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February 17, 2017

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FEB 20 2017

PUBLIC SERVICE
COMMISSION

Via Federal Express

Dr. Talina R. Mathews
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, 2014 through October 31, 2016*
Case No. 2017-00006

Dear Dr. Mathews:

Enclosed for filing on behalf of Big Rivers Electric Corporation are an original and ten (10) copies of (i) Big Rivers' responses to the information requested in Appendix B of the Public Service Commission's February 6, 2017, order in the above-referenced matter; (ii) the direct testimonies of Mark W. McAdams and Wayne O'Bryan; and (iii) a petition for confidential treatment. There are no other parties to this proceeding upon whom copies of these documents must be served.

Sincerely,

Tyson Kamuf
Counsel for Big Rivers Electric Corporation

TAK/lm
Enclosures

cc: DeAnna Speed

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FEB 20 2017

PUBLIC SERVICE
COMMISSION

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)	Case No.
FROM)	2017-00006
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016)	

DIRECT TESTIMONY

OF

**MARK W. McADAMS
DIRECTOR, FUELS PROCUREMENT**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: FEBRUARY 20, 2015

ORIGINAL

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**DIRECT TESTIMONY
OF
MARK W. McADAMS**

5 **Q. Please state your name, business address and occupation.**

6 A. My name is Mark W. McAdams, and my business address is Big Rivers
7 Electric Corporation ("Big Rivers"), 201 Third Street, Henderson, Kentucky,
8 42420. I am the Director, Fuels Procurement for Big Rivers. During the
9 review period, I have reported to Robert W. Berry (formerly Chief
10 Operating Officer, now President and Chief Executive Officer) and to James
11 R. Garrett, Interim Vice President, Production. As of February 10, 2015, I
12 report to Michael T. Pullen, Vice President, Production.

13
14 **Q. Please summarize your education and professional experience.**

15 A. I have Bachelor's degrees in Biology, Psychology, and Business, as well as a
16 Master of Business Administration with a Management emphasis. I am
17 also certified in purchasing management (C.P.M.) and a member of the
18 Institute of Supply Management. I was a Domestic and Industrial
19 Marketing Representative for Chevron U.S.A, prior to joining Louisville
20 Gas and Electric Company ("LG&E") in 1990. During my tenure at LG&E,
21 I served as logistics coordinator and contract administrator. In July 1998, I
22 was transferred to the Western Kentucky Energy Corp. ("WKE") subsidiary
23 and became the Manager, Fuels Strategy and Procurement. I left WKE on

1 December 31, 2007, to assume the responsibilities of the Director Fuels
2 Procurement for Big Rivers.

3

4 **Q. Please summarize your duties at Big Rivers.**

5 A. I am responsible for Big Rivers' procurement of solid fuel, fuel oil, flue-gas
6 desulphurization bulk reagent (lime and limestone), and related logistics
7 associated with the delivery of the foregoing materials

8

9 **Q. Have you previously testified before this Commission?**

10 A. Yes. During my tenure with LG&E, I testified in LG&E's fuel reviews.
11 During my time at Big Rivers, I have testified in Big Rivers' six-month and
12 two-year fuel adjustment clause ("FAC") reviews since 2009.

13

14 **Q. What is the purpose of your testimony in this proceeding?**

15 A. The purpose of my testimony is to describe Big Rivers' procurement
16 practices for fuel as they relate to the FAC for the period from November 1,
17 2014, through October 31, 2016 (the "Review Period").

18

19 **Q. Have Big Rivers' coal suppliers adhered to their contract delivery
20 schedules during the Review Period?**

21 A. Yes, the majority of coal supply contracts are compliant with contract
22 delivery schedules that were established during the time frame of the

1 Review Period. During the Review Period, Big Rivers received a notice of
2 mine idling by Alliance / Sebree Mining (Onton mine), shifting coal supply
3 sourcing to Alliance Coal subsidiaries River View mining and Webster
4 County (Dotiki) mining operations. Also, during this review period, Patriot
5 Coal elected to sell their Patriot Highland operations to Alliance. Alliance,
6 thereafter, elected to close the Highland mining operation. Remaining coal
7 supply pursuant to the Patriot Highland Coal Supply Agreement was
8 thereafter sourced first from the Sebree Mining / Onton mining operations;
9 then, upon their idling, from the River View mining operation.

10 From time-to-time, there are various impediments to delivery (mine
11 operations, river-related matters of freezing, flooding and/or drought,
12 equipment break-down, etc.) that cause delays. Most often, shipments are
13 rescheduled to deliver the product at a later date, via alternate mode of
14 transportation, or carried forward into the subsequent month or quarter to
15 complete delivery. Such make up of delayed tonnage is based upon the
16 contractual language of the coal supply agreement and the reason for delay
17 (i.e., force majeure). All (100%) of contractual deliveries were achieved in
18 2016.

19
20 **Q. What efforts has Big Rivers made in general to help ensure coal**
21 **suppliers' adherence to contract delivery schedules during the**
22 **Review Period?**

1 A. Big River's fuel department personnel reviews its delivery schedules with
2 suppliers and its generating station contacts on a daily basis to ensure that
3 scheduled tonnage has been completed during the course of the term of the
4 contractual agreement. In the event of delay (mining and/or logistics
5 issues), the parties confer and agree upon revised schedules to ensure
6 completion of contractual tonnage amounts. In the event of an extended
7 force majeure, the non-declaring party has a contractual option as to
8 whether to reschedule any shortfall tonnage. Contractual documents for
9 coal supply denote that time is of the essence in regard to coal delivery and
10 that failure to deliver is a material breach of the contractual agreement
11 which could result in termination of the coal supply agreement. Big Rivers
12 has not had, to date, a situation where it needed to invoke contract
13 language regarding delinquent or missed shipments. In such an event, the
14 supplier would be provided notice of its material breach of non-delivery
15 pursuant to the contractual agreement and would be obligated to remedy
16 such default or face the potential termination of the agreement.

17
18 **Q. What efforts has Big Rivers made to maintain the adequacy of its**
19 **coal supplies in light of any coal supplier's inability or**
20 **unwillingness to make coal contract deliveries?**

21 A. Big Rivers makes reasonable efforts to work with its suppliers to set
22 delivery schedules and to reschedule shipments, in a timely fashion, in the

1 event of delays. In the event of an extended delay, such as a force majeure,
2 Big Rivers would and has sought alternative spot supply to cover any
3 shortfall due to such extended delay(s). Big Rivers also maintains a
4 reasonable inventory supply at each generating station as a buffer to
5 ensure that it has adequate fuel supply at all times, despite delayed or
6 interrupted shipment deliveries. When contract conditions will allow, Big
7 Rivers also seeks optional tonnage within its coal supply agreements to
8 assist during shipment shortfalls.

9
10 **Q. Please describe any changes in coal market conditions that**
11 **occurred during the Review Period or that Big Rivers expects to**
12 **occur within the next two years that have significantly affected or**
13 **will significantly affect Big Rivers' solid fuel procurement**
14 **practices.**

15 **A.** The U.S. coal industry will continue to be challenged by competition from
16 natural gas, depressed coal prices, lengthened recession, and more
17 stringent environmental regulation. During the window of this Review
18 Period, several coal companies have exited and several others have declared
19 bankruptcy (Arch, Peabody, etc.). More industry participants will find
20 themselves challenged in regard to obtaining financing for expansion of
21 existing operations or initiating new projects. It is likely that overall U.S.
22 coal production will stabilize over 2017 and 2018. Despite depletion and

1 some production cuts in certain basins, the Illinois Basin is anticipated to
2 continue production and perhaps even slightly increase its output, which
3 may cause coal pricing to remain flat to very modestly increasing over the
4 next two years. Recent excess inventory situations and reduced coal-fired
5 generation demand have created pricing pressures on many suppliers.
6 Continued lack of demand could lead to some very aggressive price
7 competition, as there could be overcapacity in a shrinking coal-fired
8 generation market. Some coal producers have taken steps to reduce
9 existing production and delay or forego intended expansion of either
10 existing or new mining reserves. Utilities are utilizing incremental
11 inventory built during the period of the past two years during the period of
12 low natural gas prices and the recession. Once those inventories are back
13 within target ranges, utilities may once again be entering the market for
14 forward coal supplies.

15 Over the period in review, and in the near term, Big River's fuel
16 procurement practices have not been adversely impacted, although the
17 Company did build inventory levels. Over the course of time, inventory has
18 been and will continue to be reduced. The potential change of all of these
19 various market pressures could bring about challenges in the coal
20 producing sector. Coal companies may elect to merge/consolidate or sell
21 assets, creating a smaller marketplace for utilities to source coal supply.
22 Big Rivers will continue to actively survey the marketplace for

1 opportunities to secure its fuel supply for short and long-term business,
2 weighing these market forces while making procurement decisions.

3

4 **Q. Have Big Rivers' fuel procurement purchases and practices for**
5 **solid fuel during the Review Period been reasonable?**

6 A. Yes. During the course of this Review Period, Big Rivers' practices have
7 included a determined focus on the reduction of inventory, and use at times,
8 of spot, lower cost alternative fuel. Big Rivers continues to review and
9 appropriately act in the spot and mid-term fuel and logistics market, in a
10 concerted and planned fashion, to attempt to limit its exposure to volatility
11 in the marketplace and to ensure competitive and reliable fuel supply to its
12 generating stations. Big Rivers' fuel procurement practices include
13 interaction with various departments within the company (finance, risk
14 management, generation planning, operations, energy marketing, and
15 material handling) to ensure that any fuel supply agreements being
16 established meet the planned generation and inventory goals of the
17 company. Solid fuel is secured after evaluation of quality, reliability, and
18 competitiveness of the provider. Big Rivers strives for transparency within
19 and outside of the cooperative, ensuring that its procurement practices are
20 sound, ethical, and appropriate for the intended purpose. The company
21 engages in formal competitive bid processes and engages internal controls
22 (internal bid opening processes to include multiple persons and

1 departments, bid tabulation and review by varying constituencies of the
2 company, and internal risk management evaluation) to ensure
3 transparency, accountability, and appropriate officer and management level
4 approval for procurement action. The Company's fuel procurement costs
5 are competitive as compared to the fuel benchmarking performed amongst
6 Kentucky utilities.

7

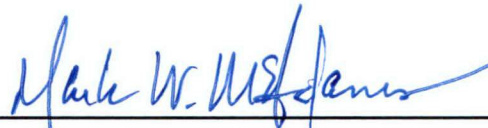
8 **Q. Does this conclude your testimony?**

9 **A. Yes.**

BIG RIVERS ELECTRIC CORPORATION
AN EXAMINATION OF THE APPLICATION
OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006

VERIFICATION

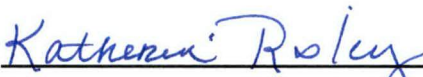
I, Mark W. McAdams, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Mark W. McAdams

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

16th SUBSCRIBED AND SWORN TO before me by Mark W. McAdams on this the
day of February, 2017.



Notary Public, Kentucky State at Large
My Commission Expires 10-31-2020



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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)	Case No.
FROM)	2017-00006
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016)	

DIRECT TESTIMONY

OF

**MURRAY W. (WAYNE) O'BRYAN
DIRECTOR, POWER SUPPLY AND MARKET OPERATIONS**

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

FILED: FEBRUARY 20, 2015

ORIGINAL

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**DIRECT TESTIMONY
OF
WAYNE O'BRYAN**

5 **Q. Please state your name, business address, and position.**

6 A. My name is Wayne O'Bryan. I am employed by Big Rivers Electric
7 Corporation ("Big Rivers"), 201 Third Street, Henderson, Kentucky 42420, as
8 Director Power Supply and Market Operations. I report to Mark Eacret, Vice
9 President Energy Services.

10

11 **Q. Please describe your job responsibilities.**

12 A. As Director of Power Supply and Market Operations, I am responsible for
13 coordination of daily Midcontinent Independent System Operator, Inc.
14 ("MISO") market activities that include unit offer strategy, interface with
15 ACES Power Marketing, and oversight of the market Awards Process. A
16 Senior Power Portfolio Optimization Analyst reports to me. We work
17 together to pursue short term energy, capacity, and transmission sales that
18 support the best interests of Big Rivers. Other responsibilities include
19 scheduling SEPA energy and capacity, natural gas account management,
20 contract management, interface with the MISO Independent Market
21 Monitor, and performing a variety of official roles within the MISO structure.

22

23 **Q. Briefly describe your education and work experience.**

1 A. I began my employment with Big Rivers in 1978 in the Operations
2 Department. I worked my way through the various classifications including
3 supervision while being stationed at all of the Big Rivers locations. Beyond
4 my time in Operations, I have performed a variety of functions for the
5 company including DCS controls installation, Performance/Environmental,
6 PI System Programming, Manager of Production Services, and Plant
7 Manager at Coleman Station. I entered the Energy Services department in
8 my current role in September 2013. I have an Associate of Science Degree in
9 Business from Brescia University and post graduate work in Software
10 Engineering. During my career, I have attended an extensive list of
11 technical/computer classes.

12
13 **Q. Have you previously testified before this Commission?**

14 A. Yes. I testified at the hearings in Big Rivers' last two six-month fuel
15 adjustment review ("FAC") review proceedings.

16
17 **Q. What is the purpose of your testimony in this proceeding?**

18 A. The purpose of my testimony is to describe Big Rivers' fuel procurement
19 practices in relation to natural gas as this is my area of responsibility.

20
21 **Q. Discuss the reasonableness of Big Rivers' fuel procurement**
22 **practices during the review period.**

1 A. Big Rivers' currently has one natural gas fired generator. It is the Reid
2 Combustion Turbine. It is operated as a peaking unit and for reliability needs
3 within the MISO system. Big Rivers purchases gas on the spot market when
4 the Combustion Turbine is needed. Big Rivers' agent (ACES) has gas traders
5 on their staff that procure the gas for the turbine when it is required. ACES
6 gas traders keep a list of available gas supply companies so they can have a
7 variety of choices if the need arises. We have a transmission agreement with
8 Texas Gas to supply the gas to the Combustion Turbine. This is an
9 interruptible service that is appropriate for the level of use. The Combustion
10 Turbine does not operate on a daily basis and it does not warrant a firm gas
11 contract which has a higher cost. Our gas procurement efforts during the
12 review period have been reasonable and practical and represent the least cost
13 methodology of procuring gas for the operation of the Combustion Turbine.

14

15 **Q. Discuss natural gas suppliers' adherence to contract delivery**
16 **schedules during the review period.**

17 A. Big Rivers' transmission agreement with Texas Gas allows for the borrowing
18 of gas from their system. This is a readily available supply. ACES traders
19 then purchase the appropriate amount of gas and pay Texas Gas back for the
20 amount borrowed. This is an efficient procurement system that has not
21 caused any delivery schedule issues during the review period.

22

1 **Q. Discuss Big Rivers' efforts to ensure gas suppliers' adherence to**
2 **contract delivery schedules during the review period.**

3 **A. Big Rivers has a variety of gas suppliers available to the ACES traders for**
4 **gas procurement. The gas market is very competitive and if contract delivery**
5 **issues with a particular company become a problem it is easy to find another**
6 **suitable company to do business with.**

7
8 **Q. Discuss Big Rivers' efforts to maintain the adequacy of its natural**
9 **gas supplies in light of any supplier's inability or unwillingness to**
10 **make contract deliveries.**

11 **A. The companies that ACES gas traders do business with represent the gas**
12 **market from which Big Rivers' gas is supplied. This market is monitored**
13 **every day for the best gas prices available. There are also peripheral markets**
14 **monitored that can be utilized for cheaper pricing should the need arise. This**
15 **combination of markets provides enough available volume to ensure the**
16 **adequacy of natural gas supply for Big Rivers' needs.**

17
18 **Q. Discuss any changes in natural gas market conditions that occurred**
19 **during the review period or that Big Rivers expects to occur within**
20 **the next two years that have significantly affected or will**
21 **significantly affect Big Rivers' natural gas procurement practices.**

1 A. An abundant natural gas supply has contributed to conservative forward
2 price forecasts for gas and energy for the next several years. As a result of
3 this consistency in price forecasting Big Rivers doesn't expect any significant
4 changes in gas market conditions. This consistency will also contribute to
5 similar gas procurement practices for the foreseeable future.

6

7 **Q. Discuss any changes in wholesale electric power market that**
8 **occurred during the review period or that Big Rivers expects to**
9 **occur within the next two years that have significantly affected or**
10 **will significantly affect Big Rivers' electric power procurement**
11 **practices.**

12 A. Natural gas pricing has proven to have a direct correlation with energy
13 prices. As previously discussed this has led to conservative and reasonably
14 consistent forward energy price predictions. The price forecasts that exist
15 should not significantly alter Big Rivers' current electric power procurement
16 practices.

