



SULLIVAN, MOUNTJOY,
STAINBACK & MILLER, P.S.C.
Attorneys

Skill. Integrity. Efficiency.

August 25, 2016

RECEIVED
AUG 26 2016
PUBLIC SERVICE
COMMISSION

Dr. Talina R. Matthews
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0615

Re: *In the Matter of: An Examination of the Application of the
Fuel Adjustment Clause of Big Rivers Electric Corporation
from November 1, 2015 through April 30, 2016*
Case No. 2016-00235

Dear Dr. Matthews:

Enclosed for filing on behalf of Big Rivers Electric Corporation are an original and ten copies of (i) Big Rivers' responses to the information requests contained in the appendix to the Public Service Commission's August 12, 2016, order in the above-referenced matter; and (ii) a petition for confidential treatment. I certify that on this date, a copy of the responses, a copy of the petition, and a copy of this letter were served on all parties of record.

Sincerely,

Tyson Kamuf
Counsel for Big Rivers Electric Corporation

TAK/abg
Enclosures

ORIGINAL



Your Touchstone Energy® Cooperative 

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

**AN EXAMINATION OF THE APPLICATION)
OF THE FUEL ADJUSTMENT CLAUSE)
OF BIG RIVERS ELECTRIC CORPORATION)
FROM)
NOVEMBER 1, 2015 THROUGH APRIL 30, 2016)**

**Case No.
2016-00235**

**Responses to Commission Staff's Request for Information
dated
August 12, 2016**

FILED: August 26, 2016

ORIGINAL

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT
CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

VERIFICATION

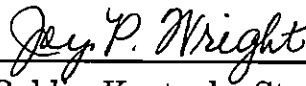
I, Nicholas R. (Nick) Castlen, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

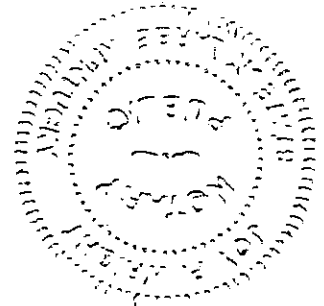
SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the 23 day of August, 2016.



Notary Public, Kentucky State at Large

My Commission Expires _____

Notary Public, Kentucky State-At-Large
My Commission Expires: July 3, 2018
ID 513528

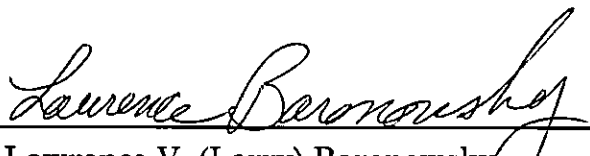


BIG RIVERS ELECTRIC CORPORATION

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT
CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
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VERIFICATION

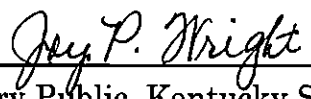
I, Lawrence V. (Larry) Baronowsky, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Lawrence V. (Larry) Baronowsky

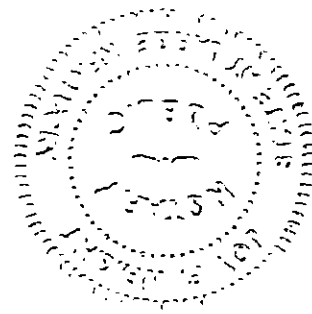
COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Lawrence V. (Larry) Baronowsky on this the 13 day of August, 2016.



Notary Public, Kentucky State at Large
My Commission Expires _____

Notary Public, Kentucky State-At-Large
My Commission Expires: July 3, 2018
ID 513528

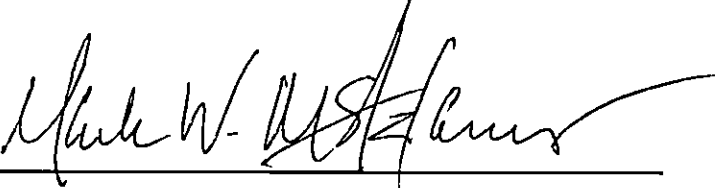


BIG RIVERS ELECTRIC CORPORATION

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT
CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
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VERIFICATION

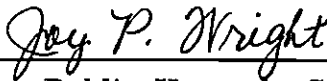
I, Mark W. McAdams, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Mark W. McAdams

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

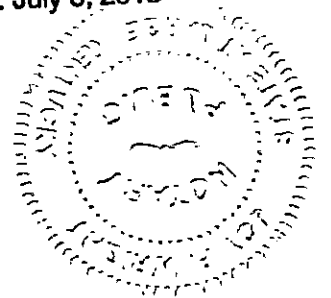
23 SUBSCRIBED AND SWORN TO before me by Mark W. McAdams on this the
day of August, 2016.



Notary Public, Kentucky State at Large

My Commission Expires _____

Notary Public, Kentucky State-At-Large
My Commission Expires: July 3, 2018
ID 513528

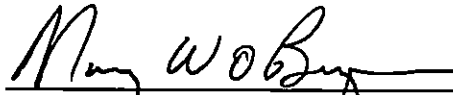


BIG RIVERS ELECTRIC CORPORATION

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT
CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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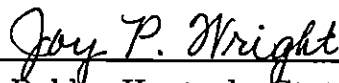
I, Murray W. (Wayne) O'Bryan, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Murray W. (Wayne) O'Bryan

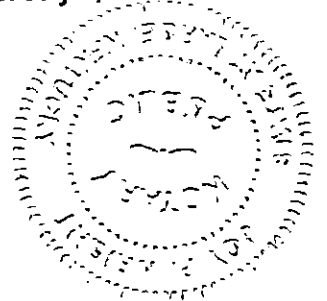
COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Murray W. (Wayne) O'Bryan
on this the 23 day of August, 2016.



Notary Public, Kentucky State at Large
My Commission Expires _____

Notary Public, Kentucky State-At-Large
My Commission Expires: July 3, 2018
ID 513528



BIG RIVERS ELECTRIC CORPORATION

AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235

Response to Commission Staff's Request for Information
dated August 12, 2016

August 26, 2016

1 Item 1) For the period from November 1, 2015, through April 30, 2016,
2 list each vendor from whom coal was purchased and the quantities and
3 the nature of each purchase (i.e., spot or contract). For the period under
4 review in total, provide the percentage of purchases that were spot versus
5 contract. For contract purchases, state whether the contract has been
6 filed with the Commission. If no, explain why it has not been filed.

7

8 Response) Please see the schedules below.

9

For the Period from November 1, 2015, through April 30, 2016

Purchase Vendor	Fuel Type	Purchase Tonnage	Contract Type
Alliance Coal *	Coal	107,030.60	Contract
Alliance Coal	Coal	97,632.36	Contract
Armstrong Coal	Coal	130,678.22	Contract
Coeclerici-Coal Network	Coal	29,181.24	Contract
Coeclerici-Coal Network	Coal	17,388.90	Spot
Foresight Coal	Coal	132,318.83	Contract
KenAmerican Resources	Coal	210,707.29	Contract
Oxbow Carbon & Minerals	Pet Coke	143,542.98	Spot
Rhino Energy, LLC	Coal	175,018.10	Contract
Sebree Mining, LLC	Coal	242,358.19	Contract
TCP Pet Coke	Pet Coke	126,324.63	Spot
Total Tonnage		1,412,181.34	

* Patriot Coal Contract BRE-11-021 assigned to Alliance Coal in January 2015.

10

11

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1

For the Period from November 1, 2015, through April 30, 2016

Percentage Spot Purchase Tons	20.34%
Percentage Contract Purchase Tons	<u>79.66%</u>
Percentage Total Purchase Tons	<u>100.00 %</u>

2

3 Big Rivers has filed its contract purchases with the Commission.

4

5

6 **Witness)** Mark W. McAdams

7

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 2)** *For the period from November 1, 2015, through April 30, 2016,*
2 *list each vendor from whom natural gas was purchased for generation*
3 *and the quantities and the nature of each purchase (i.e., spot or contract).*
4 *For contract purchases, state whether the contract has been filed with the*
5 *Commission. If no, explain why it has not been filed.*

6
7 **Response)** Please see the listing on the following page for vendors from whom
8 natural gas was purchased for generation and the quantity and nature of each
9 purchase from November 1, 2015, through April 30, 2016. Also on the following
10 page please see the percentage of purchases that were either spot versus contract
11 for the period under review in total.

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

20
21

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1

For the Period from November 1, 2015, through April 30, 2016

Purchase Vendor	Fuel Type	MCF	Contract Type
CIMA Energy, LTD	Natural Gas	29	Spot

For the Period from November 1, 2015, through April 30, 2016

Percentage Contract	0%
Percentage Spot	100%
Percentage Total	<u>100.00 %</u>

2

3

4

Witness) Wayne O'Bryan

5

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
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**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 3) State whether Big Rivers engages in hedging activities for its**
2 **coal or natural gas purchases used for generation. If yes, describe the**
3 **hedging activities 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.

9

10

11 **Witnesses) Mark W. McAdams (Coal) and**
12 **Wayne O'Bryan (Natural Gas)**

13

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 4) For each generating station or unit for which a separate coal**
 2 **pile is maintained, state, for the period from November 1, 2015, through**
 3 **April 30, 2016, the actual amount of coal burned in tons, the actual**
 4 **amount of coal deliveries in tons, the total kWh generated, and the actual**
 5 **capacity factor at which the plant operated.**

6
 7 **Response)** Please see the schedule below. The North American Electric
 8 Reliability Corporation's Generating Availability Data System defines Capacity
 9 Factor as the value equal to the net MWh produced divided by the product of the
 10 hours in the period times the unit rating in Net MWs, which is the formula for
 11 this response.

12

<u>Plant</u>	<u>Coal & Pet Coke Burn (Tons)</u>	<u>Coal & Pet Coke Receipts (Tons)</u>	<u>Net kWh</u>	<u>Capacity Factor (Net MWh) / (Period Hrs x MW rating)</u>
Reid Station (Coal) *	0.00	0.00	(9,021,000)	-3.18 %
Station Two (Coal) **	235,475.41	216,299.29	512,166,777	57.76 %
Green Station (Coal)	486,021.86	449,988.28	1,256,456,566	63.36 %
Green Station (Pet Coke) ***	112,005.00	69,340.00		
Coleman Station (Coal) ****	0.00	0.00	(4,858,000)	-0.25 %
Wilson Station (Coal)	596,748.65	586,424.16	1,495,047,930	82.08 %
Wilson Station (Pet Coke) ***	75,521.60	90,129.61		

* Net kWh for Reid Station is for Station Power; Reid Station Unit # 1 was idled on April 1, 2016.

** Net of City of Henderson. City of Henderson generation take was 275,027,000 kWhs.

*** Net kWh and Capacity Factor includes energy from burning Coal and Pet Coke.

**** Net kWh for Coleman Station is for Station Power as it has been idled since May 2014.

13

BIG RIVERS ELECTRIC CORPORATION

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ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

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

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 5)** *List all firm power commitments for Big Rivers from November*
2 *1, 2015, through April 30, 2016, for (a) purchases and (b) sales. This list*
3 *shall identify the electric utility, the amount of commitment in MW, and*
4 *the purpose of the commitment (i.e., peaking, emergency).*

5

6 **Response)**

7

(a) Purchases:

8

Southeastern Power Administration ("SEPA"), up to 178 MW,
9 energy for system. A force majeure, previously declared by
10 SEPA for this contract due to dam safety issues at Wolf Creek
11 and Center Hill dams on the Cumberland System, remained in
12 effect from November 1, 2015, through April 30, 2016. For the
13 period under review, Big Rivers has operated under an annual
14 contract in which we have to schedule the purchases under the
15 terms of weekly capacity declarations. Hourly schedules are
16 limited to 154 MWs due to ongoing repairs on the Center Hill
17 dams. The repairs are expected to last until 2017.

18

Additional purchases are shown on the tables which
19 follows. Please note, the purchases listed were made to support
20 firm Off-System Sales and were not passed through Big Rivers'
21 FAC.

22

23

24

**Case No. 2016-00235
Response to Staff Item 5
Witness: Wayne O'Bryan
Page 1 of 5**

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1
2

(a) Purchases:

Big Rivers Electric Corporation Power Purchases November 1, 2015, through April 30, 2016			
Date	Electric Utility	MW Commitment	Purpose
Nov – Dec 2015	MISO	200 MWs – On Peak 134,400 Total	Purchases for Off-System Sales
Nov – Dec 2015	MISO	100 MWs – On Peak 67,200 Total	Purchases for Off-System Sales
Nov – Dec 2015	MISO	100 MWs – Off Peak 79,200 Total	Purchases for Off-System Sales
Jan – Apr 2016	MISO	100 MWs – On Peak 136,000 Total	Purchases for Off-System Sales
Jan – Apr 2016	MISO	100 MWs – Off Peak 154,400 Total	Purchases for Off-System Sales
Jan – Apr 2016	MISO	100 MWs – Off Peak 154,400 Total	Purchases for Off-System Sales
Jan – Feb 2016	MISO	50 MWs – On Peak 32,800 Total	Purchases for Off-System Sales
Jan – Feb 2016	MISO	50 MWs – On Peak 32,800 Total	Purchases for Off-System Sales
Jan – Feb 2016	MISO	100 MWs – On Peak 65,600 Total	Purchases for Off-System Sales
Jan – Feb 2016	MISO	100 MWs – Off Peak 78,400 Total	Purchases for Off-System Sales
Jan – Feb 2016	MISO	100 MWs – Off Peak 78,400 Total	Purchases for Off-System Sales
Mar – Apr 2016	MISO	50 MWs – On Peak 35,200 Total	Purchases for Off-System Sales

3

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

Purchases: (continued)

Big Rivers Electric Corporation Power Purchases November 1, 2015, through April 30, 2016			
Date	Electric Utility	MW Commitment	Purpose
Mar – Apr 2016	MISO	50 MWs – On Peak 35,200 Total	Purchases for Off-System Sales
04/09/2016 – 04/10/2016	MISO	100 MWs – 7x24 4,800 Total	Purchases for Off-System Sales
04/11/2016	MISO	100MWs – 7x24 2,400 Total	Purchases for Off-System Sales

1

2

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4

**Case No. 2016-00235
Response to Staff Item 5
Witness: Wayne O'Bryan
Page 3 of 5**

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

Sales:

Firm Off-System Sales are shown on the table that follows.

Big Rivers Electric Corporation Firm Off-System Sales November 1, 2015, through April 30, 2016			
Date	Electric Utility	MW Commitment	Purpose
Nov – Dec 2015	NextEra	200 MWs – On Peak 134,400 Total	Off-System Sales
Nov – Dec 2015	NextEra	100 MWs – On Peak 67,200 Total	Off-System Sales
Nov – Dec 2015	NextEra	100 MWs – Off Peak 79,200 Total	Off-System Sales
Nov – Dec 2015	ADM	50 MWs – On Peak 33,600 Total	Off-System Sales
Jan – Feb 2016	Hoosier	50 MWs – On Peak 32,800 Total	Off-System Sales
Jan – Feb 2016	EDF	50 MWs – On Peak 32,800 Total	Off-System Sales
Jan – Feb 2016	NextEra	100 MWs – On Peak 65,600 Total	Off-System Sales
Jan – Feb 2016	EDF	100 MWs – Off Peak 78,400 Total	Off-System Sales

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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CASE NO. 2016-00235**

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dated August 12, 2016**

August 26, 2016

1
2
3

Sales: (continued)

Big Rivers Electric Corporation Firm Off-System Sales (continued) November 1, 2015, through April 30, 2016			
Date	Electric Utility	MW Commitment	Purpose
Jan – Feb 2016	NextEra	100 MWs – Off Peak 78,400 Total	Off-System Sales
Jan – Feb 2016	Morgan Stanley	100 MWs – On Peak	Off-System Sales 100 MW Call Option
Mar 2016	ADM	25 MWs – On Peak 9,200 Total	Off-System Sales
Mar – Apr 2016	Cargill	50 MWs – On Peak 35,200 Total	Off-System Sales
Mar – Apr 2016	Morgan Stanley	50 MWs – On Peak 35,200 Total	Off-System Sales
04/09/2016 - 04/10/2016	SIPC	100 MWs – 7x24 4,800 Total	Off-System Sales
04/11/2016	SIPC	100 MWs – 7x24 2,400 Total	Off-System Sales

4
5
6
7

Witness) Wayne O'Bryan

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 6)** *Provide a monthly billing summary of sales to all electric*
2 *utilities for the period November 1, 2015, through April 30, 2016.*

3

4 **Response)** Please see the attached monthly billing summaries for sales to all
5 electric utilities for the period November 1, 2015, through April 30, 2016. Please
6 note that certain personal information has been redacted from these billing
7 summaries pursuant to 807 KAR 5:001 Section 4(10), which related to privacy
8 protection for filings.

9

10

11 **Witness)** Nicholas R. Castlen

12

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Sales to Members
 November 2015**

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 NOVEMBER 2015								
2								
3 JP RURALS	98,929	45,667,980	\$ 1,365,714.85	\$ 2,055,059.10	\$ 3,420,773.95			\$ 3,420,773.95
4 KENERGY RURALS	186,633	83,171,728	\$ 2,576,468.57	\$ 3,742,727.76	\$ 6,319,196.33			\$ 6,319,196.33
5 MEADE CO. RURALS	82,829	33,687,210	\$ 1,143,454.35	\$ 1,515,924.45	\$ 2,659,378.80			\$ 2,659,378.80
6								
7 TOTAL RURALS	368,391	162,526,918	\$ 5,085,637.77	\$ 7,313,711.31	\$ 12,399,349.08	\$ -	\$ -	\$ 12,399,349.08
8								
9	5,224	1,943,120	\$ 55,975.16	\$ 73,935.72	\$ 129,910.88			\$ 129,910.88
10	58	33,390	\$ 621.47	\$ 1,270.49	\$ 1,891.96	\$ 589.33	\$ -	\$ 2,481.29
11	26,851	14,570,550	\$ 287,708.47	\$ 554,409.43	\$ 842,117.90	\$ -	\$ -	\$ 842,117.90
12	1,786	544,450	\$ 19,136.99	\$ 20,716.32	\$ 39,853.31	\$ 1,125.08	\$ -	\$ 40,978.39
13	11,397	4,365,030	\$ 122,118.86	\$ 166,089.39	\$ 288,208.25	\$ -	\$ 16,269.83	\$ 304,478.08
14	3,226	1,289,970	\$ 34,566.59	\$ 49,083.36	\$ 83,649.95	\$ -	\$ 2,877.71	\$ 86,527.66
15	1,000	270,820	\$ 10,715.00	\$ 10,304.70	\$ 21,019.70	\$ -	\$ 539.83	\$ 21,559.53
16	4,549	1,397,990	\$ 48,742.54	\$ 53,193.52	\$ 101,936.06	\$ 1,682.26	\$ -	\$ 103,618.32
17	15,000	10,765,008	\$ 160,725.00	\$ 409,608.55	\$ 570,333.55	\$ -	\$ -	\$ 570,333.55
18	60	11,230	\$ 642.90	\$ 427.30	\$ 1,070.20	\$ -	\$ -	\$ 1,070.20
19	750	532,180	\$ 8,036.25	\$ 20,249.45	\$ 28,285.70	\$ 375.03	\$ -	\$ 28,660.73
20	100	34,090	\$ 1,071.50	\$ 1,297.12	\$ 2,368.62	\$ 21.43	\$ -	\$ 2,390.05
21	37,109	24,575,910	\$ 397,622.94	\$ 935,113.98	\$ 1,332,736.32	\$ -	\$ -	\$ 1,332,736.32
22	4,200	1,564,100	\$ 45,003.00	\$ 59,514.01	\$ 104,517.01	\$ -	\$ -	\$ 104,517.01
23	3,788	1,879,510	\$ 40,588.42	\$ 71,515.36	\$ 112,103.78	\$ -	\$ -	\$ 112,103.78
24	120	31,070	\$ 1,285.80	\$ 1,182.21	\$ 2,468.01	\$ -	\$ -	\$ 2,468.01
25	3,054	429,950	\$ 32,723.61	\$ 16,359.60	\$ 49,083.21	\$ -	\$ -	\$ 49,083.21
26	7,477	4,333,070	\$ 80,116.06	\$ 164,873.31	\$ 244,989.37	\$ -	\$ -	\$ 244,989.37
27	11,133	5,271,210	\$ 119,290.10	\$ 200,569.54	\$ 319,859.64	\$ -	\$ -	\$ 319,859.64
28	2,276	1,162,020	\$ 24,387.34	\$ 44,214.86	\$ 68,602.20	\$ 3,053.78	\$ -	\$ 71,655.98
29								
30 SUBTOTAL INDUSTRIALS	139,158	75,004,668	\$ 1,491,078.00	\$ 2,853,927.62	\$ 4,345,005.62	\$ 6,846.91	\$ 19,687.37	\$ 4,371,539.90
31								
32	1,814	498,690	\$ 19,437.01	\$ 18,975.15	\$ 38,412.16	\$ -	\$ -	\$ 38,412.16
33								
34 TOTAL INDUSTRIALS	140,972	75,503,358	\$ 1,510,515.01	\$ 2,872,902.77	\$ 4,383,417.78	\$ 6,846.91	\$ 19,687.37	\$ 4,409,952.06
35								
36								
37 GRAND TOTAL	509,363	238,030,276	\$ 6,596,152.78	\$ 10,186,614.08	\$ 16,782,766.86	\$ 6,846.91	\$ 19,687.37	\$ 16,809,301.14

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Sales to Members
 November 2015**

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP \$ AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFPPA MILLS/ KWH
1 NOVEMBER 2015								
2								
3 JP RURALS	\$ 5.00	\$ 3,420,778.95	\$ (22,970.99)	(0.50)	\$ 135,153.66	2.96	\$ 46,078.99	1.01
4 KENERGY RURALS	\$ -	\$ 6,319,196.33	\$ (41,835.38)	(0.50)	\$ 247,234.19	2.97	\$ 83,920.27	1.01
6 MEADE CO. RURALS	\$ -	\$ 2,659,378.80	\$ (16,944.67)	(0.50)	\$ 103,872.75	3.08	\$ 33,990.39	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 12,399,354.08	\$ (81,751.04)	(0.50)	\$ 486,260.60	2.99	\$ 163,989.65	1.01
8								
9		\$ 129,910.88	\$ (977.39)	(0.50)	\$ 5,691.33	2.93	\$ 1,960.61	1.01
10		\$ 2,481.29	\$ (16.80)	(0.50)	\$ 83.00	2.49	\$ 33.69	1.01
11		\$ 842,117.90	\$ (7,328.99)	(0.50)	\$ 36,936.22	2.53	\$ 14,701.68	1.01
12		\$ 40,978.39	\$ (273.86)	(0.50)	\$ 1,744.82	3.20	\$ 549.35	1.01
13		\$ 304,478.08	\$ (2,195.61)	(0.50)	\$ 12,627.46	2.89	\$ 4,404.32	1.01
14		\$ 86,527.66	\$ (648.85)	(0.50)	\$ 3,665.52	2.84	\$ 1,301.58	1.01
15		\$ 21,559.53	\$ (136.22)	(0.50)	\$ 919.90	3.40	\$ 273.26	1.01
16		\$ 103,618.32	\$ (703.19)	(0.50)	\$ 4,462.98	3.19	\$ 1,410.57	1.01
17		\$ 570,333.55	\$ (5,414.80)	(0.50)	\$ 25,035.20	2.33	\$ 10,861.89	1.01
18		\$ 1,070.20	\$ (5.65)	(0.50)	\$ 46.78	4.17	\$ 11.33	1.01
19		\$ 28,660.73	\$ (267.69)	(0.50)	\$ 1,241.58	2.33	\$ 536.97	1.01
20		\$ 2,390.05	\$ (17.15)	(0.50)	\$ 103.74	3.04	\$ 34.40	1.01
21		\$ 1,332,736.32	\$ (12,361.68)	(0.50)	\$ 58,488.66	2.38	\$ 24,797.09	1.01
22		\$ 104,517.01	\$ (786.74)	(0.50)	\$ 4,578.86	2.93	\$ 1,578.18	1.01
23		\$ 112,103.78	\$ (945.39)	(0.50)	\$ 4,915.67	2.62	\$ 1,896.43	1.01
24		\$ 2,468.01	\$ (15.63)	(0.50)	\$ 107.99	3.48	\$ 31.35	1.01
25		\$ 49,083.21	\$ (216.26)	(0.50)	\$ 2,143.62	4.99	\$ 433.82	1.01
26		\$ 244,989.37	\$ (2,179.53)	(0.50)	\$ 10,747.58	2.48	\$ 4,372.07	1.01
27		\$ 319,859.64	\$ (2,651.42)	(0.50)	\$ 14,023.61	2.66	\$ 5,318.65	1.01
28		\$ 71,655.98	\$ (584.50)	(0.50)	\$ 3,008.42	2.59	\$ 1,172.48	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,371,539.90	\$ (37,727.35)	(0.50)	\$ 190,572.94	2.54	\$ 75,679.72	1.01
31								
32		\$ 38,412.16	\$ (250.84)	(0.50)	\$ 1,681.15	3.37	\$ 503.18	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,409,952.06	\$ (37,978.19)	(0.50)	\$ 192,254.09	2.55	\$ 76,182.90	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 16,809,306.14	\$ (119,729.23)	(0.50)	\$ 678,514.69	2.85	\$ 240,172.55	1.01

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
November 2015**

	REVENUE \$	REVENUE MILLS/ KWH	MRSM \$	MRSM MILLS/ KWH	CN 2013-00199 MRSM TO OFF- SET BASE RATE INCREASE	MRSM - BASE RATE CREDIT MILLS/ KWH	REVENUE \$ NET OF MRSM \$ AND BASE RATE CREDIT \$	REV NET OF MRSM AND BASE RATE CREDIT MILLS/KWH
1 NOVEMBER 2015								
2								
3 JP RURALS	\$ 3,579,040.61	78.37	\$ (167,532.25)	(3.67)	\$ (335,503.57)	(7.35)	\$ 3,076,004.79	67.36
4 KENERGY RURALS	\$ 6,608,515.41	79.46	\$ (306,202.94)	(3.68)	\$ (675,179.88)	(8.12)	\$ 5,627,132.59	67.66
5 MEADE CO. RURALS	\$ 2,780,297.27	82.53	\$ (127,756.97)	(3.79)	\$ (287,470.92)	(8.53)	\$ 2,365,069.38	70.21
6								
7 TOTAL RURALS	\$ 12,967,853.29	79.79	\$ (601,492.16)	(3.70)	\$ (1,298,154.37)	(7.99)	\$ 11,068,206.76	68.10
8								
9	\$ 136,585.43	70.29	\$ (7,069.00)	(3.64)	\$ -	0.00	\$ 129,516.43	66.65
10	\$ 2,581.18	77.30	\$ (106.67)	(3.19)	\$ -	0.00	\$ 2,474.51	74.11
11	\$ 886,426.81	60.84	\$ (47,266.74)	(3.24)	\$ -	0.00	\$ 839,160.07	57.59
12	\$ 42,998.70	78.98	\$ (2,130.83)	(3.91)	\$ -	0.00	\$ 40,867.87	75.06
13	\$ 319,314.25	73.15	\$ (15,722.27)	(3.60)	\$ -	0.00	\$ 303,591.98	69.55
14	\$ 90,845.91	70.42	\$ (4,580.11)	(3.55)	\$ -	0.00	\$ 86,265.80	66.87
16	\$ 22,616.47	83.51	\$ (1,111.91)	(4.11)	\$ -	0.00	\$ 21,504.56	79.41
16	\$ 108,788.68	77.82	\$ (5,454.15)	(3.90)	\$ -	0.00	\$ 103,334.53	73.92
17	\$ 600,815.84	55.81	\$ (32,667.59)	(3.03)	\$ -	0.00	\$ 568,148.25	52.78
18	\$ 1,122.66	99.97	\$ (54.74)	(4.87)	\$ -	0.00	\$ 1,067.92	95.10
19	\$ 30,171.59	56.69	\$ (1,618.89)	(3.04)	\$ -	0.00	\$ 28,552.70	53.65
20	\$ 2,511.04	73.66	\$ (127.91)	(3.75)	\$ -	0.00	\$ 2,383.13	69.91
21	\$ 1,403,660.39	57.12	\$ (75,912.98)	(3.09)	\$ -	0.00	\$ 1,327,747.41	54.03
22	\$ 109,887.31	70.26	\$ (5,687.81)	(3.64)	\$ -	0.00	\$ 104,199.50	66.62
23	\$ 117,970.49	62.77	\$ (6,248.25)	(3.32)	\$ -	0.00	\$ 111,722.24	59.44
24	\$ 2,591.72	83.42	\$ (130.02)	(4.18)	\$ -	0.00	\$ 2,461.70	79.23
25	\$ 51,444.39	119.65	\$ (2,448.46)	(5.69)	\$ -	0.00	\$ 48,995.93	113.96
26	\$ 257,929.49	59.53	\$ (13,819.73)	(3.19)	\$ -	0.00	\$ 244,109.76	56.34
27	\$ 336,550.48	63.85	\$ (17,760.90)	(3.37)	\$ -	0.00	\$ 318,789.58	60.48
28	\$ 75,252.38	64.76	\$ (3,832.29)	(3.30)	\$ -	0.00	\$ 71,420.09	61.46
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,600,065.21	61.33	\$ (243,751.25)	(3.25)	\$ -	0.00	\$ 4,356,313.96	58.08
31								
32	\$ 40,345.65	80.90	\$ (2,034.72)	(4.08)	\$ -	0.00	\$ 38,310.93	76.82
33								
34 TOTAL INDUSTRIALS	\$ 4,640,410.86	61.46	\$ (245,785.97)	(3.26)	\$ -	0.00	\$ 4,394,624.89	58.20
35								
36								
37 GRAND TOTAL	\$ 17,608,264.15	73.97	\$ (847,278.13)	(3.56)	\$ (1,298,154.37)	(5.45)	\$ 15,462,831.65	64.96

