,832.64	35.17

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 21 of 24

### Big Rivers Electric Corporation Monthly Billing Summary Other Sales August 2017

1	August 2017 - Other Sales	KWH	REVENUE		MILLS/KWH
2 3	SPECIAL SALES TO RUS BORROWERS				
4 5	KENERGY-DOMTAR COGEN	6,313,816	\$	187,277.71	29.66
6	HOOSIER ENERGY RURAL ELECTRIC COOP-	-,	Ŧ	370,000.00	
7	WABASH VALLEY POWER ASSOCIATION-CAPACITY			1,750.00	
8	SOUTHERN ILLINOIS POWER COOPERATIVE-			1,300.00	
9					
10	TOTAL SPECIAL SALES TO RUS BORROWERS	6,313,816	\$	560, 327.71	88.75
11					
$\begin{array}{c} 12\\ 13\end{array}$	TO OTHER THAN RUS BORROWERS				
13 14	TO OTHER THAN ROS DORROWERS				
15	ADM INVESTOR SERVICES		\$	53,822.00	
16	DTE ENERGY TRADING	18,600,000	Ť	574,740.00	30.90
17	DTE ENERGY TRADING-CAPACITY SALES			250,000.00	
18	EDF TTRADING NORTH AMERICA	74,000,000		2,334,080.00	31.54
19	EDF TTRADING NORTH AMERICA-CAPACITY SALES			144,480.00	
20	HENDERSON MUNICIPAL POWER & LIGHT	3,640,000		124,104.12	34.09
<b>21</b>	MISO	12,903,928		405,098.87	31.39
<b>22</b>	MISO-CAPACITY SALES			(316.20)	
23	MORGAN STANLEY CAPITAL GROUP	130,200,000		3,950,640.00	30.34
24	NEXTERA ENERGY POWER MARKETING	74,000,000		2,422,700.00	32.74
25 26	NEXTERA ENERGY POWER MARKETING-CAPACITY SALES SHELL ENERGY NORTH AMERICA (US) LP-			275,000.00	
26 27	CITY OF HANNIBAL, MO-CAPACITY SALES			$\frac{125,000.00}{85,500.00}$	
21 28	CITY OF KAHOKA, MO-CAPACITY SALES			14,250.00	
<b>2</b> 0 <b>29</b>	CITY OF CALIFORNIA, MO-CAPACITY SALES			29,500.00	
30	CITY OF CENTRALIA, MO-CAPACITY SALES			24,250.00	
31	CITY OF MARCELINE, MO-CAPACITY SALES			7,750.00	
<b>32</b>					
33	TOTAL TO OTHER THAN RUS BORROWERS	313,343,928	\$	10,820,598.79	34.53
$\begin{array}{c} 34 \\ 35 \end{array}$	TOTAL	319,657,744	\$	11,380,926.50	35.60