17

18 **Q. Does this conclude your testimony?**

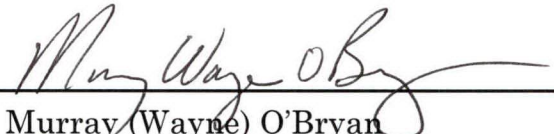
19 A. Yes.

20

BIG RIVERS ELECTRIC CORPORATION
AN EXAMINATION OF THE APPLICATION
OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006

VERIFICATION


I, Murray (Wayne) O'Bryan, verify, state, and affirm that I prepared or supervised the preparation of the Direct Testimony filed with this Verification, and that Direct Testimony is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Murray (Wayne) O'Bryan

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Murray (Wayne) O'Bryan on this the 16th day of February, 2017.



Notary Public, Kentucky State at Large
My Commission Expires 10-31-2020



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)	Case No.
FROM)	2017-00006
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016)	

**Responses to Commission Staff's Request for Information
dated
February 6, 2017**

FILED: February 20, 2017

ORIGINAL

BIG RIVERS ELECTRIC CORPORATION
AN EXAMINATION OF THE APPLICATION
OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006

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)

16th SUBSCRIBED AND SWORN TO before me by Mark W. McAdams on this the
day of February, 2017.



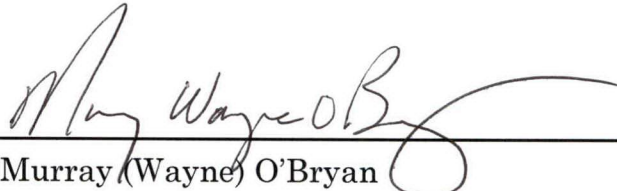
Notary Public, Kentucky State at Large
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BIG RIVERS ELECTRIC CORPORATION
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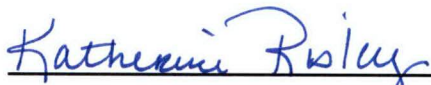
I, Murray (Wayne) O'Bryan, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Murray (Wayne) O'Bryan

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Murray (Wayne) O'Bryan on
this the 16th day of February, 2017.




Notary Public, Kentucky State at Large
My Commission Expires 10-31-2020



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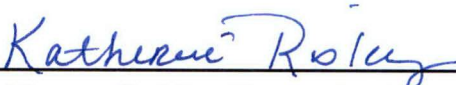
I, Roger D. Hickman, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Roger D. Hickman

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

16th SUBSCRIBED AND SWORN TO before me by Roger D. Hickman on this the
day of February, 2017.



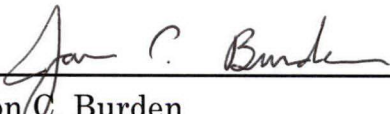
Notary Public, Kentucky State at Large
My Commission Expires 10-31-2020



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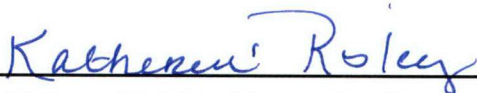
I, Jason C. Burden, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Jason C. Burden

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

16th SUBSCRIBED AND SWORN TO before me by Jason C. Burden on this the
day of February, 2017.




Notary Public, Kentucky State at Large
My Commission Expires 10-31-2020



BIG RIVERS ELECTRIC CORPORATION
AN EXAMINATION OF THE APPLICATION
OF THE FUEL ADJUSTMENT CLAUSE
OF BIG RIVERS ELECTRIC CORPORATION
FROM
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006

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 16th day of February, 2017.



Katharine Riley
Notary Public, Kentucky State at Large
My Commission Expires 10-31-2020



BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

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

7
8 **Response)** Since Big Rivers regained functional control of its generating units in
9 July 2009, there have been three Fuel Adjustment Clause ("FAC") reviews in
10 which Big Rivers evaluated the possible need for a change in its base fuel costs.^{1,2,3}
11 The current review is the fourth such review since July 2009. For the current
12 review, Big Rivers performed an analysis of its monthly FAC factor similar to the
13 analysis performed in Case Nos. 2010-00495, 2012-00555, and 2014-00455.

14 In Case No. 2010-00495, Big Rivers determined that its actual
15 monthly FAC factor during the period under review therein was averaging over
16 \$0.010000 / kWh above its then-existing base fuel cost. Therefore, Big Rivers
17 proposed to revise its base fuel cost to \$0.020932 / kWh and to transfer \$0.010212 /

¹ See *In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from July 17, 2009 through October 31, 2010*, Case No. 2010-00495.

² See *In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2010 through October 31, 2012*. Case No. 2012-00555.

³ See *In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2012 through October 31, 2014*. Case No. 2014-00455.

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 kWh of fuel costs to its then-current base rates. In its Order dated May 31, 2011,
2 the Commission approved Big Rivers' proposal.

3 In Case No. 2012-00555, Big Rivers determined that its actual
4 monthly FAC factor during the period under review therein was about \$0.002000-
5 \$0.005000 / kWh above its then-existing base fuel costs. At the time of the initial
6 Commission Order in that case, Big Rivers had filed a complete revised tariff in a
7 general rate proceeding³ and anticipated doing the same in another forthcoming
8 general rate proceeding.⁴ Therefore, Big Rivers proposed no change in its base
9 fuel costs. In its Order dated May 17, 2013, the Commission accepted Big Rivers'
10 proposal and confirmed the continued use, by Big Rivers, of a base fuel cost of
11 \$0.020932 / kWh.

12 In Case No. 2014-00455, Big Rivers analysis was impacted by the
13 departure from Big Rivers' system of the Century-Hawesville Smelter in August
14 2013, and the departure of the Century-Sebree Smelter in January 2014. This
15 analysis for the six months ending October 31, 2014 – a period when the impact of
16 the smelter departures had worked through its FAC – showed an average actual
17 FAC factor that was \$0.002935 / kWh higher than Big Rivers' tariffed base fuel
18 cost of \$0.020932. Because of this result, and coupled with expiring fuel contracts
19 being replaced with lower fuel contracts, Big Rivers proposed no change in its base

³ See *In the Matter of: Application of Big Rivers Electric Corporation for a General Adjustment in Rates*, Case No. 2012-00535.

⁴ See *In the Matter of: Application of Big Rivers Electric Corporation for a General Adjustment in Rates*, Case No. 2013-00199.

BIG RIVERS ELECTRIC CORPORATION

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1 fuel costs. In its Order dated July 27, 2015, the Commission accepted Big Rivers'
2 proposal and confirmed the continued use of a base fuel cost of \$0.020932 / kWh.

3 During the two-year period in the current review, Big Rivers'
4 monthly FAC factor has ranged from (\$0.000636)/kWh to \$0.004132/kWh. During
5 the final twelve (12) months of this period the monthly factor range is from
6 (\$0.000636)/kWh to \$0.002335/kWh, with a twelve-month average of \$0.000875.

7 Big Rivers' current coal delivery plan includes reclaiming existing
8 inventory to meet generation demand and reduce overall inventory held at its
9 generating stations to its inventory targets. In reclaiming coal inventory, the
10 weighted-average pricing of inventory will be at a higher price, as compared to
11 current market, rolling through Big Rivers' FAC by mid-to-year end of 2017. Big
12 Rivers anticipates that future purchases will be at an overall lower cost than
13 current weighted-average inventory.

14 For all of these reasons, Big Rivers is not proposing a change in its
15 base fuel costs.

16

17

18 **Witnesses)** Mark W. McAdams and

19 Roger D. Hickman

20

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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1 **Item 2)** *Provide a calculation of the fossil fuel costs $F(b)$ that Big*
2 *Rivers proposes to use to calculate the base period fuel cost. This*
3 *calculation shall show each component of $F(b)$ as defined by 807 KAR*
4 *5:056. Explain why the fuel cost in the selected base period is*
5 *representative of the level of fuel cost currently being experienced by Big*
6 *Rivers.*

7

8 **Response)** Not applicable. Please see Big Rivers' response to Item 1 of these
9 information requests.

10

11

12 **Witness)** Mark W. McAdams

13

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 3)** *Provide a schedule showing each component of sales as*
2 *defined by 807 KAR 5:056 in the selected base period (b). Explain why Big*
3 *Rivers believes that the sales in the selected base period (b) are*
4 *representative of the level of kWh sales that Big Rivers will derive from the*
5 *level of fuel cost incurred during the selected base period (b).*

6

7 **Response)** Not applicable. Please see Big Rivers' response to Item 1 of these
8 information requests.

9

10

11 **Witnesses)** Wayne O'Bryan and
12 Nicholas R. Castlen

13

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 4)** *Provide a schedule showing the calculation of Big Rivers'*
2 *proposed increase or decrease in its base fuel cost per kWh to be*
3 *incorporated into its base rate.*

4

5 **Response)** Not applicable. Please see Big Rivers' response to Item 1 of these
6 information requests.

7

8

9 **Witness)** Nicholas R. Castlen

10

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 5)** *Provide Big Rivers' most recent projected fuel requirements for*
2 *the years 2017 and 2018 in tons for coal, MMBtu for natural gas and*
3 *dollars.*

4

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

6

	<u>2017</u> ⁵	<u>2018</u> ⁵
Solid Fuel (tons)		
Natural Gas (MCF)		
Fuel Oil (Gallons)		

	<u>2017</u>	<u>2018</u>
Solid Fuel		
Natural Gas		
Fuel Oil		
Total		

7

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

10

⁵ Assumes Coleman and Reid Plants remain idled.

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 6)** *Provide Big Rivers' most recent sales projections for the years*
2 *2017 and 2018 in kWh and dollars.*

3
4 **Response)** Sales projections for the years 2017 and 2018 are provided in the
5 table below.

6

Year	Member Cooperative Energy (kWh)	Member Cooperative Sales (\$)	Off-System Sales ⁶ (kWh)	Off-System Sales ⁶ (\$)
2017	3,304,767,000	264,054,289		
2018	3,389,296,000	264,618,972		

7

8

9 **Witness)** Wayne O'Bryan

10

⁶ Excludes sales associated with back-to-back purchases executed as part of an off-system sales hedging strategy. These sales and the associated purchases are detailed in Big Rivers' responses to Item 11 of these information requests.

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 7)** *Provide separately the amounts of power purchases used in*
2 *the calculation of sales provided in response to Item 3.*

3

4 **Response)** Not applicable. Please see Big Rivers' response to Item 1 of these
5 information requests.

6

7

8 **Witness)** Nicholas R. Castlen

9

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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1 **Item 8)** *Provide separately the amounts of intersystem power sales*
2 *used in the calculation of sales provided in response to Item 3.*

3

4 **Response)** Not applicable. Please see Big Rivers' response to Item 3 of these
5 information requests.

6

7

8 **Witness)** Nicholas R. Castlen

9

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 9)** *Provide the planned maintenance schedule for each of Big*
2 *Rivers' generating units for the years 2017 and 2018.*

3

4 **Response)** Please see the redacted schedules below for the planned maintenance
5 schedule for Big Rivers' generating units for the years 2017 and 2018. The
6 unredacted schedule is being provided with a Petition for Confidential Treatment.

7

2017 Outage Schedule				
Start	End	Hours	Days	Unit/Outage
[Redacted]				
Total				

8

9

2018 Outage Schedule				
Start	End	Hours	Days	Unit/Outage
[Redacted]				
Total				

10

11

12 **Witness)** Jason C. Burden

13

BIG RIVERS ELECTRIC CORPORATION

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February 20, 2017

1 **Item 10)** *For the years ending October 31, 2015, and October 31, 2016,*
2 *provide:*

3

4

a. Maximum annual system demand; and

5

b. Average annual demand.

6

7 **Response)**

8

a. November 1, 2014 through October 31, 2015 – 786 MWs;

9

November 1, 2015 through October 31, 2016 – 713 MWs.

10

b. November 1, 2014 through October 31, 2015 – 456 MWs;

11

November 1, 2015 through October 31, 2016 – 435 MWs.

12

13

14 **Witness)** Wayne O'Bryan

15

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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1 **Item 11) *List all firm power commitments for Big Rivers from May 1,***
2 ***2016, through October 31, 2016, and for the years 2017 and 2018 for (a)***
3 ***purchases and (b) sales. This list shall identify the other party (buyer or***
4 ***seller), the amount of commitment in MW, and the purpose of the***
5 ***commitment (e.g., peaking, emergency).***

6

7 **Response)**

8

(a) Purchases:

9

10

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24

Southeastern Power Administration ("SEPA"), up to 178 MW, energy for system. A force majeure, previously declared by SEPA for this contract due to dam safety issues at Wolf Creek and Center Hill dams on the Cumberland System, remained in effect from May 1, 2016, through October 31, 2016. For the period under review, Big Rivers has operated under an annual contract in which we have to schedule the purchases under the terms of weekly capacity declarations. These are limited to 154 MWs due to ongoing repairs on the Center Hill dam. The repairs currently are expected to last until late in 2018.

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

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1
2

(a) Purchases (continued):

Big Rivers Electric Corporation Power Purchases May 1, 2016, through October 31, 2016			
Date	Electric Utility	MW Commitment	Purpose
May 2016	MISO	50 MWs – On Peak 16,800 Total	Purchases for Off-System Sales
May 2016	MISO	50 MWs – Off Peak 20,400 Total	Purchases for Off-System Sales
May 2016	MISO	100 MWs – On Peak 33,600 Total	Purchases for Off-System Sales
May 2016	MISO	100 MWs – Off Peak 40,800 Total	Purchases for Off-System Sales
May 2016	MISO	50 MWs – On Peak 16,800 Total	Purchases for Off-System Sales
May 2016	MISO	50 MWs – Off Peak 20,400 Total	Purchases for Off-System Sales
Jul – Aug 2016	MISO	150 MWs – On Peak 103,200 Total	Purchases for Off-System Sales
Jul – Aug 2016	MISO	50 MWs – On Peak 34,400 Total	Purchases for Off-System Sales
Jul – Aug 2016	MISO	100 MWs – On Peak 25,600 Total	Purchases for Off-System Sales
September 2016	MISO	200 MWs – On Peak 67,200 Total	Purchases for Off-System Sales

3

BIG RIVERS ELECTRIC CORPORATION

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6

(b) Sales:

Firm Off-System Sales are shown on the tables beginning on the following pages.

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(b) Sales (continued):

1
2

Big Rivers Electric Corporation Firm Off-System Sales May 1, 2016, through October 31, 2016			
Date	Electric Utility	MW Commitment	Purpose
May 2016	NextEra	50 MWs – On Peak 16,800 Total	Off-System Sales
May 2016	NextEra	50 MWs – Off Peak 20,400 Total	Off-System Sales
May 2016	NextEra	100 MWs – On Peak 33,600 Total	Off-System Sales
May 2016	NextEra	100 MWs – Off Peak 40,800 Total	Off-System Sales
May 2016	NextEra	50 MWs – On Peak 16,800 Total	Off-System Sales
May 2016	NextEra	50 MWs – Off Peak 20,400 Total	Off-System Sales
May 2016	ADM	50 MWs – On Peak 16,800 Total	Off-System Sales
June 2016	ADM	50 MWs – On Peak 17,600 Total	Off-System Sales
June 2016	ADM	100 MWs – On Peak 35,200 Total	Off-System Sales

3
4

BIG RIVERS ELECTRIC CORPORATION

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(b) Sales (continued):

Big Rivers Electric Corporation Firm Off-System Sales May 1, 2016, through October 31, 2016			
Date	Electric Utility	MW Commitment	Purpose
Jul – Aug 2016	Morgan Stanley	150 MWs – On Peak 103,200 Total	Off-System Sales
Jul – Aug 2016	Cargill	50 MWs – On Peak 34,400 Total	Off-System Sales
Jul – Aug 2016	Morgan Stanley	100 MWs – On Peak 25,600 Total	Off-System Sales – 100 MW call option
Jul – Aug 2016	ADM	50 MWs – On Peak 34,400 Total	Off-System Sales
Jul – Aug 2016	ADM	100 MWs – On Peak 68,800 Total	Off-System Sales
Jul – Aug 2016	ADM	100 MWs – Off Peak 80,000 Total	Off-System Sales
September 2016	ADM	100 MWs – On Peak 33,600 Total	Off-System Sales
September 2016	ADM	100 MWs – Off Peak 38,400 Total	Off-System Sales
September 2016	NextEra	200 MWs – On Peak 67,200 Total	Off-System Sales
October 2016	ADM	25 MWs – On Peak 8,400 Total	Off-System Sales

4
5
6

BIG RIVERS ELECTRIC CORPORATION

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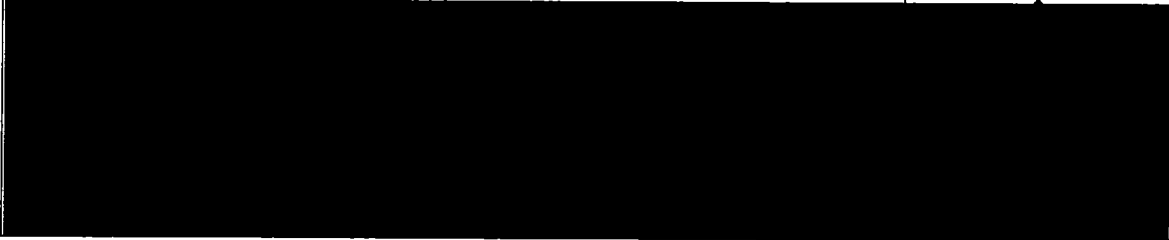
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(b) Sales (continued):

Big Rivers Electric Corporation Firm Off-System Sales May 1, 2016, through October 31, 2016			
Date	Electric Utility	MW Commitment	Purpose
			

Big Rivers' firm off-system sales commitments for 2017 and for 2018 are shown on table on the following pages.