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
December 2015**

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 DECEMBER 2015								
2								
3 JP RURALS	101,340	52,097,650	\$ 1,398,998.70	\$ 2,344,394.25	\$ 3,743,392.95			\$ 3,743,392.95
4 KENERGY RURALS	189,634	94,891,507	\$ 2,607,847.33	\$ 4,249,916.10	\$ 6,857,763.43			\$ 6,857,763.43
5 MEADE CO. RURALS	85,807	38,845,400	\$ 1,184,565.64	\$ 1,748,043.00	\$ 2,932,608.64			\$ 2,932,608.64
6								
7 TOTAL RURALS	376,781	185,834,557	\$ 5,191,411.67	\$ 8,342,353.35	\$ 13,533,765.02	\$ -	\$ -	\$ 13,533,765.02
8								
9	5,020	1,894,450	\$ 53,789.30	\$ 72,083.82	\$ 125,873.12			\$ 125,873.12
10	61	35,520	\$ 653.62	\$ 1,351.54	\$ 2,005.16	\$ 621.47	\$ -	\$ 2,626.63
11	26,165	11,601,430	\$ 280,357.98	\$ 441,434.41	\$ 721,792.39	\$ -	\$ -	\$ 721,792.39
12	1,743	549,210	\$ 18,676.25	\$ 20,897.44	\$ 39,573.69	\$ -	\$ -	\$ 39,573.69
13	11,044	4,950,700	\$ 118,336.46	\$ 188,374.14	\$ 306,710.60	\$ -	\$ 9,362.13	\$ 316,072.73
14	3,238	1,332,660	\$ 34,695.17	\$ 50,707.71	\$ 85,402.88	\$ -	\$ 396.62	\$ 85,799.50
15	4,567	252,780	\$ 10,715.00	\$ 9,618.28	\$ 20,333.28	\$ -	\$ 477.12	\$ 20,810.40
16	4,794	1,448,970	\$ 51,367.71	\$ 55,133.31	\$ 106,501.02	\$ 578.61	\$ -	\$ 107,079.63
17	15,000	11,382,043	\$ 160,725.00	\$ 419,388.74	\$ 580,113.74	\$ -	\$ -	\$ 580,113.74
18	60	11,870	\$ 642.90	\$ 451.65	\$ 1,094.55	\$ -	\$ -	\$ 1,094.55
19	750	544,610	\$ 8,036.25	\$ 20,722.41	\$ 28,758.66	\$ 375.08	\$ -	\$ 29,133.69
20	101	42,770	\$ 1,082.22	\$ 1,627.40	\$ 2,709.62	\$ 10.72	\$ -	\$ 2,720.34
21	36,763	26,132,100	\$ 393,915.55	\$ 994,326.41	\$ 1,388,241.96	\$ -	\$ -	\$ 1,388,241.96
22	4,385	1,554,450	\$ 46,985.28	\$ 59,146.82	\$ 106,132.10	\$ -	\$ -	\$ 106,132.10
23	3,538	1,731,320	\$ 37,909.67	\$ 65,876.73	\$ 103,786.40	\$ -	\$ -	\$ 103,786.40
24	161	57,200	\$ 1,725.12	\$ 2,176.46	\$ 3,901.58	\$ -	\$ -	\$ 3,901.58
25	(837)	310,790	\$ 8,443.42	\$ 11,825.56	\$ 20,268.98	\$ -	\$ -	\$ 20,268.98
26	7,379	4,392,230	\$ 79,065.99	\$ 167,124.35	\$ 246,190.34	\$ -	\$ -	\$ 246,190.34
27	10,523	5,438,920	\$ 112,753.95	\$ 206,950.91	\$ 319,704.86	\$ -	\$ -	\$ 319,704.86
28	2,341	1,204,440	\$ 25,083.82	\$ 45,828.94	\$ 70,912.76	\$ 3,139.50	\$ -	\$ 74,052.26
29								
30 SUBTOTAL INDUSTRIALS	136,796	74,868,463	\$ 1,444,960.66	\$ 2,835,047.03	\$ 4,280,007.69	\$ 4,725.33	\$ 10,235.87	\$ 4,294,968.89
31								
32	1,782	361,980	\$ 19,094.13	\$ 13,773.34	\$ 32,867.47	\$ -	\$ -	\$ 32,867.47
33								
34 TOTAL INDUSTRIALS	138,578	74,870,443	\$ 1,464,054.79	\$ 2,848,820.37	\$ 4,312,875.16	\$ 4,725.33	\$ 10,235.87	\$ 4,327,836.36
35								
36								
37 GRAND TOTAL	515,359	260,705,000	\$ 6,655,466.46	\$ 11,191,173.72	\$ 17,846,640.18	\$ 4,725.33	\$ 10,235.87	\$ 17,861,601.38

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
December 2015**

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP & AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFPPA MILLS/ KWH
1 DECEMBER 2015								
2								
3 JP RURALS	\$ 5.00	\$ 3,743,397.95	\$ 48,971.79	0.94	\$ 221,202.40	4.25	\$ 62,566.53	1.01
4 KENERGY RURALS	\$ -	\$ 6,857,763.43	\$ 88,776.03	0.94	\$ 399,366.28	4.21	\$ 95,292.56	1.00
5 MEADE CO. RURALS	\$ -	\$ 2,932,608.64	\$ 36,514.68	0.94	\$ 169,349.34	4.36	\$ 39,195.01	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 13,533,770.02	\$ 174,262.50	0.94	\$ 789,918.02	4.25	\$ 187,054.10	1.01
8								
9		\$ 125,873.12	\$ 1,780.78	0.94	\$ 8,235.53	4.35	\$ 1,911.50	1.01
10		\$ 2,626.63	\$ 33.39	0.94	\$ 131.85	3.71	\$ 35.84	1.01
11		\$ 721,792.39	\$ 10,905.34	0.94	\$ 47,316.33	4.08	\$ 11,705.84	1.01
12		\$ 39,573.69	\$ 516.26	0.94	\$ 2,583.45	4.70	\$ 554.15	1.01
13		\$ 316,072.73	\$ 4,653.66	0.94	\$ 20,108.68	4.06	\$ 4,995.26	1.01
14		\$ 85,799.50	\$ 1,252.70	0.94	\$ 5,593.54	4.20	\$ 1,344.65	1.01
15		\$ 20,810.40	\$ 237.61	0.94	\$ 1,323.75	5.24	\$ 255.06	1.01
16		\$ 107,079.63	\$ 1,362.03	0.94	\$ 6,949.00	4.80	\$ 1,462.01	1.01
17		\$ 580,113.74	\$ 10,360.72	0.91	\$ 38,239.07	3.36	\$ 11,121.24	0.98
18		\$ 1,094.55	\$ 11.16	0.94	\$ 71.04	5.98	\$ 11.98	1.01
19		\$ 29,133.69	\$ 511.93	0.94	\$ 1,895.45	3.48	\$ 549.51	1.01
20		\$ 2,720.34	\$ 40.20	0.94	\$ 177.53	4.15	\$ 43.15	1.01
21		\$ 1,388,241.96	\$ 24,564.17	0.94	\$ 91,477.81	3.50	\$ 26,367.29	1.01
22		\$ 106,132.10	\$ 1,461.18	0.94	\$ 6,938.62	4.46	\$ 1,568.44	1.01
23		\$ 103,786.40	\$ 1,627.44	0.94	\$ 6,811.43	3.93	\$ 1,746.90	1.01
24		\$ 3,901.58	\$ 53.77	0.94	\$ 255.08	4.46	\$ 57.71	1.01
25		\$ 20,268.98	\$ 292.14	0.94	\$ 1,326.85	4.27	\$ 313.59	1.01
26		\$ 246,190.34	\$ 4,128.70	0.94	\$ 16,192.66	3.69	\$ 4,431.76	1.01
27		\$ 319,704.86	\$ 5,112.58	0.94	\$ 20,995.11	3.86	\$ 5,487.87	1.01
28		\$ 74,052.26	\$ 1,132.17	0.94	\$ 4,656.62	3.87	\$ 1,215.28	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,294,968.89	\$ 70,037.93	0.94	\$ 281,279.40	3.76	\$ 75,179.03	1.00
31								
32		\$ 32,867.47	\$ 340.26	0.94	\$ 2,133.99	5.90	\$ 365.24	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,327,836.36	\$ 70,378.19	0.94	\$ 283,413.39	3.79	\$ 75,544.27	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 17,861,606.38	\$ 244,640.69	0.94	\$ 1,073,331.41	4.12	\$ 262,598.37	1.01

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
December 2015

	REVENUE \$	REVENUE MILLS/ KWH	MRSM \$	MRSM MILLS/ KWH	CN 2013-00199 MRSM TO OFF- SET BASE RATE INCREASE	MRSM - BASE RATE CREDIT MILLS/ KWH	REVENUE \$ NET OF MRSM \$ AND BASE RATE CREDIT \$	REV NET OF MRSM AND BASE RATE CREDIT MILLS/KWH
1 DECEMBER 2015								
2								
3 JP RURALS	\$ 4,066,138.67	78.05	\$ (333,316.53)	(6.40)	\$ (364,867.33)	(7.00)	\$ 3,367,954.81	64.65
4 KENERGY RURALS	\$ 7,441,198.30	78.42	\$ (602,606.71)	(6.35)	\$ (758,807.05)	(8.00)	\$ 6,079,784.54	64.07
5 MEADE CO. RURALS	\$ 3,177,667.67	81.80	\$ (252,944.63)	(6.51)	\$ (344,031.95)	(8.86)	\$ 2,580,691.09	66.43
6								
7 TOTAL RURALS	\$ 14,685,004.64	79.02	\$ (1,188,867.87)	(6.40)	\$ (1,467,706.33)	(7.90)	\$ 12,028,430.44	64.73
8								
9	\$ 137,800.93	72.74	\$ (12,312.38)	(6.50)	\$ -	0.00	\$ 125,488.55	66.24
10	\$ 2,827.71	79.61	\$ (208.29)	(5.86)	\$ -	0.00	\$ 2,619.42	73.74
11	\$ 791,719.90	68.24	\$ (72,282.60)	(6.23)	\$ -	0.00	\$ 719,437.30	62.01
12	\$ 43,227.55	78.71	\$ (3,765.35)	(6.86)	\$ -	0.00	\$ 39,462.20	71.85
13	\$ 345,830.33	69.85	\$ (30,762.59)	(6.21)	\$ -	0.00	\$ 315,067.74	63.64
14	\$ 93,990.39	70.53	\$ (8,461.42)	(6.35)	\$ -	0.00	\$ 85,528.97	64.18
15	\$ 22,626.82	89.51	\$ (1,867.73)	(7.39)	\$ -	0.00	\$ 20,759.09	82.12
16	\$ 116,852.67	80.65	\$ (10,067.18)	(6.95)	\$ -	0.00	\$ 106,785.49	73.70
17	\$ 639,834.77	56.21	\$ (61,958.50)	(5.44)	\$ -	0.00	\$ 577,876.27	50.77
18	\$ 1,188.73	100.15	\$ (96.59)	(8.14)	\$ -	0.00	\$ 1,092.14	92.01
19	\$ 32,090.58	58.92	\$ (3,067.45)	(5.63)	\$ -	0.00	\$ 29,023.13	53.29
20	\$ 2,981.22	69.70	\$ (269.57)	(6.30)	\$ -	0.00	\$ 2,711.65	63.40
21	\$ 1,530,651.23	58.57	\$ (147,714.09)	(5.65)	\$ -	0.00	\$ 1,382,937.14	52.92
22	\$ 116,100.34	74.69	\$ (10,283.79)	(6.62)	\$ -	0.00	\$ 105,816.55	68.07
23	\$ 113,972.17	65.83	\$ (10,537.23)	(6.09)	\$ -	0.00	\$ 103,434.94	59.74
24	\$ 4,268.14	74.62	\$ (378.18)	(6.61)	\$ -	0.00	\$ 3,889.96	68.01
25	\$ 22,201.56	71.44	\$ (1,995.67)	(6.42)	\$ -	0.00	\$ 20,205.89	65.01
26	\$ 270,943.46	61.69	\$ (25,644.74)	(5.84)	\$ -	0.00	\$ 245,298.72	55.85
27	\$ 351,300.42	64.59	\$ (32,699.66)	(6.01)	\$ -	0.00	\$ 318,600.76	58.58
28	\$ 81,056.33	67.30	\$ (7,248.57)	(6.02)	\$ -	0.00	\$ 73,807.76	61.28
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,721,465.25	63.06	\$ (441,621.58)	(5.90)	\$ -	0.00	\$ 4,279,843.67	57.16
31								
32	\$ 35,706.96	98.64	\$ (2,912.97)	(8.05)	\$ -	0.00	\$ 32,793.99	90.60
33								
34 TOTAL INDUSTRIALS	\$ 4,757,172.21	63.54	\$ (444,534.55)	(5.94)	\$ -	0.00	\$ 4,312,637.66	57.60
35								
36								
37 GRAND TOTAL	\$ 19,442,176.85	74.58	\$ (1,633,402.42)	(6.27)	\$ (1,467,706.33)	(5.63)	\$ 16,341,068.10	62.68

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
January 2016**

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 JANUARY 2016								
2								
3 JP RURALS	127,021	66,218,310	\$ 1,753,524.91	\$ 2,979,823.95	\$ 4,733,348.86			\$ 4,733,348.86
4 KENERGY RURALS	243,207	122,140,687	\$ 3,357,472.64	\$ 5,496,330.92	\$ 8,853,803.56			\$ 8,853,803.56
5 MEADE CO. RURALS	116,914	54,305,880	\$ 1,613,997.77	\$ 2,443,764.60	\$ 4,057,762.37			\$ 4,057,762.37
6								
7 TOTAL RURALS	487,142	242,664,877	\$ 6,724,995.32	\$ 10,919,919.47	\$ 17,644,914.79	\$ -	\$ -	\$ 17,644,914.79
8								
9	4,838	2,134,030	\$ 51,839.17	\$ 81,199.84	\$ 133,039.01			\$ 133,039.01
10	70	43,150	\$ 750.05	\$ 1,641.86	\$ 2,391.91	\$ 525.04	\$ -	\$ 2,916.95
11	27,364	15,813,000	\$ 293,205.26	\$ 601,684.65	\$ 894,889.91	\$ -	\$ -	\$ 894,889.91
12	1,985	683,370	\$ 21,269.28	\$ 26,002.23	\$ 47,271.51	\$ -	\$ -	\$ 47,271.51
13	11,743	4,965,790	\$ 125,826.25	\$ 188,948.31	\$ 314,774.56	\$ -	\$ 11,404.87	\$ 326,179.43
14	3,289	1,175,050	\$ 35,241.64	\$ 44,710.65	\$ 79,952.29	\$ -	\$ 2,152.17	\$ 82,104.46
15	1,000	301,700	\$ 10,715.00	\$ 11,479.69	\$ 22,194.69	\$ -	\$ 512.79	\$ 22,707.48
16	3,758	771,820	\$ 40,266.97	\$ 29,367.75	\$ 69,634.72	\$ -	\$ -	\$ 69,634.72
17	15,000	10,143,113	\$ 160,725.00	\$ 385,945.45	\$ 546,670.45	\$ -	\$ -	\$ 546,670.45
18	60	12,430	\$ 642.90	\$ 472.96	\$ 1,115.86	\$ -	\$ -	\$ 1,115.86
19	750	542,830	\$ 8,036.25	\$ 20,654.68	\$ 28,690.93	\$ 203.59	\$ -	\$ 28,894.52
20	120	61,600	\$ 1,285.80	\$ 2,343.88	\$ 3,629.68	\$ -	\$ -	\$ 3,629.68
21	36,634	25,161,730	\$ 392,533.31	\$ 957,403.83	\$ 1,349,937.14	\$ -	\$ -	\$ 1,349,937.14
22	4,627	2,173,200	\$ 49,578.31	\$ 82,690.26	\$ 132,268.57	\$ 4,178.85	\$ -	\$ 136,447.42
23	3,848	1,757,090	\$ 41,231.32	\$ 66,857.27	\$ 108,088.59	\$ -	\$ -	\$ 108,088.59
24	189	83,860	\$ 2,025.14	\$ 3,190.87	\$ 5,216.01	\$ -	\$ -	\$ 5,216.01
25	625	327,590	\$ 6,696.88	\$ 12,464.80	\$ 19,161.68	\$ -	\$ -	\$ 19,161.68
26	7,326	4,458,720	\$ 78,498.09	\$ 169,654.30	\$ 248,152.39	\$ -	\$ -	\$ 248,152.39
27	10,543	5,611,060	\$ 112,968.25	\$ 213,500.83	\$ 326,469.08	\$ -	\$ -	\$ 326,469.08
28	2,409	1,287,590	\$ 25,812.44	\$ 48,992.80	\$ 74,805.24	\$ 2,871.62	\$ -	\$ 77,676.86
29								
30 SUBTOTAL INDUSTRIALS	136,178	77,508,723	\$ 1,459,147.31	\$ 2,949,206.91	\$ 4,408,354.22	\$ 7,779.10	\$ 14,069.83	\$ 4,430,203.15
31								
32	1,804	292,870	\$ 19,329.86	\$ 11,143.70	\$ 30,473.56	\$ -	\$ -	\$ 30,473.56
33								
34 TOTAL INDUSTRIALS	137,982	77,801,593	\$ 1,478,477.17	\$ 2,960,350.61	\$ 4,438,827.78	\$ 7,779.10	\$ 14,069.83	\$ 4,460,676.71
35								
36								
37 GRAND TOTAL	625,124	320,466,470	\$ 8,203,472.49	\$ 13,880,270.08	\$ 22,083,742.57	\$ 7,779.10	\$ 14,069.83	\$ 22,105,591.50

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
January 2016**

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP \$ AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFPPA MILLS/ KWH
1 JANUARY 2016								
2								
3 JP RURALS	\$ 5.00	\$ 4,733,353.86	\$ 122,503.87	1.85	\$ 313,020.82	4.73	\$ 66,814.27	1.01
4 KENERGY RURALS	\$ -	\$ 8,853,803.56	\$ 225,960.27	1.85	\$ 576,129.63	4.72	\$ 123,239.95	1.01
5 MEADE CO. RURALS	\$ -	\$ 4,057,762.37	\$ 100,465.88	1.85	\$ 261,390.79	4.81	\$ 54,794.63	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 17,644,919.79	\$ 448,930.02	1.85	\$ 1,150,541.24	4.74	\$ 244,848.85	1.01
8								
9		\$ 133,039.01	\$ 3,947.96	1.85	\$ 9,808.03	4.60	\$ 2,153.24	1.01
10		\$ 2,916.95	\$ 79.83	1.85	\$ 177.30	4.11	\$ 43.54	1.01
11		\$ 894,889.91	\$ 29,254.05	1.85	\$ 66,267.82	4.19	\$ 15,955.32	1.01
12		\$ 47,271.51	\$ 1,264.23	1.85	\$ 3,469.90	5.08	\$ 689.52	1.01
13		\$ 326,179.43	\$ 9,186.71	1.85	\$ 23,189.30	4.67	\$ 5,010.48	1.01
14		\$ 82,104.46	\$ 2,173.84	1.85	\$ 5,872.67	5.00	\$ 1,185.63	1.01
15		\$ 22,707.48	\$ 558.15	1.85	\$ 1,625.31	5.39	\$ 304.42	1.01
16		\$ 69,634.72	\$ 1,427.87	1.85	\$ 5,064.11	6.56	\$ 778.77	1.01
17		\$ 546,670.45	\$ 18,764.76	1.85	\$ 40,579.09	4.00	\$ 10,234.40	1.01
18		\$ 1,115.86	\$ 23.00	1.85	\$ 81.16	6.53	\$ 12.54	1.01
19		\$ 28,894.52	\$ 1,004.24	1.85	\$ 2,131.83	3.93	\$ 547.72	1.01
20		\$ 3,629.68	\$ 113.96	1.85	\$ 268.27	4.36	\$ 62.15	1.01
21		\$ 1,349,937.14	\$ 46,549.20	1.85	\$ 100,228.28	3.98	\$ 25,388.19	1.01
22		\$ 136,447.42	\$ 4,020.42	1.85	\$ 9,761.61	4.49	\$ 2,192.76	1.01
23		\$ 108,088.59	\$ 3,250.62	1.85	\$ 7,973.30	4.54	\$ 1,772.90	1.01
24		\$ 5,216.01	\$ 155.14	1.85	\$ 884.58	4.59	\$ 84.61	1.01
25		\$ 19,161.68	\$ 606.04	1.85	\$ 1,416.73	4.32	\$ 330.54	1.01
26		\$ 248,152.39	\$ 8,248.63	1.85	\$ 18,390.89	4.12	\$ 4,498.85	1.01
27		\$ 326,469.08	\$ 10,380.46	1.85	\$ 24,143.69	4.30	\$ 5,661.56	1.01
28		\$ 77,676.86	\$ 2,382.04	1.85	\$ 5,532.53	4.30	\$ 1,299.18	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,430,203.15	\$ 143,391.15	1.85	\$ 326,366.40	4.21	\$ 78,206.32	1.01
31								
32		\$ 30,473.56	\$ 541.81	1.85	\$ 2,207.11	7.54	\$ 295.51	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,460,676.71	\$ 143,932.96	1.85	\$ 328,573.51	4.22	\$ 78,501.83	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 22,105,596.50	\$ 592,862.98	1.85	\$ 1,479,114.75	4.62	\$ 323,350.68	1.01

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
January 2016**

	REVENUE \$	REVENUE MILLS/ KWH	MRS M \$	MRS M MILLS/ KWH	CN 2013-00199 MRS M TO OFF- SET BASE RATE INCREASE	MRS M - BASE RATE CREDIT MILLS/ KWH	REVENUE \$ NET OF MRS M \$ AND BASE RATE CREDIT \$	REV NET OF MRS M AND BASE RATE CREDIT MILLS/KWH
1 JANUARY 2016								
2								
3 JP RURALS	\$ 5,235,692.82	79.07	\$ (373,066.85)	(5.63)	\$ (482,040.58)	(7.28)	\$ 4,380,585.39	66.15
4 KENERGY RURALS	\$ 9,779,133.41	80.06	\$ (752,828.56)	(6.16)	\$ (1,029,820.74)	(8.43)	\$ 7,996,484.11	65.47
5 MEADE CO. RURALS	\$ 4,474,413.67	82.39	\$ (358,857.26)	(6.61)	\$ (504,838.75)	(9.30)	\$ 3,610,717.66	66.49
6								
7 TOTAL RURALS	\$ 19,489,239.90	80.31	\$ (1,484,752.67)	(6.12)	\$ (2,016,700.07)	(8.31)	\$ 15,987,787.16	65.88
8								
9	\$ 148,948.24	69.80	\$ (4,181.36)	(1.96)	\$ -	0.00	\$ 144,766.88	67.84
10	\$ 3,217.62	74.57	\$ (79.16)	(1.83)	\$ -	0.00	\$ 3,138.46	72.73
11	\$ 1,006,367.10	63.64	\$ (29,343.76)	(1.86)	\$ -	0.00	\$ 977,023.34	61.79
12	\$ 52,695.16	77.11	\$ (1,423.18)	(2.08)	\$ -	0.00	\$ 51,271.98	75.03
13	\$ 363,565.92	73.21	\$ (9,823.59)	(1.98)	\$ -	0.00	\$ 353,742.33	71.24
14	\$ 91,336.60	77.73	\$ (2,423.15)	(2.06)	\$ -	0.00	\$ 88,913.45	75.67
15	\$ 25,195.36	83.51	\$ (652.21)	(2.16)	\$ -	0.00	\$ 24,543.15	81.35
16	\$ 76,905.47	99.64	\$ (1,900.36)	(2.46)	\$ -	0.00	\$ 75,005.11	97.18
17	\$ 616,248.70	60.76	\$ (18,329.05)	(1.81)	\$ -	0.00	\$ 597,919.65	58.95
18	\$ 1,232.56	99.16	\$ (30.50)	(2.45)	\$ -	0.00	\$ 1,202.06	96.71
19	\$ 32,578.31	60.02	\$ (970.72)	(1.79)	\$ -	0.00	\$ 31,607.59	58.23
20	\$ 4,074.06	66.14	\$ (116.89)	(1.90)	\$ -	0.00	\$ 3,957.17	64.24
21	\$ 1,522,102.81	60.49	\$ (45,357.05)	(1.80)	\$ -	0.00	\$ 1,476,745.76	58.69
22	\$ 152,422.21	70.14	\$ (4,200.17)	(1.93)	\$ -	0.00	\$ 148,222.04	68.20
23	\$ 121,085.41	68.91	\$ (3,416.61)	(1.94)	\$ -	0.00	\$ 117,668.80	66.97
24	\$ 5,840.34	69.64	\$ (164.08)	(1.96)	\$ -	0.00	\$ 5,676.26	67.69
25	\$ 21,514.99	65.68	\$ (619.12)	(1.89)	\$ -	0.00	\$ 20,895.87	63.79
26	\$ 279,290.76	62.64	\$ (8,198.62)	(1.84)	\$ -	0.00	\$ 271,092.14	60.80
27	\$ 366,654.79	65.35	\$ (10,573.31)	(1.88)	\$ -	0.00	\$ 356,081.48	63.46
28	\$ 86,890.61	67.48	\$ (2,424.30)	(1.88)	\$ -	0.00	\$ 84,466.31	65.60
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,978,167.02	64.23	\$ (144,227.19)	(1.86)	\$ -	0.00	\$ 4,833,939.83	62.37
31								
32	\$ 33,517.99	114.45	\$ (794.15)	(2.71)	\$ -	0.00	\$ 32,723.84	111.74
33								
34 TOTAL INDUSTRIALS	\$ 5,011,685.01	64.42	\$ (145,021.34)	(1.86)	\$ -	0.00	\$ 4,866,663.67	62.55
35								
36								
37 GRAND TOTAL	\$ 24,500,924.91	76.45	\$ (1,629,774.01)	(5.09)	\$ (2,016,700.07)	(6.29)	\$ 20,854,450.83	65.08

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Sales to Members
 February 2016**

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 FEBRUARY 2016								
2								
3 JP RURALS	120,937	55,979,560	\$ 1,669,535.29	\$ 2,519,080.20	\$ 4,188,615.49			\$ 4,188,615.49
4 KENERGY RURALS	230,988	102,450,059	\$ 3,188,789.34	\$ 4,610,252.66	\$ 7,799,042.00			\$ 7,799,042.00
5 MEADE CO. RURALS	100,537	44,153,770	\$ 1,387,913.29	\$ 1,986,919.65	\$ 3,374,832.94			\$ 3,374,832.94
6								
7 TOTAL RURALS	452,462	202,583,389	\$ 6,246,237.92	\$ 9,116,252.51	\$ 15,362,490.43	\$ -	\$ -	\$ 15,362,490.43
8								
9	4,944	2,089,260	\$ 52,974.96	\$ 79,496.34	\$ 132,471.30			\$ 132,471.30
10	70	39,470	\$ 750.05	\$ 1,501.83	\$ 2,251.88	\$ 396.46	\$ -	\$ 2,648.34
11	27,359	14,640,560	\$ 293,151.69	\$ 557,073.31	\$ 850,225.00	\$ -	\$ -	\$ 850,225.00
12	1,737	619,820	\$ 18,611.96	\$ 23,584.15	\$ 42,196.11	\$ 1,564.39	\$ -	\$ 43,760.50
13	11,460	4,818,910	\$ 122,793.90	\$ 183,359.53	\$ 306,153.43	\$ -	\$ 10,061.03	\$ 316,214.46
14	3,156	1,256,160	\$ 33,816.54	\$ 47,796.89	\$ 81,613.43	\$ -	\$ 3,935.32	\$ 85,548.75
15	1,000	327,410	\$ 10,715.00	\$ 12,467.95	\$ 23,172.95	\$ -	\$ 540.08	\$ 23,713.03
16	3,629	803,150	\$ 38,884.74	\$ 30,559.86	\$ 69,444.60	\$ -	\$ -	\$ 69,444.60
17	15,000	9,929,947	\$ 160,725.00	\$ 377,834.48	\$ 538,559.48	\$ -	\$ -	\$ 538,559.48
18	60	11,420	\$ 642.90	\$ 434.53	\$ 1,077.43	\$ -	\$ -	\$ 1,077.43
19	750	508,580	\$ 8,036.25	\$ 19,351.47	\$ 27,387.72	\$ 300.02	\$ -	\$ 27,687.74
20	120	50,200	\$ 1,285.80	\$ 1,910.11	\$ 3,195.91	\$ -	\$ -	\$ 3,195.91
21	36,504	24,246,230	\$ 391,140.36	\$ 922,569.05	\$ 1,313,709.41	\$ -	\$ -	\$ 1,313,709.41
22	4,656	2,077,550	\$ 49,889.04	\$ 79,050.78	\$ 128,939.82	\$ 5,539.66	\$ -	\$ 134,479.48
23	3,667	1,630,450	\$ 39,291.91	\$ 62,038.62	\$ 101,330.53	\$ 439.32	\$ -	\$ 101,769.85
24	142	67,060	\$ 1,521.53	\$ 2,551.63	\$ 4,073.16	\$ -	\$ -	\$ 4,073.16
25	603	268,390	\$ 6,461.15	\$ 10,212.24	\$ 16,673.39	\$ -	\$ -	\$ 16,673.39
26	7,190	4,254,300	\$ 77,040.85	\$ 161,876.12	\$ 238,916.97	\$ -	\$ -	\$ 238,916.97
27	10,627	6,011,780	\$ 118,868.31	\$ 228,748.23	\$ 342,616.54	\$ -	\$ -	\$ 342,616.54
28	2,065	1,173,730	\$ 22,126.48	\$ 44,660.43	\$ 66,786.91	\$ 3,085.92	\$ -	\$ 69,872.83
29								
30 SUBTOTAL INDUSTRIALS	134,739	74,824,377	\$ 1,443,728.42	\$ 2,847,067.55	\$ 4,290,795.97	\$ 11,325.77	\$ 14,536.43	\$ 4,316,658.17
31								
32	1,825	370,620	\$ 19,554.88	\$ 14,102.09	\$ 33,656.97	\$ -	\$ -	\$ 33,656.97
33								
34 TOTAL INDUSTRIALS	136,564	75,194,997	\$ 1,463,283.30	\$ 2,861,169.64	\$ 4,324,452.94	\$ 11,325.77	\$ 14,536.43	\$ 4,350,315.14
35								
36								
37 GRAND TOTAL	589,026	277,778,386	\$ 7,709,521.22	\$ 11,977,422.15	\$ 19,686,948.37	\$ 11,325.77	\$ 14,536.43	\$ 19,712,805.57