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 22 of 24

### Big Rivers Electric Corporation Monthly Billing Summary Other Sales September 2017

1	September 2017 - Other Sales	KWH	REVENUE		MILLS/KWH	
2 3	SPECIAL SALES TO RUS BORROWERS					
4						
5	KENERGY-DOMTAR COGEN	4,913,260	\$	160,595.05	32.69	
6	HOOSIER ENERGY RURAL ELECTRIC COOP-	, ,	1	370,000.00		
7	WABASH VALLEY POWER ASSOCIATION-CAPACITY			1,750.00		
8	SOUTHERN ILLINOIS POWER COOPERATIVE-			1,300.00		
9						
10	TOTAL SPECIAL SALES TO RUS BORROWERS	4,913,260	\$	$533,\!645.05$	108.61	
11						
12						
13	TO OTHER THAN RUS BORROWERS					
14						
15	ADM INVESTOR SERVICES		\$	362,664.00		
16	DTE ENERGY TRADING	18,000,000		556,200.00	30.90	
17	DTE ENERGY TRADING-CAPACITY SALES			250,000.00	01.40	
18	EDF TTRADING NORTH AMERICA	68,000,000		2,139,200.00	31.46	
19	EDF TTRADING NORTH AMERICA-CAPACITY SALES	1 800 000				
20	HENDERSON MUNICIPAL POWER & LIGHT	1,502,000		36,869.74	24.55	
21	MISO	38,835,060		1,566,338.48	40.33	
22	MISO-CAPACITY SALES MORGAN STANLEY CAPITAL GROUP	190 000 000		(306.00)	20.24	
$\begin{array}{c} 23 \\ 24 \end{array}$	NEXTERA ENERGY POWER MARKETING	$\frac{126,000,000}{68,000,000}$		3,823,200.00	$30.34 \\ 32.63$	
$\frac{24}{25}$	NEXTERA ENERGY POWER MARKETING NEXTERA ENERGY POWER MARKETING-CAPACITY SALE			2,219,000.00 275,000.00	52.65	
25 26	SHELL ENERGY NORTH AMERICA (US) LP-			125,000.00		
$\frac{20}{27}$	CITY OF HANNIBAL, MO-CAPACITY SALES			85,500.00		
28	CITY OF KAHOKA, MO-CAPACITY SALES			14,250.00		
<b>2</b> 0 <b>29</b>	CITY OF CALIFORNIA, MO-CAPACITY SALES			29,500.00		
30	CITY OF CENTRALIA, MO-CAPACITY SALES			24,250.00		
31	CITY OF MARCELINE, MO-CAPACITY SALES			7,750.00		
32						
33	TOTAL TO OTHER THAN RUS BORROWERS	320,337,060	\$	11,514,416.22	35.94	
34 35	TOTAL	325,250,320	\$	12,048,061.27	37.04	

# Big Rivers Electric Corporation Monthly Billing Summary Other Sales October 2017

1	October 2017 - Other Sales	KWH		REVENUE	MILLS/KWH	
2 3	SPECIAL SALES TO RUS BORROWERS					
4						
5	KENERGY-DOMTAR COGEN	3,875,432	\$	148,051.00	38.20	
6	HOOSIER ENERGY RURAL ELECTRIC COOP-			370,000.00		
7	WABASH VALLEY POWER ASSOCIATION-CAPACITY			1,750.00		
8	SOUTHERN ILLINOIS POWER COOPERATIVE	1,300,000		36,386.00	27.99	
9	SOUTHERN ILLINOIS POWER COOPERATIVE-			1,300.00		
10						
11	TOTAL SPECIAL SALES TO RUS BORROWERS	$5,\!175,\!432$	\$	$557,\!487.00$	107.72	
12						
13						
14	TO OTHER THAN RUS BORROWERS					
15	A D.M. INTURCOOD GEDTUCED		ው	(10,000,00)		
16 17	ADM INVESTOR SERVICES	10 000 000	\$	(49,926.00)	20.00	
17	DTE ENERGY TRADING DTE ENERGY TRADING-CAPACITY SALES	18,600,000		574,740.00	30.90	
18	EDF TTRADING NORTH AMERICA	72,400,000		250,000.00 2,281,120.00	31.51	
19 20	EDF TTRADING NORTH AMERICA EDF TTRADING NORTH AMERICA-CAPACITY SALES	72,400,000		2,201,120.00	51.51	
$\frac{20}{21}$	HENDERSON MUNICIPAL POWER & LIGHT	35,694,000		1,008,646.83	28.26	
$\frac{21}{22}$	MISO	286,152,495		1,000,040.03 1,145,053.85	4.00	
$\frac{22}{23}$	MISO MISO-CAPACITY SALES	200,102,430		(316.20)	4.00	
$\frac{23}{24}$	MORGAN STANLEY CAPITAL GROUP	130,200,000		3,950,640.00	30.34	
$\frac{24}{25}$	NEXTERA ENERGY POWER MARKETING	92,000,000		2,881,600.00	31.32	
26 26	NEXTERA ENERGY POWER MARKETING-CAPACITY SAL	, ,		275,000.00	01.02	
<b>2</b> 7	SHELL ENERGY NORTH AMERICA (US) LP-			125,000.00		
<u>-</u> : 28	CITY OF HANNIBAL, MO-CAPACITY SALES			85,500.00		
<b>29</b>	CITY OF KAHOKA, MO-CAPACITY SALES			14,250.00		
30	CITY OF CALIFORNIA, MO-CAPACITY SALES			29,500.00		
31	CITY OF CENTRALIA, MO-CAPACITY SALES			24,250.00		
32	CITY OF MARCELINE, MO-CAPACITY SALES			7,750.00		
33	·			, 		
<b>34</b>	TOTAL TO OTHER THAN RUS BORROWERS	$635,\!046,\!495$	\$	12,602,808.48	19.85	
35 36	TOTAL	640,221,927	\$	13,160,295.48	20.56	