BIG RIVERS ELECTRIC CORPORATION

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5

(b) Sales (continued):

Tables for 2017 are sales only. The physical sales represented will have a corresponding back-to-back purchase that occurs when the transaction executes.

Big Rivers Electric Corporation Firm Off-System Sales Commitments For the Year 2017			
Date	Electric Utility	MW Commitment	Purpose

6
7
8

BIG RIVERS ELECTRIC CORPORATION

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6

(b) Sales (continued):

Tables for 2017 are sales only. The physical sales represented will have a corresponding back-to-back purchase that occurs when the transaction executes.

Big Rivers Electric Corporation Firm Off-System Sales Commitments (continued) For the Year 2017			
Date	Electric Utility	MW Commitment	Purpose

7
8
9

BIG RIVERS ELECTRIC CORPORATION

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5

(b) Sales (continued):

Tables for 2018 are sales only. The physical sales represented will have a corresponding back-to-back purchase that occurs when the transaction executes.

Big Rivers Electric Corporation Firm Off-System Sales Commitments For the Year 2018			
Date	Electric Utility	MW Commitment	Purpose

6
7
8
9

Witness) Wayne O'Bryan

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 12)** *Provide a monthly billing summary for all sales to all electric*
2 *utilities for the period May 1, 2016 through October 31, 2016.*

3

4 **Response)** Please see the attachment to this response for monthly billing
5 summaries of sales to all electric utilities for the period May 1, 2016, through
6 October 31, 2016. Pursuant to 807 KAR 5:001 Section 4(10), related to privacy
7 protection for filings, certain information included on these schedules has been
8 redacted.

9

10

11 **Witness)** Nicholas R. Castlen

12

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
May 2016

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (FPF) \$	BILLING ADJ	DEMAND \$ ENERGY \$ AND PFP \$
1 MAY 2016								
2								
3 JP RURALS	107,980	44,921,110	\$ 1,490,663.90	\$ 2,021,449.95	\$ 3,512,113.85			\$ 3,512,113.85
4 KENERGY RURALS	192,157	80,825,900	\$ 2,652,727.39	\$ 3,637,165.50	\$ 6,289,892.89			\$ 6,289,892.89
5 MEADE CO. RURALS	68,632	30,614,113	\$ 947,464.76	\$ 1,377,635.09	\$ 2,325,099.85			\$ 2,325,099.85
6								
7 TOTAL RURALS	368,769	156,361,123	\$ 5,090,856.05	\$ 7,036,250.54	\$ 12,127,106.59	\$ -	\$ -	\$ 12,127,106.59
8								
9	5,292	2,267,040	\$ 56,703.78	\$ 86,260.87	\$ 142,964.65	\$ -	\$ -	\$ 142,964.65
10	63	35,150	\$ 675.05	\$ 1,337.46	\$ 2,012.51	\$ 535.75	\$ -	\$ 2,548.26
11	26,422	15,072,850	\$ 283,111.73	\$ 573,521.94	\$ 856,633.67	\$ -	\$ -	\$ 856,633.67
12	1,752	552,700	\$ 18,772.68	\$ 21,030.24	\$ 39,802.92	\$ -	\$ -	\$ 39,802.92
13	10,074	3,866,410	\$ 107,942.91	\$ 147,116.90	\$ 255,059.81	\$ -	\$ 13,810.33	\$ 268,870.14
14	2,760	800,430	\$ 29,573.40	\$ 30,456.36	\$ 60,029.76	\$ -	\$ 2,051.01	\$ 62,080.77
15	1,000	305,530	\$ 10,715.00	\$ 11,625.42	\$ 22,340.42	\$ -	\$ 582.37	\$ 22,922.79
16	3,342	592,060	\$ 35,809.53	\$ 22,527.88	\$ 58,337.41	\$ 407.17	\$ -	\$ 58,744.58
17	15,000	10,974,498	\$ 160,725.00	\$ 417,579.65	\$ 578,304.65	\$ -	\$ -	\$ 578,304.65
18	60	10,550	\$ 642.90	\$ 401.43	\$ 1,044.33	\$ -	\$ -	\$ 1,044.33
19	750	543,080	\$ 8,036.25	\$ 20,664.19	\$ 28,700.44	\$ 300.02	\$ -	\$ 29,000.46
20	100	24,230	\$ 1,071.50	\$ 921.95	\$ 1,993.45	\$ -	\$ -	\$ 1,993.45
21	36,763	21,892,720	\$ 393,915.55	\$ 833,018.00	\$ 1,226,933.55	\$ -	\$ -	\$ 1,226,933.55
22	4,397	1,901,400	\$ 47,113.86	\$ 72,348.27	\$ 119,462.13	\$ 5,893.25	\$ -	\$ 125,355.38
23	3,478	1,653,250	\$ 37,266.77	\$ 62,906.16	\$ 100,172.93	\$ -	\$ -	\$ 100,172.93
24	100	39,930	\$ 1,071.50	\$ 1,519.34	\$ 2,590.84	\$ -	\$ -	\$ 2,590.84
25	500	106,400	\$ 5,357.50	\$ 4,048.52	\$ 9,406.02	\$ -	\$ -	\$ 9,406.02
26	7,197	4,446,270	\$ 77,115.86	\$ 169,180.57	\$ 246,296.43	\$ -	\$ -	\$ 246,296.43
27	11,826	6,271,090	\$ 126,715.59	\$ 238,614.97	\$ 365,330.56	\$ -	\$ -	\$ 365,330.56
28	2,071	1,220,930	\$ 22,190.77	\$ 46,456.39	\$ 68,647.16	\$ 3,085.92	\$ -	\$ 71,733.08
29								
30 SUBTOTAL INDUSTRIALS	132,947	72,576,518	\$ 1,424,527.13	\$ 2,761,536.51	\$ 4,186,063.64	\$ 10,222.11	\$ 16,443.71	\$ 4,212,729.46
31								
32	3,218	700,040	\$ 34,480.87	\$ 26,636.52	\$ 61,117.39	\$ -	\$ -	\$ 61,117.39
33								
34 TOTAL INDUSTRIALS	136,165	73,276,558	\$ 1,459,008.00	\$ 2,788,173.03	\$ 4,247,181.03	\$ 10,222.11	\$ 16,443.71	\$ 4,273,846.85
35								
36								
37 GRAND TOTAL	504,934	229,637,681	\$ 6,549,864.05	\$ 9,824,423.57	\$ 16,374,287.62	\$ 10,222.11	\$ 16,443.71	\$ 16,400,953.44

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
May 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 MAY 2016								
2								
3 JP RURALS	\$ 5.00	\$ 3,512,118.85	\$ (6,558.48)	(0.15)	\$ 264,612.27	5.89	\$ 45,325.40	1.01
4 KENERGY RURALS	\$ -	\$ 6,289,892.89	\$ (11,800.58)	(0.15)	\$ 470,408.12	5.82	\$ 81,553.33	1.01
5 MEADE CO. RURALS	\$ -	\$ 2,325,099.85	\$ (4,469.66)	(0.15)	\$ 171,691.28	5.61	\$ 30,889.64	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 12,127,111.59	\$ (22,828.72)	(0.15)	\$ 906,711.67	5.80	\$ 157,768.37	1.01
8								
9		\$ 142,964.65	\$ (330.99)	(0.15)	\$ 11,985.11	5.29	\$ 2,287.44	1.01
10		\$ 2,548.26	\$ (5.13)	(0.15)	\$ 168.95	4.81	\$ 35.47	1.01
11		\$ 856,633.67	\$ (2,200.64)	(0.15)	\$ 71,920.15	4.77	\$ 15,208.51	1.01
12		\$ 39,802.92	\$ (80.69)	(0.15)	\$ 3,331.18	6.03	\$ 557.67	1.01
13		\$ 268,870.14	\$ (564.50)	(0.15)	\$ 21,369.63	5.53	\$ 3,901.21	1.01
14		\$ 62,080.77	\$ (116.86)	(0.15)	\$ 5,021.64	6.27	\$ 807.63	1.01
15		\$ 22,922.79	\$ (44.61)	(0.15)	\$ 1,869.38	6.12	\$ 308.28	1.01
16		\$ 58,744.58	\$ (86.44)	(0.15)	\$ 4,866.81	8.22	\$ 597.39	1.01
17		\$ 578,304.65	\$ (1,602.28)	(0.15)	\$ 48,609.58	4.43	\$ 11,073.27	1.01
18		\$ 1,044.33	\$ (1.54)	(0.15)	\$ 87.12	8.26	\$ 10.64	1.01
19		\$ 29,000.46	\$ (79.29)	(0.15)	\$ 2,412.31	4.44	\$ 547.97	1.01
20		\$ 1,993.45	\$ (3.54)	(0.15)	\$ 166.59	6.88	\$ 24.45	1.01
21		\$ 1,226,933.55	\$ (3,196.34)	(0.15)	\$ 103,031.02	4.71	\$ 22,089.75	1.01
22		\$ 125,355.38	\$ (277.60)	(0.15)	\$ 10,015.33	5.27	\$ 1,918.51	1.01
23		\$ 100,172.93	\$ (241.37)	(0.15)	\$ 8,402.39	5.08	\$ 1,668.13	1.01
24		\$ 2,590.84	\$ (5.83)	(0.15)	\$ 217.11	5.44	\$ 40.29	1.01
25		\$ 9,406.02	\$ (15.53)	(0.15)	\$ 785.48	7.38	\$ 107.36	1.01
26		\$ 246,296.43	\$ (649.16)	(0.15)	\$ 20,686.27	4.65	\$ 4,486.29	1.01
27		\$ 365,330.56	\$ (915.58)	(0.15)	\$ 30,660.74	4.89	\$ 6,327.53	1.01
28		\$ 71,733.08	\$ (178.26)	(0.15)	\$ 5,764.32	4.72	\$ 1,231.92	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,212,729.46	\$ (10,596.18)	(0.15)	\$ 351,371.11	4.84	\$ 73,229.71	1.01
31								
32		\$ 61,117.39	\$ (102.21)	(0.15)	\$ 5,104.43	7.29	\$ 706.34	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,273,846.85	\$ (10,698.39)	(0.15)	\$ 356,475.54	4.86	\$ 73,936.05	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 16,400,958.44	\$ (33,527.11)	(0.15)	\$ 1,263,187.21	5.50	\$ 231,704.42	1.01

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
May 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 MAY 2016								
2								
3 JP RURALS	\$ 3,815,498.04	84.94	\$ (214,436.51)	(4.77)	\$ (351,251.30)	(7.82)	\$ 3,249,810.23	72.34
4 KENERGY RURALS	\$ 6,830,053.76	84.50	\$ (406,479.00)	(5.03)	\$ (671,581.07)	(8.31)	\$ 5,751,993.69	71.17
5 MEADE CO. RURALS	\$ 2,523,211.11	82.42	\$ (159,321.81)	(5.20)	\$ (275,469.18)	(9.00)	\$ 2,088,420.12	68.22
6								
7 TOTAL RURALS	\$ 13,168,762.91	84.22	\$ (780,237.32)	(4.99)	\$ (1,298,301.55)	(8.30)	\$ 11,090,224.04	70.93
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27								
28								
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,626,734.10	63.75	\$ (55,573.49)	(0.77)	\$ -	0.00	\$ 4,571,160.61	62.98
31								
32								
33								
34 TOTAL INDUSTRIALS	\$ 4,693,560.05	64.05	\$ (56,331.86)	(0.77)	\$ -	0.00	\$ 4,637,228.19	63.28
35								
36								
37 GRAND TOTAL	\$ 17,862,322.96	77.78	\$ (836,569.18)	(3.64)	\$ (1,298,301.55)	(5.65)	\$ 15,727,452.23	68.49

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
June 2016

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 JUNE 2016								
2								
3 JP RURALS	144,530	63,215,360	\$ 1,995,236.65	\$ 2,844,691.20	\$ 4,839,927.85			\$ 4,839,927.85
4 KENERGY RURALS	247,260	111,330,107	\$ 3,413,424.30	\$ 5,009,854.82	\$ 8,423,279.12			\$ 8,423,279.12
5 MEADE CO. RURALS	90,274	39,867,070	\$ 1,246,232.57	\$ 1,794,018.15	\$ 3,040,250.72			\$ 3,040,250.72
6								
7 TOTAL RURALS	482,064	214,412,537	\$ 6,654,893.52	\$ 9,648,564.17	\$ 16,303,457.69	\$ -	\$ -	\$ 16,303,457.69
8								
9								
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18								
19								
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24								
25								
26								
27								
28								
29								
30 SUBTOTAL INDUSTRIALS	134,131	74,715,993	\$ 1,437,213.70	\$ 2,842,943.54	\$ 4,280,157.24	\$ 12,365.12	\$ 17,320.22	\$ 4,309,842.58
31								
32								
33								
34 TOTAL INDUSTRIALS	135,967	75,273,733	\$ 1,456,886.44	\$ 2,864,165.55	\$ 4,321,051.99	\$ 12,365.12	\$ 17,320.22	\$ 4,350,737.33
35								
36								
37 GRAND TOTAL	618,031	289,686,270	\$ 8,111,779.96	\$ 12,512,729.72	\$ 20,624,509.68	\$ 12,365.12	\$ 17,320.22	\$ 20,654,195.02

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
June 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 JUNE 2016								
2								
3 JP RURALS	\$ 5.00	\$ 4,839,932.85	\$ (40,204.97)	(0.64)	\$ 363,164.24	5.74	\$ 63,784.30	1.01
4 KENERGY RURALS	\$ -	\$ 8,423,279.12	\$ (70,805.95)	(0.64)	\$ 623,690.37	5.60	\$ 112,332.08	1.01
5 MEADE CO. RURALS	\$ -	\$ 3,040,250.72	\$ (25,355.46)	(0.64)	\$ 221,938.05	5.57	\$ 40,225.87	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 16,303,462.69	\$ (136,366.38)	(0.64)	\$ 1,208,792.66	5.64	\$ 216,342.25	1.01
8								
9		\$ 152,368.38	\$ (1,578.78)	(0.64)	\$ 12,620.35	5.08	\$ 2,504.70	1.01
10		\$ 2,749.73	\$ (20.71)	(0.64)	\$ 151.51	4.65	\$ 32.85	1.01
11		\$ 817,115.84	\$ (8,973.44)	(0.64)	\$ 67,704.43	4.80	\$ 14,236.16	1.01
12		\$ 40,201.93	\$ (352.99)	(0.64)	\$ 3,291.49	5.93	\$ 560.02	1.01
13		\$ 258,174.65	\$ (2,260.94)	(0.64)	\$ 20,042.82	5.64	\$ 3,586.93	1.01
14		\$ 60,445.30	\$ (488.16)	(0.64)	\$ 4,862.66	6.34	\$ 774.45	1.01
15		\$ 22,776.76	\$ (188.15)	(0.64)	\$ 1,817.96	6.15	\$ 298.50	1.01
16		\$ 56,631.43	\$ (356.45)	(0.64)	\$ 4,679.54	8.35	\$ 565.50	1.01
17		\$ 571,503.17	\$ (6,866.10)	(0.64)	\$ 47,381.98	4.39	\$ 10,892.91	1.01
18		\$ 1,127.28	\$ (8.10)	(0.64)	\$ 93.20	7.32	\$ 12.84	1.01
19		\$ 22,906.12	\$ (243.17)	(0.64)	\$ 1,871.08	4.89	\$ 385.79	1.01
20		\$ 1,933.33	\$ (14.41)	(0.64)	\$ 159.86	7.06	\$ 22.85	1.01
21		\$ 1,350,253.27	\$ (15,899.97)	(0.64)	\$ 111,930.77	4.48	\$ 25,224.95	1.01
22		\$ 122,107.73	\$ (1,153.04)	(0.64)	\$ 9,622.45	5.31	\$ 1,829.27	1.01
23		\$ 107,677.77	\$ (1,166.16)	(0.64)	\$ 8,921.16	4.87	\$ 1,850.09	1.01
24		\$ 2,144.13	\$ (17.93)	(0.64)	\$ 177.39	6.29	\$ 28.44	1.01
25		\$ 9,254.58	\$ (65.14)	(0.64)	\$ 765.05	7.47	\$ 103.34	1.01
26		\$ 243,367.98	\$ (2,755.78)	(0.64)	\$ 20,168.95	4.65	\$ 4,371.98	1.01
27		\$ 394,748.36	\$ (4,316.43)	(0.64)	\$ 32,707.08	4.82	\$ 6,847.92	1.01
28		\$ 72,354.84	\$ (793.53)	(0.64)	\$ 5,699.60	4.57	\$ 1,258.92	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,309,842.58	\$ (47,519.38)	(0.64)	\$ 354,669.33	4.75	\$ 75,388.41	1.01
31								
32		\$ 40,894.75	\$ (354.72)	(0.64)	\$ 3,383.89	6.07	\$ 562.76	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,350,737.33	\$ (47,874.10)	(0.64)	\$ 358,053.22	4.76	\$ 75,951.17	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 20,654,200.02	\$ (184,240.48)	(0.64)	\$ 1,566,845.88	5.41	\$ 292,293.42	1.01