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Sales to Members
 February 2016**

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP \$ AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFPPA MILLS/ KWH
1 FEBRUARY 2016								
2								
3 JP RURALS	\$ 5.00	\$ 4,188,620.49	\$ 58,778.54	1.05	\$ 253,821.12	4.53	\$ 56,483.38	1.01
4 KENERGY RURALS	\$ -	\$ 7,799,042.00	\$ 107,572.56	1.05	\$ 467,310.47	4.56	\$ 103,372.11	1.01
5 MEADE CO. RURALS	\$ -	\$ 3,374,832.94	\$ 46,361.46	1.05	\$ 199,292.59	4.51	\$ 44,551.15	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 15,362,495.43	\$ 212,712.56	1.05	\$ 920,424.18	4.54	\$ 204,406.64	1.01
8								
9		\$ 132,471.30	\$ 2,193.72	1.05	\$ 9,026.95	4.32	\$ 2,108.06	1.01
10		\$ 2,648.34	\$ 41.44	1.05	\$ 153.99	3.90	\$ 39.83	1.01
11		\$ 850,225.00	\$ 15,372.59	1.05	\$ 58,103.97	3.97	\$ 14,772.33	1.01
12		\$ 43,760.50	\$ 650.81	1.05	\$ 2,869.15	4.63	\$ 625.40	1.01
13		\$ 316,214.46	\$ 5,059.86	1.05	\$ 20,860.83	4.33	\$ 4,862.28	1.01
14		\$ 85,548.75	\$ 1,318.97	1.05	\$ 5,557.15	4.42	\$ 1,267.47	1.01
16		\$ 23,713.03	\$ 343.78	1.05	\$ 1,573.90	4.81	\$ 330.36	1.01
16		\$ 69,444.60	\$ 843.31	1.05	\$ 4,692.45	5.84	\$ 810.38	1.01
17		\$ 538,559.48	\$ 10,426.44	1.05	\$ 36,894.06	3.72	\$ 10,019.32	1.01
18		\$ 1,077.43	\$ 11.99	1.05	\$ 72.66	6.36	\$ 11.52	1.01
19		\$ 27,687.74	\$ 534.01	1.05	\$ 1,876.69	3.69	\$ 513.16	1.01
20		\$ 3,195.91	\$ 52.71	1.05	\$ 217.75	4.34	\$ 50.65	1.01
21		\$ 1,313,709.41	\$ 25,458.54	1.05	\$ 89,999.04	3.71	\$ 24,464.45	1.01
22		\$ 134,479.48	\$ 2,181.43	1.05	\$ 8,792.29	4.23	\$ 2,096.25	1.01
23		\$ 101,769.85	\$ 1,711.97	1.05	\$ 6,909.33	4.24	\$ 1,645.12	1.01
24		\$ 4,073.16	\$ 70.41	1.05	\$ 277.94	4.14	\$ 67.66	1.01
25		\$ 16,673.39	\$ 281.81	1.05	\$ 1,136.91	4.24	\$ 270.81	1.01
26		\$ 238,916.97	\$ 4,467.02	1.05	\$ 16,346.53	3.84	\$ 4,292.59	1.01
27		\$ 342,616.54	\$ 6,312.37	1.05	\$ 23,429.48	3.90	\$ 6,065.89	1.01
28		\$ 69,872.83	\$ 1,232.42	1.05	\$ 4,567.40	3.89	\$ 1,184.29	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,316,658.17	\$ 78,565.60	1.05	\$ 293,358.47	3.92	\$ 75,497.82	1.01
31								
32		\$ 33,656.97	\$ 389.15	1.05	\$ 2,271.71	6.13	\$ 373.96	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,350,315.14	\$ 78,954.75	1.05	\$ 295,630.18	3.93	\$ 75,871.78	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 19,712,810.57	\$ 291,667.31	1.05	\$ 1,216,054.36	4.38	\$ 280,278.42	1.01

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
February 2016**

	REVENUE \$	REVENUE MILLS/ KWH	MRSM \$	MRSM MILLS/ KWH	CN 2013-00199 MRSM TO OFF- SET BASE RATE INCREASE	MRSM - BASE RATE CREDIT MILLS/ KWH	REVENUE \$ NET OF MRSM \$ AND BASE RATE CREDIT \$	REV NET OF MRSM AND BASE RATE CREDIT MILLS/KWH
1 FEBRUARY 2016								
2								
3 JP RURALS	\$ 4,557,703.53	81.42	\$ (308,696.57)	(5.51)	\$ (458,073.13)	(8.18)	\$ 3,790,933.83	67.72
4 KENERGY RURALS	\$ 8,477,297.14	82.75	\$ (588,854.68)	(6.75)	\$ (929,470.36)	(9.07)	\$ 6,958,972.10	67.93
5 MEADE CO. RURALS	\$ 3,665,038.14	83.01	\$ (279,459.98)	(6.33)	\$ (446,137.58)	(10.10)	\$ 2,939,440.63	66.57
6								
7 TOTAL RURALS	\$ 16,700,038.81	82.44	\$ (1,177,011.18)	(5.81)	\$ (1,833,681.07)	(9.05)	\$ 13,689,346.56	67.57
8								
9	\$ 145,800.03	69.79	\$ (2,115.41)	(1.01)	\$ -	0.00	\$ 143,684.62	68.77
10	\$ 2,883.60	73.06	\$ (37.68)	(0.95)	\$ -	0.00	\$ 2,845.92	72.10
11	\$ 938,473.89	64.10	\$ (14,117.00)	(0.96)	\$ -	0.00	\$ 924,356.89	63.14
12	\$ 47,905.86	77.29	\$ (663.59)	(1.07)	\$ -	0.00	\$ 47,242.27	76.22
13	\$ 346,997.43	72.01	\$ (4,894.32)	(1.02)	\$ -	0.00	\$ 342,103.11	70.99
14	\$ 93,692.34	74.59	\$ (1,284.91)	(1.02)	\$ -	0.00	\$ 92,407.43	73.56
15	\$ 25,961.07	79.29	\$ (353.26)	(1.08)	\$ -	0.00	\$ 25,607.81	78.21
16	\$ 75,790.74	94.37	\$ (997.03)	(1.24)	\$ -	0.00	\$ 74,793.71	93.13
17	\$ 595,899.30	60.01	\$ (9,144.97)	(0.92)	\$ -	0.00	\$ 586,754.33	59.09
18	\$ 1,173.60	102.77	\$ (15.17)	(1.33)	\$ -	0.00	\$ 1,158.43	101.44
19	\$ 30,611.60	60.19	\$ (468.29)	(0.92)	\$ -	0.00	\$ 30,143.31	59.27
20	\$ 3,517.02	70.06	\$ (51.81)	(1.03)	\$ -	0.00	\$ 3,465.21	69.03
21	\$ 1,453,631.44	59.95	\$ (22,349.70)	(0.92)	\$ -	0.00	\$ 1,431,281.74	59.03
22	\$ 147,549.45	71.02	\$ (2,080.48)	(1.00)	\$ -	0.00	\$ 145,468.97	70.02
23	\$ 112,036.27	68.71	\$ (1,640.43)	(1.01)	\$ -	0.00	\$ 110,395.84	67.71
24	\$ 4,489.17	66.94	\$ (67.86)	(1.01)	\$ -	0.00	\$ 4,421.31	65.93
25	\$ 18,362.92	68.42	\$ (272.97)	(1.02)	\$ -	0.00	\$ 18,089.95	67.40
26	\$ 264,023.11	62.06	\$ (4,010.71)	(0.94)	\$ -	0.00	\$ 260,012.40	61.12
27	\$ 378,424.28	62.95	\$ (5,659.15)	(0.94)	\$ -	0.00	\$ 372,765.13	62.01
28	\$ 76,856.94	65.48	\$ (1,123.06)	(0.96)	\$ -	0.00	\$ 75,733.88	64.52
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,764,080.06	63.67	\$ (71,347.80)	(0.95)	\$ -	0.00	\$ 4,692,732.26	62.72
31								
32	\$ 36,691.79	99.00	\$ (470.31)	(1.27)	\$ -	0.00	\$ 36,221.48	97.73
33								
34 TOTAL INDUSTRIALS	\$ 4,800,771.85	63.84	\$ (71,818.11)	(0.96)	\$ -	0.00	\$ 4,728,953.74	62.89
35								
36								
37 GRAND TOTAL	\$ 21,500,810.66	77.40	\$ (1,248,829.29)	(4.50)	\$ (1,833,681.07)	(6.60)	\$ 18,418,300.30	66.31

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
March 2016**

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 MARCH 2016								
2								
3 JP RURALS	91,172	46,404,588	\$ 1,258,629.46	\$ 2,088,206.46	\$ 3,346,835.92			\$ 3,346,835.92
4 KENERGY RURALS	181,270	83,498,563	\$ 2,502,432.35	\$ 3,757,435.34	\$ 6,259,867.69			\$ 6,259,867.69
5 MEADE CO. RURALS	76,204	34,097,700	\$ 1,051,996.22	\$ 1,534,396.50	\$ 2,586,392.72			\$ 2,586,392.72
6								
7 TOTAL RURALS	348,646	164,000,851	\$ 4,813,058.03	\$ 7,380,038.30	\$ 12,193,096.33	\$ -	\$ -	\$ 12,193,096.33
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30 SUBTOTAL INDUSTRIALS	134,274	78,321,372	\$ 1,438,745.94	\$ 2,980,128.21	\$ 4,418,874.15	\$ 9,107.77	\$ 17,851.07	\$ 4,445,832.99
31								
32								
33								
34 TOTAL INDUSTRIALS	136,078	78,662,992	\$ 1,458,075.80	\$ 2,993,126.85	\$ 4,451,202.65	\$ 9,107.77	\$ 17,851.07	\$ 4,478,161.49
35								
36								
37 GRAND TOTAL	484,724	242,663,843	\$ 6,271,133.83	\$ 10,373,165.15	\$ 16,644,298.98	\$ 9,107.77	\$ 17,851.07	\$ 16,671,257.82

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
March 2016**

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP \$ AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFPPA MILLS/ KWH
1 MARCH 2016								
2								
3 JP RURALS	\$ 5.00	\$ 3,346,840.92	\$ 24,733.65	0.53	\$ 178,511.73	3.74	\$ 46,822.23	1.01
4 KENERGY RURALS	\$ -	\$ 6,259,867.69	\$ 44,504.73	0.53	\$ 322,169.29	3.86	\$ 84,250.05	1.01
5 MEADE CO. RURALS	\$ -	\$ 2,586,392.72	\$ 18,174.07	0.53	\$ 131,376.82	3.85	\$ 34,404.58	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 12,193,101.33	\$ 87,412.45	0.53	\$ 627,057.84	3.82	\$ 165,476.86	1.01
8								
9		\$ 147,899.10	\$ 1,280.91	0.53	\$ 8,645.84	3.60	\$ 2,424.83	1.01
10		\$ 2,809.13	\$ 20.89	0.53	\$ 126.98	3.24	\$ 39.54	1.01
11		\$ 865,738.88	\$ 8,128.05	0.53	\$ 50,713.04	3.33	\$ 15,386.88	1.01
12		\$ 45,740.97	\$ 360.06	0.53	\$ 2,630.07	3.89	\$ 681.61	1.01
13		\$ 311,872.44	\$ 2,519.53	0.53	\$ 17,290.98	3.66	\$ 4,769.61	1.01
14		\$ 84,229.65	\$ 690.10	0.53	\$ 4,829.30	3.73	\$ 1,306.40	1.01
15		\$ 22,486.47	\$ 160.09	0.53	\$ 1,289.24	4.29	\$ 303.06	1.01
16		\$ 66,795.01	\$ 377.31	0.53	\$ 3,871.49	5.47	\$ 714.26	1.01
17		\$ 579,104.57	\$ 5,860.61	0.53	\$ 33,992.54	3.09	\$ 11,094.48	1.01
18		\$ 1,059.17	\$ 5.83	0.53	\$ 61.37	5.61	\$ 11.04	1.01
19		\$ 29,193.05	\$ 291.11	0.53	\$ 1,691.49	3.10	\$ 551.09	1.01
20		\$ 2,396.14	\$ 17.35	0.53	\$ 138.90	4.27	\$ 32.85	1.01
21		\$ 1,372,134.14	\$ 13,676.81	0.53	\$ 80,507.61	3.14	\$ 25,890.99	1.01
22		\$ 130,210.19	\$ 1,083.40	0.53	\$ 7,336.22	3.61	\$ 2,050.94	1.01
23		\$ 104,316.88	\$ 918.82	0.53	\$ 6,100.66	3.54	\$ 1,739.37	1.01
24		\$ 4,196.83	\$ 37.48	0.53	\$ 245.52	3.49	\$ 70.94	1.01
25		\$ 11,723.65	\$ 89.18	0.53	\$ 683.30	4.08	\$ 168.82	1.01
26		\$ 247,531.99	\$ 2,380.42	0.53	\$ 14,509.18	3.25	\$ 4,506.26	1.01
27		\$ 348,888.68	\$ 3,243.51	0.53	\$ 20,431.83	3.36	\$ 6,140.15	1.01
28		\$ 67,506.05	\$ 603.85	0.53	\$ 3,794.82	3.35	\$ 1,143.13	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,445,832.99	\$ 41,745.31	0.53	\$ 258,890.38	3.31	\$ 79,026.25	1.01
31								
32		\$ 32,328.50	\$ 182.08	0.53	\$ 1,873.70	5.48	\$ 344.69	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,478,161.49	\$ 41,927.39	0.53	\$ 260,764.08	3.31	\$ 79,370.94	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 16,671,262.82	\$ 129,339.84	0.53	\$ 887,821.92	3.66	\$ 244,847.80	1.01

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
March 2016**

	REVENUE \$	REVENUE MILLS/ KWH	MRSM \$	MRSM MILLS/ KWH	CN 2013-00199 MRSM TO OFF- SET BASE RATE INCREASE	MRSM - BASE RATE CREDIT MILLS/ KWH	REVENUE \$ NET OF MRSM \$ AND BASE RATE CREDIT \$	REV NET OF MRSM AND BASE RATE CREDIT MILLS/KWH
1 MARCH 2016								
2								
3 JP RURALS	\$ 3,591,908.53	77.40	\$ (196,265.62)	(4.23)	\$ (375,861.59)	(8.10)	\$ 3,019,781.32	65.08
4 KENERGY RURALS	\$ 6,710,791.76	80.37	\$ (369,735.36)	(4.43)	\$ (739,380.00)	(8.86)	\$ 5,601,676.40	67.09
5 MEADE CO. RURALS	\$ 2,770,348.19	81.25	\$ (160,232.25)	(4.70)	\$ (335,277.30)	(9.83)	\$ 2,274,838.64	66.72
6								
7 TOTAL RURALS	\$ 13,073,048.48	79.71	\$ (726,233.23)	(4.43)	\$ (1,450,518.89)	(8.84)	\$ 10,896,296.36	66.44
8								
9	\$ 160,250.68	66.68	\$ (1,944.86)	(0.81)	\$ -	0.00	\$ 158,305.82	65.87
10	\$ 2,996.54	76.46	\$ (29.59)	(0.76)	\$ -	0.00	\$ 2,966.95	75.71
11	\$ 939,966.85	61.64	\$ (11,712.58)	(0.77)	\$ -	0.00	\$ 928,254.27	60.87
12	\$ 49,412.71	73.15	\$ (576.94)	(0.85)	\$ -	0.00	\$ 48,835.77	72.29
13	\$ 336,452.56	71.18	\$ (3,863.63)	(0.82)	\$ -	0.00	\$ 332,588.93	70.36
14	\$ 91,055.45	70.33	\$ (1,073.75)	(0.83)	\$ -	0.00	\$ 89,981.70	69.50
15	\$ 24,238.86	80.70	\$ (274.68)	(0.91)	\$ -	0.00	\$ 23,964.18	79.78
16	\$ 71,758.07	101.37	\$ (773.54)	(1.09)	\$ -	0.00	\$ 70,984.53	100.28
17	\$ 630,052.20	57.30	\$ (8,055.40)	(0.73)	\$ -	0.00	\$ 621,996.80	56.57
18	\$ 1,137.41	103.97	\$ (12.18)	(1.11)	\$ -	0.00	\$ 1,125.23	102.85
19	\$ 31,726.74	58.09	\$ (400.58)	(0.73)	\$ -	0.00	\$ 31,326.16	57.36
20	\$ 2,585.24	79.40	\$ (29.64)	(0.91)	\$ -	0.00	\$ 2,555.60	78.49
21	\$ 1,492,209.55	58.15	\$ (18,977.43)	(0.74)	\$ -	0.00	\$ 1,473,232.12	57.41
22	\$ 140,680.75	69.21	\$ (1,648.54)	(0.81)	\$ -	0.00	\$ 139,032.21	68.40
23	\$ 113,075.73	65.59	\$ (1,379.75)	(0.80)	\$ -	0.00	\$ 111,695.98	64.79
24	\$ 4,550.77	64.72	\$ (55.77)	(0.79)	\$ -	0.00	\$ 4,495.00	63.93
25	\$ 12,664.95	75.70	\$ (147.72)	(0.88)	\$ -	0.00	\$ 12,517.23	74.81
26	\$ 268,927.85	60.22	\$ (3,378.26)	(0.76)	\$ -	0.00	\$ 265,549.59	59.46
27	\$ 378,704.17	62.23	\$ (4,703.42)	(0.77)	\$ -	0.00	\$ 374,000.75	61.46
28	\$ 73,047.85	64.48	\$ (874.28)	(0.77)	\$ -	0.00	\$ 72,173.57	63.71
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,825,494.93	61.61	\$ (59,917.54)	(0.77)	\$ -	0.00	\$ 4,765,577.39	60.85
31								
32	\$ 34,728.97	101.66	\$ (374.11)	(1.10)	\$ -	0.00	\$ 34,354.86	100.56
33								
34 TOTAL INDUSTRIALS	\$ 4,860,223.90	61.79	\$ (60,291.65)	(0.77)	\$ -	0.00	\$ 4,799,932.25	61.02
35								
36								
37 GRAND TOTAL	\$ 17,933,272.38	73.90	\$ (786,524.88)	(3.24)	\$ (1,450,518.89)	(5.98)	\$ 15,696,228.61	64.68

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
April 2016**

			DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ ENERGY \$ AND PFP \$
1	APRIL 2016							
2								
3	JP RURALS	90,970	\$ 1,255,840.85	\$ 1,872,256.95	\$ 3,128,097.80			\$ 3,128,097.80
4	KENERGY RURALS	155,258	\$ 2,143,336.69	\$ 3,422,559.15	\$ 5,565,895.84			\$ 5,565,895.84
5	MEADE CO. RURALS	57,164	\$ 789,149.02	\$ 1,355,233.68	\$ 2,144,382.70			\$ 2,144,382.70
6								
7	TOTAL RURALS	303,392	\$ 4,188,326.56	\$ 6,650,049.78	\$ 10,838,376.34	\$ -	\$ -	\$ 10,838,376.34
8								
9		5,224	\$ 55,975.16	\$ 85,989.96	\$ 141,965.12			\$ 141,965.12
10		63	\$ 675.05	\$ 1,287.99	\$ 1,963.04	\$ 385.74	\$ -	\$ 2,348.78
11		27,494	\$ 294,598.21	\$ 568,325.83	\$ 862,924.04	\$ -	\$ -	\$ 862,924.04
12		1,871	\$ 20,047.77	\$ 22,002.79	\$ 42,050.56	\$ -	\$ -	\$ 42,050.56
13		10,193	\$ 109,218.00	\$ 125,991.16	\$ 235,209.16	\$ -	\$ 12,703.06	\$ 247,912.22
14		2,760	\$ 29,573.40	\$ 26,686.75	\$ 56,260.15	\$ -	\$ 2,402.24	\$ 58,662.39
15		1,000	\$ 10,715.00	\$ 8,579.13	\$ 19,294.13	\$ -	\$ 685.74	\$ 19,979.87
16		3,802	\$ 40,738.43	\$ 20,010.88	\$ 60,749.31	\$ -	\$ -	\$ 60,749.31
17		15,000	\$ 160,725.00	\$ 407,355.73	\$ 568,080.73	\$ -	\$ -	\$ 568,080.73
18		60	\$ 642.90	\$ 393.82	\$ 1,036.72	\$ -	\$ -	\$ 1,036.72
19		750	\$ 8,036.25	\$ 20,079.75	\$ 28,116.00	\$ 375.03	\$ -	\$ 28,491.03
20		100	\$ 1,071.50	\$ 958.02	\$ 2,029.52	\$ -	\$ -	\$ 2,029.52
21		36,850	\$ 394,847.75	\$ 975,996.96	\$ 1,370,844.71	\$ -	\$ -	\$ 1,370,844.71
22		4,445	\$ 47,628.18	\$ 70,271.88	\$ 117,900.06	\$ 5,293.21	\$ -	\$ 123,193.27
23		3,629	\$ 38,884.74	\$ 64,223.83	\$ 103,108.57	\$ -	\$ -	\$ 103,108.57
24		120	\$ 1,285.80	\$ 1,924.95	\$ 3,210.75	\$ -	\$ -	\$ 3,210.75
25		500	\$ 5,357.50	\$ 4,512.35	\$ 9,869.85	\$ -	\$ -	\$ 9,869.85
26		7,220	\$ 77,362.30	\$ 167,036.46	\$ 244,398.76	\$ -	\$ -	\$ 244,398.76
27		11,262	\$ 120,672.33	\$ 227,551.94	\$ 348,224.27	\$ -	\$ -	\$ 348,224.27
28		1,955	\$ 20,947.83	\$ 42,061.23	\$ 63,009.06	\$ 2,614.46	\$ -	\$ 65,623.52
29								
30	SUBTOTAL INDUSTRIALS	134,298	\$ 1,439,003.10	\$ 2,841,241.41	\$ 4,280,244.51	\$ 8,668.44	\$ 15,791.04	\$ 4,304,703.99
31								
32		1,814	\$ 19,437.01	\$ 16,724.88	\$ 36,161.89	\$ -	\$ -	\$ 36,161.89
33								
34	TOTAL INDUSTRIALS	136,112	\$ 1,458,440.11	\$ 2,857,966.29	\$ 4,316,406.40	\$ 8,668.44	\$ 15,791.04	\$ 4,340,865.88
35								
36								
37	GRAND TOTAL	439,504	\$ 5,646,766.67	\$ 9,508,016.07	\$ 15,154,782.74	\$ 8,668.44	\$ 15,791.04	\$ 15,179,242.22

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
April 2016**

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP \$ AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFPPA MILLS/ KWH
1 APRIL 2016								
2								
3 JP RURALS	\$ 5.00	\$ 3,128,102.80	\$ 20,095.56	0.48	\$ 205,494.40	4.94	\$ 41,980.16	1.01
4 KENERGY RURALS	\$ -	\$ 5,565,895.84	\$ 36,735.47	0.48	\$ 360,999.50	4.75	\$ 76,741.38	1.01
5 MEADE CO. RURALS	\$ -	\$ 2,144,382.70	\$ 14,546.17	0.48	\$ 137,205.23	4.56	\$ 30,387.35	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 10,838,381.34	\$ 71,377.20	0.48	\$ 703,699.13	4.76	\$ 149,108.89	1.01
8								
9		\$ 141,965.12	\$ 1,091.54	0.48	\$ 10,414.78	4.61	\$ 2,280.26	1.01
10		\$ 2,348.78	\$ 16.35	0.48	\$ 144.29	4.26	\$ 34.15	1.01
11		\$ 862,924.04	\$ 7,214.23	0.48	\$ 63,433.70	4.25	\$ 15,070.72	1.01
12		\$ 42,050.56	\$ 279.30	0.48	\$ 3,075.15	5.32	\$ 583.46	1.01
13		\$ 247,912.22	\$ 1,599.31	0.48	\$ 17,209.01	5.20	\$ 3,341.00	1.01
14		\$ 58,662.39	\$ 338.76	0.48	\$ 4,106.56	5.86	\$ 707.67	1.01
15		\$ 19,979.87	\$ 108.90	0.48	\$ 1,406.72	6.24	\$ 227.50	1.01
16		\$ 60,749.31	\$ 254.01	0.48	\$ 4,409.50	8.38	\$ 530.64	1.01
17		\$ 568,080.73	\$ 5,170.90	0.48	\$ 41,853.04	3.91	\$ 10,802.15	1.01
18		\$ 1,036.72	\$ 5.00	0.48	\$ 75.40	7.29	\$ 10.44	1.01
19		\$ 28,491.03	\$ 254.89	0.48	\$ 2,071.20	3.92	\$ 532.47	1.01
20		\$ 2,029.52	\$ 12.16	0.48	\$ 148.13	5.88	\$ 25.40	1.01
21		\$ 1,370,844.71	\$ 12,389.13	0.48	\$ 100,976.58	3.94	\$ 25,881.23	1.01
22		\$ 123,193.27	\$ 892.02	0.48	\$ 8,646.12	4.63	\$ 1,863.45	1.01
23		\$ 103,108.57	\$ 815.25	0.48	\$ 7,569.18	4.48	\$ 1,703.07	1.01
24		\$ 3,210.75	\$ 24.43	0.48	\$ 235.49	4.65	\$ 51.05	1.01
25		\$ 9,869.85	\$ 57.28	0.48	\$ 719.95	6.07	\$ 119.66	1.01
26		\$ 244,398.76	\$ 2,120.33	0.48	\$ 17,982.86	4.10	\$ 4,429.43	1.01
27		\$ 348,224.27	\$ 2,888.50	0.48	\$ 25,593.00	4.28	\$ 6,034.16	1.01
28		\$ 65,623.52	\$ 533.92	0.48	\$ 4,633.39	4.19	\$ 1,115.37	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,304,703.99	\$ 36,066.21	0.48	\$ 314,704.05	4.21	\$ 75,343.28	1.01
31								
32		\$ 36,161.89	\$ 212.30	0.48	\$ 2,638.34	6.00	\$ 443.51	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,340,865.88	\$ 36,278.51	0.48	\$ 317,342.39	4.22	\$ 75,786.79	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 15,179,247.22	\$ 107,655.71	0.48	\$ 1,021,041.52	4.58	\$ 224,895.68	1.01

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
April 2016**

	REVENUE \$	REVENUE MILLS/ KWH	MRSM \$	MRSM MILLS/ KWH	CN 2013-00199 MRSM TO OFF- SET BASE RATE INCREASE	MRSM - BASE RATE CREDIT MILLS/ KWH	REVENUE \$ NET OF MRSM \$ AND BASE RATE CREDIT \$	REV NET OF MRSM AND BASE RATE CREDIT MILLS/KWH
1 APRIL 2016								
2								
3 JP RURALS	\$ 3,395,672.92	81.62	\$ (197,408.79)	(4.74)	\$ (322,525.86)	(7.75)	\$ 2,875,738.27	69.12
4 KENERGY RURALS	\$ 6,040,372.19	79.42	\$ (377,532.18)	(4.96)	\$ (641,671.53)	(8.44)	\$ 5,021,168.48	66.02
5 MEADE CO. RURALS	\$ 2,326,521.45	77.25	\$ (152,248.76)	(5.06)	\$ (274,635.00)	(9.12)	\$ 1,899,637.69	63.08
6								
7 TOTAL RURALS	\$ 11,762,566.56	79.60	\$ (727,189.73)	(4.92)	\$ (1,238,832.39)	(8.38)	\$ 9,796,544.44	66.29
8								
9	\$ 155,751.70	68.92	\$ (2,157.06)	(0.95)	\$ -	0.00	\$ 153,594.64	67.96
10	\$ 2,543.57	75.14	\$ (30.53)	(0.90)	\$ -	0.00	\$ 2,513.04	74.24
11	\$ 948,642.69	63.51	\$ (13,438.81)	(0.90)	\$ -	0.00	\$ 935,203.88	62.61
12	\$ 45,988.47	79.53	\$ (614.06)	(1.06)	\$ -	0.00	\$ 45,374.41	78.47
13	\$ 270,061.54	81.56	\$ (3,455.68)	(1.04)	\$ -	0.00	\$ 266,605.86	80.52
14	\$ 63,815.38	90.99	\$ (801.83)	(1.14)	\$ -	0.00	\$ 63,013.55	89.84
15	\$ 21,722.99	96.35	\$ (270.87)	(1.20)	\$ -	0.00	\$ 21,452.12	95.14
16	\$ 65,943.46	125.89	\$ (802.67)	(1.53)	\$ -	0.00	\$ 65,140.79	123.86
17	\$ 625,906.82	58.46	\$ (9,085.23)	(0.85)	\$ -	0.00	\$ 616,821.59	57.62
18	\$ 1,127.56	108.94	\$ (14.07)	(1.36)	\$ -	0.00	\$ 1,113.49	107.58
19	\$ 31,349.59	59.41	\$ (449.07)	(0.85)	\$ -	0.00	\$ 30,900.52	58.55
20	\$ 2,215.21	87.98	\$ (28.89)	(1.15)	\$ -	0.00	\$ 2,186.32	86.83
21	\$ 1,510,091.65	58.87	\$ (21,873.51)	(0.85)	\$ -	0.00	\$ 1,488,218.14	58.02
22	\$ 134,594.86	72.88	\$ (1,783.23)	(0.97)	\$ -	0.00	\$ 132,811.63	71.91
23	\$ 113,196.07	67.06	\$ (1,579.36)	(0.94)	\$ -	0.00	\$ 111,616.71	66.13
24	\$ 3,521.72	69.61	\$ (48.64)	(0.96)	\$ -	0.00	\$ 3,473.08	68.65
25	\$ 10,766.74	90.79	\$ (139.45)	(1.18)	\$ -	0.00	\$ 10,627.29	89.61
26	\$ 268,931.38	61.26	\$ (3,849.72)	(0.88)	\$ -	0.00	\$ 265,081.66	60.38
27	\$ 382,739.93	64.00	\$ (5,410.26)	(0.90)	\$ -	0.00	\$ 377,329.67	63.10
28	\$ 71,906.20	65.05	\$ (985.31)	(0.89)	\$ -	0.00	\$ 70,920.89	64.16
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,730,817.53	63.36	\$ (66,818.25)	(0.89)	\$ -	0.00	\$ 4,663,999.28	62.46
31								
32	\$ 39,456.04	89.76	\$ (512.31)	(1.17)	\$ -	0.00	\$ 38,943.73	88.60
33								
34 TOTAL INDUSTRIALS	\$ 4,770,273.57	63.51	\$ (67,330.56)	(0.90)	\$ -	0.00	\$ 4,702,943.01	62.61
35								
36								
37 GRAND TOTAL	\$ 16,582,840.13	74.17	\$ (794,520.29)	(3.56)	\$ (1,238,832.39)	(5.56)	\$ 14,499,487.45	65.05