Case No. 2018-00023 Attachment for Response to Staff Item 13 Witness: Nicholas R. Castlen Page 24 of 24

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 14)	Des	cribe the effect on the FAC calculation of line losses related
2	to:		
3		a.	intersystem sales when using a third-party transmission
4			system, and
5		<i>b</i> .	intersystem sales when not using a third-party
6			transmission system.
7	Response)		
8		a.	Big Rivers had no intersystem sales during the period under
9			review which used a third-party transmission system.
10		b.	Line losses related to intersystem sales, which did not use a
11			third-party transmission system, are included in Big Rivers'
12			total System Losses reported on page 3 of its monthly Form A
13			filing. Big Rivers calculates an overall system average fuel cost
14			per kWh each month by dividing (1) the total cost of fuel for
15			generation by (2) the net kWh generated minus total System
16			Losses. The overall system average fuel cost per kWh (which
17			accounts for total System Losses, including line losses related to
18			intersystem sales) is multiplied by the intersystem sales volume
19			to calculate the cost of fuel allocated to intersystem sales in Big
20			Rivers' monthly Form A filing
21			
22	Witness)	Nicl	holas R. Castlen

Case No. 2017-00287 Response to Staff Item 14 Witness: Nicholas R. Castlen Page 1 of 1

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 15)	Provide a list, in chronological order, showing by unit, any
2	scheduled,	actual, and forced outages for the period under review.
3		
4	Response)	Please see the attached summary for the requested information
5	regarding sc	heduled ("S"), actual ("A"), and forced ("F") outages.
6		
7		
8	Witness)	Ronald D. Gregory
9		

Case No. 2018-00023 Response to Staff Item 15 Witness: Ronald D. Gregory Page 1 of 1

**Big Rivers Electric Corporation** Reid Station Unit #1 - Coal - 65MW Net

May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE ТО ТО AS APPROPRIATE MONTH TYPE FROM FROM Scheduled Forced Actual May 2017 No Outages Reid Unit #1 was idled April 1, 2016, and has not yet been restarted. June 2017 No Outages July 2017 No Outages August 2017 No Outages September 2017 No Outages October 2017 No Outages

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 1 of 14

Big Rivers Electric Corporation **Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net** May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE MONTH TYPE FROM TO FROM TO Scheduled Forced AS APPROPRIATE Actual May 2017 No Outages June 2017 No Outages July 2017 F 7/19/2017 13:08 7/19/2017 13:30 0:220:22Synchronization scope issues August 2017 No Outages September 2017 F 0:21Synchronization scope issues 9/5/2017 9:10 9/5/2017 9:31 0:21October 2017 No Outages

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 2 of 14

Big Rivers Electric Corporation Henderson Station Two - Unit #1 - Coal - 153MW Net May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE MONTH TYPE TO FROM TO AS APPROPRIATE FROM Scheduled Forced Actual May 2017 S, A 744:00 744:0043 day Planned Outage for "A" 4160 Volt auxiliary bus replacement, Selective Catalytic Reduction catalyst replacement, Turbine Valve overhaul, etc. June 2017 S, A 6/1/2017 00:00 6/4/2017 0:00 6/1/2017 0:00 6/3/2017 17:57 72:00 65:5743 day Planned Outage for "A" 4160 Volt auxiliary bus replacement, Selective Catalytic Reduction catalyst replacement, Turbine Valve overhaul, etc. F 1:026/3/2017 18:13 6/3/2017 19:15 1:02"A" mill tripped off during start-up, due to the rating damper on "A" Primary Air fan not opening. The unit tripped on reverse current, due to inadequate fuel flow to maintain megawatts. S, A 6/3/2017 19:00 6/4/2017 0:00 6/3/2017 19:24 6/3/2017 23:25 5:004:01The unit was manually tripped to confirm that the "A" 4160 Volt tie switchgear would close in. The unit had just returned to service from a Planned Outage where 4160 Volt switchgear was replaced. S.A 6/4/2017 08:00 6/4/2017 17:00 6/4/2017 8:40 6/4/2017 16:05 9:00 7:25Maintenance Outage to repair a leak at a Wet Bottom access door F 6/4/2017 16:13 6/4/2017 16:56 0:43 0:43The unit tripped on reverse current, due to an operational upset as the operator was performing the Turbine Valve transfer during the unit start-up. F 6/6/2017 0:02 6/7/2017 18:46 42:4442:44"A" and "B" Selective Catalytic Reduction Diverter Dampers were binding on the jam seals, when the damper heated up. Inspected both dampers and removed the bottom vertical jam seals to allow for smooth operation.