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
June 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 JUNE 2016								
2								
3 JP RURALS	\$ 5,226,676.42	82.68	\$ (256,429.69)	(4.06)	\$ (452,296.69)	(7.15)	\$ 4,517,950.04	71.47
4 KENERGY RURALS	\$ 9,088,495.62	81.64	\$ (494,411.49)	(4.44)	\$ (389,088.27)	(7.99)	\$ 7,704,995.86	69.21
5 MEADE CO. RURALS	\$ 3,277,059.18	82.20	\$ (195,509.59)	(4.90)	\$ (359,328.62)	(9.01)	\$ 2,722,220.97	68.28
6								
7 TOTAL RURALS	\$ 17,592,231.22	82.05	\$ (946,350.77)	(4.41)	\$ (1,700,713.58)	(7.93)	\$ 14,945,166.87	69.70
8								
9								
10	\$ 165,914.65	66.84	\$ (2,367.08)	(0.95)	\$ -	0.00	\$ 163,547.57	65.88
11	\$ 2,913.38	89.48	\$ (28.68)	(0.88)	\$ -	0.00	\$ 2,884.70	88.60
12	\$ 890,082.99	63.09	\$ (12,775.54)	(0.91)	\$ -	0.00	\$ 877,307.45	62.18
13	\$ 43,700.45	78.74	\$ (608.38)	(1.10)	\$ -	0.00	\$ 43,092.07	77.64
14	\$ 279,543.46	78.64	\$ (3,721.66)	(1.05)	\$ -	0.00	\$ 275,821.80	77.59
15	\$ 65,594.25	85.46	\$ (893.72)	(1.16)	\$ -	0.00	\$ 64,700.53	84.30
16	\$ 24,705.07	83.51	\$ (334.98)	(1.13)	\$ -	0.00	\$ 24,370.09	82.38
17	\$ 61,520.02	109.77	\$ (842.77)	(1.50)	\$ -	0.00	\$ 60,677.25	108.26
18	\$ 622,911.96	57.70	\$ (9,030.22)	(0.84)	\$ -	0.00	\$ 613,881.74	56.86
19	\$ 1,225.22	96.25	\$ (16.93)	(1.33)	\$ -	0.00	\$ 1,208.29	94.92
20	\$ 24,919.82	65.18	\$ (352.33)	(0.92)	\$ -	0.00	\$ 24,567.49	64.25
21	\$ 2,101.63	92.79	\$ (29.12)	(1.29)	\$ -	0.00	\$ 2,072.51	91.50
22	\$ 1,471,509.02	58.86	\$ (21,283.34)	(0.85)	\$ -	0.00	\$ 1,450,225.68	58.01
23	\$ 132,406.41	73.03	\$ (1,797.06)	(0.99)	\$ -	0.00	\$ 130,609.35	72.04
24	\$ 117,282.86	63.96	\$ (1,680.91)	(0.92)	\$ -	0.00	\$ 115,601.95	63.05
25	\$ 2,332.03	82.73	\$ (32.62)	(1.16)	\$ -	0.00	\$ 2,299.41	81.57
26	\$ 10,057.83	98.20	\$ (138.82)	(1.36)	\$ -	0.00	\$ 9,919.01	96.85
27	\$ 265,153.13	61.19	\$ (3,818.40)	(0.88)	\$ -	0.00	\$ 261,334.73	60.31
28	\$ 429,986.93	63.36	\$ (6,168.87)	(0.91)	\$ -	0.00	\$ 423,818.06	62.45
29	\$ 78,519.83	62.93	\$ (1,081.31)	(0.87)	\$ -	0.00	\$ 77,438.52	62.07
30 SUBTOTAL INDUSTRIALS	\$ 4,692,380.94	62.80	\$ (67,002.74)	(0.90)	\$ -	0.00	\$ 4,625,378.20	61.91
31								
32	\$ 44,486.68	79.76	\$ (624.21)	(1.12)	\$ -	0.00	\$ 43,862.47	78.64
33								
34 TOTAL INDUSTRIALS	\$ 4,736,867.62	62.93	\$ (67,626.95)	(0.90)	\$ -	0.00	\$ 4,669,240.67	62.03
35								
36								
37 GRAND TOTAL	\$ 22,329,098.84	77.08	\$ (1,013,977.72)	(3.50)	\$ (1,700,713.58)	(5.87)	\$ 19,614,407.54	67.71

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
July 2016

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ ENERGY \$ AND PFP \$
1 JULY 2016								
2								
3 JP RURALS	144,425	68,675,170	\$ 1,993,787.13	\$ 3,090,382.65	\$ 5,084,169.78			\$ 5,084,169.78
4 KENERGY RURALS	252,124	119,168,647	\$ 3,480,571.82	\$ 5,362,589.12	\$ 8,843,160.94			\$ 8,843,160.94
5 MEADE CO. RURALS	90,401	43,809,994	\$ 1,247,985.81	\$ 1,971,449.73	\$ 3,219,435.54			\$ 3,219,435.54
6								
7 TOTAL RURALS	486,950	231,653,811	\$ 6,722,344.76	\$ 10,424,421.50	\$ 17,146,766.26	\$ -	\$ -	\$ 17,146,766.26
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24								
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26								
27								
28								
29								
30 SUBTOTAL INDUSTRIALS	135,690	76,183,539	\$ 1,453,918.38	\$ 2,898,783.66	\$ 4,352,702.04	\$ 15,236.75	\$ 18,368.87	\$ 4,386,307.66
31								
32								
33								
34 TOTAL INDUSTRIALS	138,811	76,997,059	\$ 1,487,359.90	\$ 2,929,738.10	\$ 4,417,098.00	\$ 15,236.75	\$ 18,368.87	\$ 4,450,703.62
35								
36								
37 GRAND TOTAL	625,761	308,650,870	\$ 8,209,704.66	\$ 13,354,159.60	\$ 21,563,864.26	\$ 15,236.75	\$ 18,368.87	\$ 21,597,469.88

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
July 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 JULY 2016								
2								
3 JP RURALS	\$ 5.00	\$ 5,084,174.78	\$ 9,683.20	0.14	\$ 487,297.93	7.10	\$ 69,293.25	1.01
4 KENERGY RURALS	\$ -	\$ 8,843,160.94	\$ 16,802.78	0.14	\$ 834,216.13	7.00	\$ 120,241.16	1.01
5 MEADE CO. RURALS	\$ -	\$ 3,219,435.54	\$ 6,177.21	0.14	\$ 299,202.24	6.83	\$ 44,204.28	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 17,146,771.26	\$ 32,663.19	0.14	\$ 1,620,716.30	7.00	\$ 233,738.69	1.01
8								
9		\$ 149,541.45	\$ 337.43	0.14	\$ 15,903.05	6.65	\$ 2,414.68	1.01
10		\$ 2,644.81	\$ 4.64	0.14	\$ 196.21	5.96	\$ 33.20	1.01
11		\$ 868,289.43	\$ 2,142.77	0.14	\$ 92,494.93	6.09	\$ 15,333.75	1.01
12		\$ 38,741.08	\$ 72.17	0.14	\$ 3,972.68	7.76	\$ 516.45	1.01
13		\$ 262,096.74	\$ 526.47	0.14	\$ 26,083.67	6.99	\$ 3,767.42	1.01
14		\$ 61,810.75	\$ 111.40	0.14	\$ 6,322.32	8.00	\$ 797.20	1.01
15		\$ 23,487.89	\$ 44.56	0.14	\$ 2,412.54	7.63	\$ 318.87	1.01
16		\$ 56,388.58	\$ 71.49	0.14	\$ 5,949.19	11.73	\$ 511.61	1.01
17		\$ 584,788.41	\$ 1,571.43	0.14	\$ 62,404.11	5.60	\$ 11,245.20	1.01
18		\$ 1,185.87	\$ 2.01	0.14	\$ 125.55	8.80	\$ 14.40	1.01
19		\$ 8,036.25	\$ -	0.00	\$ 839.17	0.00	\$ -	0.00
20		\$ 2,025.03	\$ 3.53	0.14	\$ 214.47	8.56	\$ 25.29	1.01
21		\$ 1,393,807.52	\$ 3,681.23	0.14	\$ 148,681.73	5.69	\$ 26,342.97	1.01
22		\$ 110,376.96	\$ 212.87	0.14	\$ 10,969.91	7.27	\$ 1,523.31	1.01
23		\$ 98,560.53	\$ 222.33	0.14	\$ 10,481.41	6.65	\$ 1,590.99	1.01
24		\$ 2,036.83	\$ 3.58	0.14	\$ 215.74	8.50	\$ 25.60	1.01
25		\$ 9,424.28	\$ 15.07	0.14	\$ 996.95	9.33	\$ 107.84	1.01
26		\$ 252,575.86	\$ 640.27	0.14	\$ 26,920.20	5.93	\$ 4,581.77	1.01
27		\$ 387,845.95	\$ 911.16	0.14	\$ 41,111.83	6.36	\$ 6,520.26	1.01
28		\$ 72,643.44	\$ 167.46	0.14	\$ 7,378.10	6.21	\$ 1,198.38	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,386,307.66	\$ 10,741.87	0.14	\$ 463,673.76	6.09	\$ 76,869.19	1.01
31								
32		\$ 64,395.96	\$ 114.71	0.14	\$ 6,822.16	8.39	\$ 820.84	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,450,703.62	\$ 10,856.58	0.14	\$ 470,495.92	6.11	\$ 77,690.03	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 21,597,474.88	\$ 43,519.77	0.14	\$ 2,091,212.22	6.78	\$ 311,428.72	1.01

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
July 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 JULY 2016								
2								
3 JP RURALS	\$ 5,650,449.16	82.28	\$ (392,724.64)	(5.72)	\$ (496,599.54)	(7.23)	\$ 4,761,124.98	69.33
4 KENERGY RURALS	\$ 9,814,421.01	82.36	\$ (760,949.84)	(6.39)	\$ (991,440.18)	(8.32)	\$ 8,062,030.99	67.65
5 MEADE CO. RURALS	\$ 3,569,019.27	81.47	\$ (297,590.58)	(6.79)	\$ (404,544.85)	(9.23)	\$ 2,866,883.84	65.44
6								
7 TOTAL RURALS	\$ 19,033,889.44	82.17	\$ (1,451,265.06)	(6.26)	\$ (1,892,584.57)	(8.17)	\$ 15,690,039.81	67.73
8								
9								
10	\$ 168,196.61	70.28	\$ (2,585.40)	(1.08)	\$ -	0.00	\$ 165,611.21	69.20
11	\$ 2,878.86	87.50	\$ (32.51)	(0.99)	\$ -	0.00	\$ 2,846.35	86.52
12	\$ 978,260.88	64.37	\$ (15,270.68)	(1.00)	\$ -	0.00	\$ 962,990.20	63.37
13	\$ 43,302.38	84.60	\$ (630.13)	(1.23)	\$ -	0.00	\$ 42,672.25	83.37
14	\$ 292,474.30	78.33	\$ (4,205.52)	(1.13)	\$ -	0.00	\$ 288,268.78	77.20
15	\$ 69,041.67	87.38	\$ (998.35)	(1.26)	\$ -	0.00	\$ 68,043.32	86.12
16	\$ 26,263.86	83.11	\$ (883.61)	(1.21)	\$ -	0.00	\$ 25,880.25	81.89
17	\$ 62,920.87	124.09	\$ (896.22)	(1.77)	\$ -	0.00	\$ 62,024.65	122.32
18	\$ 660,009.15	59.22	\$ (10,465.75)	(0.94)	\$ -	0.00	\$ 649,543.40	58.28
19	\$ 1,327.83	93.05	\$ (19.56)	(1.37)	\$ -	0.00	\$ 1,308.27	91.68
20	\$ 8,875.42	0.00	\$ (113.34)	0.00	\$ -	0.00	\$ 8,762.08	0.00
21	\$ 2,268.32	90.52	\$ (33.54)	(1.34)	\$ -	0.00	\$ 2,234.78	89.18
22	\$ 1,572,513.45	60.23	\$ (24,853.90)	(0.95)	\$ -	0.00	\$ 1,547,659.55	59.28
23	\$ 123,083.05	81.53	\$ (1,757.63)	(1.16)	\$ -	0.00	\$ 121,325.42	80.36
24	\$ 110,855.26	70.30	\$ (1,703.90)	(1.08)	\$ -	0.00	\$ 109,151.36	69.22
25	\$ 2,281.75	89.94	\$ (33.77)	(1.33)	\$ -	0.00	\$ 2,247.98	88.61
26	\$ 10,544.14	98.65	\$ (154.19)	(1.44)	\$ -	0.00	\$ 10,389.95	97.21
27	\$ 284,718.10	62.70	\$ (4,466.00)	(0.98)	\$ -	0.00	\$ 280,252.10	61.72
28	\$ 436,389.20	67.53	\$ (6,733.99)	(1.04)	\$ -	0.00	\$ 429,655.21	66.49
29	\$ 81,387.38	68.53	\$ (1,213.63)	(1.02)	\$ -	0.00	\$ 80,173.75	67.50
30 SUBTOTAL INDUSTRIALS	\$ 4,937,592.48	64.81	\$ (76,551.62)	(1.00)	\$ -	0.00	\$ 4,861,040.86	63.81
31								
32	\$ 72,153.67	88.69	\$ (1,070.15)	(1.32)	\$ -	0.00	\$ 71,083.52	87.38
33								
34 TOTAL INDUSTRIALS	\$ 5,009,746.15	65.06	\$ (77,621.77)	(1.01)	\$ -	0.00	\$ 4,932,124.38	64.06
35								
36								
37 GRAND TOTAL	\$ 24,043,635.59	77.90	\$ (1,528,886.83)	(4.95)	\$ (1,892,584.57)	(6.13)	\$ 20,622,164.19	66.81

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

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ ENERGY \$ AND PFP \$
1 AUGUST 2016								
2								
3 JP RURALS	136,103	66,718,190	\$ 1,878,901.92	\$ 3,002,318.55	\$ 4,881,220.47			\$ 4,881,220.47
4 KENERGY RURALS	249,548	121,825,951	\$ 3,445,010.14	\$ 5,482,167.80	\$ 8,927,177.94			\$ 8,927,177.94
5 MEADE CO. RURALS	89,528	44,248,720	\$ 1,235,934.04	\$ 1,991,192.40	\$ 3,227,126.44			\$ 3,227,126.44
6								
7 TOTAL RURALS	475,179	232,792,861	\$ 6,559,846.10	\$ 10,475,678.75	\$ 17,035,524.85	\$ -	\$ -	\$ 17,035,524.85
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	135,172	76,185,085	\$ 1,448,368.02	\$ 2,898,842.49	\$ 4,347,210.51	\$ 11,572.21	\$ 52,864.22	\$ 4,411,646.94
31								
32								
33								
34 TOTAL INDUSTRIALS	138,509	76,919,155	\$ 1,484,123.98	\$ 2,926,773.85	\$ 4,410,897.83	\$ 11,572.21	\$ 52,864.22	\$ 4,475,384.26
35								
36								
37 GRAND TOTAL	613,688	309,712,016	\$ 8,043,970.08	\$ 13,402,452.60	\$ 21,446,422.68	\$ 11,572.21	\$ 52,864.22	\$ 21,510,859.11