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Electric Utilities
November 2015**

1	NOVEMBER 2015	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ 2,700.00	
5	KY 65-KENERGY - DOMTAR COGEN	3,525,391	\$ 205,631.69	58.33
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP- CAPACITY SALES		\$ 150,000.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	3,525,391	\$ 358,331.69	101.64
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ 59,917.00	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES		\$ 3,184.20	
16	CARGILL POWER MARKETS			
17	EDF TRADING			
18	EDF TRADING - CAPACITY SALES		\$ 150,000.00	
19	HMPL	5,431,000	\$ 134,109.62	24.69
20	INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 200,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22	MISO	292,998,753	\$ 7,213,479.79	24.62
23	NEXTRA ENERGY POWER MARKETING	136,000,000	\$ 5,028,000.00	36.97
24				
25	TOTAL TO OTHER THAN RUS BORROWERS	434,429,753	\$ 12,938,705.61	29.78
26				
27	TOTAL	437,955,144	\$ 13,297,037.30	30.36

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Electric Utilities
December 2015**

1	DECEMBER 2015	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ 2,790.00	
5	KY 65-KENERGY - DOMTAR COGEN	10,298,299	\$ 35,872.81	3.48
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 150,000.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	10,298,299	\$ 188,662.81	18.32
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ 111,565.00	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES		\$ 13,974.20	
16	CARGILL POWER MARKETS			
17	EDF TRADING			
18	EDF TRADING-CAPACITY SALES		\$ 150,000.00	
19	HMPL	9,189,000	\$ 207,265.02	22.56
20	INDIANA MUNICIPAL POWER AGENCY-CAPACITY SALES		\$ 200,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22	MISO	286,359,244	\$ 6,553,705.26	22.89
23	NEXTRA ENERGY POWER MARKETING	144,800,000	\$ 5,403,600.00	37.32
24				
25	TOTAL TO OTHER THAN RUS BORROWERS	440,348,244	\$ 12,790,124.48	29.05
26				
27	TOTAL	450,646,543	\$ 12,978,787.29	28.80

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Electric Utilities
January 2016**

1	JANUARY 2016	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ 2,790.00	
5	KY 65-KENERGY - DOMTAR COGEN	2,031,457	\$ 60,044.65	29.56
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP	16,000,000	\$ 718,400.00	44.90
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 150,000.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	18,031,457	\$ 931,234.65	51.65
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ 158,653.00	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES		\$ 13,974.20	
16	CARGILL POWER MARKETS			
17	EDF TRADING	58,400,000	\$ 2,134,800.00	36.55
18	EDF TRADING - CAPACITY SALES		\$ 150,000.00	
19	HMPL			
20	INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 200,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22	MISO	264,990,505	\$ 6,184,037.27	23.34
23	MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES		\$ 54,120.00	
24	NEXTRA ENERGY POWER MARKETING	191,200,000	\$ 6,512,120.00	34.06
25				
26	TOTAL TO OTHER THAN RUS BORROWERS	514,590,505	\$ 15,557,719.47	30.23
27				
28	TOTAL	532,621,962	\$ 16,488,954.12	30.96

**Big Rivers Electric Corporation
 Monthly Billing Summary
 Sales to Electric Utilities
 February 2016**

1	FEBRUARY 2016	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ 2,610.00	
5	KY 65-KENERGY - DOMTAR COGEN	5,798,989	\$ 147,513.47	25.44
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP	16,800,000	\$ 754,320.00	44.90
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 150,000.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	22,598,989	\$ 1,054,443.47	46.66
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ (275.00)	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES		\$ 13,974.20	
16	CARGILL POWER MARKETS			
17	EDF TRADING	52,800,000	\$ 1,956,120.00	37.05
18	EDF TRADING - CAPACITY SALES		\$ 150,000.00	
19	HMPL			
20	INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 200,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22	MISO	337,575,005	\$ 7,490,908.25	22.19
23	MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES		\$ 54,120.00	
24	NEXTRA ENERGY POWER MARKETING	175,200,000	\$ 6,074,760.00	34.67
25	SOUTHERN ILLINOIS POWER COOPERATIVE	6,000	\$ 150.03	25.01
26				
27	TOTAL TO OTHER THAN RUS BORROWERS	565,581,005	\$ 16,089,772.48	28.45
28				
29	TOTAL	588,179,994	\$ 17,144,215.95	29.15

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Electric Utilities
March 2016**

1	<u>MARCH 2016</u>	<u>KWH</u>	<u>AMOUNT</u>	<u>REVENUE \$ MILLS/KWH</u>
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ 2,790.00	
5	KY 65-KENERGY - DOMTAR COGEN	2,467,048	\$ 60,400.42	24.48
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 150,000.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	2,467,048	\$ 213,190.42	86.42
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ (2,200.00)	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES		\$ 13,974.20	
16	CARGILL POWER MARKETS	18,400,000	\$ 607,200.00	33.00
17	EDF TRADING			
18	EDF TRADING - CAPACITY SALES		\$ 150,000.00	
19	HMPL			
20	INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 200,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22	MISO	416,332,587	\$ 8,688,219.39	20.87
23	MORGAN STANLEY CAPITAL GROUP	18,400,000	\$ 604,440.00	32.85
24	MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES			
25	NEXTRA ENERGY POWER MARKETING	112,000,000	\$ 3,581,160.00	31.97
26	PJM INTERCONNECTION		\$ 162.07	
27	SOUTHERN ILLINOIS POWER COOPERATIVE			
28				
29	TOTAL TO OTHER THAN RUS BORROWERS	565,132,587	\$ 13,992,970.66	24.76
30				
31	TOTAL	567,599,635	\$ 14,206,161.08	25.03

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Electric Utilities
April 2016**

1	APRIL 2016	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ 2,700.00	
5	KY 65-KENERGY - DOMTAR COGEN	2,474,335	\$ 73,781.00	29.82
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 150,000.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	2,474,335	\$ 226,481.00	91.53
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ 3,688.50	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES		\$ 13,974.20	
16	CARGILL POWER MARKETS	16,800,000	\$ 554,400.00	33.00
17	EDF TRADING			
18	EDF TRADING - CAPACITY SALES		\$ 150,000.00	
19	HMPL			
20	INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 200,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22	MISO	393,671,825	\$ 9,472,706.98	24.06
23	MORGAN STANLEY CAPITAL GROUP	16,800,000	\$ 551,880.00	32.85
24	MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES			
25	NEXTRA ENERGY POWER MARKETING	110,400,000	\$ 3,497,040.00	31.68
26	PJM INTERCONNECTION			
27	SOUTHERN ILLINOIS POWER COOPERATIVE	7,200,000	\$ 206,400.00	28.67
28				
29	TOTAL TO OTHER THAN RUS BORROWERS	544,871,825	\$ 14,800,104.68	27.16
30				
31	TOTAL	547,346,160	\$ 15,026,585.68	27.45

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 7)** *List Big Rivers' scheduled, actual, and forced outages from*
2 *November 1, 2015, through April 30, 2016.*

3

4 **Response)** Please see the attached summary for the requested information
5 regarding scheduled ("S"), actual ("A"), and forced ("F") outages.

6

7

8 **Witness)** Lawrence V. Baronowsky

9

10

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
Reid Station Unit #1 - Coal - 65MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November		No Outages							
December		No Outages							
January	S,A	1/25/2016 8:00	1/29/2016 12:00	1/25/2016 8:32	1/29/2016 13:25	100:00		100:53	The unit was removed from standby to isolate startup bus disconnect switch 416-2 and install a new remotely actuated switch.
February		No Outages							
March		No Outages							
April		No Outages							Following MISO approval of the Attachment Y Suspension Notice, Reid Unit 1 was idled effective 1-Apr-2016.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016

Big Rivers Electric Corporation

Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net

November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	F			----->	----->			721:00	The unit was removed from reserve standby status on September 24, 2015 at 07:45 to allow testing of the generator and voltage regulator. Testing revealed a shorted field winding and the generator was disassembled to send the field for repairs. Switch to CST.
December	F			----->	----->			744:00	
January	F			----->	----->			744:00	
February	F			----->	----->			696:00	Leap year.
March	F			----->	----->			743:00	Switch to CDT.
April	F			----->	----->			720:00	The unit was returned to service on June 10, 2016 at 09:32.

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

Page 2 of 14

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016

Big Rivers Electric Corporation
Henderson Station Two - Unit #1 - Coal - 153MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	F			11/27/2015 4:49	----->			91:11	The unit was removed from service to repair a tube leak in the boiler penthouse.
December	F			----->	12/3/2015 4:11			52:11	The unit was removed from service to repair a tube leak in the boiler penthouse.
	S,A	12/5/2015 0:00	12/6/2015 16:00	12/4/2015 23:49	12/6/2015 15:24	40:00		39:35	The unit was removed from service to repair a leak in the boiler feed pump balance drum leak off line.
	F			12/11/2015 22:45	12/14/2015 6:31			55:46	The unit was removed from service to repair the diverter damper on the "B" side SCR module.
	F			12/29/2015 14:59	----->			57:01	The unit was removed from service to repair a tube leak in the condenser that was causing high silica content in the boiler.
January	F			----->	1/3/2016 22:59			70:59	The unit was removed from service to repair a tube leak in the condenser that was causing high silica content in the boiler.
	F			1/6/2016 7:28	1/10/2016 23:26			111:58	The unit was removed from service to repair a tube leak in the south water wall knee slope.
February		No Outages							
March		No Outages							

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

Page 3 of 14

**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
 Henderson Station Two - Unit #1 - Coal - 153MW Net
 November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
April	S,A	4/29/2016 0:00	----->	4/29/2016 23:54	----->	48:00		24:06	The unit was removed from service for a fifty-two day planned maintenance outage. All maintenance was completed and the unit was returned to service on June 19, 2016 at 17:54, thirty-eight hours ahead of schedule.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016

Big Rivers Electric Corporation
Henderson Station Two - Unit #2 - Coal - 159MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	F			----->	11/22/2015 14:06			519:06	The unit tripped off line on July 18, 2015 at 01:03 due to a short in the generator windings. The generator stator and field both had to be rewound. Switch to CST
	F			11/22/2015 19:04	11/23/2015 0:30			5:26	The unit tripped off line due to high vibration on #7 bearing on the outboard end of the exciter.
	F			11/23/2015 2:37	11/26/2015 5:36			74:59	The unit tripped off line due to high vibration on #7 bearing on the outboard end of the exciter.
	F			11/27/2015 0:37	11/29/2015 0:07			47:30	The unit tripped off line due to high vibration on #7 bearing on the outboard end of the exciter.
	F			11/29/2015 9:58	11/29/2015 16:09			6:11	The unit was removed from service to repair a leak in the #4 heater access door.
	F			11/29/2015 16:37	----->			31:23	The unit was removed from service due to high vibration on #7 bearing on the outboard end of the exciter.
December	F			----->	12/5/2015 17:53			113:53	The unit was removed from service due to high vibration on #7 bearing on the outboard end of the exciter.
	F			12/6/2015 2:30	12/15/2015 10:43			224:13	The unit was removed from service due to high vibration on #7 bearing on the outboard end of the exciter.
	F			12/15/2015 12:41	12/15/2015 18:27			5:46	The unit was removed from service to install a balance weight in the #7 bearing plane.

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

Page 5 of 14

**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
 Henderson Station Two - Unit #2 - Coal - 159MW Net
 November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
December	F			12/23/2015 23:49	12/24/2015 8:03	8:14			The unit tripped off line due to wet fuel plugging the inlets to the pulverizers.
	F			12/25/2015 7:00	12/25/2015 8:40	1:40			The unit tripped off line due to high drum level.
January	S,A	1/13/2016 0:00	1/17/2016 12:00	1/12/2016 23:56	1/17/2016 15:13	108:00		111:17	The unit was removed from service to repair a tube leak in the economizer section.
February		No Outages							
March		No Outages							
April		No Outages							

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
Green Station Unit #1 - Coal/Pet coke - 231MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	S,A	----->	11/14/2015 0:00	----->	11/14/2015 12:09	312:00		325:09	The unit was removed from service on September 25, 2015 at 23:45 for a 49 day planned maintenance outage. The unit was returned to service twelve hours late due to gas leaks in the new FGD ductwork and EHC fluid leaks on the turbine. Switch to CST.
	S,A	11/14/15 18:00	11/14/2015 19:00	11/14/2015 18:17	11/14/2015 19:12	1:00		0:55	The unit was removed from service to test the overspeed trip on the turbine following the overhaul.
	F			11/29/2015 5:04	11/29/2015 7:07			2:03	The unit was operating at reduced load and tripped off line when wet fuel plugged the inlet to one of the operating pulverizers. The ignitor oil purge timer had not cleared to allow oil torches when the second mill tripped due to flame instability, causing a master fuel trip.
December	F			12/31/2015 18:57	----->			5:03	The unit was removed from service to repair a main steam line safety valve that was leaking. The safety valve was repaired and the unit was placed on reserve standby on January 1, 2016 at 22:47.
January	F			----->	1/5/2016 9:32			105:32	On January 2, 2016 at 10:00 the unit was removed from standby to repair a radial seal sector plate in "A" air heater.
	F			1/5/2016 18:26	1/5/2016 23:35			5:09	The unit tripped off line due to a servo valve failure on the turbines' #2 main steam stop valve.
	S,A	1/30/2016 6:00	1/31/2016 18:00	1/30/2016 8:16	1/31/2016 17:45	36:00		33:29	The unit was removed from service to repair a tube leak in the reheat section of the boiler.

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

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**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
Green Station Unit #1 - Coal/Pet coke - 231MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
February	F			2/24/2016 15:02	2/28/2016 16:39		97:37		The unit was removed from service to repair a tube leak in the reheat section of the boiler.
March		No Outages							
April	F			4/21/2016 0:47	4/24/2016 19:05		90:18		The unit was removed from service to repair a tube leak in the reheat section of the boiler.
	F			4/27/2016 16:54	4/30/2016 15:00		70:06		The unit tripped off line due to loss of 1A31 MCC that caused "A" and "C" pulverizers to trip resulting in a master fuel trip.

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

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**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
Green Station Unit #2 - Coal/Pet coke - 223MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November		No Outages							
December		No Outages							
January		No Outages							
February		No Outages							
March	F			3/9/2016 15:52	3/9/2016 21:44		5:52		The unit tripped off line due to the loss of 2B3 Unit Substation which caused the loss of 2B31 MCC that feeds "B" and "D" pulverizers. When "B" and "D" pulverizers tripped, "A" pulverizer (Reburn Mill) tripped on last mill in service causing a master fuel trip.
	F			3/30/2016 22:43	3/31/2016 3:40		4:57		The unit tripped off line due to the loss of 2B3 Unit Substation which caused the loss of 2B31 MCC that feeds "B" and "D" pulverizers. At the time the unit was running at two mill minimum load which caused a master fuel trip.
	F			3/31/2016 3:42	3/31/2016 4:41		0:59		The unit tripped off line due to the low load trip. The unit had just tied on line at 03:40 and the operator did not load the unit quickly enough to avoid the low load trip.
April		No Outages							

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

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**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
 Coleman Station Unit #1 - Coal - 150MW Net
 November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	No Outages								Coleman Unit 1 was idled on May 1, 2014 and has not yet been returned to service.
December	No Outages								
January	No Outages								
February	No Outages								
March	No Outages								
April	No Outages								

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
Coleman Station Unit #2 - Coal - 138MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	No Outages								Coleman Unit 2 was idled on May 1, 2014 and has not yet been returned to service.
December	No Outages								
January	No Outages								
February	No Outages								
March	No Outages								
April	No Outages								

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

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**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation
 Coleman Station Unit #3 - Coal - 155MW Net
 November 1, 2015 thru April 30, 2016

Schedule vs. Actual

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

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016

Big Rivers Electric Corporation
Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net
November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
November	No Outages								
December	F			12/4/2015 1:50	12/4/2015 13:09			11:19	The unit tripped on low drum level due to a malfunction of the DA regulator valve and its motor operated bypass.
	F			12/10/2015 8:32	12/14/2015 0:25			87:53	The unit was removed from service to repair a tube leak in the superheater section of the boiler. The tube repairs were completed on 12/12/2015 at 03:00, but the outage was extended to complete tie in of the new MATS compliance equipment.
	F			12/14/2015 6:11	12/15/2015 1:03			18:52	The unit was removed from service to repair a superheat spray vent line leak that could not be isolated.
January	F			1/22/2016 02:18	1/26/2016 22:40			116:22	The unit was removed from service to repair a water wall tube leak in the nose area of the boiler. The tube repairs were completed on 1/23/2016 at 13:42, but the outage was extended to repair the left side throttle valve on the turbine.
February	No Outages								
March	No Outages								

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
November 1, 2015 through April 30, 2016**

Big Rivers Electric Corporation

Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net

November 1, 2015 thru April 30, 2016

Schedule vs. Actual

MONTH	TYPE	MAINTENANCE				HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR FORCED OUTAGE AS APPROPRIATE
		Scheduled		Actual		Scheduled	Forced	Actual	
		FROM	TO	FROM	TO				
April	F			4/11/2016 7:46	4/13/2016 11:59			52:13	The unit was removed from service to repair a steam leak in the pressure sensing line on the east superheat spray supply piping. The repairs were completed on 4/11/2016 at 19:19, but the outage was extended to wash the primary air heaters.
	F			4/15/2016 16:57	4/16/2016 17:54			24:57	The unit was removed from service to repair a steam leak in the flow transmitter sensing line on the east superheat spray supply piping that could not be isolated.
	F			4/30/2016 0:36	----->			23:24	The unit was removed from service to repair a water wall tube leak on the west side wall. The unit was returned to service on May 2, 2016 at 05:42.

Case No. 2016-00235

Witness: Lawrence V. Baronowsky

Attachment for Response to Staff Item 7

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BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

- 1 **Item 8)** *List all existing fuel contracts categorized as long-term (i.e.,*
2 *one year or more in length). Provide the following information for each*
3 *contract:*
4
5 *a. Supplier's name and address;*
6 *b. Name and location of production facility;*
7 *c. Date when contract was executed;*
8 *d. Duration of contract;*
9 *e. Date(s) of each contract revision, modification, or*
10 *amendment;*
11 *f. Annual tonnage requirements;*
12 *g. Actual annual tonnage received since the contract's*
13 *inception;*
14 *h. Percent of annual requirements received during the*
15 *contract's term;*
16 *i. Base price in dollars per ton;*
17 *j. Total amount of price escalations to date in dollars per*
18 *ton; and*
19 *k. Current price paid for coal under the contract in dollars*
20 *per ton (i + j).*
21
22 **Response)** Please see the attached schedule.
23
24 **Witness)** Mark W. McAdams

**Case No. 2016-00235
Response to Staff Item 8
Witness: Mark W. McAdams
Page 1 of 1**

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Patriot Coal Sales 11021

A. NAME / ADDRESS: Patriot Coal Sales, LLC.
12312 Olive Boulevard, Suite 400
St. Louis, MO 63141

Following January 30, 2015 Assignment:
Alliance Coal, LLC
1717 South Boulder, Suite 400
Tulsa, OK 74119

B. PRODUCTION FACILITY: Freedom and Grand Eagle Mines
Henderson County, Kentucky

Highland Mine
Union County, Kentucky

Following January 30, 2015 Assignment includes:
Onton No. 9 Mine
Webster County, Kentucky

River View Mine
Union County, Kentucky

C. CONTRACT EXECUTED DATE: October 24, 2011

D. CONTRACT DURATION: January 1, 2012 through December 31, 2015

E. CONTRACT AMENDMENTS: November 8, 2011 (Amendment One)
January 30, 2015 (Assignment to Alliance)

F. ANNUAL TONNAGE REQUIREMENTS:

2012	-	964,000	tons
2013	-	700,000	tons
2014	-	700,000	tons
2015	-	700,000	tons

G. ACTUAL TONNAGE:

2012	-	963,662	tons
2013	-	671,818	tons
2014	-	701,025	tons
2015	-	651,139	tons

H. PERCENT OF ANNUAL REQUIREMENTS:

2012	-	99.96	%
2013	-	95.97	%
2014	-	100.15	%
2015	-	93.02	%

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Patriot Coal Sales 11021 (*continued*)

I. BASE PRICE:	Highland 2012	-	\$ 48.0992	per ton
	Patriot Blend 2012	-	\$ 47.0624	per ton
	Highland 2013	-	\$ 50.0251	per ton
	Highland 2014	-	\$ 52.0220	per ton
	Highland / Onton / River View 2015	-	\$ 54.1013	per ton
J. ESCALATIONS TO DATE:	None			
K. CURRENT CONTRACT PRICE:	Highland 2013	-	\$ 50.0251	per ton
	Highland 2014	-	\$ 52.0220	per ton
	Highland / Onton / River View 2015	-	\$ 54.1013	per ton

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Sebree Mining 11002

A. NAME / ADDRESS:	Sebree Mining, LLC <i>(formerly Allied Resources)</i> 15 New Steamport Road Sebree, KY 42455		
B. PRODUCTION FACILITY:	Onton No. 9 Mine, Dotiki Mine, River View Mine Webster and Union Counties, Kentucky		
C. CONTRACT EXECUTED DATE:	June 18, 2010		
D. CONTRACT DURATION:	January 1, 2011 <i>through</i> December 31, 2016		
E. CONTRACT AMENDMENTS:	April 29, 2011		<i>(Amendment One)</i>
	November 17, 2011		<i>(Amendment Two)</i>
	March 29, 2012		<i>(Contract Assigned from Allied resources to Sebree Mining, LLC)</i>
	August 12, 2013		<i>(Amendment Three)</i>
	January 8, 2014		<i>(Amendment Four)</i>
	February 14, 2014		<i>(Amendment Five)</i>
	March 1, 2016		<i>(Amendment Six)</i>
F. ANNUAL TONNAGE REQUIREMENTS:	2010 -	650,000	tons
	2011 -	500,000	tons
	2012 -	750,000	tons
	2013 -	960,000	tons
	2014 -	800,000	tons
	2015 -	838,000	tons <i>(176,700 tons Force Majeure)</i>
	2016 -	952,000	tons
G. ACTUAL TONNAGE:	2010 -	664,320	tons
	2011 -	500,614	tons
	2012 -	748,127	tons
	2013 -	919,426	tons
	2014 -	838,340	tons
	2015 -	661,796	tons <i>(176,700 tons Force Majeure)</i>
	2016 -	186,621	tons <i>(through April)</i>
H. PERCENT OF ANNUAL REQUIREMENTS:	2010 -	102.20 %	
	2011 -	100.12 %	
	2012 -	99.75 %	
	2013 -	95.77 %	
	2014 -	104.79 %	
	2015 -	100.08 %	<i>(176,700 tons Force Majeure)</i>
	2016 -	19.60 %	<i>(through April)</i>

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Sebree Mining 11002 (continued)

I. BASE PRICE:

	<u>Sebree Complex</u>		
Quality A 2012	–	\$ 52.5500	per ton
Quality B 2012	–	\$ 50.6259	per ton
Quality C 2012	–	\$ 48.9946	per ton
Quality D 2012	–	\$ 46.0108	per ton
Quality A 2013	–	\$ 54.9153	per ton
Quality B 2013	–	\$ 53.8668	per ton
Quality C 2013	–	\$ 52.1824	per ton
Quality D 2013	–	\$ 49.1854	per ton
Quality A 2014	–	\$ 57.6621	per ton
Quality B 2014	–	\$ 55.6405	per ton
Quality C 2014	–	\$ 53.8706	per ton
Quality D 2014	–	\$ 50.5978	per ton
Quality A 2015	–	\$ 61.6911	per ton
Quality B 2015	–	\$ 59.5694	per ton
Quality C 2015	–	\$ 57.7116	per ton
Quality D 2015	–	\$ 54.2146	per ton
Quality A 2016	–	No Price	
Quality B 2016	–	\$ 62.4897	per ton
Quality C 2016	–	\$ 60.7085	per ton
Quality D 2016	–	\$ 57.8600	per ton

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Sebree Mining 11002 (continued)

I. BASE PRICE: (continued)

	<u>Steamport Dock</u>	
Quality A 2012	-	\$ 51.9551 per ton
Quality B 2012	-	\$ 50.0269 per ton
Quality C 2012	-	\$ 48.3943 per ton
Quality D 2012	-	\$ 45.4102 per ton
Quality A 2013	-	\$ 54.3204 per ton
Quality B 2013	-	\$ 53.1133 per ton
Quality C 2013	-	\$ 51.4303 per ton
Quality D 2013	-	\$ 48.4308 per ton
Quality A 2014	-	\$ 57.0672 per ton
Quality B 2014	-	\$ 55.0415 per ton
Quality C 2014	-	\$ 53.2703 per ton
Quality D 2014	-	\$ 49.9994 per ton
Quality A 2015	-	\$ 61.0512 per ton
Quality B 2015	-	\$ 58.9399 per ton
Quality C 2015	-	\$ 57.0745 per ton
Quality D 2015	-	\$ 53.5832 per ton
Quality A 2016	-	No Price
Quality B 2016	-	\$ 61.1910 per ton
Quality C 2016	-	\$ 60.4422 per ton
Quality D 2016	-	\$ 56.5598 per ton
<u>Quality A – Dotiki Mine: Sebree Complex</u>		
2016	-	\$ 61.3274 per 52k tons
2016	-	\$ 62.8570 per ton
<u>Quality C – River View Dock</u>		
2016	-	\$ 56.7594 per ton

Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information

Sebree Mining 11002 (continued)

I. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE:

<u>Sebree Complex</u>			
Quality A 2013	-	\$ 54.9153	per ton
Quality B 2013	-	\$ 53.8668	per ton
Quality C 2013	-	\$ 52.1824	per ton
Quality D 2013	-	\$ 49.1854	per ton
Quality A 2014	-	\$ 57.6621	per ton
Quality B 2014	-	\$ 55.6405	per ton
Quality C 2014	-	\$ 53.8706	per ton
Quality D 2014	-	\$ 50.5978	per ton
Quality A 2015	-	\$ 61.6911	per ton
Quality B 2015	-	\$ 59.5694	per ton
Quality C 2015	-	\$ 57.7116	per ton
Quality D 2015	-	\$ 54.2146	per ton

<u>Steamport Dock</u>			
Quality A 2013	-	\$ 54.3204	per ton
Quality B 2013	-	\$ 53.1133	per ton
Quality C 2013	-	\$ 51.4303	per ton
Quality D 2013	-	\$ 48.4308	per ton
Quality A 2014	-	\$ 57.0672	per ton
Quality B 2014	-	\$ 55.0415	per ton
Quality C 2014	-	\$ 53.2703	per ton
Quality D 2014	-	\$ 49.9994	per ton
Quality A 2015	-	\$ 61.0512	per ton
Quality B 2015	-	\$ 58.9399	per ton
Quality C 2015	-	\$ 57.0745	per ton
Quality D 2015	-	\$ 53.5832	per ton

Quality A - Dotiki Mine: Sebree Complex

2016	-	\$ 61.3274	per 52k tons
2016	-	\$ 62.8570	per ton

Quality C - River View Dock

2016	-	\$ 56.7594	per ton
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Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information

Armstrong Coal 11023

A. NAME / ADDRESS:	Armstrong Coal Company, Inc. 7733 Forsyth Boulevard, Suite 1625 St. Louis, MO 63105
B. PRODUCTION FACILITY:	Parkway, Big Run, Ceralvo, East Fork, Kronos, Lewis Creek, and Equality Boot Mines Muhlenberg and Ohio Counties, Kentucky
C. CONTRACT EXECUTED DATE:	July 4, 2011
D. CONTRACT DURATION:	January 1, 2012 <i>through</i> December 31, 2015
E. CONTRACT AMENDMENTS	None
F. ANNUAL TONNAGE REQUIREMENTS:	2012 - 350,000 tons 2013 - 400,000 tons 2014 - 800,000 tons 2015 - 875,000 tons
G. ACTUAL TONNAGE:	2012 - 351,376 tons 2013 - 401,613 tons 2014 - 801,572 tons 2015 - 875,381 tons
H. PERCENT OF ANNUAL REQUIREMENTS:	2012 - 100.39 % 2013 - 100.40 % 2014 - 100.20 % 2015 - 100.04 %
I. BASE PRICE:	2012 - \$ 47.2512 per ton 2013 - \$ 48.4012 per ton 2014 - \$ 51.3682 per ton 2015 - \$ 54.5123 per ton

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Armstrong Coal 11023 (continued)