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 3 of 14

Big Rivers Electric Corporation Henderson Station Two - Unit #1 - Coal - 153MW Net May 1, 2017, through October 31, 2017 (the review period) Schedule vs. Actual

			MAINTE	ENANCE		цотра	S OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED	
		Sche			tual				MAINTENANCE OR REASON FOR FORCED OUTAGE	
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	AS APPROPRIATE	
June 2017	F			6/7/2017 22:45	6/9/2017 2:10		27:25	27:25	"A" and "B" Selective Catalytic Reduction Diverter Dampers were binding on the jam seals, when the damper heated up. Inspected both dampers and removed the top vertical jam seals to eliminate rubbing observed on the interior of the ducts.	
July 2017	F			7/16/2017 15:15	7/16/2017 17:47		2:32	2:32	Unit tripped unit tripped on low drum level, when feedwater flow decayed rapidly immediately following the "A" mill being removed from service.	
	F			7/28/2017 21:31	7/30/2017 23:30		49:59	49:59	Hydrogen chloride (HCl) high limit out of compliance	
August 2017	F			8/4/2017 18:43	8/7/2017 2:50		56:07	56:07	Hydrogen chloride (HCl) high limit out of compliance	
	F			8/9/2017 12:35	8/21/2017 2:26		277:51	277:51	Hydrogen chloride (HCl) high limit out of compliance	
	F			8/22/2017 16:00	8/31/2017 1:02		201:02	201:02	Hydrogen chloride (HCl) high limit out of compliance	
September 2017	F			9/1/2017 15:18	9/6/2017 11:36		116:18	116:18	Hydrogen chloride (HCl) high limit out of compliance	
October 2017	S, A	10/9/2017 12:30	10/10/2017 12:30	10/9/2017 12:30	10/10/2017 12:30	24:00		24:00	Maintenance Outage to repair a roof waterwall tube leak found during a boiler hydrostatic test that was performed while the unit was in Reserve Standby.	
	S, A	10/17/2017 07:00	10/21/2017 7:00	10/17/2017 7:00	10/21/2017 7:00	96:00		96:00	Maintenance Outage to inspect the Turbine "A" Main Steam Stop Valve.	
	S, A	10/21/2017 07:00	10/30/2017 12:30	10/21/2017 7:00	10/30/2017 12:30	221:30		221:30	Extended Maintenance Outage to replace a cracked seat on the Turbine 'A" Main Steam Stop Valve.	

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Big Rivers Electric Corporation Henderson Station Two - Unit #2 - Coal - 159MW Net May 1, 2017, through October 31, 2017 (the review period) Schedule vs. Actual