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
August 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 AUGUST 2016								
2								
3 JP RURALS	\$ 5.00	\$ 4,881,225.47	\$ 75,258.12	1.13	\$ 373,881.68	5.60	\$ 67,318.65	1.01
4 KENERGY RURALS	\$ -	\$ 8,927,177.94	\$ 137,419.67	1.13	\$ 678,631.33	5.57	\$ 122,922.38	1.01
5 MEADE CO. RURALS	\$ -	\$ 3,227,126.44	\$ 49,912.56	1.13	\$ 242,802.51	5.49	\$ 44,646.96	1.01
6								
7 TOTAL RURALS	\$ 5.00	\$ 17,035,529.85	\$ 262,590.35	1.13	\$ 1,295,315.52	5.56	\$ 234,887.99	1.01
8								
9		\$ 153,808.68	\$ 2,840.26	1.13	\$ 13,262.63	5.27	\$ 2,540.62	1.01
10		\$ 2,408.95	\$ 37.74	1.13	\$ 159.34	4.76	\$ 33.76	1.01
11		\$ 734,888.18	\$ 13,474.01	1.13	\$ 63,352.77	5.30	\$ 12,052.55	1.01
12		\$ 44,397.14	\$ 725.65	1.13	\$ 3,758.07	5.84	\$ 649.10	1.01
13		\$ 296,031.98	\$ 4,964.05	1.13	\$ 24,126.36	5.48	\$ 4,440.36	1.01
14		\$ 63,422.07	\$ 937.92	1.13	\$ 5,247.79	6.31	\$ 838.97	1.01
15		\$ 22,949.17	\$ 335.40	1.13	\$ 1,888.23	6.35	\$ 300.02	1.01
16		\$ 59,094.50	\$ 667.10	1.13	\$ 5,028.66	8.50	\$ 596.72	1.01
17		\$ 584,556.15	\$ 12,564.56	1.13	\$ 50,684.54	4.55	\$ 11,239.04	1.01
18		\$ 1,173.32	\$ 15.72	1.13	\$ 100.24	7.19	\$ 14.07	1.01
19		\$ 41,918.69	\$ -	0.00	\$ 669.53	0.00	\$ -	0.00
20		\$ 1,996.50	\$ 27.42	1.13	\$ 170.66	7.02	\$ 24.53	1.01
21		\$ 1,412,964.93	\$ 30,017.75	1.13	\$ 122,456.90	4.60	\$ 26,850.98	1.01
22		\$ 126,261.13	\$ 2,158.92	1.13	\$ 10,266.36	5.36	\$ 1,931.17	1.01
23		\$ 99,184.77	\$ 1,835.57	1.13	\$ 8,553.15	5.26	\$ 1,641.93	1.01
24		\$ 2,060.80	\$ 29.33	1.13	\$ 176.32	6.78	\$ 26.23	1.01
25		\$ 9,542.62	\$ 124.07	1.13	\$ 814.61	7.41	\$ 110.98	1.01
26		\$ 263,375.02	\$ 5,401.62	1.13	\$ 22,795.26	4.76	\$ 4,831.77	1.01
27		\$ 415,789.00	\$ 8,312.34	1.13	\$ 35,952.81	4.88	\$ 7,435.42	1.01
28		\$ 75,823.34	\$ 1,467.34	1.13	\$ 6,280.89	4.83	\$ 1,312.54	1.01
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,411,646.94	\$ 85,936.77	1.13	\$ 375,745.12	4.93	\$ 76,870.76	1.01
31								
32		\$ 63,687.32	\$ 828.03	1.13	\$ 5,436.70	7.41	\$ 740.68	1.01
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,475,334.26	\$ 86,764.80	1.13	\$ 381,181.82	4.96	\$ 77,611.44	1.01
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 21,510,864.11	\$ 349,355.15	1.13	\$ 1,676,497.34	5.41	\$ 312,499.43	1.01

**Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
August 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 AUGUST 2016								
2								
3 JP RURALS	\$ 5,397,683.92	80.90	\$ (420,096.72)	(6.30)	\$ (536,145.73)	(8.04)	\$ 4,441,441.42	66.57
4 KENERGY RURALS	\$ 9,866,151.32	80.99	\$ (755,685.16)	(6.20)	\$ (1,041,999.53)	(8.55)	\$ 8,068,466.63	66.23
5 MEADE CO. RURALS	\$ 3,564,488.47	80.56	\$ (281,288.25)	(6.36)	\$ (407,360.19)	(9.21)	\$ 2,875,840.03	64.99
6								
7 TOTAL RURALS	\$ 18,828,323.71	80.88	\$ (1,457,070.13)	(6.26)	\$ (1,985,505.50)	(8.53)	\$ 15,385,748.08	66.09
8								
9								
10	\$ 172,452.19	68.49	\$ (2,411.45)	(0.96)	\$ -	0.00	\$ 170,040.74	67.53
11	\$ 2,639.79	78.89	\$ (29.91)	(0.89)	\$ -	0.00	\$ 2,609.88	78.00
12	\$ 823,767.51	68.96	\$ (11,494.58)	(0.96)	\$ -	0.00	\$ 812,272.93	68.00
13	\$ 49,529.96	76.99	\$ (662.62)	(1.03)	\$ -	0.00	\$ 48,867.34	75.96
14	\$ 329,562.75	74.89	\$ (4,333.77)	(0.98)	\$ -	0.00	\$ 325,228.98	73.90
15	\$ 70,446.75	84.72	\$ (905.62)	(1.09)	\$ -	0.00	\$ 69,541.13	83.63
16	\$ 25,472.82	85.67	\$ (325.30)	(1.09)	\$ -	0.00	\$ 25,147.52	84.57
17	\$ 65,386.98	110.56	\$ (807.29)	(1.37)	\$ -	0.00	\$ 64,579.69	109.20
18	\$ 659,044.29	59.17	\$ (9,662.22)	(0.87)	\$ -	0.00	\$ 649,382.07	58.30
19	\$ 1,303.35	93.50	\$ (16.72)	(1.20)	\$ -	0.00	\$ 1,286.63	92.30
20	\$ 42,588.22	0.00	\$ (84.28)	0.00	\$ -	0.00	\$ 42,503.94	0.00
21	\$ 2,219.11	91.28	\$ (28.64)	(1.18)	\$ -	0.00	\$ 2,190.47	90.11
22	\$ 1,592,290.56	59.83	\$ (23,255.97)	(0.87)	\$ -	0.00	\$ 1,569,034.59	58.96
23	\$ 140,617.58	73.47	\$ (1,856.30)	(0.97)	\$ -	0.00	\$ 138,761.28	72.50
24	\$ 111,215.42	68.34	\$ (1,556.17)	(0.96)	\$ -	0.00	\$ 109,659.25	67.39
25	\$ 2,292.68	88.18	\$ (29.85)	(1.15)	\$ -	0.00	\$ 2,262.83	87.03
26	\$ 10,592.28	96.30	\$ (134.95)	(1.23)	\$ -	0.00	\$ 10,457.33	95.08
27	\$ 296,403.67	61.90	\$ (4,280.47)	(0.89)	\$ -	0.00	\$ 292,123.20	61.00
28	\$ 467,489.57	63.44	\$ (6,697.08)	(0.91)	\$ -	0.00	\$ 460,792.49	62.53
29	\$ 84,884.11	65.25	\$ (1,173.94)	(0.90)	\$ -	0.00	\$ 83,710.17	64.35
30 SUBTOTAL INDUSTRIALS	\$ 4,950,199.59	64.98	\$ (69,747.13)	(0.92)	\$ -	0.00	\$ 4,880,452.46	64.06
31								
32	\$ 70,692.73	96.30	\$ (900.69)	(1.23)	\$ -	0.00	\$ 69,792.04	95.08
33								
34 TOTAL INDUSTRIALS	\$ 5,020,892.32	65.27	\$ (70,647.82)	(0.92)	\$ -	0.00	\$ 4,950,244.50	64.36
35								
36								
37 GRAND TOTAL	\$ 23,849,216.03	77.00	\$ (1,527,717.95)	(4.93)	\$ (1,985,505.50)	(6.41)	\$ 20,335,992.58	65.66

Big Rivers Electric Corporation

Monthly Billing Summary

Sales to Members

September 2016

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 SEPTEMBER 2016								
2								
3 JP RURALS	135,808	56,552,520	\$ 1,874,829.44	\$ 2,544,863.40	\$ 4,419,692.84			\$ 4,419,692.84
4 KENERGY RURALS	246,640	102,617,640	\$ 3,404,865.20	\$ 4,617,793.80	\$ 8,022,659.00			\$ 8,022,659.00
5 MEADE CO. RURALS	86,617	36,598,350	\$ 1,195,747.69	\$ 1,646,925.75	\$ 2,842,673.44			\$ 2,842,673.44
6								
7 TOTAL RURALS	469,065	195,768,510	\$ 6,475,442.33	\$ 8,809,582.95	\$ 15,285,025.28	\$ -	\$ -	\$ 15,285,025.28
8								
9								
10								
11								
12								
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14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30 SUBTOTAL INDUSTRIALS	135,462	74,522,958	\$ 1,451,475.36	\$ 2,835,598.55	\$ 4,287,073.91	\$ 20,744.25	\$ 18,001.40	\$ 4,325,819.56
31								
32								
33								
34 TOTAL INDUSTRIALS	137,276	74,903,168	\$ 1,470,912.37	\$ 2,850,065.54	\$ 4,320,977.91	\$ 20,744.25	\$ 18,001.40	\$ 4,359,723.56
35								
36								
37 GRAND TOTAL	606,341	270,671,678	\$ 7,946,354.70	\$ 11,659,648.49	\$ 19,606,003.19	\$ 20,744.25	\$ 18,001.40	\$ 19,644,748.84

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
September 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 SEPTEMBER 2016								
2								
3 JP RURALS	\$ 5.00	\$ 4,419,697.84	\$ 32,800.46	0.58	\$ 339,482.93	6.00	\$ 75,554.17	1.34
4 KENERGY RURALS	\$ -	\$ 8,022,659.00	\$ 59,518.23	0.58	\$ 616,226.62	6.01	\$ 137,097.17	1.34
5 MEADE CO. RURALS	\$ -	\$ 2,842,673.44	\$ 21,227.04	0.58	\$ 218,382.09	5.97	\$ 48,895.40	1.34
6								
7 TOTAL RURALS	\$ 5.00	\$ 15,285,030.28	\$ 113,545.73	0.58	\$ 1,174,091.64	6.00	\$ 261,546.74	1.34
8								
9		\$ 142,440.83	\$ 1,310.66	0.58	\$ 11,003.88	4.87	\$ 3,019.03	1.34
10		\$ 2,450.59	\$ 18.57	0.58	\$ 140.13	4.38	\$ 42.78	1.34
11		\$ 846,818.10	\$ 8,446.45	0.58	\$ 65,580.74	4.50	\$ 19,455.97	1.34
12		\$ 34,852.73	\$ 262.10	0.58	\$ 2,677.94	5.93	\$ 603.73	1.34
13		\$ 302,166.99	\$ 2,568.88	0.58	\$ 21,556.13	4.87	\$ 5,917.28	1.34
14		\$ 62,247.19	\$ 461.49	0.58	\$ 4,601.35	5.78	\$ 1,063.02	1.34
15		\$ 20,965.03	\$ 150.70	0.58	\$ 1,581.86	6.09	\$ 347.12	1.34
16		\$ 57,949.16	\$ 327.68	0.58	\$ 4,425.80	7.83	\$ 754.79	1.34
17		\$ 568,522.75	\$ 6,216.10	0.58	\$ 44,163.61	4.12	\$ 14,318.47	1.34
18		\$ 1,096.84	\$ 6.92	0.58	\$ 83.95	7.04	\$ 15.94	1.34
19		\$ -	\$ -	0.00	\$ -	0.00	\$ -	0.00
20		\$ 2,052.05	\$ 14.95	0.58	\$ 157.55	6.11	\$ 34.43	1.34
21		\$ 1,330,891.02	\$ 14,162.36	0.58	\$ 103,288.97	4.23	\$ 32,622.27	1.34
22		\$ 123,828.08	\$ 1,042.78	0.58	\$ 8,987.77	5.00	\$ 2,401.99	1.34
23		\$ 96,911.30	\$ 914.23	0.58	\$ 7,492.19	4.75	\$ 2,105.88	1.34
24		\$ 1,967.20	\$ 13.65	0.58	\$ 150.87	6.41	\$ 31.45	1.34
25		\$ 9,111.89	\$ 57.23	0.58	\$ 697.32	7.07	\$ 131.82	1.34
26		\$ 251,451.26	\$ 2,584.57	0.58	\$ 19,492.27	4.37	\$ 5,953.42	1.34
27		\$ 393,420.11	\$ 3,950.58	0.58	\$ 30,362.81	4.46	\$ 9,099.96	1.34
28		\$ 76,676.44	\$ 713.42	0.58	\$ 5,676.35	4.61	\$ 1,643.33	1.34
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,325,819.56	\$ 43,223.32	0.58	\$ 332,121.49	4.46	\$ 99,562.68	1.34
31								
32		\$ 33,904.00	\$ 220.52	0.58	\$ 2,596.51	6.83	\$ 507.96	1.34
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,359,723.56	\$ 43,443.84	0.58	\$ 334,718.00	4.47	\$ 100,070.64	1.34
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 19,644,753.84	\$ 156,989.57	0.58	\$ 1,508,809.64	5.57	\$ 361,617.38	1.34

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
September 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 SEPTEMBER 2016								
2								
3 JP RURALS	\$ 4,867,535.40	86.07	\$ (342,829.05)	(6.06)	\$ -	0.00	\$ 4,524,706.35	80.01
4 KENERGY RURALS	\$ 8,835,501.02	86.10	\$ (615,837.98)	(6.00)	\$ -	0.00	\$ 8,219,663.04	80.10
5 MEADE CO. RURALS	\$ 3,131,177.97	85.56	\$ (232,551.22)	(6.35)	\$ -	0.00	\$ 2,898,626.75	79.20
6								
7 TOTAL RURALS	\$ 16,834,214.39	85.99	\$ (1,191,218.25)	(6.08)	\$ -	0.00	\$ 15,642,996.14	79.91
8								
9								
10	\$ 157,774.40	69.82	\$ (2,273.79)	(1.01)	\$ -	0.00	\$ 155,500.61	68.81
11	\$ 2,652.07	82.83	\$ (29.83)	(0.93)	\$ -	0.00	\$ 2,622.24	81.89
12	\$ 940,301.26	64.57	\$ (13,847.73)	(0.95)	\$ -	0.00	\$ 926,453.53	63.62
13	\$ 38,396.50	84.97	\$ (526.81)	(1.17)	\$ -	0.00	\$ 37,869.69	83.80
14	\$ 332,209.28	75.01	\$ (4,454.89)	(1.01)	\$ -	0.00	\$ 327,754.39	74.00
15	\$ 68,373.05	85.93	\$ (910.39)	(1.14)	\$ -	0.00	\$ 67,462.66	84.79
16	\$ 23,044.71	88.69	\$ (309.26)	(1.19)	\$ -	0.00	\$ 22,735.45	87.50
17	\$ 63,457.43	112.32	\$ (821.43)	(1.45)	\$ -	0.00	\$ 62,636.00	110.87
18	\$ 633,220.93	59.08	\$ (9,571.83)	(0.89)	\$ -	0.00	\$ 623,649.10	58.19
19	\$ 1,203.65	100.89	\$ (15.90)	(1.33)	\$ -	0.00	\$ 1,187.75	99.56
20	\$ -	0.00	\$ -	0.00	\$ -	0.00	\$ -	0.00
21	\$ 2,258.98	87.66	\$ (30.77)	(1.19)	\$ -	0.00	\$ 2,228.21	86.47
22	\$ 1,480,964.62	60.65	\$ (22,211.04)	(0.91)	\$ -	0.00	\$ 1,458,753.58	59.74
23	\$ 136,260.62	75.79	\$ (1,844.25)	(1.03)	\$ -	0.00	\$ 134,416.37	74.76
24	\$ 107,423.60	68.15	\$ (1,558.35)	(0.99)	\$ -	0.00	\$ 105,865.25	67.16
25	\$ 2,163.17	91.89	\$ (29.15)	(1.24)	\$ -	0.00	\$ 2,134.02	90.66
26	\$ 9,998.26	101.33	\$ (132.03)	(1.34)	\$ -	0.00	\$ 9,866.23	99.99
27	\$ 279,481.52	62.72	\$ (4,150.47)	(0.93)	\$ -	0.00	\$ 275,331.05	61.79
28	\$ 436,833.46	64.13	\$ (6,429.95)	(0.94)	\$ -	0.00	\$ 430,403.51	63.19
29	\$ 84,709.54	68.87	\$ (1,190.34)	(0.97)	\$ -	0.00	\$ 83,519.20	67.90
30 SUBTOTAL INDUSTRIALS	\$ 4,800,727.05	64.42	\$ (70,388.21)	(0.94)	\$ -	0.00	\$ 4,730,388.84	63.48
31								
32	\$ 37,228.99	97.92	\$ (495.11)	(1.30)	\$ -	0.00	\$ 36,733.88	96.61
33								
34 TOTAL INDUSTRIALS	\$ 4,837,956.04	64.59	\$ (70,833.32)	(0.95)	\$ -	0.00	\$ 4,767,122.72	63.64
35								
36								
37 GRAND TOTAL	\$ 21,672,170.43	80.07	\$ (1,262,051.57)	(4.66)	\$ -	0.00	\$ 20,410,118.86	75.41