J. ESCALATIONS TO DATE:	1 st Quarter 2012	-	\$ 0.8970	per ton
	2 nd Quarter 2012	-	\$ 0.9039	per ton
	3 rd Quarter 2012	-	\$ 0.8119	per ton
	4 th Quarter 2012	-	(\$ 0.1679)	per ton
	1 st Quarter 2013	-	\$ 0.1840	per ton
	2 nd Quarter 2013	-	\$ 0.1863	per ton
	3 rd Quarter 2013	-	\$ 0.1564	per ton
	4 th Quarter 2013	-	(\$ 0.3473)	per ton
	1 st Quarter 2014	-	(\$ 0.7245)	per ton
	2 nd Quarter 2014	-	\$ 0.4508	per ton
	3 rd Quarter 2014	-	(\$ 0.0759)	per ton
	4 th Quarter 2014	-	(\$ 0.3979)	per ton
	1 st Quarter 2015	-	(\$ 0.9338)	per ton
	2 nd Quarter 2015	-	(\$ 2.7692)	per ton
	3 rd Quarter 2015	-	(\$ 3.2591)	per ton
	4 th Quarter 2015	-	(\$ 2.2235)	per ton
K. CURRENT CONTRACT PRICE:	2013	-	\$ 48.5875	per ton
	2014	-	\$ 50.6437	per ton
	1 st Quarter 2015	-	\$ 53.5785	per ton
	2 nd Quarter 2015	-	\$ 51.7431	per ton
	3 rd Quarter 2015	-	\$ 51.2532	per ton
4 th Quarter 2015	-	\$ 52.2888	per ton	

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Coeclerici / Coal Network Inc. 15001

A. NAME / ADDRESS:	Coeclerici Coal Network, Inc. 7697 Innovation Way, Suite 100 Mason, OH 45040
B. PRODUCTION FACILITY:	Western Kentucky Minerals (WKM), North Knottsville and Pleasant Ridge Mines
C. CONTRACT EXECUTED DATE:	January 7, 2015
D. CONTRACT DURATION:	January 1, 2015 <i>through</i> December 31, 2015
E. CONTRACT AMENDMENTS:	None
F. ANNUAL TONNAGE REQUIREMENTS:	2015 - 144,000 tons
G. ACTUAL TONNAGE:	2015 - 143,166 tons
H. PERCENT OF ANNUAL REQUIREMENTS:	2015 - 99.42 %
I. BASE PRICE:	WKM 2015 - \$ 44.7507 per ton
J. ESCALATIONS TO DATE:	None
K. CURRENT CONTRACT PRICE	WKM 2015 - \$ 44.7507 per ton

**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Foresight 15005

A. NAME / ADDRESS:	Foresight Coal Sales, LLC 211 North Broadway, Suite 2600 St. Louis, MO 63102		
B. PRODUCTION FACILITY:	Deer Run and/or Shay No. 1 in Montgomery and Macoupin, Illinois.		
C. CONTRACT EXECUTED DATE:	March 6, 2015		
D. CONTRACT DURATION:	February 6, 2015 <i>through</i> December 31, 2019		
E. CONTRACT AMENDMENTS:	None		
F. ANNUAL TONNAGE REQUIREMENTS:	2015	-	200,000 tons
	2016	-	240,000 tons
	2017	-	240,000 tons
	2018	-	240,000 tons
	2019	-	240,000 tons
G. ACTUAL TONNAGE:	2015	-	200,318 tons
	2016	-	85,419 tons (<i>through April</i>)
H. PERCENT OF ANNUAL REQUIREMENTS:	2015	-	100.16 %
	2016	-	35.59 % (<i>through April</i>)
I. BASE PRICE:	2015	-	\$ 34.0006 per ton
	2016	-	\$ 36.2491 per ton
	2017	-	\$ 38.4998 per ton
	2018	-	\$ 40.5497 per ton
	2019	-	\$ 42.3490 per ton
J. ESCALATIONS TO DATE:	None		
K. CURRENT CONTRACT PRICE:	2015	-	\$ 34.0006 per ton
	2016	-	\$ 36.2491 per ton

Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information

KenAmerican Resources 15006

A. NAME / ADDRESS: KenAmerican Resources, Inc.
46226 National Road
St. Clairsville, OH 43950

B. PRODUCTION FACILITY: Paradise #9 Mine
Muhlenberg County, Kentucky

C. CONTRACT EXECUTED DATE: January 30, 2015

D. CONTRACT DURATION: January 1, 2015 *through* December 31, 2019

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE REQUIREMENTS:

2015	-	300,000	tons
2016	-	500,000	tons
2017	-	500,000	tons
2018	-	400,000	tons
2019	-	400,000	tons

G. ACTUAL TONNAGE:

2015	-	300,077	tons
2016	-	170,115	tons (<i>through April</i>)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	-	100.03 %
2016	-	34.02 % (<i>through April</i>)

I. BASE PRICE:

2015	-	\$ 49.2505	per ton
2016	-	\$ 50.5000	per ton
2017	-	\$ 51.7496	per ton
2018	-	\$ 53.0506	per ton
2019	-	\$ 54.4080	per ton

J. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE:

2015	-	\$ 49.2505	per ton
2016	-	\$ 50.5000	per ton

Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information

Rhino Energy LLC and Pennyrile Energy LLC Coal Sales 15009

A. NAME / ADDRESS: Rhino Energy LLC/Pennyrile Energy, LLC.
424 Lewis Hargett Circle, Suite 250
Lexington, KY 40503

B. PRODUCTION FACILITY: Pennyrile Energy LLC
Riveredge Mine
McLean County, Kentucky

C. CONTRACT EXECUTED DATE: March 16, 2015

D. CONTRACT DURATION: March 16, 2015 *through* December 31, 2018

E. CONTRACT AMENDMENTS: June 1, 2016 (Amendment One)

F. ANNUAL TONNAGE REQUIREMENTS:

2015	-	105,000	tons	(Start date for tonnage delivery June 1, 2015)
2016	-	350,000	tons	
2017	-	450,000	tons	
2018	-	150,000	tons	

G. ACTUAL TONNAGE:

2015	-	105,260	tons	
2016	-	153,943	tons	(through April)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	-	100.25	%	
2016	-	43.98	%	(through April)

I. BASE PRICE:

Riveredge 2015	-	\$ 43.7490	per ton
Riveredge 2016	-	\$ 45.7498	per ton
Riveredge 2017	-	\$ 47.7500	per ton
Riveredge 2018	-	\$ 47.0826	per ton

J. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE:

Riveredge 2015	-	\$ 43.7490	per ton
Riveredge 2016	-	\$ 45.7498	per ton

Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information

Alliance Coal, LLC 15010

A. NAME / ADDRESS: Alliance Coal, LLC
1717 South Boulder, Suite 400
Tulsa, OK 74119

B. PRODUCTION FACILITY: Hopkins Cty. Coal, LLC – Elk Creek Mine Facility
Sebree Mining, Onton No. 9 Mine Facility
Warrior Coal LLC Mining Operations
Webster Coal, LLC – Dotiki Mine Facility
Riverview Coal, LLC – River View Mine Facility

C. CONTRACT EXECUTED DATE: August 10, 2015

D. CONTRACT DURATION: September 1, 2015 *through* December 31, 2017

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE REQUIREMENTS:

2015	-	75,000	tons	(Option tons)
2016	-	250,000	tons	
2017	-	575,000	tons	

G. ACTUAL TONNAGE:

2015	-	0	tons	(Option not exercised)
2016	-	97,632	tons	(through April)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	-	0.00	%	(Option not exercised)
2016	-	39.05	%	(through April)

I. BASE PRICE:

Quality A (11,900 BTU/lb.) – Hopkins Elk Creek
2015 - \$ 53.2493 per ton

Quality B (11,800 BTU/lb.) – Onton No. 9, Warrior Coal, & Webster Coal
2015 - \$ 50.8061 per ton
2016 - \$ 52.7649 per ton
2017 - \$ 54.7733 per ton

Quality C (11,500 BTU/lb.) – Onton No. 9 & River View Coal
2015 - \$ 45.3491 per ton
2016 - \$ 47.2006 per ton
2017 - \$ 49.0498 per ton

Quality D (11,250 BTU/lb. – Onton No. 9
2015 - \$ 45.8000 per ton
2016 - \$ 47.5505 per ton
2017 - \$ 49.4000 per ton

Quality E (11,000 BTU/lb. – Onton No. 9
2015 - \$ 44.0996 per ton
2016 - \$ 45.8002 per ton
2017 - \$ 47.5492 per ton

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Witness: Mark W. McAdams
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**Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information**

Alliance Coal, LLC 15010 (continued)

J. ESCALATIONS TO DATE:	2015 - None
	2016 - None
K. CURRENT CONTRACT PRICE:	2015 - N/A (No option tons)
	<u>Quality A (11,900 BTU/lb.) - Hopkins Elk Creek</u>
	2016 - N/A
	<u>Quality B (11,800 BTU/lb.) - Onton No. 9, Warrior Coal, & Webster Coal</u>
	2016 - \$ 52.7649 per ton
	<u>Quality C (11,500 BTU/lb.) - Onton No. 9 & River View Coal</u>
	2016 - \$ 47.2006 per ton
	<u>Quality D (11,250 BTU/lb. - Onton No. 9</u>
	2016 - \$ 47.5505 per ton
	<u>Quality E (11,000 BTU/lb. - Onton No. 9</u>
	2016 - \$ 45.8002 per ton

Big Rivers Electric Corporation
Case No. 2016-00235
Long-Term Fuel Contract Information

Peabody Coal 15018

A. NAME / ADDRESS: Peabody COALSALES, LLC
701 Market Street
St. Louis, MO 63101

B. PRODUCTION FACILITY: Somerville and Wild Boar Mining Complex,
Surface Mining Operation,
Warwick and Gibson Counties, Indiana

C. CONTRACT EXECUTED DATE: October 1, 2015

D. CONTRACT DURATION: January 1, 2016 *through* December 31, 2018

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE REQUIREMENTS:

2016	-	350,000	tons
2017	-	525,000	tons
2018	-	625,000	tons

G. ACTUAL TONNAGE: 2016 - 116,871 tons (*through April*)

H. PERCENT OF ANNUAL REQUIREMENTS: 2016 - 33.39 % (*through April*)

I. BASE PRICE:

2016	-	\$ 40.4998	per ton
2017	-	\$ 40.4998	per ton
2018	-	\$ 40.4998	per ton

J. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE: 2016 - \$ 40.4998 per ton

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 9)**

2 *a. State whether Big Rivers regularly compares the price of*
3 *its coal purchases to those paid by other electric utilities.*

4 *b. If yes, state:*

5 *(1) How Big Rivers' prices compare with those of other*
6 *utilities. If the comparison includes months outside*
7 *of the review period, a comparison limited to the*
8 *review period should be provided separately.*
9 *Provide a copy of the source documents and*
10 *calculations used to support the amounts used in*
11 *the comparison and include all prices used in the*
12 *comparison in cents per MMBtu.*

13 *(2) The utilities that are included in this comparison*
14 *and their locations.*

15

16 **Response)**

17 *a. Yes, Big Rivers has compared the price of its coal purchases*
18 *with those paid by other electric utilities.*

19 *b. The tables and the charts accompanying this response reflect*
20 *two non-Big Rivers events. First, Duke Energy-Kentucky*
21 *reported no April 2016 coal purchases for its East Bend location.*
22 *Second, in mid-2015, Kentucky Power's Big Sandy Unit # 2 was*
23 *retired and Unit #1 was converted to natural gas.*

24 *(1) Big Rivers' coal pricing is competitive with that of its*
25 *comparison group for the review period. Attached hereto*

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Response to Staff Item 9
Witness: Mark W. McAdams
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1 are tables and charts on a ¢ per MMBTU *and* showing Big
2 Rivers with and without petcoke.
3 (2) Utilities that are included in this comparison are Kentucky-
4 based companies. These utilities are identified on the
5 attached tables and charts.

6
7
8
9

Witness) Mark W. McAdams

**Big Rivers Electric Corporation
Case No. 2016-00235**

Cents per MMBTU (Big Rivers w/o Pet Coke)

Company	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16
Big Rivers Electric Corporation	226.15	221.67	221.30	213.83	223.59	227.81
Duke Energy - Kentucky ^a	218.99	210.58	208.76	202.05	196.67	0.00
Louisville Gas and Electric Company	224.39	224.25	214.65	212.17	211.19	213.48
Kentucky Utilites Company	220.89	220.30	212.99	211.49	207.41	202.16
East Kentucky Power Cooperative	220.50	226.90	227.80	223.20	225.00	221.40
Kentucky Power ^b	106.81	0.00	0.00	0.00	0.00	0.00

Cents per MMBTU (Big Rivers w/ Pet Coke)

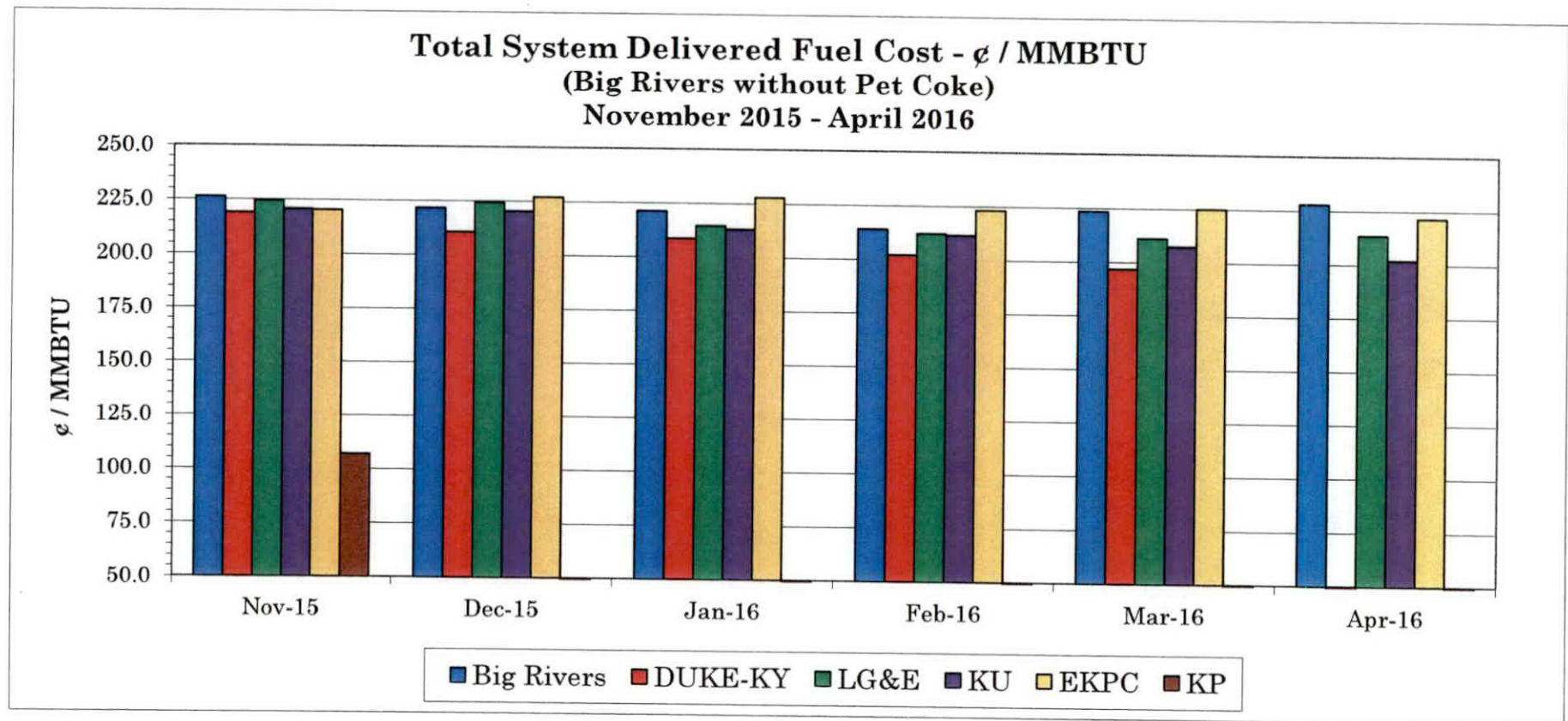
Company	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16
Big Rivers Electric Corporation	212.72	205.75	210.40	210.92	223.59	227.81
Duke Energy - Kentucky ^a	218.99	210.58	208.76	202.05	196.67	0.00
Louisville Gas and Electric Company	224.39	224.25	214.65	212.17	211.19	213.48
Kentucky Utilites Company	220.89	220.30	212.99	211.49	207.41	202.16
East Kentucky Power Cooperative	220.50	226.90	227.80	223.20	225.00	221.40
Kentucky Power ^b	106.81	0.00	0.00	0.00	0.00	0.00

Note(s) -

- a.- Duke Energy - Kentucky reported no April 2016 coal purchases for its East Bend location.
- b.- In mid-2015, Kentucky Power's Big Sandy Unit # 2 was retired and Unit #1 was converted to natural gas.

Source: Utilities' Monthly FAC Filings w/ Kentucky Public Service Commission

**Big Rivers Electric Corporation
Case No. 2016-0235**



Source: Utilities' Monthly FAC Filings w/ Kentucky Public Service Commission

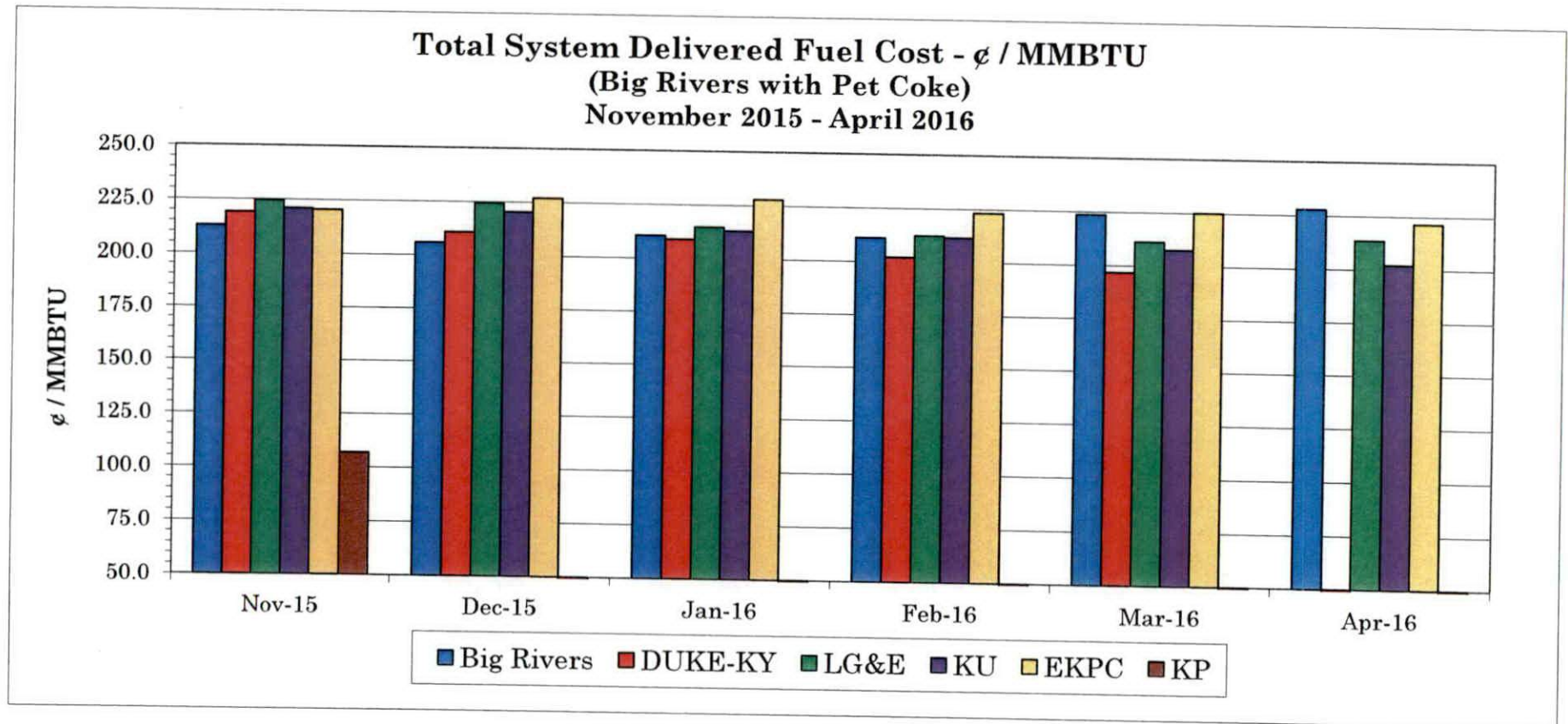
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Witness: Mark W. McAdams

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**Big Rivers Electric Corporation
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Source: Utilities' Monthly FAC Filings w/ Kentucky Public Service Commission

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1 **Item 10) State the percentage of Big Rivers' coal, as of the date of this**
2 **Order, that is delivered by:**

3

4 **a. Rail;**

5 **b. Truck; or**

6 **c. Barge.**

7

8 **Response) For the period from November 1, 2015, through April 30, 2016, Big**
9 **Rivers' coal delivery percentages are as follows:**

10

11 **a. Rail – None;**

12 **b. Truck – 44.54 % (Coal only);**

13 **c. Barge – 55.46 % (Coal plus Pet Coke).**

14

15

16 **Witness) Mark W. McAdams**

17

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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1 **Item 11)**

- 2 **a. State Big Rivers' coal inventory level in tons and in**
3 **number of days' supply as of April 30, 2016. Provide this**
4 **information by generating station and in the aggregate.**
5 **b. Describe the criteria used to determine number of days'**
6 **supply.**
7 **c. Compare Big Rivers' coal inventory as of April 30, 2016, to**
8 **its inventory target for that date for each plant and for**
9 **total inventory.**
10 **d. If actual coal inventory exceeds inventory target by ten**
11 **days' supply, state the reasons for excessive inventory.**
12 **e. (1) State whether Big Rivers expects any significant**
13 **changes in its current coal inventory target within**
14 **the next 12 months.**
15 **(2) If yes, state the expected change and the reasons for**
16 **this change.**

17

18 **Response)**

- 19 **a. As of April 30, 2016, Big Rivers' generating stations individually**
20 **and in the aggregate had the following inventory levels and**
21 **days' supply.**

22

23

24

BIG RIVERS ELECTRIC CORPORATION

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1

Total System/Station	Inventory Level (In Tons) ¹	Number of Days' Supply ²	Duration (In Days)	Preceding 6 Months Burn (In Tons)
Big Rivers Electric System	1,210,947.38	128	159	1,505,772.52
Reid Station ³	0.00	0	0	0.00
Henderson Station Two ⁴	304,279.51	191	148	235,475.41
Green Station ⁵	316,282.27	88	166	598,026.86
Coleman Station ⁶	0.00	0	0	0.00
Wilson Station ⁷	590,385.60	148	168	672,270.25

2

3

b. Days Burn = [{ Current Inventory (In Tons) / Preceding 6 Months Burn (In Tons) }] x Duration (In Days)

4

5

c. Big Rivers Electric Corporation's Target Supply is the following range for each Station in days.

6

7

Big Rivers Electric Corporation Coal Inventory Target Ranges	
Total System	30 – 60 Days
Reid Station	0 Days
Henderson Station Two	30 – 60 Days
Green	30 – 60 Days
Coleman	0 Days
Wilson	30 – 60 Days

8

9

d. The actual inventory for Henderson Station Two exceeds the target range by 131 days. Reduced demand for electricity, and the unscheduled outage on Henderson Station Two Unit 2 caused Henderson Station Two to exceed its target range.

10

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12

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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1 Henderson Station Two Unit 2 tripped off line due to generator
2 going to ground. The outage repairs to the generator and rotor
3 lasted from July 18, 2015, through December 25, 2015, for a
4 total of 3,582 hours of which 1,038 hours were in the period
5 under review. There were also unscheduled outages on H1 & H2
6 during the period under review of 498 hours. Big Rivers force
7 majeure tonnage associated with the Sebree Mining, LLC
8 contract as a result of the Unit 2 outage. The actual inventory
9 for Green Station exceeds the target range by 28 days. During
10 the period under review, the two Green units were placed on
11 reserve for 100 hours due to reduced electricity demand and
12 pricing. There were also planned maintenance outages of 326
13 hours during this time period, and there were 216 hours of
14 unscheduled outages and 105 hours of scheduled outages.
15 Finally, the Wilson Station exceeds the target range by 88 days.
16 Wilson Station exceeded its target range due to the impact of
17 electricity market conditions and demand. Wilson had
18 unscheduled outages during the period under review of 168
19 hours and scheduled maintenance outages of 167 hours during
20 the review period.

21 Big Rivers also entered into a spot petroleum coke
22 agreement in late 2015 to lower its average fuel cost to benefit
23 the Member/Owners. Big Rivers knew this would add inventory
24 and negatively impact cash; however, it was a strategic decision
25 to reduce the FAC costs to its Member/Owners. Big Rivers will

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BIG RIVERS ELECTRIC CORPORATION

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1 reclaim fuel over the course of 2016, reducing the fuel inventory
2 to targeted levels.

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- (1) Yes.
- (2) Big Rivers, because of a planned temporary idling of its Reid Station, reduced the coal pile inventory at Reid to zero (0) tons in April, 2016. Further, Big Rivers, as part of its solid fuel procurement plans, has intentionally reduced its solid fuel procurement in order to reclaim coal and pet coke that is currently held in inventory during the course of 2016. By intentionally reducing its market purchases, the Company is focused on inventory reduction at each generating station. Market conditions will continue to play a significant role in the pace and overall quantity of inventory reduction. In the event the remainder of 2016 is similar in market pricing and demand, inventory reduction efforts will be hampered.

BIG RIVERS ELECTRIC CORPORATION

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1

Footnotes -

¹ Green Station had a pet coke inventory of 114,788.74 tons as of April 30, 2016. Wilson Station had a pet coke inventory of 221,566.62 tons as of April 30, 2016.

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

³ Reid Station Unit 1 was in standby reserve 152 days and idled reserve 30 days. The duration of generation was reduced to 0 days.

⁴ Henderson Station Two Units 1 and 2 had unscheduled hours of 498 hours. Unit 2 had an abnormal unscheduled outage of 1,038 hours that extended beyond the period under review due to grounding of the generator. A Planned Maintenance Outage on H-1 began in April for 24 hours and there were planned maintenance hours of 92 for a total of 115 scheduled hours. These hours were equivalent to 34 days. The duration of generation was reduced to 148 days.

⁵ Green Units 1 and 2 had unscheduled and scheduled maintenance hours of 320.8 hours. These hours were equivalent to 7 days. Green 1 and 2 were placed in standby reserve for 100.1 hours. These hours were equivalent to 2 days. Green 1 had a planned Maintenance Outage which lasted 326.1 hours which was equivalent to 7 days. The duration of generation was reduced to 166 days.

⁶ Coleman Station Units 1, 2 and 3 were placed on Inactive Reserve Status on May 8, 2014, and this totaled 13,104.0 hours which was equivalent to 182 days. The duration of generation was reduced to 0 days. Coleman Station will have no inventory going forward unless it is removed from the Inactive Reserve Status.

⁷ Wilson Unit 1 had 168.6 unscheduled and 167.1 scheduled for a total of 335.1 maintenance hours. These hours were equivalent to 14 days. The duration of generation was reduced to 168 days.

2

3

4 **Witness) Mark W. McAdams**

5

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 12)**

2 **a. State whether Big Rivers has audited any of its coal**
3 **contracts during the period from November 1, 2015,**
4 **through April 30, 2016.**

5 **b. If yes, for each audited contract:**

6 **(1) Identify the contract;**

7 **(2) Identify the auditor;**

8 **(3) State the results of the audit; and**

9 **(4) Describe the actions that Big Rivers took as a result**
10 **of the audit.**

11

12 **Response)**

13 **a. Big Rivers has not audited any of its coal supply agreements**
14 **during the period from November 1, 2015, through April 30,**
15 **2016.**

16 **b. (1) – (4)**
17 **Not Applicable.**

18

19

20 **Witness) Mark W. McAdams**

21

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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1 **Item 13)**

2 *a. State whether Big Rivers has received any customer*
3 *complaints regarding its FAC during the period from*
4 *November 1, 2015, through April 30, 2016.*

5 *b. If yes, for each complaint, state:*

6 *1. The nature of the complaint; and*

7 *2. Big Rivers' response.*

8

9 **Response)**

10 a. Big Rivers has received no customer complaints regarding
11 its FAC during the period from November 1, 2015, through April
12 30, 2016.

13 b. Not Applicable.

14

15

16 **Witness)** Nicholas R. Castlen

17

BIG RIVERS ELECTRIC CORPORATION

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- 1 **Item 14)**
2 *a. State whether Big Rivers is currently involved in any*
3 *litigation with its current or former coal suppliers.*
4 *b. If yes, for each litigation:*
5 *(1) Identify the coal supplier;*
6 *(2) Identify the coal contract involved;*
7 *(3) State the potential liability or recovery to Big*
8 *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 coal*
16 *suppliers.*
17
18 **Response)**
19 a. No.
20 b. (1) – (5)
21 Not applicable.
22 c. Not Applicable.
23
24 **Witness)** Mark W. McAdams

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Witness: Mark W. McAdams
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August 26, 2016

1 **Item 15)**

2 *a. During the period from November 1, 2015, through April*
3 *30, 2016, have there been any changes to Big Rivers'*
4 *written policies and procedures regarding its fuel*
5 *procurement?*

6 *b. If yes,*

7 *(1) Describe the changes;*

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

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

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

12 *c. If no, provide the date Big Rivers' current fuel*
13 *procurement policies and procedures were last changed,*
14 *when they were last provided to the Commission, and*
15 *identify the proceeding in which they were provided.*

16

17 **Response)**

18 *a. Yes. During the period November 1, 2015, through April 30, 2016,*
19 *Big Rivers made changes to the following fuel-related policies and*
20 *procedures:*

21 *i. Policy No. 105 – Energy-Related Transaction Authority;*

22 *ii. Appendix A: Policy No. 105 – Energy-Related Transaction*
23 *Authority Policy*

24 *iii. Policy No. 122 – Energy-Related Transaction Credit Policy;*

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Response to Staff Item 15

**Witnesses: Mark W. McAdams (Coal) and
Wayne O'Bryan (Natural Gas)**

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BIG RIVERS ELECTRIC CORPORATION

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- iv. Addendum: Policy No. 122 – Energy-Related Transaction Credit Policy.
- b. (1) through (4)

Policy No. 105 – Energy-Related Transaction Authority Policy

On February 23, 2016, Big Rivers made the following changes –

- i. General clean-up and formatting changes;
- ii. Clarified transaction authority for purchases of energy, capacity and transmission;
- iii. Clarified transaction authority for sales of energy, capacity and transmission;
- iv. Included transportation for items shipped in bulk by barge, rail and truck;
- v. Updated transaction authority amounts for various lime reagents;
- vi. Updated transaction authority amounts for various U.S. Environmental Protection Agency Mercury and Air Toxics Standards (“MATS”) reagents.