			MAINTH	ENANCE		ногра	S OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED
		Sche	eduled	Act	ual	HOUK	5 OF DURA	110N	MAINTENANCE OR REASON FOR FORCED OUTAGE
MONTH	TYPE	FROM	TO	FROM	TO	Scheduled	Forced	Actual	AS APPROPRIATE
May 2017	F			5/3/2017 11:02	5/5/2017 4:33		41:31	41:31	Tube leaks in the High Temperature Reheat section of the boiler in panels number 7 and 8 from the East wall at elevation $565' - 6"$ .
	F			5/10/2017 16:32	5/11/2017 0:13		7:41	7:41	Tripped offline due to failure of the relay switch on the generator Main Step-Up Transformer Sudden Pressure Relay.
	F			5/29/2017 10:29	6/1/2017 0:43		62:14	62:14	Tube leaks in the High Temperature Reheat section of the boiler in panels 3, 4, and 5 from the East wall at elevation $565' - 6''$ .
June 2017	F			6/1/2017 14:52	6/1/2017 21:31		6:39	6:39	Oil leak from the Transformer Pressure Relief Valve on the Main Step-up transformer.
	F			6/6/2017 23:31	6/9/2017 14:47		63:16	63:16	Tube leaks in the High Temperature Reheat section of the boiler in panels 5, 6, and 7 from the East wall at elevation $565' - 6"$ .
July 2017	F			7/13/2017 7:23	7/16/2017 7:00		71:37	71:37	Tube leak in the Economizer section of the boiler in panel 21 from the West wall at elevation $521' - 6"$ .
	F			7/21/2017 10:46	7/21/2017 14:10		3:24	3:24	Unit tripped on a low drum level, when the feedwater dropped off during the removal of "B" mill from service.
August 2017	F			8/9/2017 8:55	8/11/2017 4:21		43:26	43:26	Tube leak in the Economizer section of the boiler at elevation 523'-5", East side Economizer drain line.
	F			8/11/2017 4:21	8/11/2017 9:21		5:00	5:00	Starting time limit reached, due to #2 Governor Turbine Valve failing to open during start-up.

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 5 of 14

Big Rivers Electric Corporation Henderson Station Two - Unit #2 - Coal - 159MW Net May 1, 2017, through October 31, 2017 (the review period) Schedule vs. Actual

	Ν				ENANCE			TION	REASON FOR DEVIATION FROM SCHEDULED	
		Schee	duled	Act	zual	HOURS OF DURATION			MAINTENANCE OR REASON FOR FORCED OUTAGE	
MONTH	TYPE	FROM	TO	FROM	DM TO		Forced	Actual	AS APPROPRIATE	
August 2017	F			8/20/2017 5:14	8/20/2017 10:22		5:08	5:08	Unit tripped due to low excess air resulting from an operational upset caused by failure of the flow transmitter signal on the "B" side of the "A" Primary Air fan.	
September 2017	F			9/6/2017 20:14	9/6/2017 22:24		2:10	2:10	Unit tripped on a high drum level, during the process of removing the "B"' Mill from service.	
October 2017	S, A	10/25/2017 00:00	10/26/2017 20:00	10/25/2017 0:00	10/26/2017 19:30	44:00		43:30	Maintenance Outage to perform T1 Tie Transformer repairs.	

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 6 of 14

Big Rivers Electric Corporation Green Station Unit #1 - Coal/Pet coke - 231MW Net May 1, 2017, through October 31, 2017 (the review period) Schedule vs. Actual

			MAINTI	ENANCE		HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED	
			duled	-	tual			-	MAINTENANCE OR REASON FOR FORCED OUTAGE	
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	AS APPROPRIATE	
May 2017	F			5/1/2017 16:13	5/3/2017 20:11		51:58	51:58	Tube leak in the Reheat Outlet section, leading edge tube in the 25th bank from the East on the 10th floor.	
	F			5/10/2017 14:30	5/13/2017 16:00		73:30	73:30	Tube leak in the Reheat Outlet section, 3rd tube back from the leading edge in the 25th bank from the East on the 10th floor.	
June 2017		No Outages								
July 2017		No Outages								
August 2017	F			8/10/2017 12:50	8/12/2017 14:35		49:45	49:45	Tube leak in the Reheat Outlet section, the leading edge tube in the 12th bank from the East approximately 7ft from the bottom.	
	S, A	8/12/2017 14:30	8/14/2017 10:00	8/12/2017 14:35	8/14/2017 9:08	43:30		42:33	Maintenance Outage to make repairs to the 7th field of the precipitator and to repair cracks in the stack liner.	
	F			8/17/2017 11:19	8/18/2017 16:00		28:41	28:41	Tube leak in the Reheat Outlet section, 9th tube back from the leading edge in the 30th bank from the East.	
	S, A	8/18/2017 16:00	8/21/2017 10:00	8/18/2017 16:00	8/21/2017 8:45	66:00		64:45	Maintenance Outage to make repairs to Reheater Outlet elements. Ultrasonic thickness checks were performed on 53 Reheat Outlet elements and 15 dutchmen were installed.	
	S, A	8/25/2017 18:00	8/25/2017 22:00	8/25/2017 18:21	8/25/2017 22:00	4:00		3:39	Maintenance Outage to replace the Extraction Check Holding Pressure Switch and Turbine Trip Relays contacts.	