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
October 2016

	KW BILLED	KWH	DEMAND \$	BASE ENERGY \$	DEMAND \$ AND ENERGY \$	POWER FACTOR PENALTY (PFP) \$	BILLING ADJ	DEMAND \$ AND PFP \$
1 OCTOBER 2016								
2								
3 JP RURALS	103,263	43,746,620	\$ 1,425,545.72	\$ 1,968,597.90	\$ 3,394,143.62			\$ 3,394,143.62
4 KENERGY RURALS	183,119	80,193,957	\$ 2,527,957.80	\$ 3,608,728.07	\$ 6,136,685.87			\$ 6,136,685.87
5 MEADE CO. RURALS	65,249	29,923,260	\$ 900,762.45	\$ 1,346,546.70	\$ 2,247,309.15			\$ 2,247,309.15
6								
7 TOTAL RURALS	351,631	153,863,837	\$ 4,854,265.97	\$ 6,923,872.67	\$ 11,778,138.64	\$ -	\$ -	\$ 11,778,138.64
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	134,958	77,622,162	\$ 1,446,075.00	\$ 2,953,523.28	\$ 4,399,598.28	\$ 20,090.64	\$ 18,586.56	\$ 4,438,275.48
31								
32								
33								
34 TOTAL INDUSTRIALS	136,740	78,183,152	\$ 1,465,169.13	\$ 2,974,868.95	\$ 4,440,038.08	\$ 20,090.64	\$ 18,586.56	\$ 4,478,715.28
35								
36								
37 GRAND TOTAL	488,371	232,046,989	\$ 6,319,435.10	\$ 9,898,741.62	\$ 16,218,176.72	\$ 20,090.64	\$ 18,586.56	\$ 16,256,853.92

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

	GREEN POWER \$	DEMAND \$ ENERGY \$ PFP \$ AND GREEN POWER \$	FUEL ADJUSTMENT CLAUSE \$	FAC MILLS/ KWH	ES \$	ES MILLS/ KWH	NON SMELTER NON FAC PPA	NSNFFPA MILLS/ KWH
1 OCTOBER 2016								
2								
3 JP RURALS	\$ 5.00	\$ 3,394,148.62	\$ (75,987.88)	(1.74)	\$ 223,899.93	5.12	\$ 58,445.48	1.34
4 KENERGY RURALS	\$ -	\$ 6,136,685.87	\$ (139,296.90)	(1.74)	\$ 404,786.74	5.05	\$ 107,139.13	1.34
5 MEADE CO. RURALS	\$ -	\$ 2,247,309.15	\$ (51,976.70)	(1.74)	\$ 148,221.75	4.95	\$ 39,977.48	1.34
6								
7 TOTAL RURALS	\$ 5.00	\$ 11,778,143.64	\$ (267,261.48)	(1.74)	\$ 776,908.42	5.05	\$ 205,562.09	1.34
8								
9		\$ 129,699.75	\$ (3,310.29)	(1.74)	\$ 8,549.62	4.49	\$ 2,546.08	1.34
10		\$ 2,588.51	\$ (57.51)	(1.74)	\$ 121.74	3.68	\$ 44.23	1.34
11		\$ 884,967.47	\$ (26,968.73)	(1.74)	\$ 58,268.70	3.75	\$ 20,742.79	1.34
12		\$ 39,023.25	\$ (906.35)	(1.74)	\$ 2,573.73	4.93	\$ 697.11	1.34
13		\$ 303,348.75	\$ (7,616.26)	(1.74)	\$ 18,381.06	4.19	\$ 5,857.98	1.34
14		\$ 61,219.66	\$ (1,358.77)	(1.74)	\$ 3,913.86	5.00	\$ 1,045.09	1.34
15		\$ 22,451.66	\$ (521.15)	(1.74)	\$ 1,459.52	4.86	\$ 400.84	1.34
16		\$ 62,630.87	\$ (1,152.01)	(1.74)	\$ 4,135.37	6.24	\$ 886.06	1.34
17		\$ 585,144.48	\$ (19,374.94)	(1.74)	\$ 38,503.91	3.45	\$ 14,902.09	1.34
18		\$ 1,043.19	\$ (18.27)	(1.74)	\$ 68.89	6.55	\$ 14.05	1.34
19		\$ -	\$ -	0.00	\$ -	0.00	\$ -	0.00
20		\$ 2,006.77	\$ (42.70)	(1.74)	\$ 132.41	5.39	\$ 32.84	1.34
21		\$ 1,407,974.24	\$ (46,228.66)	(1.74)	\$ 92,654.06	3.48	\$ 35,556.41	1.34
22		\$ 128,850.78	\$ (3,461.32)	(1.74)	\$ 8,061.16	4.05	\$ 2,662.25	1.34
23		\$ 88,442.81	\$ (2,373.38)	(1.74)	\$ 5,828.25	4.27	\$ 1,825.47	1.34
24		\$ 2,260.94	\$ (54.30)	(1.74)	\$ 149.09	4.77	\$ 41.76	1.34
25		\$ 8,417.48	\$ (151.92)	(1.74)	\$ 555.83	6.36	\$ 116.85	1.34
26		\$ 247,386.60	\$ (7,665.82)	(1.74)	\$ 16,286.67	3.69	\$ 5,896.10	1.34
27		\$ 378,566.99	\$ (11,201.69)	(1.74)	\$ 24,832.97	3.85	\$ 8,615.69	1.34
28		\$ 82,251.28	\$ (2,365.64)	(1.74)	\$ 5,193.29	3.81	\$ 1,819.51	1.34
29								
30 SUBTOTAL INDUSTRIALS	\$ -	\$ 4,438,275.48	\$ (134,829.71)	(1.74)	\$ 289,670.13	3.73	\$ 103,703.20	1.34
31								
32		\$ 40,439.80	\$ (974.44)	(1.74)	\$ 2,666.62	4.75	\$ 749.48	1.34
33								
34 TOTAL INDUSTRIALS	\$ -	\$ 4,478,715.28	\$ (135,804.15)	(1.74)	\$ 292,336.75	3.74	\$ 104,452.68	1.34
35								
36								
37 GRAND TOTAL	\$ 5.00	\$ 16,256,858.92	\$ (403,065.63)	(1.74)	\$ 1,069,245.17	4.61	\$ 310,014.77	1.34

Big Rivers Electric Corporation
Monthly Billing Summary
Sales to Members
October 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 OCTOBER 2016								
2								
3 JP RURALS	\$ 3,600,506.15	82.30	\$ (96,483.81)	(2.21)	\$ -	0.00	\$ 3,504,022.34	80.10
4 KENERGY RURALS	\$ 6,509,314.84	81.17	\$ (193,960.87)	(2.42)	\$ -	0.00	\$ 6,315,353.97	78.75
5 MEADE CO. RURALS	\$ 2,383,531.68	79.65	\$ (68,506.14)	(2.29)	\$ -	0.00	\$ 2,315,025.54	77.37
6								
7 TOTAL RURALS	\$ 12,493,352.67	81.20	\$ (358,950.82)	(2.33)	\$ -	0.00	\$ 12,134,401.85	78.86
8								
9	\$ 137,485.16	72.14	\$ (2,082.55)	(1.09)	\$ -	0.00	\$ 135,402.61	71.05
10	\$ 2,696.97	81.45	\$ (28.78)	(0.87)	\$ -	0.00	\$ 2,668.19	80.59
11	\$ 987,010.23	60.35	\$ (13,825.74)	(0.89)	\$ -	0.00	\$ 923,184.49	59.46
12	\$ 41,387.74	79.32	\$ (634.43)	(1.22)	\$ -	0.00	\$ 40,753.31	78.10
13	\$ 319,971.53	72.97	\$ (4,435.68)	(1.01)	\$ -	0.00	\$ 315,535.85	71.96
14	\$ 64,819.84	82.86	\$ (966.40)	(1.24)	\$ -	0.00	\$ 63,853.44	81.63
15	\$ 23,790.87	79.30	\$ (359.18)	(1.20)	\$ -	0.00	\$ 23,431.69	78.10
16	\$ 66,500.29	100.27	\$ (1,044.76)	(1.58)	\$ -	0.00	\$ 65,455.53	98.69
17	\$ 619,175.54	55.51	\$ (9,006.47)	(0.81)	\$ -	0.00	\$ 610,169.07	54.70
18	\$ 1,107.86	105.31	\$ (17.48)	(1.66)	\$ -	0.00	\$ 1,090.38	103.65
19	\$ -	-	\$ -	0.00	\$ -	0.00	\$ -	0.00
20	\$ 2,129.32	86.63	\$ (32.96)	(1.34)	\$ -	0.00	\$ 2,096.36	85.29
21	\$ 1,489,956.05	55.98	\$ (21,705.62)	(0.82)	\$ -	0.00	\$ 1,468,250.43	55.17
22	\$ 136,112.87	68.31	\$ (1,935.20)	(0.97)	\$ -	0.00	\$ 134,177.67	67.33
23	\$ 93,723.15	68.59	\$ (1,409.93)	(1.03)	\$ -	0.00	\$ 92,313.22	67.56
24	\$ 2,397.49	76.70	\$ (36.60)	(1.17)	\$ -	0.00	\$ 2,360.89	75.52
25	\$ 8,938.24	102.20	\$ (140.66)	(1.61)	\$ -	0.00	\$ 8,797.58	100.59
26	\$ 261,903.55	59.34	\$ (3,853.78)	(0.87)	\$ -	0.00	\$ 258,049.77	58.47
27	\$ 400,813.96	62.15	\$ (5,916.59)	(0.92)	\$ -	0.00	\$ 394,897.37	61.24
28	\$ 86,898.44	63.81	\$ (1,235.41)	(0.91)	\$ -	0.00	\$ 85,663.03	62.90
29								
30 SUBTOTAL INDUSTRIALS	\$ 4,696,819.10	60.51	\$ (68,668.22)	(0.88)	\$ -	0.00	\$ 4,628,150.88	59.62
31								
32	\$ 42,881.46	76.44	\$ (654.38)	(1.17)	\$ -	0.00	\$ 42,227.08	75.27
33								
34 TOTAL INDUSTRIALS	\$ 4,739,700.56	60.62	\$ (69,322.60)	(0.89)	\$ -	0.00	\$ 4,670,377.96	59.74
35								
36								
37 GRAND TOTAL	\$ 17,233,053.23	74.27	\$ (428,273.42)	(1.85)	\$ -	0.00	\$ 16,804,779.81	72.42

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

1 <u>MAY 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	14,412,166	\$ 334,037.17	23.18
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	14,412,166	\$ 486,827.17	33.78
11			
12 TO OTHER THAN RUS BORROWERS:			
13 ADM INVESTOR SERVICES		\$ (9,000.00)	
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	5,345,000	\$ 110,292.79	20.63
20 INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 200,000.00	
21 INDIANAPOLIS POWER & LIGHT - CAPACITY SALES		\$ 150,015.00	
22 MISO	332,124,844	\$ 7,602,114.82	22.89
23 NEXTRA ENERGY POWER MARKETING	264,000,000	\$ 8,164,644.00	30.93
24			
25 TOTAL TO OTHER THAN RUS BORROWERS	601,469,844	\$ 16,382,040.81	27.24
26			
27 TOTAL	<u>615,882,010</u>	<u>\$ 16,868,867.98</u>	<u>27.39</u>

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

1 JUNE 2016	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2			
3 SPECIAL SALES TO RUS BORROWERS:			
4 WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ -	
5 KY 65-KENERGY-DOMTAR COGEN	7,493,308	\$ 249,538.71	33.30
6 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 387,500.00	
8 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9			
10 TOTAL SPECIAL SALES TO RUS BORROWERS	7,493,308	\$ 637,038.71	85.01
11			
12 TO OTHER THAN RUS BORROWERS:			
13 ADM INVESTOR SERVICES		\$ 132,934.00	
14 BP ENERGY-CAPACITY SALES			
15 CALPINE ENERGY SERVICES - CAPACITY SALES			
16 CARGILL POWER MARKETS			
17 EDF TRADING			
18 EDF TRADING - CAPACITY SALES			
19 HMPL	7,569,000	\$ 190,562.71	25.18
20 INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 75,000.00	
21 INDIANAPOLIS POWER & LIGHT - CAPACITY SALES			
22 MISO	268,855,906	\$ 6,378,583.11	23.72
23 MISO - CAPACITY SALES		\$ 330,897.00	
24 NEXTRA ENERGY POWER MARKETING	108,800,000	\$ 3,472,080.00	31.91
25 NEXTRA ENERGY POWER MARKETING - CAPACITY SALES		\$ 37,500.00	
26			
27 TOTAL TO OTHER THAN RUS BORROWERS	385,224,906	\$ 10,617,556.82	27.56
28			
29 TOTAL	<u>392,718,214</u>	<u>\$ 11,254,595.53</u>	<u>28.66</u>

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

1 <u>JULY 2016</u>	<u>KWH</u>	<u>AMOUNT</u>	<u>REVENUE \$</u> <u>MILLS/KWH</u>
2			
3 SPECIAL SALES TO RUS BORROWERS:			
4 WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ -	
5 KY 65-KENERGY-DOMTAR COGEN	6,947,563	\$ 261,159.95	37.59
6 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CAPACITY SALES		\$ 387,500.00	
8 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP - CALL OPTION			
9			
10 TOTAL SPECIAL SALES TO RUS BORROWERS	6,947,563	\$ 648,659.95	93.37
11			
12 TO OTHER THAN RUS BORROWERS:			
13 ADM INVESTOR SERVICES		\$ (146,870.00)	
14 BP ENERGY - CAPACITY SALES			
15 CALPINE ENERGY SERVICES - CAPACITY SALES			
16 CARGILL POWER MARKETS	16,000,000	\$ 617,600.00	38.60
17 EDF TRADING			
18 EDF TRADING - CAPACITY SALES			
19 HMPL	24,000	\$ 529.83	22.08
20 INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 75,000.00	
21 INDIANAPOLIS POWER & LIGHT - CAPACITY SALES			
22 MISO	385,123,038	\$ 11,535,375.02	29.95
23 MISO - CAPACITY SALES		\$ 341,926.90	
24 MORGAN STANLEY CAPITAL GROUP	60,800,000	\$ 2,364,800.00	38.89
25 MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES		\$ 113,520.00	
26 NEXTRA ENERGY POWER MARKETING	116,800,000	\$ 3,656,040.00	31.30
27 NEXTRA ENERGY POWER MARKETING - CAPACITY SALES		\$ 37,500.00	
28 PJM INTERCONNECTION			
29 SOUTHERN ILLINOIS POWER MARKETING			
30			
31 TOTAL TO OTHER THAN RUS BORROWERS	578,747,038	\$ 18,595,421.75	32.13
32			
33 TOTAL	<u>585,694,601</u>	<u>\$ 19,244,081.70</u>	<u>32.86</u>