BIG RIVERS ELECTRIC CORPORATION

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August 26, 2016

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Appendix A: Policy No. 105 – Energy-Related Transaction
Authority

On April 5, 2016, Big Rivers made the following
changes –

- i. Updated Section 4 table to reflect new bilateral sales limits;
- ii. Updated Section 4 table to delete purchase authority;
- iii. Combined transaction authority for transportation of lime, bulk lime, and line hydrate;
- iv. Added MATS reagent limits.

On April 15, 2016, Big Rivers made the following
change –

- i. Added footnote to Section 4 table to clearly define Big Rivers' interpretation for ACES pertaining to < 1 Day.

BIG RIVERS ELECTRIC CORPORATION

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Policy No. 122 – Energy-Related Transaction Credit Policy

On November 15, 2015, Big Rivers made the following changes –

- i. General clean-up and formatting changes;
- ii. Changed Senior VP Accounting, Rates & Chief Financial Officer (“CFO”) to CFO;
- iii. Added President and Chief Executive Officer (“CEO”) to trade approval.

Addendum: Policy No. 122 – Energy-Related Transaction Credit Policy

On November 6, 2015, Big Rivers made the following changes –

- i. General clean-up and formatting changes;
- ii. Credit score tables and definitions;
- iii. Financial score table and definitions.

Black-line and red-line copies of Policy No. 105, Appendix A: Policy No. 105, Policy No. 122, and Addendum: Policy 122 mentioned in the response to sub-item a., are attached to this response.

- c. Big Rivers’ other fuel procurement policies and procedures were not changed during the period of November 1, 2015, through April

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

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30, 2016. In the table below, Big Rivers lists those unchanged policies and procedures, the dates of their last changes, and the proceedings in which Big Rivers provided them to the Commission.

Big Rivers Electric Corporation Policies and Procedures for Fuel Procurement				
Number	Name	Date Last Change	Provided In	Date Provided
111	Hedge Policy	2015-09-18	Case No. 2016-00006	2016-02-19
120	Fuel Procurement Policy and Procedure	2015-08-21	Case No. 2016-00006	2016-02-19
121	Solid Fuel Inventory Policy	2015-08-21	Case No. 2016-00006	2016-02-19

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Witnesses) Mark W. McAdams (*Coal*) and
Wayne O'Bryan (*Natural Gas*).

Policy No. 105 – Energy-Related Transaction Authority

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

1. Policy Purpose

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

2. Objective

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

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

3. Procedural Requirements

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

Execution Authority

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

The transaction limits apply to both purchases and sales. Daily limits are applied to gross amounts transacted in total for the day, and not to purchases and sales netted together.

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
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Contract Requirements

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

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

Credit Requirements

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

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

Credit Sleeving

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

Contract Sleeving

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

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

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

Transaction Communications

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

Energy Related Transaction Authority Policy				
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Deal Capture

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

Speculation

Speculation refers to a purchase or sales transaction in which the intent was to realize a profit without taking physical delivery. No speculative transaction activities shall be permitted, and no speculative transaction positions shall be initiated. Transactions will be permitted only for purposes of hedging and portfolio optimization.

Non-Standard Products

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

Transactions Requiring Board Approval

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

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

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

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

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

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

Purchases		Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits	
Title	Product	Term	Lead Time	MW Size	Max. \$/MWH	Total Volume MWH	Total \$	Total Volume MWH	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
CEO	Energy	≤ 2 Years	≤ 2 Years	≤ 400	≤ \$150	≤ 9,600	\$1.44 million	7,008,000	\$350.4 million
	Capacity	≤ 2 Years	≤ 2 Years	≤ 100	≤ \$8	≤ 2,400	\$19,200	1,752,000	\$14.016 million
	Transmission	≤ 2 Years	≤ 2 Years	≤ 100	Tariff	≤ 2,400	Tariff	1,752,000	Tariff

Sales		Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits	
Title	Product	Term	Lead Time	MW Size	Min. \$/MWH	Total Volume MWH	Total \$	Total Volume MWH	Total \$
Board	Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
CEO	Energy	≤ 2 Years	≤ 3 Years	≤ 400	No Limit	9,600	No Limit	11,100,000	No Limit
	Capacity	≤ 2 Years	≤ 3 Years	≤ 500	No Limit	12,000	No Limit	13,140,000	No Limit
	Transmission	≤ 2 Years	≤ 3 Years	≤ 100*	No Limit	2,400	No Limit	2,628,000	No Limit

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

Energy, Capacity and Transmission Authority Matrix Explanations

- Transaction limits represent the MW volume per hour and dollars/MWH for each transaction executed.
- Per Delivery Day Limits represent the total MWH volume and dollars for all transactions delivered in a given transaction day.
- Aggregate Limits represent the sum total MWH volume and dollars for all forward transactions.

Energy Related Transaction Authority Policy				
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Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

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

Delivery Locations

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

Unrestricted Delivery Locations

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

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

Restricted Delivery Locations

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

Firmness of Energy

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

Transmission Firmness and Volume

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

Energy Related Transaction Authority Policy				
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Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

5. MISO Transaction Authority

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

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

MISO Authority Matrix Explanations

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

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

6. PJM Transaction Authority (Non-Bilateral)

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

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

PJM Authority Matrix Explanations

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

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

Energy Related Transaction Authority Policy				
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7. Natural/Synthetic Gas and Transportation Transaction Authority

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

Title	Product	Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits (up to)	
		Term	Lead Time	Physical Volume per Day MMBtu	\$/ MMBtu	Physical Volume MMBtu	Total \$	Total Physical Volume MMBtu	Total \$
Board	Gas Products	No Limit	No Limit	No Max.	No Max.	No Max.	No Max.	No Max.	No Max.
CEO	Physical	> 1 Year	≤ 2 Years	25,000	\$15	25,000	\$375,000	1.2 million	\$18 million
		≤ 1 Year		No Max.	No Max.	No Max.	No Max.		

Gas Authority Matrix Explanations

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

Gas Firmness

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

Transportation Firmness and Volume

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

Delivery Locations

Gas transactions may only be executed at the following locations:

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

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

8. Fuel Oil Transaction Authority

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

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

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

Fuel Oil Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

9. Solid Fuel Transaction Authority

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

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

Solid Fuel Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

10. Transportation Transaction Authority

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

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

Transportation Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
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11. Emission Allowances Transaction Authority*

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

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

Emission Allowance Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

12. Limestone Reagent Transaction Authority

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

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

Limestone Reagent Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

13. Bulk Lime and Lime Hydrate Reagent Transaction Authority

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

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

Bulk Lime and Lime Hydrate Reagent Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

14. MATS Reagent Transaction Authority

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

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

MATS Reagent Authority Matrix Explanations

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

Energy Related Transaction Authority Policy				
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Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

15. Acknowledgements

Clear Authority and Staff and ACES Authority Delegations

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

Violations and Sanctions

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

Policy Effective

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

Responsibility

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

Energy Related Transaction Authority Policy				
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Number	Date	Notes	Approved by
		Replaced Risk Management Policy for Power Supply	Board
Original	06/15/2007	Trading Authority Policy w/o matrices	Board
Rev 1	10/16/2009	Name change to Energy Related Transaction Authority Policy with matrices	Board
Rev 2	11/19/2010	MISO Transaction Authority added	Board
Rev 3	12/17/2010	Updated Solid Fuel Transaction Authority	Board
Rev 4	03/18/2011	Added limestone and lime, general cleanup	Board
Rev 5	02/21/2012	Made revisions to account for retirement of Senior VP Energy Services	Board
Rev 6	02/14/2013	Changed VP Production to Chief Operating Officer. Changed Vice President of Governmental Relations and Enterprise Risk Management to Director Enterprise Risk Management/Strategic Planning. Under MISO, changed Aggregate Planning Resource Credits to Zonal Resource Credits.	
Rev 7	03/21/2014	Add date last reviewed line and correct section 4 to comply with Appendix	Board
Rev 8	08/15/2014	Remove reference to Chief Operating Officer	Board
Rev 9	02/20/2015	Added MATS reagents transaction authority; updated transaction authority for bilateral electric power and transmission and lime reagent; general clean up	Board
Rev 10	02/23/2016	Made changes to clarify transaction authority for purchases and sales for energy, capacity and transmission. Changes implemented to be inclusive of transportation for items shipped in bulk by barge, rail and truck. Updated transaction authority amounts for various lime and MATS reagents.	Board

Energy Related Transaction Authority Policy				
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1. Policy Purpose

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

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2. Objective

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

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

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3. Procedural Requirements

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

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Execution Authority

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

The transaction limits apply to both purchases and sales. Daily limits are applied to gross amounts transacted in total for the day, and not to purchases and sales netted together.

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



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Contract Requirements

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

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

Credit Requirements

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

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

Credit Sleeving

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

Contract Sleeving

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

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

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

Transaction Communications



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

Deal Capture

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

Speculation

Speculation refers to a purchase or sales transaction in which the intent was to realize a profit without taking physical delivery. No speculative transaction activities shall be permitted, and no speculative transaction positions shall be initiated. Transactions will be permitted only for purposes of hedging and portfolio optimization.

Non-Standard Products

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

Transactions Requiring Board Approval

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

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

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



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

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



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

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

Purchases	Title	Product	Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits	
			Term	Lead Time	MW Size	Max. \$/MWH	Total Volume MWH	Total \$	Total Volume MWH	Total \$
Board		Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	
CEO		Energy	≤ 2 Years	≤ 2 Years	≤ 400	≤ \$150	≤ 9,600	≤ \$1.44 million	≤ 7,008,000	≤ \$350.4 million
		Capacity	≤ 2 Years	≤ 2 Years	≤ 100	≤ \$8	≤ 2,400	≤ \$19,200	1,752,000	\$14.016 million
		Transmission	≤ 2 Years	≤ 2 Years	≤ 100	Tariff	≤ 2,400	Tariff	1,752,000	Tariff

Sales	Title	Product	Per Transaction Limits				Per Delivery Day Limits (up to)		Aggregate Limits	
			Term	Lead Time	MW Size	Min. \$/MWH	Total Volume MWH	Total \$	Total Volume MWH	Total \$
Board		Energy, Capacity and Transmission	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	
CEO		Energy	≤ 2 Years	≤ 3 Years	≤ 400	No Limit	≤ 9,600	No Limit	≤ 11,100,000	No Limit

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Capacity	≤ 2 Years	≤ 3 Years	≤ 500	No Limit	12,000	No Limit	13,140,000	No Limit
Transmission	≤ 2 Years	≤ 3 Years	≤ 100*	No Limit	2,400	No Limit	2,628,000	No Limit

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

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Energy, Capacity and Transmission Authority Matrix Explanations

- Transaction limits represent the MW volume per hour and dollars/MWH for each transaction executed.
- Per Delivery Day Limits represent the total MWH volume and dollars for all transactions delivered in a given transaction day.
- Aggregate Limits represent the sum total MWH volume and dollars for all forward transactions.
- Lead time represents the time period from the date the transaction is executed to the start of the transaction.
- Authorized products include energy both forwards and options, transmission and capacity, including both physical and financial derivatives. Options may only be entered into by the Big Rivers CEO or his designee.
- Authority for PJM and MISO products is defined in the authority matrices below.

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Delivery Locations

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

Unrestricted Delivery Locations

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

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

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Restricted Delivery Locations

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

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Firmness of Energy

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

Transmission Firmness and Volume

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



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5. MISO Transaction Authority

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

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

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MISO Authority Matrix Explanations

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

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

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6. PJM Transaction Authority (Non-Bilateral)

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

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

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PJM Authority Matrix Explanations

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

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

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7. Natural/Synthetic Gas and Transportation Transaction Authority

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

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Title	Product	Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits (up to)	
		Term	Lead Time	Physical Volume per Day MMBtu	\$/MMBtu	Physical Volume MMBtu	Total \$	Total Physical Volume MMBtu	Total \$
Board	Gas Products	No Limit	No Limit	No Max.	No Max.	No Max.	No Max.	No Max.	No Max.
CEO	Physical	> 1 Year ≤ 2 Years	≤ 2 Years	25,000	\$15	25,000	\$375,000	1.2 million	\$18 million
		≤ 1 Year		No Max.	No Max.	No Max.	No Max.		

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Gas Authority Matrix Explanations

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

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Gas Firmness

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

Transportation Firmness and Volume

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

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Delivery Locations

Gas transactions may only be executed at the following locations:

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

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

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8. Fuel Oil Transaction Authority

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

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

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

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Fuel Oil Authority Matrix Explanations

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

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9. Solid Fuel Transaction Authority

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

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

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Solid Fuel Authority Matrix Explanations

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

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10. Transportation Transaction Authority

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

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

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Transportation Authority Matrix Explanations

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

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11. Emission Allowances Transaction Authority*

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

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

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Emission Allowance Authority Matrix Explanations

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



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12. Limestone Reagent Transaction Authority

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

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

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Limestone Reagent Authority Matrix Explanations

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

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13. Bulk Lime and Lime Hydrate Reagent Transaction Authority

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

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

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Bulk Lime and Lime Hydrate Reagent Authority Matrix Explanations

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

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14. MATS Reagent Transaction Authority

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

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

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MATS Reagent Authority Matrix Explanations

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



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Policy Number: 105

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

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15. Acknowledgements

Clear Authority and Staff and ACES Authority Delegations

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

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Violations and Sanctions

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

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Policy Effective

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

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Responsibility

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

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BOARD POLICY

Policy Number: 105

Energy Related Transaction Authority Policy				
Original Effective Date	06/15/2007	Date Last Reviewed	02/23/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	02/23/2016	

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Number	Date	Notes	Approved by
		Replaced Risk Management Policy for Power Supply	Board
Original	06/15/2007	Trading Authority Policy w/o matrices	Board
Rev 1	10/16/2009	Name change to Energy Related Transaction Authority Policy with matrices	Board
Rev 2	11/19/2010	MISO Transaction Authority added	Board
Rev 3	12/17/2010	Updated Solid Fuel Transaction Authority	Board
Rev 4	03/18/2011	Added limestone and lime, general cleanup	Board
Rev 5	02/21/2012	Made revisions to account for retirement of Senior VP Energy Services	Board
Rev 6	02/14/2013	Changed VP Production to Chief Operating Officer. Changed Vice President of Governmental Relations and Enterprise Risk Management to Director Enterprise Risk Management/Strategic Planning. Under MISO, changed Aggregate Planning Resource Credits to Zonal Resource Credits.	
Rev 7	03/21/2014	Add date last reviewed line and correct section 4 to comply with Appendix	Board
Rev 8	08/15/2014	Remove reference to Chief Operating Officer	Board
Rev 9	02/20/2015	Added MATS reagents transaction authority; updated transaction authority for bilateral electric power and transmission and lime reagent; general clean up	Board
Rev 10	02/23/2016	Made changes to clarify transaction authority for purchases and sales for energy, capacity and transmission. Changes implemented to be inclusive of transportation for items shipped in bulk by barge, rail and truck. Updated transaction authority amounts for various lime and MATS reagents.	Board

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**Appendix A: Policy No. 105 –
Energy-Related Transaction Authority**

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

1. Purpose

The purpose of this appendix is to define the authority granted by the Big Rivers CEO (“CEO”) to Big Rivers’ staff and ACES to execute energy-related transactions.

2. Objective

The objective of this appendix is to extend authority within Policy 105 to Big Rivers’ internal staff and ACES.

3. Procedural Requirements

As an appendix to Policy 105, all requirements and criteria stated within Policy 105 apply to this appendix.

Delegation of authority regarding Contract Requirements

The CEO delegates his authority to use a long form confirmation as a valid agreement in lieu of a master agreement when necessary to the VP Energy Services, the Director of Resources and Forecasting, and the Director Power Supply & Market Operations.

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

4. Bilateral Energy and Capacity Sales Transaction Authority

The following outlines Big Rivers' staff and ACES bilateral transaction limits for energy and capacity transactions.

Sales		Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits	
Title	Product	Term	Lead Time	MW Size	Min. \$/MWH	Total Volume MWH	Total \$	Total Volume MWH	Total \$
VP Energy Services	Energy	≤ 1 Year	≤ 2 Years	200	No Limit	4,800	No Limit	3,508,800	No Limit
	Capacity	≤ 1 Year	≤ 1 Year	100	No Limit	2,400	No Limit	878,400	No Limit
Director Resources & Forecasting or Director Power Supply & Market Operations	Energy	≤ 3 Months	≤ 1 Year	100	No Limit	2,400	No Limit	878,400	No Limit
	Capacity	≤ 3 Months	≤ 1 Year	100	No Limit	2,400	No Limit	878,400	No Limit
Senior Power Portfolio Optimization Analyst	Energy	≤ 1 Week	≤ 1 Month	100	No Limit	2,400	No Limit	74,400	No Limit
ACES	Energy	≤ 1 Day*	≤ 1 Week	200	No Limit	4,800	No Limit	33,600	No Limit

* ≤ 1 Day will be a transaction that runs through hour ending 24 of the following business day, as such this would encompass all weekends and holidays for trading so long as the lead time and aggregate limits are followed.

Delegation of authority regarding Firmness of Power

The CEO delegates his authority to sell power that is more firm than the supply source to the VP Energy Services.

Delegation of authority regarding Restricted Delivery Locations

The CEO delegates his authority to execute transactions at other Eastern interconnection locations to the VP Energy Services.

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

5. MISO Transaction Authority

The following outlines Big Rivers' staff and ACES transaction limits for MISO products.

		MISO Per Transaction Limits (up to)			
Title	Product	Delivery Lead Time	Term	MW Size	
VP Energy Services	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1750	
	Ancillary Service Awards			425	
	Capacity	≤ 2 Years	≤ 2Years	425	\$150/MW-day
	Financial Transmission Rights	≤ 1 Year	≤ 1 Year	425	\$20/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	No Max	MISO Price Cap
Imports/Exports	No Max				
Director of Resources & Forecasting or Director Power Supply & Market Operations	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1700	
	Ancillary Service Awards			425	
	Capacity	≤ 1 Year	≤ 1Year	425	\$150/MW-day
	Financial Transmission Rights	≤ 6 months	≤ 6 months	425	\$12/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	400	MISO Price Cap
Imports/Exports	500				
Senior Power Portfolio Optimization Analyst	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1675	
	Ancillary Service Awards			425	
	Financial Transmission Rights	< 6 Months	< 6 Months	425	\$10/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	400	MISO Price Cap
Imports/Exports	450				
Energy Services Analyst	Demand Award	As Required by MISO	1 Operating Day	1675	MISO Price Cap
ACES	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1650	
	Ancillary Service Awards			425	
	Financial Transmission Rights	≤ 6 Months	≤ 6 Months	425	\$10/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	400	MISO Price Cap
Imports/Exports	400				

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

6. PJM Transaction Authority (Non-Bilateral)

The following outlines Big Rivers' staff and ACES transaction limits for PJM products.

		PJM Per Transaction Limits (up to)			
Title	Product	Delivery Lead Time	Term	MW Size	\$/MWh
VP Energy Services	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity				
	Financial Transmission Rights	≤ 1 Year	≤ 1 Year	210	\$20
	Virtual Transaction Awards	As Required by PJM	1 Operating Day	No Max	PJM Price Cap
Imports/Exports	No Max				
Director of Resources & Forecasting or Director Power Supply & Market Operations	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity				
	Financial Transmission Rights	≤ 1 Year	≤ 3 months	105	\$12
	Virtual Transaction Awards	As Required by PJM	1 Operating Day	400	PJM Price Cap
Imports/Exports	500				
Senior Power Portfolio Optimization Analyst	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity				
	Financial Transmission Rights	Not Authorized	Not Authorized	Not Authorized	Not Authorized
	Virtual Transaction Awards	As Required by PJM	1 Operating Day	400	PJM Price Cap
Imports/Exports	450				
ACES	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity				
	Financial Transmission Rights	Not Authorized	Not Authorized	Not Authorized	Not Authorized
	Virtual Transaction Awards	As Required by PJM	1 Operating Day	400	PJM Price Cap
Imports/Exports	400				

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

7. Natural/Synthetic Gas and Transportation Transaction Authority

The following outlines Big Rivers' staff and ACES transaction limits for natural/synthetic gas (Gas) and transportation transactions.

Title	Product	Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits (up to)	
		Term	Lead Time	Physical MMBtu Volume per Day	\$/MMBtu	Total Physical Volume MMBtu	Total \$	Total Physical Volume MMBtu	Total \$
VP Energy Services	Physical	> 1 Month ≤ 1 Year	≤ 1 Year	20,000	\$15	20,000	\$300,000	400,000	\$6 million
		≤ 1 Month		No Max	No Max	No Max	No Max		
Director of Resources & Forecasting or Director Power Supply & Market Operations	Physical	> 1 Week ≤ 1 Month	≤ 1 Year	10,000	\$15	10,000	\$150,000	200,000	\$3 million
		≤ 1 Week		≤ 1 Month	No Max.	No Max.	No Max		
ACES	Physical*	≤ 1 Week	≤ 1 Week	20,000	\$15	20,000	\$300,000	100,000	\$1.5 million
	Pipeline Payback			60,000	\$15	60,000	\$900,000	60,000	\$900,000

***Excludes purchases for pipeline payback. Purchases for pipeline payback are addressed separately in the row below.**

Delegation of authority regarding Gas Firmness

The CEO delegates his authority to sell gas that is more firm than the supply source to the VP Energy Services.

Delegation of authority regarding Transportation Firmness and Volume

The CEO delegates his authority to execute transportation purchases not of equal firmness and volume to the gas component that such transportation purchase is associated with to the VP Energy Services.

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

8. Fuel Oil Transaction Authority

The following outlines Big Rivers' staff transaction limits for fuel oil transactions.

<u>Title</u>	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Physical-Volume Gallons	\$/Gallon	Total Volume Gallons	Total \$
VP Production	Physical Fuel Oil	> 1 Month ≤ 1 Year	≤ 1 Year	750,000	\$6	4,000,000	\$24 Million
		≤ 1 Month		No Max	No Max		
Director of Fuels Procurement	Physical Fuel Oil	> 1 Week ≤ 1 Month	≤ 1 Year	500,000	\$6	1,000,000	\$6 million
		≤ 1 Week	≤ 1 Month	No Max	No Max		

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

9. Solid Fuel Transaction Authority

The following outlines Big Rivers' staff transaction limits for solid fuel.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/MMBtu	Total Volume Tons	Total \$
VP Production	Physical Solid Fuel	> 3 Months ≤ 1 Year	≤ 1 Year	500,000	\$2.50	1.0 million	\$60 million
		≤ 3 Months		100,000	\$2.85		
Director of Fuels Procurement	Physical Solid Fuel	> 3 Months ≤ 6 Months	≤ 1 Year	250,000	\$2.50	500,000	\$30 million
		≤ 3 Months		50,000	\$2.85		

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

10. Transportation Transaction Authority

The following outlines Big Rivers' staff transaction limits for transportation transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	Barge, Rail or Truck Transportation	> 3 Months ≤ 1 Years	≤ 1 Year	1 million	\$25	2 million	\$50 million
		≤ 3 Months		No Max	No Max		
Director of Fuels Procurement	Barge, Rail or Truck Transportation	> 1 Month ≤ 6 Months	≤ 1 Year	500,000	\$25	1 million	\$25 million
		≤ 1 Month	≤ 1 Month	No Max	No Max		

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

11. Emission Allowance Transaction Authority

The following outlines Big Rivers' staff and ACES transaction limits for emission allowance transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Energy Services	Federal SO2 Emission Allowances	≤ 1 Year	≤ 1 Year	2,500	\$300	10,000	\$3 million
	Federal NOx Emission Allowances	≤ 1 Year		1,250	\$2,000	5,000	\$10 million
Director of Resources & Forecasting or Director Power Supply & Market Operations	Federal SO2 Emission Allowances	≤ 1 Year	≤ 6 months	2,000	\$275	5,000	\$1 million
	Federal NOx Emission Allowances	≤ 1 Year		500	\$1,500	2,000	\$3 million
ACES	Federal SO2 Emission Allowances	As directed	As directed	As directed	As directed	As directed	As directed
	Federal NOx Emission Allowances	As directed		As directed	As directed		

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

12. Limestone Reagent Transaction Authority

The following outlines Big Rivers' staff transaction limits for limestone reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	Physical Limestone Reagent	≤ 1 Year	≤ 1 Year	187,500	\$18	375,000	\$6.75 million
Director of Fuels Procurement	Physical Limestone Reagent	≤ 3 Months	≤ 1 Year	93,750	\$18	187,500	\$3.375 million

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

13. Bulk Lime and Lime Hydrate Reagent Transaction Authority

The following outlines Big Rivers' staff transaction limits for bulk lime and lime hydrate reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	Physical Lime Reagent	≤ 1 Year	≤ 1 Year	250,000	\$200	250,000	\$50 million
Director of Fuels Procurement	Physical Lime Reagent	≤ 3 Months	≤ 1 Year	62,500	\$200	62,500	\$12.5 million

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

14. MATS Reagent Transaction Authority

The following outlines Big Rivers' staff transaction limits for MATS reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	MATS Reagent	≤ 1 Year	≤ 1 Year	8,500	\$4,000	8,500	\$ 34 million
Director of Fuels Procurement	MATS Reagent	≤ 3 Months	≤ 1 Year	3,000	\$4,000	3,000	\$ 12 million

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

15. Acknowledgements

Violations and Sanctions

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

Appendix Effective

This Transaction Authority Appendix is in effect upon the CEO's approval and shall remain in effect until a replacement appendix has been approved by the CEO.

Responsibility

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

Revisions

Big Rivers Policy 105/Appendix A Revision Record			
Number	Date	Notes	Approved by
Rev. 0	11-04-2009	Energy Related Trans	Mark Bailey
Rev. 1	11-22-2010	MISO and other misc. updates	Mark Bailey
Rev. 2	01-04-2011	Updated Solid Fuel Transaction Authority	Mark Bailey
Rev. 3	03-18-2011	Added Limestone and Lime, general cleanup	Mark Bailey
Rev. 4	12-05-2011	Update Bi-Lateral and Emission limits, add authority for PJM FTRs, add VP of Production	Mark Bailey
Rev. 5	05-07-2012	Remove Senior VP Energy Services from document due to retirement/elimination of role	Mark Bailey
Rev. 6	07-12-2012	Change Director of Power Portfolio Optimization to Managing Director Energy Services	Mark Bailey

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

Rev. 7	02-01-2013	Updated MISO capacity and Natural Gas limits, changed VP Production to Chief Operating Officer, changed Managing Director Energy Services to VP Energy Services, added Manager Power Supply & Market Operations, changed Power Scheduling Analyst to Power Portfolio Optimization Analyst and added Energy Services Analyst	Mark Bailey
Rev. 8	12-18-2013	Updated aggregate limits for VP Energy Services, increased offer price caps for capacity, updated VP Energy Services gas authorization to ensure ability to execute standard Texas Gas contracts, changed Power Portfolio Optimization Analyst title to reflect Senior status, replaced Manager Power Supply & Market Operations with Director Power Supply & Market Operations	Mark Bailey
Rev. 9	07-21-2014	Allocate authority previously held by Chief Operating Officer to VP Energy Services and VP Production	Robert W. Berry
Rev. 10	04-05-2016	Updated table under Section 4 to reflect new bilateral sales limits and deleted purchase authority, combined transaction authority for transportation, added to lime to be bulk lime and lime hydrate, and added MATS reagent limits.	Robert W. Berry
Rev. 11	04-15-2016	Added a footnote to the table in Section 4 to clearly define Big Rivers interpretation for ACES pertaining to ≤ 1 Day.	Robert W. Berry

Approved by CEO

CEO Signature: _____

Approval Date: _____



CEO POLICY

Policy Number: **105 Appendix A**

Appendix A to Policy 105 - Energy Related Transaction Authority

Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

1. Purpose

The purpose of this appendix is to define the authority granted by the Big Rivers CEO ("CEO") to Big Rivers' staff and ACES to execute energy-related transactions.

2. Objective

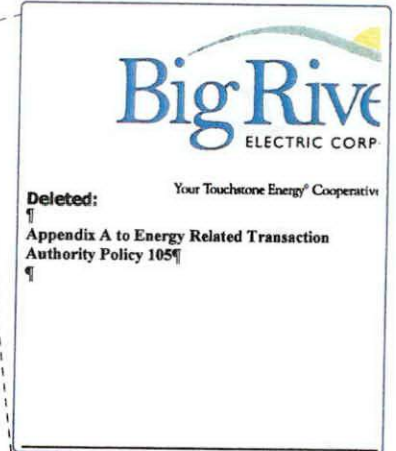
The objective of this appendix is to extend authority within Policy 105 to Big Rivers' internal staff and ACES.

3. Procedural Requirements

As an appendix to Policy 105, all requirements and criteria stated within Policy 105 apply to this appendix.