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 7 of 14

Big Rivers Electric Corporation Green Station Unit #1 - Coal/Pet coke - 231MW Net May 1, 2017, through October 31, 2017 (the review period) Schedule vs. Actual

			MAINTH	ENANCE		HOUD	S OF DUR	ATION	REASON FOR DEVIATION FROM SCHEDULED	
		Sche	duled	Act	Actual		S OF DUR	ATION	MAINTENANCE OR REASON FOR FORCED OUTAGE	
MONTH	TYPE	FROM	TO	FROM	TO	Scheduled	Forced	Actual	AS APPROPRIATE	
September 2017	F			9/13/2017 4:33	9/13/2017 5:59		1:26	1:26	Starting failure declared, due to start-up delays caused by turbine vacuum issues related to the reheater valves on the boiler leaking through.	
October 2017	F			10/23/2017 17:37	10/24/2017 23:43		30:06	30:06	"B" Air Preheater gearbox output shaft locked up, due to a bearing failure.	
	F			10/25/2017 4:26	10/25/2017 7:07		2:41	2:41	Fluid leak from a fitting on the Electro Hydraulic Control system on the Turbine Left Side Reheat Intercept Valve.	

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 8 of 14

				ENANCE		HOURS	S OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED
		Sche	duled	Ac	tual	noon	SOF DOMA	TION	MAINTENANCE OR REASON FOR FORCED OUTAGE
MONTH	TYPE	FROM	ТО	FROM	ТО	Scheduled	Forced	Actual	AS APPROPRIATE
May 2017		No Outages							
June 2017		No Outages							
July 2017	F			7/4/2017 9:07	7/7/2017 10:00		72:53	72:53	"B" Flue Gas Desulphurization reaction tank agitator shaft failure.
August 2017	S, A	8/4/2017 13:00	8/7/2017 6:30	8/4/2017 13:45	8/7/2017 6:30	65:30		64:45	Hg (Mercury) readings out of compliance when reagent supplies changed.
September 2017	F			9/14/2017 1:48	9/14/2017 3:43		1:55	1:55	Starting failure declared, due to repair of steam leaks discovered during start-up. Leaks were at a fitting on the Main Steam sample line to the lab, on the packing of the root valve for the Main Steam pressure inlet transmitter and on the sensing line for the 1st Stage pressure transmitter.
October 2017		No Outages							

**Big Rivers Electric Corporation** Green Station Unit #2 - Coal/Pet coke - 223MW Net May 1, 2017, through October 31, 2017 (the review period)

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 9 of 14

**Big Rivers Electric Corporation** Coleman Station Unit #1 - Coal - 150MW Net

May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE MONTH TYPE FROM TO FROM TO Scheduled Forced AS APPROPRIATE Actual Coleman Unit #1 was idled on May 1, 2014, and has not May 2017 No Outages yet been returned to service. June 2017 No Outages July 2017 No Outages August 2017 No Outages September 2017 No Outages October 2017 No Outages

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 10 of 14

**Big Rivers Electric Corporation** Coleman Station Unit #2 - Coal - 138MW Net May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE MONTH TYPE FROM TO FROM TO Scheduled Forced AS APPROPRIATE Actual Coleman Unit #2 was idled on May 1, 2014, and has not May 2017 No Outages yet been returned to service. June 2017 No Outages July 2017 No Outages August 2017 No Outages No Outages September 2017 October 2017 No Outages

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Big Rivers Electric Corporation Coleman Station Unit #3 - Coal - 155MW Net May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE MONTH TYPE FROM TO FROM TO Scheduled Forced AS APPROPRIATE Actual Coleman Unit #3 was idled on May 8, 2014, and has not May 2017 No Outages yet been returned to service.