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

1 <u>AUGUST 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		\$ -	
5 KY 65-KENERGY-DOMTAR COGEN	5,732,501	\$ 242,751.19	42.35
6 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP-CAPACITY SALES		\$ 387,500.00	
8 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP-CALL OPTION			
9			
10 TOTAL SPECIAL SALES TO RUS BORROWERS	5,732,501	\$ 630,251.19	109.94
11			
12 TO OTHER THAN RUS BORROWERS:			
13 ADM INVESTOR SERVICES		\$ (34,610.00)	
14 BP ENERGY - CAPACITY SALES			
15 CALPINE ENERGY SERVICES - CAPACITY SALES			
16 CARGILL POWER MARKETS	18,400,000	\$ 710,240.00	38.60
17 EDF TRADING			
18 EDF TRADING - CAPACITY SALES			
19 HMPL	484,000	\$ 25,409.87	52.50
20 INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 75,000.00	
21 INDIANAPOLIS POWER & LIGHT - CAPACITY SALES			
22 MISO	372,739,347	\$ 10,896,172.90	29.23
23 MISO - CAPACITY SALES		\$ 341,926.90	
24 MORGAN STANLEY CAPITAL GROUP	68,000,000	\$ 2,642,720.00	38.86
25 MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES		\$ 113,520.00	
26 NEXTRA ENERGY POWER MARKETING	112,000,000	\$ 3,581,160.00	31.97
27 NEXTRA ENERGY POWER MARKETING - CAPACITY SALES		\$ 37,500.00	
28 PJM INTERCONNECTION			
29 SOUTHERN ILLINOIS POWER MARKETING			
30			
31 TOTAL TO OTHER THAN RUS BORROWERS	571,623,347	\$ 18,389,039.67	32.17
32			
33 TOTAL	<u>577,355,848</u>	<u>\$ 19,019,290.86</u>	<u>32.94</u>

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

1 <u>SEPTEMBER 2016</u>	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2			
3 SPECIAL SALES TO RUS BORROWERS:			
4 WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ -	
5 KY 65-KENERGY-DOMTAR COGEN	8,326,070	\$ 296,121.76	35.57
6 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP-CAPACITY SALES		\$ 387,500.00	
8 IN106-HOOSIER ENERGY RURAL ELECTRIC COOP-CALL OPTION			
9			
10 TOTAL SPECIAL SALES TO RUS BORROWERS	8,326,070	\$ 683,621.76	82.11
11			
12 TO OTHER THAN RUS BORROWERS:			
13 ADM INVESTOR SERVICES		\$ 74,766.00	
14 BP ENERGY - CAPACITY SALES			
15 CALPINE ENERGY SERVICES - CAPACITY SALES			
16 CARGILL POWER MARKETS			
17 EDF TRADING			
18 EDF TRADING - CAPACITY SALES			
19 HMPL			
20 INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 75,000.00	
21 INDIANAPOLIS POWER & LIGHT - CAPACITY SALES			
22 MISO	251,860,068	\$ 9,432,860.33	37.45
23 MISO - CAPACITY SALES		\$ 330,897.00	
24 MORGAN STANLEY CAPITAL GROUP			
25 MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES			
26 NEXTRA ENERGY POWER MARKETING	177,600,000	\$ 5,610,480.00	31.59
27 NEXTRA ENERGY POWER MARKETING - CAPACITY SALES		\$ 37,500.00	
28 PJM INTERCONNECTION			
29 SOUTHERN ILLINOIS POWER MARKETING			
30			
31 TOTAL TO OTHER THAN RUS BORROWERS	429,460,068	\$ 15,561,503.33	36.24
32			
33 TOTAL	437,786,138	\$ 16,245,125.09	37.11

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

1	OCTOBER 2016	KWH	AMOUNT	REVENUE \$ MILLS/KWH
2				
3	SPECIAL SALES TO RUS BORROWERS:			
4	WI 64-DAIRYLAND POWER COOPERATIVE - CAPACITY SALES		\$ -	
5	KY 65-KENERGY-DOMTAR COGEN	13,806,822	\$ 459,876.42	33.31
6	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP			
7	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP-CAPACITY SALES		\$ 387,500.00	
8	IN106-HOOSIER ENERGY RURAL ELECTRIC COOP-CALL OPTION			
9				
10	TOTAL SPECIAL SALES TO RUS BORROWERS	13,806,822	\$ 847,376.42	61.37
11				
12	TO OTHER THAN RUS BORROWERS:			
13	ADM INVESTOR SERVICES		\$ (293,820.00)	
14	BP ENERGY - CAPACITY SALES			
15	CALPINE ENERGY SERVICES - CAPACITY SALES			
16	CARGILL POWER MARKETS			
17	EDF TRADING			
18	EDF TRADING - CAPACITY SALES			
19	HMPL	502,000	\$ 13,732.34	27.36
20	INDIANA MUNICIPAL POWER AGENCY - CAPACITY SALES		\$ 75,000.00	
21	INDIANAPOLIS POWER & LIGHT - CAPACITY SALES			
22	MISO	324,190,256	\$ 8,237,160.62	25.41
23	MISO - CAPACITY SALES		\$ 341,926.90	
24	MORGAN STANLEY CAPITAL GROUP			
25	MORGAN STANLEY CAPITAL GROUP - CAPACITY SALES			
26	NEXTRA ENERGY POWER MARKETING	182,400,000	\$ 5,697,480.00	31.24
27	NEXTRA ENERGY POWER MARKETING - CAPACITY SALES		\$ 37,500.00	
28	PJM INTERCONNECTION			
29	SOUTHERN ILLINOIS POWER MARKETING			
30				
31	TOTAL TO OTHER THAN RUS BORROWERS	507,092,256	\$ 14,108,979.86	27.82
32				
33	TOTAL	520,899,078	\$ 14,956,356.28	28.71

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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, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 13)**

2 *a. Provide a schedule of the calculation of the 12-month*
3 *average line loss by month for November 2014 through*
4 *October 2016.*

5 *b. Describe the actions that Big Rivers has taken to reduce*
6 *line loss during this period.*

7

8 **Response)**

9 a. Please see the table attached to this response for calculations of
10 the 12-month average line losses for November 2014 through
11 October 2016.

12 b. As a normal course of business, Big Rivers plans and operates its
13 transmission system in a manner that minimizes line losses. No
14 specific actions were deemed necessary to further reduce system
15 losses during the period from November 2014 through October
16 2016.

17

18

19 **Witnesses)** Nicholas R. Castlen (*a. only*) and
20 Wayne O'Bryan (*b. only*)

21

Big Rivers Electric Corporation
Case No. 2017-00006
12 Month Average Line Loss Calculation
November 2014 - October 2016

Line No.	(a)	(b)	(c)	(d)
	12 Months Ended	12 Month Total kWh Sources	12 Month Total kWh Line Losses	12 Month Line Losses as a Percent of Total Sources
1	Nov-14	9,854,120,442	243,762,526	2.47%
2	Dec-14	9,851,792,720	241,766,566	2.45%
3	Jan-15	9,846,852,478	240,125,270	2.44%
4	Feb-15	9,892,650,552	241,689,556	2.44%
5	Mar-15	9,821,155,324	238,243,763	2.43%
6	Apr-15	9,574,662,231	237,511,371	2.48%
7	May-15	9,799,563,728	237,212,923	2.42%
8	Jun-15	10,066,188,049	237,153,638	2.36%
9	Jul-15	10,016,776,752	236,839,397	2.36%
10	Aug-15	9,825,360,885	237,831,999	2.42%
11	Sep-15	9,621,228,268	226,809,935	2.36%
12	Oct-15	9,450,107,383	223,430,334	2.36%
13	Nov-15	9,208,739,241	215,330,620	2.34%
14	Dec-15	9,027,484,832	204,296,486	2.26%
15	Jan-16	8,997,669,717	199,344,613	2.22%
16	Feb-16	9,007,914,486	194,465,756	2.16%
17	Mar-16	8,991,194,787	189,155,496	2.10%
18	Apr-16	9,190,648,366	188,246,585	2.05%
19	May-16	9,237,564,819	200,072,750	2.17%
20	Jun-16	9,095,610,728	201,213,260	2.21%
21	Jul-16	9,194,038,162	205,734,243	2.24%
22	Aug-16	9,368,497,715	208,833,531	2.23%
23	Sep-16	9,536,602,885	226,892,924	2.38%
24	Oct-16	9,695,927,260	238,748,988	2.46%

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 14)** *List Big Rivers' scheduled, actual, and forced outages between*
2 *May 1, 2016, and October 31, 2016.*

3

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

6

7

8 **Witness)** Jason C. Burden

9

**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
 Reid Station Unit #1 - Coal - 65MW Net
 May 1, 2016 thru October 31, 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				

May	No Outages								Following MISO approval of the Attachment Y Suspension Notice, Reid Unit 1 was idled effective April 1, 2016, and has not yet been restarted.
June	No Outages								
July	No Outages								
August	No Outages								
September	No Outages								
October	No Outages								

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net
May 1, 2016 thru October 31, 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				
May				----->	----->			744:00	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.
June	F			6/1/2016 0:00	6/10/2016 9:32			225:32	The unit was tied on line following extensive generator repairs. The unit was out of service a total of 6,241 hours and 47 minutes.
July	F			7/21/2016 17:00	7/22/2016 12:12			19:12	A starting failure was declared when the unit did not tie on line within the allotted fifteen minute time limit. A problem with the generator breaker was corrected and the unit was returned to service.
	F			7/22/2016 15:27	7/22/2016 16:10			0:43	The unit tripped off line due to low fuel flow that caused a flame out. The fuel flow problem was corrected and the unit returned to service.
	F			7/22/2016 16:25	7/22/2016 18:18			1:53	The unit tripped off line due to a short in the generator charging breaker. The breaker was repaired and the unit returned to service.
	F			7/22/2016 19:05	7/25/2016 10:23			63:18	A starting failure was declared when the unit did not tie on line within the allotted fifteen minute time limit. A problem with the generator breaker was corrected and the unit was returned to service.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016

Big Rivers Electric Corporation
 Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net
 May 1, 2016 thru October 31, 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				
July	F			7/27/2016 12:49	7/27/2016 14:13		1:24		The unit tripped off line due to high vibration on number three bearing. Believing the probe to be faulty it was switched with the probe from bearing number two and the unit was returned to service.
	F			7/27/2016 14:42	7/28/2016 14:18		23:36		The unit tripped off line due to high vibration on number two bearing. Verifying the probe to be faulty a new vibration probe was purchased and installed.
August	S,A	8/3/2016 8:00	8/3/2016 12:00	8/3/2016 8:00	8/3/2016 11:48	4:00		3:48	The unit was removed from reserve standby status to replace the generator breaker.
	F			8/4/2016 12:56	8/5/2016 13:51		24:55		The unit tripped off line due to a faulty fire alarm sensor that discharged the fire protection CO ₂ system. There was no fire so the faulty sensor was replaced and the fire protection system was recharged.
	S,A	8/13/2016 10:00	8/30/2016 10:00	8/13/2016 10:00	8/30/2016 15:30	408:00		413:30	The unit was removed from reserve standby status to repair hydrogen leaks on the generator.
September	F			9/6/2016 14:12	9/6/2016 15:06			0:54	A starting failure was declared when the unit did not tie on line within the allotted fifteen minute time limit. A problem with the generator breaker was corrected and the unit was returned to service.
	F			9/6/2016 15:54	9/6/2016 16:39			0:45	The unit tripped off line due to a control system failure. Technicians found a blown fuse in the control I/O module. The fuse was replaced and the unit returned to service.
	S,A	9/8/2016 0:00	----->	9/8/2016 0:00	----->	552:00		552:00	The unit was removed from reserve standby status to repair hydrogen leaks on the generator.

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Reid Station Unit #2 - Combustion Turbine - Oil/Gas - 65MW Net
May 1, 2016 thru October 31, 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				
October	S,A	----->	10/3/2016 0:00	----->	10/3/2016 11:05	48:00		59:05	The unit was removed from reserve standby status to repair hydrogen leaks on the generator.
	F			10/18/2016 11:46	10/18/2016 16:05		4:19		A starting failure was declared when the unit did not tie on line within the allotted fifteen minute time limit. A defective solenoid valve on the compressor inlet guide vanes caused the starting delay. The solenoid was replaced an the unit was returned to service.
	F			10/18/2016 16:06	10/18/2016 16:38		0:32		The unit tripped off line due to a high atomizing air temperature alarm. The alarm was cleared and the unit was returned to service.

Case No. 2017-00006

Attachment for Response to PSC 1-14

Witness: Jason C. Burden

Page 4 of 17

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016

Big Rivers Electric Corporation
Henderson Station II - Unit #1 - Coal - 153MW Net
May 1, 2016 thru October 31, 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				
May	S,A	----->	----->	----->	----->	744:00		744:00	On April 29, 2016, at 23:54 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 hours ahead of schedule.
June	S,A	----->	6/20/2016 0:00	----->	6/19/2016 17:54	456:00		449:54	On April 29, 2016, at 23:54 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 hours ahead of schedule.
	F			6/20/2016 22:34	6/21/2016 20:14		21:40		During restart of the unit on June 19, 2016, "A" Boiler Feed Pump would not start. The unit was removed from service to isolate the pump for repairs.
July	F			7/2/2016 0:28	7/4/2016 22:40		70:12		The unit was removed from service to wash the air heaters. The air heater steam cleaning device condensate traps and warm up valves malfunctioned causing the air heater heat exchange media to fill with ash.

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Henderson Station II - Unit #1 - Coal - 153MW Net
May 1, 2016 thru October 31, 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				
August	F			8/15/2016 18:05	8/25/2016 17:11	239:06			The unit tripped off line due to a leak in the economizer inlet header drain line.
	F			8/25/2016 20:39	8/26/2016 7:17	10:38			The unit was removed from service to repair a leak in the number four heater access door.
	F			8/26/2016 8:24	8/26/2016 9:44	1:20			The unit tripped off line due to high drum level. The operator was ramping up load following the previous outage and when the second pulverizer came on line it caused the pressure to swing resulting in the high drum level trip.
September	S,A	9/28/2016 0:00	10/1/2016 0:00	9/27/2016 23:51	9/30/2016 16:00	72:00		64:09	The unit was removed from service to repair leaks in the SCR bypass damper seal air piping. The repairs were completed and the unit was placed in reserve standby status due to economics for an additional 55:09. Total time off line was 119:18.
October	F			10/2/2016 23:39	10/3/2016 0:49	1:10			The unit tripped offline due to low drum level. The level in the drum gage glass dropped below the bottom port and the supervisor tripped the unit.
	F			10/5/2016 0:32	10/10/2016 1:04	120:32			The unit was removed from service to investigate inadequate NOx removal. Inspection revealed that the "B" side diverter damper was only 2% open. The damper shaft drive pins were sheared and required replacement.

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Henderson Station II - Unit #2 - Coal - 159MW Net
May 1, 2016 thru October 31, 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				
May	F			5/13/2016 15:20	5/16/2016 23:53	80:33			The unit was removed from service due to plugged trays in the scrubber.
	F			5/18/2016 1:29	5/18/2016 8:59	7:30			The unit was removed from service because the scrubber had tripped. The 480 Volt motor control center that feeds power to the scrubber equipment tripped due to a short in one of the breakers causing the scrubber to trip. The short circuit was repaired and the unit was returned to service.
	F			5/18/2016 11:05	5/18/2016 12:02	0:57			The unit tripped off line due to high drum level caused by a boiler upset.
June	F			6/3/2016 16:26	6/7/2016 2:06	81:40			The unit was removed from service to repair a tube leak in the reheater section of the boiler.
	F			6/21/2016 7:31	6/27/2016 6:24	142:53			The unit was removed from service to repair a tube leak in the reheater section of the boiler.
July	No Outages								
August	F			8/16/2016 15:07	8/16/2016 20:39	5:32			The unit tripped off line due to the generator field breaker opened. An operator was working in the area and caused the field breaker to trip.
	F			8/16/2016 21:08	8/16/2016 21:50	0:42			The unit tripped off line due to high drum level caused by a boiler upset.

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Henderson Station II - Unit #2 - Coal - 159MW Net
May 1, 2016 thru October 31, 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				
September	F			9/8/2016 9:51	9/8/2016 22:27		12:36		The unit tripped off line when the turbine mechanical overspeed heim joint broke.
	F			9/8/2016 22:28	9/9/2016 5:23		6:55		The unit tripped off line due to the turbine first stage inlet and reheat inlet differential pressure switch malfunctioned.
October	F			10/6/2016 17:58	10/7/2016 0:16		6:18		The unit tripped off line due to a short circuit in the wires leading to the sudden pressure relay (63GT3) on the main generator step up transformer.
	F			10/20/2016 0:43	10/31/2016 0:55		264:12		The unit was removed from service to replace the slag grinders beneath the boiler.
	F			10/31/2016 1:16	10/31/2016 1:53		0:37		The unit tripped off line due to high drum level caused by a boiler upset.
	F			10/31/2016 16:00	----->		8:00		The unit was tripped off line by the sudden pressure relay (63GT3) on the main generator step up transformer. The relay had failed and had to be replaced. The unit was returned to service on November 1, 2016, at 13:04.