Delegation of authority regarding Contract Requirements

The CEO delegates his authority to use a long form confirmation as a valid agreement in lieu of a master agreement when necessary to the VP Energy Services, the Director of Resources and Forecasting, and the Director Power Supply & Market Operations.



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CEO POLICY

Policy Number: 105 Appendix A

Appendix A to Policy 105 - Energy Related Transaction Authority				
Original Effective Date	11/4/2009	Date Last Reviewed	04/15/2016	Approved by CEO
Original Approval Date	11/4/2009	Date Last Revised	04/15/2016	

4. Bilateral Energy and Capacity Sales Transaction Authority

The following outlines Big Rivers' staff and ACES bilateral transaction limits for energy and capacity transactions.

Sales		Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits	
Title	Product	Term	Lead Time	MW Size	Min. \$/MWH	Total Volume MWH	Total \$	Total Volume MWH	Total \$
VP Energy Services	Energy	≤ 1 Year	≤ 2 Years	200	No Limit	4,800	No Limit	3,508,800	No Limit
	Capacity	≤ 1 Year	≤ 1 Year	100	No Limit	2,400	No Limit	878,400	No Limit
Director Resources & Forecasting or Director Power Supply & Market Operations	Energy	≤ 3 Months	≤ 1 Year	100	No Limit	2,400	No Limit	878,400	No Limit
	Capacity	≤ 3 Months	≤ 1 Year	100	No Limit	2,400	No Limit	878,400	No Limit
Senior Power Portfolio Optimization Analyst	Energy	≤ 1 Week	≤ 1 Month	100	No Limit	2,400	No Limit	74,400	No Limit
ACES	Energy	≤ 1 Day*	≤ 1 Week	200	No Limit	4,800	No Limit	33,600	No Limit

* ≤ 1 Day will be a transaction that runs through hour ending 24 of the following business day, as such this would encompass all weekends and holidays for trading so long as the lead time and aggregate limits are followed.

Delegation of authority regarding Firmness of Power

The CEO delegates his authority to sell power that is more firm than the supply source to the VP Energy Services.

Delegation of authority regarding Restricted Delivery Locations

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CEO POLICY

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The CEO delegates his authority to execute transactions at other Eastern interconnection locations to the VP Energy Services.



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5. MISO Transaction Authority

The following outlines Big Rivers' staff and ACES transaction limits for MISO products.

Title	Product	MISO Per Transaction Limits (up to)			
		Delivery Lead Time	Term	MW Size	
VP Energy Services	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1750	
	Ancillary Service Awards			425	
	Capacity	≤ 2 Years	≤ 2Years	425	\$150/MW-day
	Financial Transmission Rights	≤ 1 Year	≤ 1 Year	425	\$20/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	No Max	MISO Price Cap
Imports/Exports	No Max				
Director of Resources & Forecasting or Director Power Supply & Market Operations	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1700	
	Ancillary Service Awards			425	
	Capacity	≤ 1 Year	≤ 1Year	425	\$150/MW-day
	Financial Transmission Rights	≤ 6 months	≤ 6 months	425	\$12/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	400	MISO Price Cap
Imports/Exports	500				
Senior Power Portfolio Optimization Analyst	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1675	
	Ancillary Service Awards			425	
	Financial Transmission Rights	< 6 Months	< 6 Months	425	\$10/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	400	MISO Price Cap
	Imports/Exports			450	
Energy Services Analyst	Demand Award	As Required by MISO	1 Operating Day	1675	MISO Price Cap
ACES	Generation Awards	As Required by MISO	1 Operating Day	425	MISO Price Cap
	Demand Awards			1650	
	Ancillary Service Awards			425	
	Financial Transmission Rights	≤ 6 Months	≤ 6 Months	425	\$10/MWh
	Virtual Transaction Awards	As Required by MISO	1 Operating Day	400	MISO Price Cap
	Imports/Exports			400	



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6. PJM Transaction Authority (Non-Bilateral)

The following outlines Big Rivers' staff and ACES transaction limits for PJM products.

Title	Product	PJM Per Transaction Limits (up to)			
		Delivery Lead Time	Term	MW Size	S/MWh
VP Energy Services	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity	≤ 1 Year	≤ 1 Year	210	\$20
	Financial Transmission Rights				
	Virtual Transaction Awards				
Imports/Exports	As Required by PJM	1 Operating Day	No Max No Max	PJM Price Cap	
Director of Resources & Forecasting or Director Power Supply & Market Operations	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity	≤ 1 Year	≤ 3 months	105	\$12
	Financial Transmission Rights				
	Virtual Transaction Awards				
Imports/Exports	As Required by PJM	1 Operating Day	400 500	PJM Price Cap	
Senior Power Portfolio Optimization Analyst	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity	Not Authorized	Not Authorized	Not Authorized	Not Authorized
	Financial Transmission Rights				
	Virtual Transaction Awards				
Imports/Exports	As Required by PJM	1 Operating Day	400 450	PJM Price Cap	
ACES	Generation Awards	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted	Not Presently Transacted
	Demand Awards				
	Ancillary Service Awards				
	Capacity	Not Authorized	Not Authorized	Not Authorized	Not Authorized
	Financial Transmission Rights				
	Virtual Transaction Awards				
Imports/Exports	As Required by PJM	1 Operating Day	400 400	PJM Price Cap	



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7. Natural/Synthetic Gas and Transportation Transaction Authority

The following outlines Big Rivers' staff and ACES transaction limits for natural/synthetic gas (Gas) and transportation transactions.

Title	Product	Per Transaction Limits (up to)				Per Delivery Day Limits (up to)		Aggregate Limits (up to)	
		Term	Lead Time	Physical MMBtu Volume per Day	\$/MMBtu	Total Physical Volume MMBtu	Total \$	Total Physical Volume MMBtu	Total \$
VP Energy Services	Physical	> 1 Month ≤ 1 Year	≤ 1 Year	20,000	\$15	20,000	\$300,000	400,000	\$6 million
		≤ 1 Month		No Max	No Max	No Max	No Max		
Director of Resources & Forecasting or Director Power Supply & Market Operations	Physical	> 1 Week ≤ 1 Month	≤ 1 Year	10,000	\$15	10,000	\$150,000	200,000	\$3 million
		≤ 1 Week		≤ 1 Month	No Max.	No Max.	No Max		
ACES	Physical*	≤ 1 Week	≤ 1 Week	20,000	\$15	20,000	\$300,000	100,000	\$1.5 million
	Pipeline Payback			60,000	\$15	60,000	\$900,000	60,000	\$900,000

***Excludes purchases for pipeline payback. Purchases for pipeline payback are addressed separately in the row below.**

Delegation of authority regarding Gas Firmness

The CEO delegates his authority to sell gas that is more firm than the supply source to the VP Energy Services.

Delegation of authority regarding Transportation Firmness and Volume

The CEO delegates his authority to execute transportation purchases not of equal firmness and volume to the gas component that such transportation purchase is associated with to the VP Energy Services.



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8. Fuel Oil Transaction Authority

The following outlines Big Rivers' staff transaction limits for fuel oil transactions.

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Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Physical-Volume Gallons	S/Gallon	Total Volume Gallons	Total \$
VP Production	Physical Fuel Oil	> 1 Month ≤ 1 Year	≤ 1 Year	750,000	\$6	4,000,000	\$24 Million
		≤ 1 Month		No Max	No Max		
Director of Fuels Procurement	Physical Fuel Oil	> 1 Week ≤ 1 Month	≤ 1 Year	500,000	\$6	1,000,000	\$6 million
		≤ 1 Week		≤ 1 Month	No Max		

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9. Solid Fuel Transaction Authority

The following outlines Big Rivers' staff transaction limits for solid fuel.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/MMBtu	Total Volume Tons	Total \$
VP Production	Physical Solid Fuel	> 3 Months ≤ 1 Year	≤ 1 Year	500,000	\$2.50	1.0 million	\$60 million
		≤ 3 Months		100,000	\$2.85		
Director of Fuels Procurement	Physical Solid Fuel	> 3 Months ≤ 6 Months	≤ 1 Year	250,000	\$2.50	500,000	\$30 million
		≤ 3 Months		50,000	\$2.85		

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10. Transportation Transaction Authority

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The following outlines Big Rivers' staff transaction limits for transportation transactions.

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Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	Barge, Rail or Truck Transportation	> 3 Months ≤ 1 Years	≤ 1 Year	1 million	\$25	2 million	\$50 million
		≤ 3 Months		No Max	No Max		
Director of Fuels Procurement	Barge, Rail or Truck Transportation	> 1 Month ≤ 6 Months	≤ 1 Year	500,000	\$25	1 million	\$25 million
		≤ 1 Month		≤ 1 Month	No Max		

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11. Emission Allowance Transaction Authority

The following outlines Big Rivers' staff and ACES transaction limits for emission allowance transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Energy Services	Federal SO2 Emission Allowances	≤ 1 Year	≤ 1 Year	2,500	\$300	10,000	\$3 million
	Federal NOx Emission Allowances	≤ 1 Year		1,250	\$2,000	5,000	\$10 million
Director of Resources & Forecasting or Director Power Supply & Market Operations	Federal SO2 Emission Allowances	≤ 1 Year	≤ 6 months	2,000	\$275	5,000	\$1 million
	Federal NOx Emission Allowances	≤ 1 Year		500	\$1,500	2,000	\$3 million
ACES	Federal SO2 Emission Allowances	As directed	As directed	As directed	As directed	As directed	As directed
	Federal NOx Emission Allowances	As directed		As directed	As directed		



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12. Limestone Reagent Transaction Authority

The following outlines Big Rivers' staff transaction limits for limestone reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	Physical Limestone Reagent	≤ 1 Year	≤ 1 Year	187,500	\$18	375,000	\$6.75 million
Director of Fuels Procurement	Physical Limestone Reagent	≤ 3 Months	≤ 1 Year	93,750	\$18	187,500	\$3.375 million

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13. Bulk Lime and Lime Hydrate Reagent Transaction Authority

The following outlines Big Rivers' staff transaction limits for bulk lime and lime hydrate reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	Physical Lime Reagent	≤ 1 Year	≤ 1 Year	250,000	\$200	250,000	\$50 million
Director of Fuels Procurement	Physical Lime Reagent	≤ 3 Months	≤ 1 Year	62,500	\$200	62,500	\$12.5 million



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14. MATS Reagent Transaction Authority

The following outlines Big Rivers' staff transaction limits for MATS reagent transactions.

Title	Product	Per Transaction Limits (up to)				Aggregate Limits (up to)	
		Term	Lead Time	Volume Tons	\$/Ton	Total Volume Tons	Total \$
VP Production	MATS Reagent	≤ 1 Year	≤ 1 Year	8,500	\$4,000	8,500	\$ 34 million
Director of Fuels Procurement	MATS Reagent	≤ 3 Months	≤ 1 Year	3,000	\$4,000	3,000	\$ 12 million

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			Approved by CEO

15. Acknowledgements

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Violations and Sanctions

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

Appendix Effective

This Transaction Authority Appendix is in effect upon the CEO's approval and shall remain in effect until a replacement appendix has been approved by the CEO.

Responsibility

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

Revisions

Big Rivers Policy 105/Appendix A Revision Record			
Number	Date	Notes	Approved by
Rev. 0	11-04-2009	Energy Related Trans	Mark Bailey
Rev. 1	11-22-2010	MISO and other misc. updates	Mark Bailey
Rev. 2	01-04-2011	Updated Solid Fuel Transaction Authority	Mark Bailey
Rev. 3	03-18-2011	Added Limestone and Lime, general cleanup	Mark Bailey
Rev. 4	12-05-2011	Update Bi-Lateral and Emission limits, add authority for PJM FTRs, add VP of Production	Mark Bailey
Rev. 5	05-07-2012	Remove Senior VP Energy Services from document due to retirement/elimination of role	Mark Bailey
Rev. 6	07-12-2012	Change Director of Power Portfolio Optimization to Managing Director Energy Services	Mark Bailey

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Rev. 7	02-01-2013	Updated MISO capacity and Natural Gas limits, changed VP Production to Chief Operating Officer, changed Managing Director Energy Services to VP Energy Services, added Manager Power Supply & Market Operations, changed Power Scheduling Analyst to Power Portfolio Optimization Analyst and added Energy Services Analyst	Mark Bailey
Rev. 8	12-18-2013	Updated aggregate limits for VP Energy Services, increased offer price caps for capacity, updated VP Energy Services gas authorization to ensure ability to execute standard Texas Gas contracts, changed Power Portfolio Optimization Analyst title to reflect Senior status, replaced Manager Power Supply & Market Operations with Director Power Supply & Market Operations	Mark Bailey
Rev. 9	07-21-2014	Allocate authority previously held by Chief Operating Officer to VP Energy Services and VP Production	Robert W. Berry
Rev. 10	04-05-2016	Updated table under Section 4 to reflect new bilateral sales limits and deleted purchase authority, combined transaction authority for transportation, added to lime to be bulk lime and lime hydrate, and added MATS reagent limits.	Robert W. Berry
Rev. 11	04-15-2016	Added a footnote to the table in Section 4 to clearly define Big Rivers interpretation for ACES pertaining to ≤ 1 Day.	Robert W. Berry

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Delegation of authority regarding Transmission Firmness and Volume

The CEO delegates his authority to execute transmission purchases not of equal firmness and volume to the energy component that such transmission purchase is associated with to the VP

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Policy No. 122 – Energy-Related Transaction Credit Policy

Energy Related Transaction Credit Policy				
Original Effective Date	02/21/2003	Date Last Reviewed	11/19/2015	Approved by BOARD
Original Approval Date	02/21/2003	Date Last Revised	11/19/2015	

Objective

The Big Rivers Electric Corporation (“Big Rivers”) Energy-Related Transaction Credit Policy (Credit Policy) outlines the credit policies and procedures utilized to guide a disciplined and integrated set of protocols for monitoring, measuring and managing the organization’s counterparty credit risks within the policies and risk tolerance of the organization.

This policy establishes an enterprise-wide program for managing total counterparty risk regarding energy-related transactions for only electric power and transmission. This policy excludes all transactions with Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs). This policy will set forth clear credit risk management objectives and articulates the credit risk tolerance of the organization. Lastly, this policy will establish a responsibility hierarchy for measuring and mitigating counterparty risk.

Credit Policy Criteria

Forms of credit risk are:

Payment Risk: The cost exposure to the value of accounts receivable and unbilled receivables (delivered but not invoiced).

Performance (mark to market) Risk: The cost exposure of replacing the contractual obligations of open contracts in the relevant market place.

As part of enterprise-wide risk management, credit risk management is a control and oversight activity. It must remain independent from the energy-related transaction authority activity, but work closely with those having responsibility and authority thereunder to ensure that appropriate credit practices are implemented and maintained.

a. Counterparty Credit Standards

Counterparty analysis

The creditworthiness of each counterparty must be determined through a fundamental analysis of the counterparty’s financial and operational condition. The credit analysis incorporates two basic components, a business profile (qualitative analysis) and a financial profile (quantitative analysis). A credit limit is established as a result of this due diligence process. A forward term restriction may also be established at this time if necessary. Big Rivers will utilize ACES’ credit staff to conduct counterparty credit analyses at least annually and also at any time when events or circumstances indicate that a counterparty’s creditworthiness may have deteriorated or improved significantly.

The credit analysis of each counterparty is to be performed by the Credit Department of ACES and submitted with recommendations regarding credit limits to the Big Rivers Credit Committee (“BRCC”) for approval. The BRCC will be comprised of three voting members (1) President & CEO, (2) CFO, and (3) the VP Energy Services, and one non-voting member, the Director Risk Management & Strategic Planning. The BRCC point of contact is the CFO. All formal credit files are to be maintained at the offices of ACES.

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Credit Approvals

Counterparties that have an issuer rating or a rating on long-term senior unsecured debt obligations of at least BB from Standard & Poor's or Fitch or Ba2 from Moody's may qualify for the extension of an open line of credit for transactions up to one (1) day forward. In the event that the counterparty does not have rated debt, an internal credit rating will be assigned based on the ACES' proprietary credit scoring model and approved by ACES's Director of Credit. Counterparties that qualify for an ACES internal rating of at least BB may qualify for an open line of credit for up to one (1) day forward.

Counterparties that have an issuer rating or a rating on long-term senior unsecured debt obligations of at least BBB- from Standard & Poor's or Fitch or Baa3 from Moody's may qualify for the extension of an open line of credit for transactions beyond one (1) day forward.

Credit enhancements

Counterparties that do not qualify for an extension of an open line of credit must post at least one of the following types of security prior to the execution of a transaction:

- Corporate Guarantee: Counterparties may provide a guarantee from a third party that meets the creditworthiness requirements noted above. If a counterparty provides such a guarantee, the amount of any open line of credit will be determined through an analysis of the financial statements of the guarantor. All guarantees must be in a format that is acceptable to BRCC.
- Letter of Credit: Counterparties may provide an irrevocable letter of credit for an amount sufficient to cover the related transactions. Letters of credit should be for a term of at least 45 days beyond the term of the most forward transaction. Letters of credit must be issued by a bank or a financial institution with a rating of at least A from Standard & Poor's or Fitch or A2 from Moody's.
- Prepayment (margin): Counterparties may provide a prepayment or cash margin deposit that is sufficient to cover the related transactions.

b. Determination of the Amount of an Open Line of Credit

Once a counterparty has been determined to be creditworthy, an open line of credit may be extended up to 5% of tangible net worth, or, in the case of governmental agencies or non-profit wholesale power suppliers, up to 10% of their average free cash flow for the prior two years.

- Available Credit is the dollar amount remaining open on the credit limit approved for a counterparty.
- Credit Limit is defined as:
 - a. the approved amount of the unsecured credit limit **plus**
 - b. the approved guaranteed amount of any guarantee(s) held **plus**
 - c. the value of any letter of credit or cash collateral held **plus**
 - d. the approved value of any other type of collateral held

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Risk rating

ACES will use the unsecured ratings of Standard & Poor’s or Fitch or Moody’s when available. Otherwise, an internal rating will be calculated based on ACES’ credit scoring model that will assign a rating similar to Standard & Poor’s.

Each counterparty will be assigned a risk rating based on the results of the credit analysis. Each risk rating will be associated with a default probability. This risk rating system will closely correspond to a Standard & Poor’s based rating system with ratings between A and CCC. The Director of Credit of ACES has the authority to approve risk ratings based on the established credit procedures.

ACES Internal Counterparty Rating System

For unrated counterparties two internal rating models are utilized. One credit scoring model is designed for public counterparties. This includes generation and transmission cooperatives, distribution cooperatives, municipalities, government agencies, public power agencies, and other not-for-profit counterparties. The second credit scoring model is used for assigning a rating to non-public counterparties or for-profit counterparties. The purpose of the two separate credit scoring models is to provide recognition of these two distinct business models and the drivers that meaningfully distinguish and measure the financial and credit risks of each.

Each model measures two sets of risk factors: qualitative and financial indicators. Each model assigns a composite credit score from 1 (best) to 6 (worst) that corresponds to a credit rating formatted to mimic the S&P corporate credit rating scale for both public and non-public counterparties as shown in the Addendum. The outline for each credit scoring model is presented in the Addendum.

c. Counterparty Credit Exposure

The total amount of a counterparty’s credit exposure is defined as:

1. The dollar value of all amounts invoiced and unpaid **plus**
2. The dollar amount of all deliveries that have not yet been invoiced **plus**
3. The mark to market value of all forward trades **less**
4. All offsetting amounts that are supported by legally binding netting agreements or Master Agreements.

Grouping of counterparties

Counterparties sharing a common parent or affiliation will be assigned to a group. A credit limit will be assigned to the group with individual credit limits being assigned to each counterparty within the group. The aggregate credit limit of these counterparties will not exceed the established group limit.

Credit File Documentation

Credit analysis, approvals and denials must be documented in writing and all counterparty information shall be contained in formal credit files, which are maintained at the offices of ACES. These credit files

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are expected to contain audited financial statements (or reference to the website location where the financials can be retrieved) and a credit review analysis report with a credit limit recommendation signed by the Director of Credit of ACES. These files should also contain as much of the following as possible:

- At least the two most recent years of audited financial statement information.
- Rating information as published by Standard & Poor's, Fitch or Moody's.
- General industry information.
- Copies of all credit related correspondence with the counterparty.

Approval Authority

The BRCC has the authority to approve credit limits up to \$10 million.

Any increase to the existing open line of credit must have the written approval of the BRCC.

Entering into unsecured transactions with a counterparty that will cause the total credit exposure to that counterparty to exceed the sum of its credit line plus any collateral held will not be approved. These transactions must be pre-approved, in writing, by the BRCC. All such transactions in violation of this policy will be reported to the Risk Management Committee of ACES and to Big Rivers' IRMC in a timely manner.

Credit Controls

An approved list of energy-related transaction counterparties noting credit limits and available credit is distributed by ACES on each business day to all traders via e-mail and posted to Big Rivers' ACES website.

An energy-related transaction restriction report noting counterparties that are credit approved on a secured basis or not approved for energy-related transactions under any scenario is periodically distributed by ACES to Big Rivers and posted to Big Rivers' ACES web site. Restrictions will be noted on the approved list of energy-related transaction counterparties report, which is distributed each business day.

Under no circumstances should a trade be executed with a counterparty that does not appear on the approved list of energy-related transaction counterparties unless the trade has been approved in writing by Big Rivers' President & CEO or CFO.

No credit sleeving transactions shall be executed. However, this policy does not prohibit a member of ACES being positioned between Big Rivers and a counterparty to bridge a contract gap with a counterparty, and vice versa.

The Director of Credit of ACES is to provide general oversight over the credit function, reporting any credit issues to the Risk Management Committee of ACES and to the BRCC.

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No new transactions are to be entered into with counterparties that have exceeded their credit limits except as they may mitigate (offset) existing exposure, or, if those transactions have prior approval of the BRCC. Any new unsecured, unauthorized transactions entered into with a counterparty that has a credit exposure in excess of its assigned credit limit will subject the trader to be sanctioned according to the Big Rivers' Risk Management Sanctions Policy (for Big Rivers Employees only, ACES' employees are governed by the ACES Power Marketing Trading Sanctions Policy).

Receivables/Payables Management

Unless otherwise notified by Big Rivers, ACES will assume all payments are received/sent by Big Rivers on the due date.

Credit Risk Mitigation

Negotiations of agreements and ongoing contractual terms with counterparties shall strive to include prudent industry practice credit provisions. These shall include, but are not limited to, explicit netting agreements and provisions granting the right to call for and receive collateral in the event the counterparty exceeds its approved credit limit or suffers a material adverse credit event.

Collateral Management

ACES is authorized to give Big Rivers' credit information to counterparties in order to establish credit approvals.

ACES is authorized to issue and respond to margin calls on behalf of Big Rivers. ACES will coordinate with Big Rivers regarding the issuance or receipt of collateral to support a transaction. ACES holds no collateral. ACES retains copies of letters of credit and guarantees unless instructed otherwise by BRCC.

Amendments to the Big Rivers Credit Policy Addendum

From time to time it may be necessary to make changes to the addendum of this policy. Changes to the addendum will require approval of the BRCC.

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Forms of credit risk are:

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As part of enterprise-wide risk management, credit risk management is a control and oversight activity. It must remain independent from the energy-related transaction authority activity, but work closely with those having responsibility and authority thereunder to ensure that appropriate credit practices are implemented and maintained.

a. Counterparty Credit Standards

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Counterparty analysis

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The credit analysis of each counterparty is to be performed by the Credit Department of ACES and submitted with recommendations regarding credit limits to the Big Rivers Credit Committee ("BRCC") for approval. The BRCC will be comprised of three voting members (1) President & CEO, (2) CFO, and (3)



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Credit enhancements

Counterparties that do not qualify for an extension of an open line of credit must post at least one of the following types of security prior to the execution of a transaction:

- **Corporate Guarantee:** Counterparties may provide a guarantee from a third party that meets the creditworthiness requirements noted above. If a counterparty provides such a guarantee, the amount of any open line of credit will be determined through an analysis of the financial statements of the guarantor. All guarantees must be in a format that is acceptable to BRCC.
- **Letter of Credit:** Counterparties may provide an irrevocable letter of credit for an amount sufficient to cover the related transactions. Letters of credit should be for a term of at least 45 days beyond the term of the most forward transaction. Letters of credit must be issued by a bank or a financial institution with a rating of at least A from Standard & Poor's or Fitch or A2 from Moody's.
- **Prepayment (margin):** Counterparties may provide a prepayment or cash margin deposit that is sufficient to cover the related transactions.

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Once a counterparty has been determined to be creditworthy, an open line of credit may be extended up to 5% of tangible net worth, or, in the case of governmental agencies or non-profit wholesale power suppliers, up to 10% of their average free cash flow for the prior two years.

- **Available Credit** is the dollar amount remaining open on the credit limit approved for a counterparty.

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- **Credit Limit** is defined as:
 - the approved amount of the unsecured credit limit **plus**
 - the approved guaranteed amount of any guarantee(s) held **plus**
 - the value of any letter of credit or cash collateral held **plus**
 - the approved value of any other type of collateral held

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Risk rating

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ACES will use the unsecured ratings of Standard & Poor's or Fitch or Moody's when available. Otherwise, an internal rating will be calculated based on ACES' credit scoring model that will assign a rating similar to Standard & Poor's.

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Grouping of counterparties

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Credit File Documentation

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- At least the two most recent years of audited financial statement information.
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Negotiations of agreements and ongoing contractual terms with counterparties shall strive to include prudent industry practice credit provisions. These shall include, but are not limited to, explicit netting agreements and provisions granting the right to call for and receive collateral in the event the counterparty exceeds its approved credit limit or suffers a material adverse credit event.

Collateral Management

ACES is authorized to give Big Rivers' credit information to counterparties in order to establish credit approvals.

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ACES is authorized to issue and respond to margin calls on behalf of Big Rivers. ACES will coordinate with Big Rivers regarding the issuance or receipt of collateral to support a transaction. ACES holds no collateral. ACES retains copies of letters of credit and guarantees unless instructed otherwise by BRCC.

Amendments to the Big Rivers Credit Policy Addendum

From time to time it may be necessary to make changes to the addendum of this policy. Changes to the addendum will require approval of the BRCC.

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**Addendum: Policy No. 122 –
Energy-Related Transaction Credit Policy**

Energy Related Transaction Credit Policy Addendum				
Original Effective Date	10/08/2004	Date Last Reviewed	11/06/2015	Approved by BRCC
Original Approval Date	10/08/2004	Date Last Revised	08/15/2014	

ACES Internal Credit Scoring/Rating Models

Calculation of Composite Credit Score and ACES Internal Rating for Public Counter Parties (including G&Ts & Municipalities)

Counterparty Name -

ABC Coop

	Score	Weight
Estimated Qualitative Score		60%
Financial Score		40%
Composite Score		100%

Table 1 for G&Ts	
Score	Internal Rating
1 to 1.33	AAA
1.34 to 1.66	AA+
1.67 to 2	AA
2.01 to 2.33	AA-
2.34 to 2.66	A+
2.67 to 3	A
3.01 to 3.33	A-
3.34 to 3.66	BBB+
3.67 to 4	BBB
4.01 to 4.33	BBB-
4.34 to 4.66	BB
4.67 to 5	CCC
>5	CCC
Bankruptcy	D

Internal Rating per Table 1

Financial Data (in 000s)	Score	
Current Ratio	0.00	0
Working Capital	0000	0
TNW	00,000	0
EBIT Int. Coverage	0.000	0
EBITDA Int. Coverage	0.00	0
Debt:Equity	00.00	0
Debt:Cap.	0.00	0
Pre-Tax ROE	0.00	0

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Computation of Financial Score

1. Financial Score is composed of three Financial Factors: Liquidity, Profitability, Leverage
2. Financial Scoring Ranges Table show the ranges for each ratio/computation, and the associated Score.
3. **Liquidity Raw Score** = Sum of Scores (Current Ratio; Working Capital; TNW; EBIT Int. Coverage; EBITDA Int. Coverage).
Leverage Raw Score = Sum of Scores (Debt/Equity, Debt/Capital).
Profitability Raw Score = Sum of Scores (Pretax ROE)
4. The Raw Score / # * Weight = Weighted Score for Factor

Financial Score Calculation		Raw Score	#	Weight	Weighted Score
1	Liquidity		5	0.50	0.00
2	Leverage		2	0.40	0.00
3	Profitability		1	0.10	0.00
	Total			1.00	0.00

Financial Data (in 000s)	Score	
Current Ratio	0	0
Working Capital	0	0
TNW	0	0
EBIT Int. Coverage	0.00	0
EBITDA Int. Coverage	0.00	0
Debt:Equity	0.00	0
Debt:Cap.	0.00	0
Pre-Tax ROE	.00%	0

Energy Related Transaction Credit Policy Addendum

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Public Sector Financial Scoring Ranges

Liquidity

Current Ratio			Working Capital (\$000s)		
0.00	0.30	6	<100	100.00	6
0.30	0.80	5	100.00	5000.00	5
0.80	1.30	4	5000.00	10000.00	4
1.30	1.60	3	10000.00	25000.00	3
1.60	1.90	2	25000.00	40000.00	2
>1.90		1	>40000		1

Tangible Net Worth (\$000's)			EBIT Interest Coverage		
<0	15000	6	<1	1.000	6
15001	40000	5	1.001	1.100	5
40001	65000	4	1.101	1.200	4
65001	75000	3	1.201	1.300	3
75001	85000	2	1.301	1.400	2
>85000		1	>1.4		1

EBITDA Interest Coverage		
<1.7	1.700	6
1.701	2.000	5
2.001	2.300	4
2.301	2.500	3
2.501	2.700	2
>2.7		1

Leverage

Total Debt/Equity			Total Debt/Tot. Capitalization		
0.000	0.100	1	0.000	0.100	1
0.101	2.300	2	0.101	0.700	2
2.301	3.400	3	0.701	0.800	3
3.401	7.900	4	0.801	0.900	4
7.901	12.400	5	0.901	1.000	5
>12.4	-	6	>1	-	6

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Profitability

Pre-tax Return on Equity		
<1.3%	1.300%	6
1.301%	3.400%	5
3.401%	5.500%	4
5.501%	12.600%	3
12.601%	19.700%	2
>19.7%		1

Financial Score Ratio Definitions

1. **Liquidity Scoring Group** – this indicator will comprise 50% of your Financial Score
 - a. **Current Ratio**
 - b. **Tangible Net Worth** = Equity or Patronage Capital – Intangibles – Goodwill – Net Value of LT Trading Book – Nuclear Decomm. Fund – High Risk Affiliate investment or receivable – Restricted Cash that is not a deduction or offset to a specific liability
 - c. **EBITDA Interest Coverage** = (Depreciation & Amort. + Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense
 - d. **Working Capital**
 - e. **EBIT Interest Coverage** = (Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense

2. **Leverage Scoring Group** – this indicator will comprise 40% of your Financial Score
 - a. **Total Debt to Equity**
 - b. **Total Debt to Capitalization** = Total Debt/(Total Debt + Total Equity)

3. **Profitability Scoring Group** – this indicator will comprise 10% of your Financial Score
 - a. **Return on Equity** = (Income Taxes (if applic.) + Net Income)/Total Equity

General Categories for Public Sector Qualitative Assessment

1. Rates/Regulations - how easy, how timely rates can be changed
2. Risk Management - G&T's risk management program - formalized?, fuel adjustments?, fuel supply contracts, percent generation purchases, etc.
3. Legal - bond indentures, member agreements, power supply contracts, rating change impact, etc.
4. Demographics - economic health of service area, growth, revenue make-up between industrial, commercial, or residential, etc.
5. Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?
6. Other - to address other pertinent factors that may impact creditworthiness of G&T

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The above topics are intended to be generic and are not all-inclusive. The intent is to allow the analyst to understand the unique business drivers for each non-rated G&T.