 June 2017
 No Outages

 July 2017
 No Outages

 August 2017
 No Outages

 September 2017
 No Outages

 October 2017
 No Outages

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Big Rivers Electric Corporation Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net May 1, 2017, through October 31, 2017 (the review period)

MAINTENANCE REASON FOR DEVIATION FROM SCHEDULED HOURS OF DURATION Scheduled Actual MAINTENANCE OR REASON FOR FORCED OUTAGE MONTH TYPE FROM TO FROM TO AS APPROPRIATE Scheduled Forced Actual May 2017 F 5/2/2017 6:21 5/2/2017 21:08 14:4714:47The unit was removed from service to repair a broken chain on the Wet Bottom submerged flight conveyor. F Leak in Main Steam line, due to a weld failure on the May 2017 5/30/2017 15:50 32:1032:10Main Steam Shutoff valve. F Leak in Main Steam line, due to a weld failure on the June 2017 6/14/2017 8:18 320:18 320:18 Main Steam Shutoff valve. July 2017 F 7/23/2017 23:23 98:09 #2 Primary Air Preheater locked up due to upper guide 7/28/2017 1:32 98:09 bearing failure F 7/30/2017 10:28 7/31/2017 5:25 18:5718:57Leak on the 1st Stage East Superheat Spray sensing line. August 2017 F 8/17/2017 15:56 8/20/2017 21:26 77:30 77:30 Tube Leak in the Economizer section of boiler between elevations 517.4' to 520.3'. F #2 Primary Air Preheater stub shaft bolting failure. 8/29/2017 22:43 49:1749:17September 2017 F 9/1/2017 21:04 21:0421:04#2 Primary Air Preheater stub shaft bolting failure. S, A 9/23/2017 13:00 9/25/2017 13:00 9/23/2017 13:35 9/24/2017 23:30 48:00 33:55Maintenance Outage to clean Flue Gas Desulphurization Mist Eliminator Panels wash spray nozzles. F 9/25/2017 5:31 9/25/2017 12:49 7:18 Section of circumferential seal support bracket broke 7:18

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loose and caused #2 Primary Air Preheater to lockup.

Big Rivers Electric Corporation Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net May 1, 2017, through October 31, 2017 (the review period)

No Outages

Schedule vs. Actual

		Sche	MAINTE duled	ENANCE Ac	- HOURSOF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAG	
MONTH	TYPE	FROM	ТО	FROM TO		Scheduled	Forced	Actual	AS APPROPRIATE
September 2017 F				9/26/2017 3:12	9/26/2017 10:07		6:55	6:55	#2 Induced Draft fan tripped while the #1 Induced Draft fan was already out of service.

October 2017

Case No. 2018-00023 Attachment for Response to Staff Item 15 Witness: Ronald D. Gregory Page 14 of 14

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

- 1 Item 16) For the period under review, provide the monthly capacity
- 2 factor at which each generating unit operated.
- 3
- 4 **Response)** Please see the table below and the foot notes on following page

	Big l Monthly Ca			rporatior Generatii			
Generating Unit	Metric <sup>a</sup>	May 2017	June 2017	July 2017	Aug. 2017	Sept. 2017	Oct. 2017
Station Two	GCF	0.0%	61.8%	39.4%	22.3%	35.0%	15.2%
Unit # 1	NCF	-0.5%	60.3%	37.4%	20.4%	33.0%	13.7%
Station Two	GCF	71.7%	59.5%	63.2%	72.6%	54.0%	0.0%
Unit # 2	NCF	70.1%	57.5%	61.3%	70.9%	51.8%	-1.4%
Reid Station	GCF	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unit # 1 <b>b</b>	NCF	-3.0%	-3.0%	-3.0%	-2.8%	-2.7%	-2.8%
Reid Station	GCF	0.0%	0.0%	0.8%	0.7%	1.6%	0.0%
Unit # 2 CT	NCF	-0.1%	-0.1%	0.7%	0.5%	1.5%	-0.1%
Green Station	GCF	63.1%	74.6%	79.9%	52.0%	47.3%	76.0%
Unit # 1	NCF	61.0%	72.3%	78.1%	49.5%	45.5%	73.7%
Green Station	GCF	82.1%	76.3%	67.4%	37.0%	44.8%	76.8%
Unit # 2	NCF	80.6%	74.7%	65.7%	35.3%	43.4%	75.0%
Wilson Station	GCF	82.4%	48.7%	76.3%	73.8%	52.2%	89.7%
Unit # 1	NCF	82.0%	47.9%	75.7%	73.2%	51.4%	89.7%
Coleman Station	GCF	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unit # 1 °	NCF	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
Coleman Station	GCF	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unit # 2 °	NCF	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
Coleman Station	GCF	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unit # 3 <b>c</b>	NCF	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%