The qualitative score will range from 6 (worst) to 1 (best).

Calculation of Composite Credit Score and ACES Internal Rating for Non-Public Counter Parties

Counterparty Name -		XYZ Public Svc.		Table 1 for Non-Public	
		<u>Score</u>	<u>Weight</u>	<u>Score</u>	<u>Internal Rating</u>
Estimated Qualitative Score			40%	1 to 1.33	AAA
Financial Score			60%	1.34 to 1.66	AA+
Composite Score			100%	1.67 to 2	AA
				2.01 to 2.33	AA-
				2.34 to 2.66	A+
				2.67 to 3	A
				3.01 to 3.33	A-
				3.34 to 3.66	BBB+
				3.67 to 4	BBB
				4.01 to 4.33	BBB-
				4.34 to 4.66	BB
				4.67 to 5	CCC
				>5	CCC

Financial Data		Score	
EBIT Int. Coverage	0.00	4	
Tot. Debt/Tot. Capitalization	0.00	4	
CFFO/Tot. Debt	0.00	4	
Tangible Net Worth (\$000s)	00,000	5	

Internal Rating per Table 1

Computation of Financial Score

Financial Score Calculation		Raw Score	Weight	Weighted Score
1	EBIT Interest Coverage	4	35%	0.00
2	Tot. Debt/Tot. Capital.	4	30%	0.00
3	CFFO/Tot. Debt	4	25%	0.00
4	Tangible Net Worth	5	10%	0.00
	Total	17	100%	0.00

Financial Data		Score	
EBIT Int. Coverage	0.00	0	
Tot. Debt/Tot. Capitalization	0.00	0	
CFFO/Tot. Debt	0.00	0	

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Non-Public Sector Financial Scoring Ranges

EBIT Interest Coverage			Total Debt/Total Capital		
<.4x	.4x	6	75.1%	>75%	6
0.41x	1.5x	5	61.1%	75.0%	5
1.51x	2.6x	4	54.1%	61.0%	4
2.61x	3.4x	3	48.1%	54.0%	3
3.41x	3.9x	2	20.1%	48.0%	2
3.91x	>3.91x	1	<20%	20.0%	1

Tangible Net Worth (\$millions)			CFFO/Total Debt		
<500	500	6	<8%	8.00%	6
501	1200	5	8.01%	10.00%	5
1201	1800	4	10.10%	18.00%	4
1801	3500	5	18.01%	23.00%	3
3501	7000	2	23.01%	28.00%	2
>7000		1	>28%		1
Tangible Net Worth (\$000s)			00,000		0

Financial Score Ratio Definitions

- EBIT Interest Coverage** = (Tot. Interest Expense + Income Taxes + Net Income) / Tot. Interest Expense
- Total Debt to Capitalization** = Total Debt / (Total Debt + Total Equity)
- Cash Flow from Operations/ Total Debt**
Cash flow is directly from the Cash Flow Statement - total cash flow from operations (excludes cash flows from financing and investing activities)
- Tangible Net Worth** = Equity or Patronage Capital – Intangibles – Goodwill – Net Value of LT Trading Book – Nuclear Decomm. Fund – High Risk Affiliate investment or receivable – Restricted Cash that is not a deduction or offset to a specific liability

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General Categories for Qualitative Assessment

1. Rates/Regulations - how easy, how timely rates can be changed, regulated or unreg. Business, etc.
2. Risk Management - counter party's risk management program - formalized?, fuel adjustments?, fuel supply contracts, percent generation purchases, etc.
3. Legal - bond indentures, LT agreements, power supply contracts, rating change impact, etc.
4. Demographics - economic health of service area, growth, revenue make-up between industrial, commercial, or residential, etc.
5. Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?, outlook, etc.
6. Other - to address other pertinent factors that may impact creditworthiness of counter party

The above topics are intended to be generic and are not all-inclusive. The intent is to allow the analyst to understand the unique business drivers for each non-rated counter party.

The qualitative score will range from 6 (worst) to 1 (best).

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ACES Internal Credit Scoring/Rating Models

Calculation of Composite Credit Score and ACES Internal Rating for Public Counter Parties (including G&Ts & Municipalities)

Counterparty Name - **ABC Coop**

	Score	Weight
Estimated Qualitative Score		60%
Financial Score		40%
Composite Score		100%

Table 1 for G&Ts

Score	Internal Rating
1 to 1.33	AAA
1.34 to 1.66	AA+
1.67 to 2	AA
2.01 to 2.33	AA-
2.34 to 2.66	A+
2.67 to 3	A
3.01 to 3.33	A-
3.34 to 3.66	BBB+
3.67 to 4	BBB
4.01 to 4.33	BBB-
4.34 to 4.66	BB
4.67 to 5	CCC
>5	CCC
Bankruptcy	D

Internal Rating per Table 1

Financial Data (in 000s)	Score
Current Ratio	0.00 0
Working Capital	0000 0
INW	00,000 0
EBIT Int. Coverage	0.000 0
EBITDA Int. Coverage	0.00 0
Debt:Equity	00.00 0
Debt:Cap.	0.00 0
Pre-Tax ROE	0.00 0

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Computation of Financial Score

1. Financial Score is composed of three Financial Factors: Liquidity, Profitability, Leverage
2. Financial Scoring Ranges Table show the ranges for each ratio/computation, and the associated Score.
3. **Liquidity Raw Score** = Sum of Scores (Current Ratio; Working Capital; TNW; EBIT Int. Coverage; EBITDA Int. Coverage).
- Leverage Raw Score** = Sum of Scores (Debt/Equity, Debt/Capital).
- Profitability Raw Score** = Sum of Scores (Pretax ROE)
4. The Raw Score / # * Weight = Weighted Score for Factor

Financial Score Calculation		Raw Score	#	Weight	Weighted Score
1	Liquidity		5	0.50	0.00
2	Leverage		2	0.40	0.00
3	Profitability		1	0.10	0.00
	Total			1.00	0.00

Financial Data (in 000s)	Score
Current Ratio	0
Working Capital	0
TNW	0
EBIT Int. Coverage	0.00
EBITDA Int. Coverage	0.00
Debt/Equity	0.00
Debt/Cap.	0.00
Pre-Tax ROE	.00%

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Public Sector Financial Scoring Ranges

Current Ratio	Working Capital (\$000s)
0.00	<100
0.30	100.00
0.80	5000.00
1.30	10000.00
1.60	25000.00
1.90	40000.00
>1.90	>40000

Liquidity

Tangible Net Worth (\$000's)	EBIT Interest Coverage
<0	<1
15000	1.000
40000	1.100
40001	1.101
65000	1.200
75000	1.201
75001	1.300
85000	1.301
>85000	1.400
0	>1.4

EBITDA Interest Coverage
<1.7
1.700
2.000
2.300
2.301
2.500
2.501
2.700
>2.7

Leverage

Total Debt/Equity	Total Debt/Tot. Capitalization
0.000	0.000
0.100	0.100
0.101	0.101
2.300	0.700
2.301	0.701
3.400	0.800
7.900	0.801
7.901	0.900
12.400	1.000
>12.4	>1

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Profitability

Pre-tax Return on Equity		
<1.3%	1.300%	6
1.301%	3.400%	5
3.401%	5.500%	4
5.501%	12.600%	3
12.601%	19.700%	2
>19.7%		1

Financial Score Ratio Definitions

1. **Liquidity Scoring Group** – this indicator will comprise 50% of your Financial Score
 - a. **Current Ratio**
 - b. **Tangible Net Worth** = Equity or Patronage Capital – Intangibles – Goodwill – Net Value of LT Trading Book – Nuclear Decomm. Fund – High Risk Affiliate investment or receivable – Restricted Cash that is not a deduction or offset to a specific liability
 - c. **EBITDA Interest Coverage** = (Depreciation & Amort. + Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense
 - d. **Working Capital**
 - e. **EBIT Interest Coverage** = (Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense
2. **Leverage Scoring Group** – this indicator will comprise 40% of your Financial Score
 - a. **Total Debt to Equity**
 - b. **Total Debt to Capitalization** = Total Debt/(Total Debt + Total Equity)
3. **Profitability Scoring Group** – this indicator will comprise 10% of your Financial Score
 - a. **Return on Equity** = (Income Taxes (if applic.) + Net Income)/Total Equity

General Categories for Public Sector Qualitative Assessment

1. Rates/Regulations - how easy, how timely rates can be changed
2. Risk Management - G&T's risk management program - formalized?, fuel adjustments?, fuel supply contracts, percent generation purchases, etc.
3. Legal - bond indentures, member agreements, power supply contracts, rating change impact, etc.
4. Demographics - economic health of service area, growth, revenue make-up between industrial, commercial, or residential, etc.

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The above topics are intended to be generic and are not all-inclusive. The intent is to allow the analyst to understand the unique business drivers for each non-rated G&T.

The qualitative score will range from 6 (worst) to 1 (best).

Calculation of Composite Credit Score and ACES Internal Rating for Non-Public Counter Parties

Counterparty Name -

XYZ Public Svc.

Table 1 for Non-Public

	Score	Weight	Score	Internal Rating
Estimated Qualitative Score		40%	1 to 1.33	AAA
Financial Score		60%	1.34 to 1.66	AA+
Composite Score		100%	1.67 to 2	AA
			2.01 to 2.33	AA-
			2.34 to 2.66	A+
Internal Rating per Table 1			2.67 to 3	A
			3.01 to 3.33	A-
			3.34 to 3.66	BBB+
			3.67 to 4	BBB
			4.01 to 4.33	BBB-
			4.34 to 4.66	BB
			4.67 to 5	CCC
			>5	CCC

Financial Data	Score
EBIT Int. Coverage	0.00 4
Tot. Debt/Tot. Capitalization	0.00 4
CFFO/Tot. Debt	0.00 4
Tangible Net Worth (\$000s)	00,000 5

- Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?
- Other - to address other pertinent factors that may impact creditworthiness of G&T

Computation of Financial Score

Financial Score Calculation		Raw Score	Weight	Weighted Score
1	EBIT Interest Coverage	4	35%	0.00
2	Tot. Debt/Tot. Capital.	4	30%	0.00
3	CFFO/Tot. Debt	4	25%	0.00
4	Tangible Net Worth	5	10%	0.00
	Total	17	100%	0.00

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Non-Public Sector Financial Scoring Ranges

EBIT Interest Coverage	Total Debt/Total Capital	
	>75.1%	>75.0%
<.4x	6	6
.41x	5	5
1.51x	4	4
2.61x	3	3
3.41x	2	2
3.91x	1	1

Tangible Net Worth (\$millions)	CFFO/Total Debt	
	<8%	8.00% - 28.00%
<500	6	6
501	5	5
1201	4	4
1801	5	3
3501	2	2
>7000	1	1

Financial Data	Score
EBIT Int. Coverage	0.00
Tot. Debt/Tot. Capitalization	0.00
CFFO/Tot. Debt	0.00
Tangible Net Worth (\$000s)	00,000

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Financial Score Ratio Definitions

1. **EBIT Interest Coverage** = (Tot. Interest Expense + Income Taxes + Net Income) / Tot. Interest Expense
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5. Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?, outlook, etc.
6. Other - to address other pertinent factors that may impact creditworthiness of counter party

The above topics are intended to be generic and are not all-inclusive. The intent is to allow the analyst to understand the unique business drivers for each non-rated counter party.

The qualitative score will range from 6 (worst) to 1 (best).

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	Date Last Revised <u>08/15/2014</u>

Policy Number 122

BOARD POLICY



Your Touchstone Energy® Cooperative 

Energy-Related Transaction Credit Policy
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Policy Number 122

BOARD POLICY



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Energy-Related Transaction Credit Policy

Public Sector Financial Scoring Ranges**Liquidity**

	Current Ratio			Working Capital (\$000s)		
0.00	0.30	6	<100	100.00	6	
0.30	0.80	5	100.00	5000.00	5	
0.80	1.30	4	5000.00	10000.00	4	
1.30	1.60	3	10000.00	25000.00	3	
1.60	1.90	2	25000.00	40000.00	2	
>1.90		1	>40000		1	

Tangible Net Worth (\$000's)

<0	15000	6
15001	40000	5
40001	65000	4
65001	75000	3
75001	85000	2
>85000		1

EBIT Interest Coverage

<1	1.000	6
1.001	1.100	5
1.101	1.200	4
1.201	1.300	3
1.301	1.400	2
>1.4		1

EBITDA Interest Coverage

<1.7	1.700	6
1.701	2.000	5
2.001	2.300	4
2.301	2.500	3
2.501	2.700	2
>2.7		1

Leverage

	Total Debt/Equity			Total Debt/Tot. Capitalization		
0.000	0.100	1	0.000	0.100	1	
0.101	2.300	2	0.101	0.700	2	
2.301	3.400	3	0.701	0.800	3	

3.401	7.900	4	0.801	0.900	4
7.901	12.400	5	0.901	1.000	5
>12.4		6	>1		6

Profitability

Pre-tax Return on Equity		
<1.3%	1.300%	6
1.301%	3.400%	5
3.401%	5.500%	4
5.501%	12.600%	3
12.601%	19.700%	2
>19.7%		1

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b. **Tangible Net Worth** = Equity or Patronage Capital – Intangibles- Goodwill – Net Value of LT Trading Book – Nuclear Decomm.
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c. EBITDA Interest Coverage = (Depreciation & Amort. + Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net
Interest Expense

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= (Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense

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= Total Debt/(Total Debt + Total Equity)

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3. Profitability Scoring Group – this indicator will comprise 10% of your Financial Score

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a. Return on Equity = (Income Taxes (if applic.) + Net Income)/Total Equity

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1. 1. Rates/Regulations - how easy, how timely rates can be changed

per cent generation purchases, etc.

2. 3. Legal - bond indentures, member agreements, power supply contracts, rating change impact, etc.

or residential, etc.

3. 5. Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?

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understand the unique business drivers for each non-rated G&T.

The qualitative score will range from 6 (worst) to 1 (best).

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Board	Original Approval Date <u>10/08/2004</u>
	Date Last Reviewed <u>08/15/2014</u>
	Date Last Revised <u>08/15/2014</u>

Policy Number 122

BOARD POLICY



Your Touchstone Energy® Cooperative 

Energy-Related Transaction Credit Policy
ADDENDUM 1

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Policy Number 122

BOARD POLICY



Your Touchstone Energy® Cooperative 

Energy-Related Transaction Credit Policy
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High Risk Affiliate investment or receivable - Restricted Cash that is not a deduction or offset to a specific liability

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1. 1. Rates/Regulations - how easy, how timely rates can be changed, regulated or unreg. Business, etc.

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per cent generation purchases, etc.

2. 3. Legal - bond indentures, LT agreements, power supply contracts, rating change impact, etc.

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or residential, etc.

3. 5. Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?, outlook, etc.

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understand the unique business drivers for each non-rated counter party.

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BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 16)**

- 2 **a. State whether Big Rivers is aware of any violations of its**
3 **policies and procedures regarding fuel procurement that**
4 **occurred prior to or during the period from November 1,**
5 **2015, through April 30, 2016.**
- 6 **b. If yes, for each violation:**
7 **(1) Describe the violation;**
8 **(2) Describe the action(s) that Big Rivers took upon**
9 **discovering the violation; and**
10 **(3) Identify the person(s) who committed the violation.**

11

12 **Response)**

- 13 **a. Big Rivers is unaware of any violations of its policies and**
14 **procedures regarding fuel procurement that occurred during the**
15 **period November 1, 2015, through April 30, 2016. Big Rivers is**
16 **also unaware of any unreported violation prior to the current**
17 **period under review.**
- 18 **b.**
19 **(1) - (3)**
20 **Not Applicable.**

21

22 **Witnesses) Mark W. McAdams (Coal) and**
23 **Wayne O'Bryan (Natural Gas).**

**Case No. 2016-00235
Response to Staff Item 16
Witnesses: Mark W. McAdams (Coal) and
Wayne O'Bryan (Natural Gas)
Page 1 of 1**

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 Item 17) *Identify and explain the reasons for all changes in the*
2 *organizational structure and personnel of the departments or divisions*
3 *that are responsible for Big Rivers' fuel procurement activities that*
4 *occurred during the period from November 1, 2015, through April 30, 2016.*
5

6 **Response)** During the period from November 1, 2015, through April 30, 2016,
7 there have been no changes in the organizational structure and personnel of the
8 departments or divisions that are responsible for Big Rivers' fuel procurement
9 activities.
10

10

11

12 **Witnesses)** Mark W. McAdams (*Coal*) and

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

14

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 18)**

- 2 *a. Identify all changes that Big Rivers has made during the*
3 *period under review to its maintenance and operation*
4 *practices that also affect fuel usage at Big Rivers'*
5 *generation facilities.*
6 *b. Describe the impact of these changes on Big Rivers' fuel*
7 *usage.*

8

9 **Response)**

- 10 a. During the period under review Big Rivers changed some
11 operating practices at its HMP&L Station Two generation
12 facilities that allowed the units to reduce the minimum load that
13 could be offered into the MISO market during off-peak or low-
14 price periods. This change allowed Big Rivers' Energy Services
15 the flexibility to offer the HMP&L unit's generation into the
16 market at lower minimum loads in order to reduce generation
17 exposure during low market price periods. This change also
18 affected fuel usage, resulting in additional inventory.
19 b. From November 1 through December 31 of the period under
20 review, the lower minimum generation market offers reduced
21 the amount of fuel consumed by the HMP&L generating units
22 by approximately 8,800 tons that would have been burned at the
23 higher minimum generation. Beginning January 1, 2016, the
24

**Case No. 2016-00235
Response to Staff Item 18
Witness: Lawrence V. Baronowsky
Page 1 of 2**

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 reduced minimum generation and resulting reduction in fuel
2 usage was included in Big Rivers' operating plan.

3

4 **Witness)** Lawrence V. Baronowsky

5

**Case No. 2016-00235
Response to Staff Item 18
Witness: Lawrence V. Baronowsky
Page 2 of 2**

BIG RIVERS ELECTRIC CORPORATION

AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235

Response to Commission Staff's Request for Information
dated August 12, 2016

August 26, 2016

1 Item 19) *List each written coal supply solicitation issued during the*
2 *period from November 1, 2015, through April 30, 2016.*

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

a. and b.

21

Big Rivers issued no written coal supply solicitations during the
22 period from November 1, 2015, through April 30, 2016.

23

24

25

Witness) Mark W. McAdams

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2015 THROUGH APRIL 30, 2016
CASE NO. 2016-00235**

**Response to Commission Staff's Request for Information
dated August 12, 2016**

August 26, 2016

1 **Item 20) *List each oral coal supply solicitation issued during the***
2 ***period from November 1, 2015, through April 30, 2016.***

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 from November 1, 2015, through April 30, 2016.**

21

22

23 **Witness) Mark W. McAdams**

24

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August 26, 2016

1 **Item 21)**

- 2 **a. *List all intersystem sales during the period under review***
3 ***in which Big Rivers used a third party's transmission***
4 ***system.***
- 5 **b. *For each sale listed above:***
- 6 ***(1) Describe the effect on the FAC calculation of line***
7 ***losses related to intersystem sales when using a third***
8 ***party's transmission system; and***
- 9 ***(2) State the line-loss factor used for each transaction***
10 ***and describe how that line-loss factor was***
11 ***determined.***

12

13 **Response)**

- 14 **a. Big Rivers had no intersystem sales during the period under**
15 **review in which Big Rivers used a third party's transmission**
16 **system.**
- 17 **b.**
- 18 **(1) Not Applicable.**
- 19 **(2) Not Applicable.**

20

21 **Witnesses)**

- 22 **a. Wayne O'Bryan**
- 23 **b.(1) Nicholas R. Castlen**
- 24 **b.(2) Wayne O'Bryan**

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Witnesses: Wayne O'Bryan [a. and b.(2)] and
Nicholas R. Castlen [b.(1)]
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1 **Item 22)**

2 *a. Describe the effect on the FAC calculation of line losses*
3 *related to intersystem sales when not using a third party's*
4 *transmission system.*

5 *b. Describe each change that Big Rivers made to its*
6 *methodology for calculating intersystem sales line losses*
7 *during the period under review*

8

9 **Response)**

10 a. Line losses related to intersystem sales are included in Big Rivers'
11 total System Losses reported on page 3 of its monthly Form A
12 filing. Big Rivers calculates an overall system average fuel cost
13 per kWh each month by dividing (1) the total cost of fuel for
14 generation by (2) the net kWh generated minus total System
15 Losses. The overall system average fuel cost per kWh (which
16 accounts for total System Losses, including line losses related to
17 intersystem sales) is multiplied by the intersystem sales volume
18 to calculate the cost of fuel allocated to intersystem sales in Big
19 Rivers' monthly Form A filing.

20 b. Big Rivers made no changes to its methodology for calculating
21 intersystem sales line losses during the period under review

22

23 **Witnesses)**

24 a. Nicholas R. Castlen

25 b. Wayne O'Bryan

**Case No. 2016-00235
Response to Staff Item 22
Witnesses: Nicholas R. Castlen (a.) and
Wayne O'Bryan (b.)
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1 **Item 23)** *State whether, during the period under review, Big Rivers has*
2 *solicited bids for coal with the restriction that it was not mined through*
3 *strip mining or mountain top removal. If yes, explain the reasons for the*
4 *restriction on the solicitation, the quantity in tons and price per ton of the*
5 *coal purchased as a result of this solicitation, and the difference between*
6 *the price of this coal and the price it could have obtained for the coal if*
7 *the solicitation had not been restricted.*

8

9 **Response)** Big Rivers has not solicited any bids for coal with the restrictions
10 that it was not mined through strip mining or mountain top removal.

11

12

13 **Witness)** Mark W. McAdams

14

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1 Item 24) *Provide a detailed discussion of any specific generation*
2 *efficiency improvements Big Rivers has undertaken during the period*
3 *under review.*

4
5 Response) During the period under review, Big Rivers completed an overhaul of
6 its Green Station Unit 1 turbine as part of a planned maintenance outage. Big
7 Rivers retained engineering firm Black & Veatch to assess the turbine cycle
8 efficiency improvement realized by the overhaul. The following is an excerpt from
9 the Black & Veatch turbine overhaul assessment:

10
11 *"As a result of the turbine overhaul, corrected net turbine cycle heat rate*
12 *improved significantly across the outage. CNTHR dropped by about [REDACTED]*
13 *BTU/KWH from [REDACTED] to [REDACTED] BTU/KWH at full load, as shown ...*
14 *below."*

15

	Parameter	Units	Pre-outage Data 9/24/15 14:00-18:00	Post-outage Data 11/23/15 14:00-18:00	% Change
Turbine	HP Efficiency	%			
	IP Efficiency	%			
	Corrected Turbine HR	Btu/kWh			

16
17 Witness) Lawrence V. Baronowsky
18

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Witness: Lawrence V. Baronowsky
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1 **Item 25)** *State whether all fuel contracts related to commodity and/or*
2 *transportation have been filed with the Commission. If any contracts*
3 *have not been filed, explain why they have not been filed and provide a*
4 *copy.*

5

6 **Response)** All of Big Rivers' long-term fuel and transportation contracts have
7 been filed with the Commission. Also, please see Big Rivers' response to Item 2.

8

9

10 **Witnesses)** Mark W. McAdams (*Coal*) and
11 Wayne O'Bryan (*Natural Gas*)

12

BIG RIVERS ELECTRIC CORPORATION

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August 26, 2016

1 *Item 26) Refer to 807 KAR 5:056, Sections 1 (3)(a), 1(3)(b), and 1(4),*
2 *relating to forced outages. State whether Big Rivers interprets these*
3 *sections of the regulation to mean that, during a forced outage (as defined*
4 *by the regulation), the amount recoverable through the FAC is the lesser of*
5 *the assigned cost of power (the cost of fuel that would have been used in*
6 *plants suffering a forced outage) and the substitute cost of power. If yes,*
7 *explain in detail how Big Rivers calculates the assigned cost of fuel*
8 *during a forced outage. If no, explain in detail how Big Rivers interprets*
9 *the regulation related to forced outages and how it calculates the*
10 *assigned cost of fuel during a forced outage.*

11

12 **Response)** Yes, Big Rivers interprets 807 KAR 5:056, Sections 1(3)(a), 1(3)(b),
13 and 1(4), relating to forced outages, to mean that during a forced outage, the
14 amount recoverable through the FAC is the lesser of the assigned cost of power
15 (the cost of fuel that would have been used in plants suffering a forced outage) and
16 the substitute cost of power.

17 The assigned cost of power, related to forced outages, is reported in
18 the "Fuel (assigned cost during Forced Outage)" line, under Company Generation
19 on page 2, Fuel Cost Schedule, of Big Rivers' Form A filing, and is calculated as
20 follows:

21

22 a. First, the average net generation per hour (for the unit suffering
23 the forced outage) is calculated based on the unit's net
24 generation during the seven most recent days preceding the
25 forced outage, during which time the unit was operating under

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1 normal conditions. The sum of the net kWh generated by the
2 unit during those seven days is divided by 168 hours (the
3 number of hours in seven days) to determine the unit's average
4 net generation per hour.

5 b. The unit's average net generation per hour (calculated in a.
6 above) is then multiplied by the number of hours during the
7 forced outage to determine the net kWh that could have been
8 generated by the unit during the forced outage, had the unit not
9 suffered the forced outage.

10 c. The net kWh that could have been generated by the unit during
11 the forced outage (calculated in b. above) is then multiplied by
12 the unit's average fuel cost per net kWh of generation to
13 determine the "Fuel (assigned cost during Forced Outage)."
14

15 The substitute cost of power consists of the cost of fuel for substitute
16 power from Big Rivers' own generation (included as "Fuel (substitute cost during
17 Forced Outage)" under Company Generation on page 2, Fuel Cost Schedule, of Big
18 Rivers' Form A filing) and the energy cost of substitute power from power
19 purchases (included as "Identifiable fuel cost – Forced Outage purchases" under
20 Purchases on page 2, Fuel Cost Schedule, of Big Rivers' Form A filing).

21 The lesser of the assigned cost and the substitute cost of power for
22 forced outages is recovered through Big Rivers' FAC. To do this, an adjustment
23 ("Identifiable fuel cost (substitute for Forced Outage)") is included under the
24 Purchases section on Big Rivers' Fuel Cost Schedule, which subtracts the greater
25 of (1) the excess (if any) of the "Fuel (assigned cost during Forced Outage)" over

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1 the "Fuel (substitute cost for Forced Outage)" and (2) the "Identifiable fuel cost –
2 Forced Outage purchases." As a result of this adjustment, the amount of forced
3 outage costs, recovered through Big Rivers' FAC, cannot exceed the assigned cost,
4 and it may be less.

5

6

7 **Witnesses)** Nicholas R. Castlen

8

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1 **Item 27) State whether Big Rivers had any firm natural gas**
2 **transportation service to any of its generating units during the period**
3 **under review.**

4
5 **a. If yes, state which, if any, of the following fees and/or**
6 **adjustments are included for recovery through the FAC:**
7 **Reservations fees; Transportation Cost Rate Adjustment;**
8 **Electric Power Costs Adjustment; Operational Transaction**
9 **Rate Adjustment; and, Capital Cost Recovery Mechanism.**

10 **b. If any of the fees listed in subpart a. are included for**
11 **recovery through the FAC, provide the following:**

12 **(1) Whether the amount of the fees/adjustments differ if**
13 **the generating unit supplied with firm natural gas**
14 **transportation service operates or does not operate**
15 **during the month.**

16 **(2) Whether these fees/adjustments are allocated to both**
17 **native load and off-system sales..**

18
19 **Response) Big Rivers did not have any firm natural gas transportation service**
20 **to any of its generating units during the period under review.**

21
22 **a. and b.**

23 **Not Applicable.**
24

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Response to Staff Item 27

Witnesses: Wayne O'Bryan (Gas transportation service only) and
Nicholas R. Castlen (a. and b. only)

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1
2
3
4

**Witnesses) Wayne O'Bryan (*Gas transportation service only*) and
Nicholas R. Castlen (*a. and b. only*)**

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Nicholas R. Castlen (*a. and b. only*)
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