Case No. 2018-00023 Response to Staff Item 16 Witness: Jason C. Burden Page 1 of 2

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1

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

	2	NCE (Net Conseity Factor) = Net Actual Generation x 100%							
	a	NCF (Net Capacity Factor) = PH (Period Hours) x NMC (Net Maximum Capacity							
		GCF (Gross Capacity Factor) = Gross Actual Generation x 100%							
		PH (Period Hours) x GMC (Gross Maximum Capacity							
	b	Reid 1 was put in Idled Status effective April 1, 2016.							
	c	Coleman Station Units 1, 2 and 3 were placed in Idled Status on May 8, 2014.							
2									
3									
4	Witnes	ss) Jason C. Burden							
5									

Case No. 2018-00023 Response to Staff Item 16 Witness: Jason C. Burden Page 2 of 2

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 17)		
2		<i>a</i> .	For the period under review, explain if Big Rivers made
3			any changes to its maintenance and operation practices,
4			or completed any specific generation efficiency improve-
5			ments that affect fuel usage at Big River's generation
6			facilities.
7		<i>b</i> .	Describe the impact of these changes on Big River's fuel
8			usage.
9			
10	Response)		
11		a.	The HMP&L Unit 1 outage was started one week later than
12			originally scheduled, on April 22, 2017, and the duration was
13			changed from 25 days (600 hrs.) to 43 days (1032 hrs.) to permit
14			the planned scope to be executed over 31 working days on a
15			straight time basis, with the unit scheduled to return to service
16			on June 4, 2017.
17		b.	From May 1, 2017 through June 3, 2017 of the period under
18			review, the change in the scheduled duration of the HMP&L
19			Unit 1 outage reduced the amount of fuel consumed by the
20			HMP&L Unit 1 generating unit by approximately 45,000 tons
21			that would have otherwise been burned.
22			

Case No. 2018-00023 Response to Staff Item 17 Witnesses: Ronald D. Gregory (a. *only*) and Jason C. Burden (b. *only*) Page 1 of 2

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1		
2	Witnesses)	Ronald D. Gregory (a. <i>only</i> ) and
3		Jason C. Burden (b. <i>only</i> )
4		
5		

Case No. 2018-00023 Response to Staff Item 17 Witnesses: Ronald D. Gregory (a. *only*) and Jason C. Burden (b. *only*) Page 1 of 2

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2018-00023

### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 18) State whether Big Rivers is aware of any violations of its				
2	policies and procedures regarding fuel procurement that occurred prior				
3	to or during the period under review.				
4					
5	<b>Response)</b> Big Rivers is unaware of any violations of its policies and procedures				
6	regarding fuel procurement that occurred during the period May 1, 2017, through				
7	October 31, 2017. Big Rivers is also unaware of any unreported violation prior to				
8	the current period under review.				
9					
10					
11	Witnesses) Mark W. McAdams (Coal) and				
12	Wayne O'Bryan ( <i>Natural Gas</i> )				
13					

Case No. 2017-00287 Response to Staff Item 18 Witnesses: Mark W. McAdams (*Coal*) and Wayne O'Bryan (*Natural Gas*) Page 1 of 1

### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2017-00287

## Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 19)	State whether Big Rivers is aware of any violations of 807 KAR
2	5:056 that a	occurred prior to or during the period under review.
3		
4	Response)	Big Rivers is unaware of any violations of 807 KAR 5:056 that
5	occurred pri	or to or during the period under review.
6		
7		
8	Witness)	Nicholas R. Castlen
9		

Case No. 2018-00023 Response to Staff Item 19 Witness: Nicholas R. Castlen Page 1 of 1

#### ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2017 THROUGH OCTOBER 31, 2017 CASE NO. 2017-00287

#### Response to Commission Staff's Request for Information dated February 16, 2018

#### March 1, 2018

1	Item 20) State whether all fuel contracts related to commodity and/or		
2	transportation have been filed with the Commission. If any contracts have		
3	not been filed, explain why they have not been filed and provide a copy.		
4			
5	Response) All of Big Rivers' fuel and transportation contracts have been filed		
6	with the Commission.		
7			
8			
9	Witnesses) Mark W. McAdams (Coal) and		
10	Wayne O'Bryan (Natural Gas)		
11			