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Green Station Unit #1 - Coal/Pet coke - 231MW Net
May 1, 2016 thru October 31, 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				
May	F			5/2/2016 19:04	5/3/2016 3:35		8:31		The unit tripped off line due to low drum level caused by a boiler upset.
	F			5/22/2016 13:39	5/24/2016 0:00		34:21		The unit tripped off line due to failure of the generator stator cooling water pump. The redundant pump was out for repair when the running pump failed. Maintenance expedited repair of the redundant pump and returned the unit to service.
June	F			6/9/2016 20:43	6/9/2016 22:35		1:52		The unit tripped off line due to high drum level caused by a boiler upset.
July	F			7/1/2016 13:48	7/4/2016 12:20		70:32		The unit tripped off line due to a flame scanner/ burner management issue. While off line the boiler was hydrostatically tested and a tube leak was discovered. When the tube leak was repaired the unit was placed in reserve standby status. The unit was returned to service on July 4, 2016, at 19:07. Total time off line was 77:19.

Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016

Big Rivers Electric Corporation
Green Station Unit #1 - Coal/Pet coke - 231MW Net
May 1, 2016 thru October 31, 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				
August	F			8/9/2016 8:58	8/11/2016 4:21	43:23			The unit was removed from service to repair tube leaks in the reheater and superheater sections of the boiler.
	F			8/15/2016 17:35	8/16/2016 0:12	6:37			The unit tripped off line due to an issue with the generator or voltage regulator. Following an extensive investigation the root cause of the failure was not determined and the unit was returned to service.
	F			8/26/2016 21:14	8/29/2016 23:34	74:20			The unit was removed from service to repair a tube leak in the reheater section of the boiler.
September	S,A	9/4/2016 0:00	9/6/2016 0:00	9/4/2016 2:13	9/5/2016 20:28	48:00		42:15	The unit was removed from service due to weak power market conditions and placed in reserve standby status.
	S,A	9/30/2016 0:00	----->	9/30/2016 1:04	----->	24:00		22:56	The unit was removed from service due to weak power market conditions and placed in reserve standby status.
October	S,A	----->	10/2/16 12:00	----->	10/2/2016 17:03	36:00		41:03	The unit was removed from service due to weak power market conditions and placed in reserve standby status.
	F			10/26/2016 19:25	10/30/2016 1:01	77:36			The unit was removed from service to repair a tube leak in the reheater section of the boiler.

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Green Station Unit #2 - Coal/Pet coke - 223MW Net
May 1, 2016 thru October 31, 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				
May		No Outages							
June	F			6/9/2016 2032	6/10/2016 0650		10:18		The unit tripped off line due to low furnace pressure that was caused by the loss of control power to all of the fan dampers. Power was restored an the unit was returned to service.
July	F			7/7/2016 18:27	7/11/2016 18:44		96:17		The unit tripped off line due to a tube leak in the east side water wall at elevation 496' 1".
	F			7/15/2016 1:24	7/15/2016 4:36		3:12		The unit tripped off line due to high furnace pressure when the pin fell out of "B" ID Fan inlet damper linkage allowing the dampers to slam shut.
August		No Outages							

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Green Station Unit #2 - Coal/Pet coke - 223MW Net
May 1, 2016 thru October 31, 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				
September	S,A	9/4/2016 0:00	9/6/16 0:00	9/4/2016 1:11	9/6/2016 3:29	48:00		50:18	The unit was removed from service due to weak market conditions (economics) and placed in reserve standby status. Upon performing a hydrostatic test of the boiler a waterwall tube leak was discovered in the west side water wall and the unit was removed from reserve standby at 13:00 on September 4, 2016, for repairs. Repairs were completed and the unit was returned to reserve standby at 12:00 on September 5, 2016.
	S,A	9/28/2016 0:00	----->	9/28/2016 1:15	----->	72:00		70:45	The unit was removed from service due to weak market conditions (economics) and placed in reserve standby status. The unit was removed from reserve standby at 09:00 on October 1, 2016, and placed in maintenance outage status to accommodate a boiler operating permit inspection. The inspection was completed and the unit was returned to reserve standby at 11:45 on October 1, 2016.

Big Rivers Electric Corporation Scheduled ("S"), Actual ("A"), and Forced ("F") Outages May 1, 2016 thru October 31, 2016

Big Rivers Electric Corporation
Green Station Unit #2 - Coal/Pet coke - 223MW Net
May 1, 2016 thru October 31, 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				
October	S,A	----->	10/4/2016 0:00	----->	10/3/2016 22:33	72:00		70:33	The unit was removed from service due to weak market conditions (economics) and placed in reserve standby status. The unit was removed from reserve standby at 09:00 on October 1, 2016, and placed in maintenance outage status to accommodate a boiler operating permit inspection. The inspection was completed and the unit was returned to reserve standby at 11:45 on October 1, 2016.
	F				10/5/2016 8:22	10/5/2016 14:20		5:58	The unit was removed from service to investigate two loose metal rods inside the generator exciter that were detected by an electrician while performing preventive maintenance work. Two of the rods that support a fiber screen over the exciter diode shroud came loose on one end and were vibrating. It appears that the securing weld cracked from fatigue and liberated one end of the rods.
	S,A	10/23/2016 0:00	10/31/2016 0:00	10/23/2016 0:56	10/30/2016 19:50	192:00		186:54	The unit was removed from service due to weak market conditions (economics) and placed in reserve standby status.

**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
 Coleman Station Unit #1 - Coal - 150MW Net
 May 1, 2016 thru October 31, 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				
May	No Outages								Coleman Unit 1 was idled on May 1, 2014, and has not yet been returned to service.
June	No Outages								
July	No Outages								
August	No Outages								
September	No Outages								
October	No Outages								

**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
 Coleman Station Unit #2 - Coal - 138MW Net
 May 1, 2016 thru October 31, 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				
May	No Outages								Coleman Unit 2 was idled on May 1, 2014, and has not yet been returned to service.
June	No Outages								
July	No Outages								
August	No Outages								
September	No Outages								
October	No Outages								

**Big Rivers Electric Corporation
 Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
 May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
 Coleman Station Unit #3 - Coal - 155MW Net
 May 1, 2016 thru October 31, 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				
May	No Outages								Coleman Unit 3 was idled on May 8, 2014, and has not yet been returned to service.
June	No Outages								
July	No Outages								
August	No Outages								
September	No Outages								
October	No Outages								

**Big Rivers Electric Corporation
Scheduled ("S"), Actual ("A"), and Forced ("F") Outages
May 1, 2016 thru October 31, 2016**

Big Rivers Electric Corporation
Wilson Station - Unit #1 - Coal/Pet Coke - 417MW Net
May 1, 2016 thru October 31, 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					
May	F			----->	5/2/2016 5:42			29:42	The unit was removed from service at 00:36 on April 30, 2016, to repair a water wall tube leak on the west side wall.	
June	F			6/25/2016 21:11	6/28/2016 1:01			51:50	The unit was removed from service to repair a water wall tube leak in the boiler nose area.	
July	F			7/4/2016 12:24	7/4/2016 18:39			6:15	The unit tripped off line due to a lightening strike in the switchyard. The electrical surge activated the 86GP-1 protective relay that tripped the unit.	
August	No Outages									
September	S,A	9/4/2016 0:00	9/5/2016 6:00	9/4/2016 1:00	9/5/2016 6:09			30:00	29:09	The unit was removed from service due to weak market conditions (economics) and placed in reserve standby status.
	S,A	9/14/2016 0:00	9/19/2016 0:00	9/13/2016 23:18	9/18/2016 16:16			120:00	112:58	The unit was removed from service to repair a steam leak on HMV-170 steam isolation valve, wash the primary air heaters and perform scrubber maintenance.
October	F			10/30/2016 20:09	----->				27:51	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 November 1, 2016, at 15:18.

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 15)** *For each existing fuel contract categorized as long-term (i.e.,*
2 *one year or more in length), provide:*

3

4 *a. Supplier's name and address;*

5 *b. Name and location of production facility;*

6 *c. Date when contract was executed;*

7 *d. Duration of contract;*

8 *e. Date(s) of each contract revision, modification, or*
9 *amendment;*

10 *f. Annual tonnage requirements;*

11 *g. Actual annual tonnage received since the contract's*
12 *inception;*

13 *h. Percent of annual requirements received during the*
14 *contract's term;*

15 *i. Base price in dollars per ton;*

16 *j. Total amount of price escalations to date in dollars per ton;*
17 *and*

18 *k. Current price paid for coal under the contract in dollars*
19 *per ton (i + j).*

20

21 **Response)** Please see the attached schedules for the list of existing fuel
22 contracts for the period from May 1, 2016, through October 31, 2016.

23

24 **Witness)** Mark W. McAdams

Big Rivers Electric Corporation
Case No. 2017-00006
Long-Term Fuel Contract Information

Sebree Mining – BRE-11-002

A. NAME / ADDRESS:	Sebree Mining, LLC <i>(formerly Allied Resources)</i> 1717 South Boulder Avenue Tulsa, OK 74119		
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:	2011 –	250,000 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:	2011 –	240,650 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 –	781,729 tons	<i>(through October)</i>
H. PERCENT OF ANNUAL REQUIREMENTS:	2011 –	96.26 %	
	2012 –	99.75 %	
	2013 –	95.77 %	
	2014 –	104.79 %	
	2015 –	100.08 %	<i>(176,700 tons Force Majeure)</i>
	2016 –	82.11 %	<i>(through October)</i>

**Big Rivers Electric Corporation
Case No. 2017-00006
Long-Term Fuel Contract Information**

Sebree Mining – BRE-11-002 (continued)

I. BASE PRICE:

	<u>Sebree Complex</u>	
Quality A 2011	– \$ 50.5308	per ton
Quality B 2011	– \$ 48.6790	per ton
Quality C 2011	– \$ 47.1086	per ton
Quality D 2011	– \$ 44.2420	per ton
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. 2017-00006
Long-Term Fuel Contract Information

Sebree Mining – BRE-11-002 (continued)

I. BASE PRICE: (continued)

Coleman Station

Quality A 2011 – \$ 59.4325 per ton

Steamport Dock

Quality A 2011 – \$ 49.9335 per ton
 Quality B 2011 – \$ 48.0800 per ton
 Quality C 2011 – \$ 46.5083 per ton
 Quality D 2011 – \$ 43.6414 per ton

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 – \$ 59.4090 per ton
 Quality D 2016 – \$ 56.5598 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

**Big Rivers Electric Corporation
Case No. 2017-00006
Long-Term Fuel Contract Information**

Sebree Mining – BRE-11-002 (continued)

J. 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

<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. 2017-00006
Long-Term Fuel Contract Information

Foresight – BRE-15-005

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 *through* 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	–	217,569	tons (<i>through October</i>)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	–	100.16 %
2016	–	90.65 % (<i>through October</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. 2017-00006
Long-Term Fuel Contract Information

KenAmerican Resources – BRE-15-006

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	-	417,408	tons (<i>through October</i>)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	-	100.03	%
2016	-	83.48	% (<i>through October</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. 2017-00006
Long-Term Fuel Contract Information

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

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	–	333,266 tons	(through October)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	–	100.25 %	
2016	–	95.22 %	(through October)

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. 2017-00006
Long-Term Fuel Contract Information

Alliance Coal, LLC – BRE-15-010

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	–	205,756	tons	(through October)

H. PERCENT OF ANNUAL REQUIREMENTS:

2015	–	0.00	%	(Option not exercised)
2016	–	82.30	%	(through October)

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

Big Rivers Electric Corporation
Case No. 2017-00006
Long-Term Fuel Contract Information

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

I. BASE PRICE: (continued)	<u>Quality E (11,000 BTU/lb.) – Onton No. 9</u>	
	2015	– \$ 44.0996 per ton
	2016	– \$ 45.8002 per ton
	2017	– \$ 47.5492 per ton
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. 2017-00006
Long-Term Fuel Contract Information

Peabody CoalSales – BRE-15-018

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,
Warrick 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 – 300,760 tons (*through October*)

H. PERCENT OF ANNUAL REQUIREMENTS: 2016 – 85.93 % (*through October*)

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, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 16)** *Provide a schedule of the present and proposed rates that Big*
2 *Rivers seeks to change pursuant to 807 KAR 5:056, shown in comparative*
3 *form.*

4

5 **Response)** Not applicable. Please see Big Rivers' response to Item 1 of these
6 information request.

7

8

9 **Witness)** Roger D. Hickman
10

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 17)** *Provide a copy of current tariff showing by cross-outs and*
2 *italicized inserts all proposed changes in rates.*

3

4 **Response)** Not applicable. Please see Big Rivers' responses to Item 1 and Item
5 16 above.

6

7

8 **Witness)** Roger D. Hickman

9

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 18)**

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

4 *b. If the response is yes, state:*

5 *(1)How Big Rivers' prices compare with those of the other*
6 *utilities for the review period. Include all prices used in*
7 *the comparison in cents per MMBtu; and*

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

10

11 **Response)**

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

14 b. The tables and the charts accompanying this response reflect
15 two non-Big Rivers events. First, Duke Energy-Kentucky re-
16 ported no April 2016 coal purchases for its East Bend location.
17 Second, in mid-2015, Kentucky Power's Big Sandy Unit #2 was
18 retired and Unit #1 was converted to natural gas.

19 (1) Big Rivers' coal pricing is competitive with that of its
20 comparison group for the review period. Attached hereto
21 are tables and charts on a ¢ per MMBTU and showing Big
22 Rivers with and without petcoke.

23 (2) Utilities that are included in this comparison are Kentucky-
24 based companies. These utilities are identified on the
25 attached tables and charts.

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1

2

3 **Witness)** Mark W. McAdams

4

**Big Rivers Electric Corporation
Case No. 2017-00006**

Cents per MMBTU (Big Rivers without Pet Coke)

Company	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
Big Rivers Electric Corporation	214.24	226.22	201.03	234.09	239.53	226.34
Duke Energy - Kentucky ¹	213.66	214.39	215.27	225.74	224.40	224.40
Louisville Gas and Electric Company	232.03	231.47	234.83	239.23	236.16	229.07
Kentucky Utilites Company	237.41	239.83	240.04	232.01	236.25	227.44
East Kentucky Power Cooperative	242.70	246.20	235.10	233.80	230.90	228.40
Kentucky Power ²	284.11	284.64	260.94	265.59	252.99	221.32

Company	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
Big Rivers Electric Corporation	225.59	235.70	230.02	226.64	230.95	226.96
Duke Energy - Kentucky ¹	222.86	222.95	222.53	214.04	209.50	209.33
Louisville Gas and Electric Company	223.92	223.11	229.30	231.93	222.57	228.39
Kentucky Utilites Company	228.74	227.63	216.00	216.61	227.26	209.25
East Kentucky Power Cooperative	226.00	219.50	219.50	219.20	221.90	227.90
Kentucky Power ²	220.04	219.59	207.77	206.03	194.38	206.13

Note(s):

- 1.- Duke Energy-Kentucky costs are for the East Bend Plant only; no reported April 2016 coal purchases for East Bend Plant.
- 2.- Kentucky Power's Big Sandy #2 retired in 2015 and Big Sandy #1 converted to natural gas in mid-2016.

Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

Case No. 2017-00006

Witness: Mark W. McAdams

Attachment for Response to PSC 1-18

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**Big Rivers Electric Corporation
Case No. 2017-00006**

Cents per MMBTU (Big Rivers without 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 ¹	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 ²	106.81	0.00	0.00	0.00	0.00	0.00

Company	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
Big Rivers Electric Corporation	231.87	227.52	229.39	224.15	231.42	226.91
Duke Energy - Kentucky ¹	193.06	205.84	205.36	206.53	207.02	201.14
Louisville Gas and Electric Company	210.40	212.68	210.39	212.64	207.13	201.87
Kentucky Utilites Company	205.40	203.94	215.91	206.25	208.12	236.54
East Kentucky Power Cooperative	218.90	221.30	222.00	223.70	221.30	223.30
Kentucky Power ²	0.00	0.00	0.00	0.00	0.00	0.00

Note(s):

- 1.- Duke Energy-Kentucky costs are for the East Bend Plant only; no reported April 2016 coal purchases for East Bend Plant.
- 2.- Kentucky Power's Big Sandy #2 retired in 2015 and Big Sandy #1 converted to natural gas in mid-2016.

Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

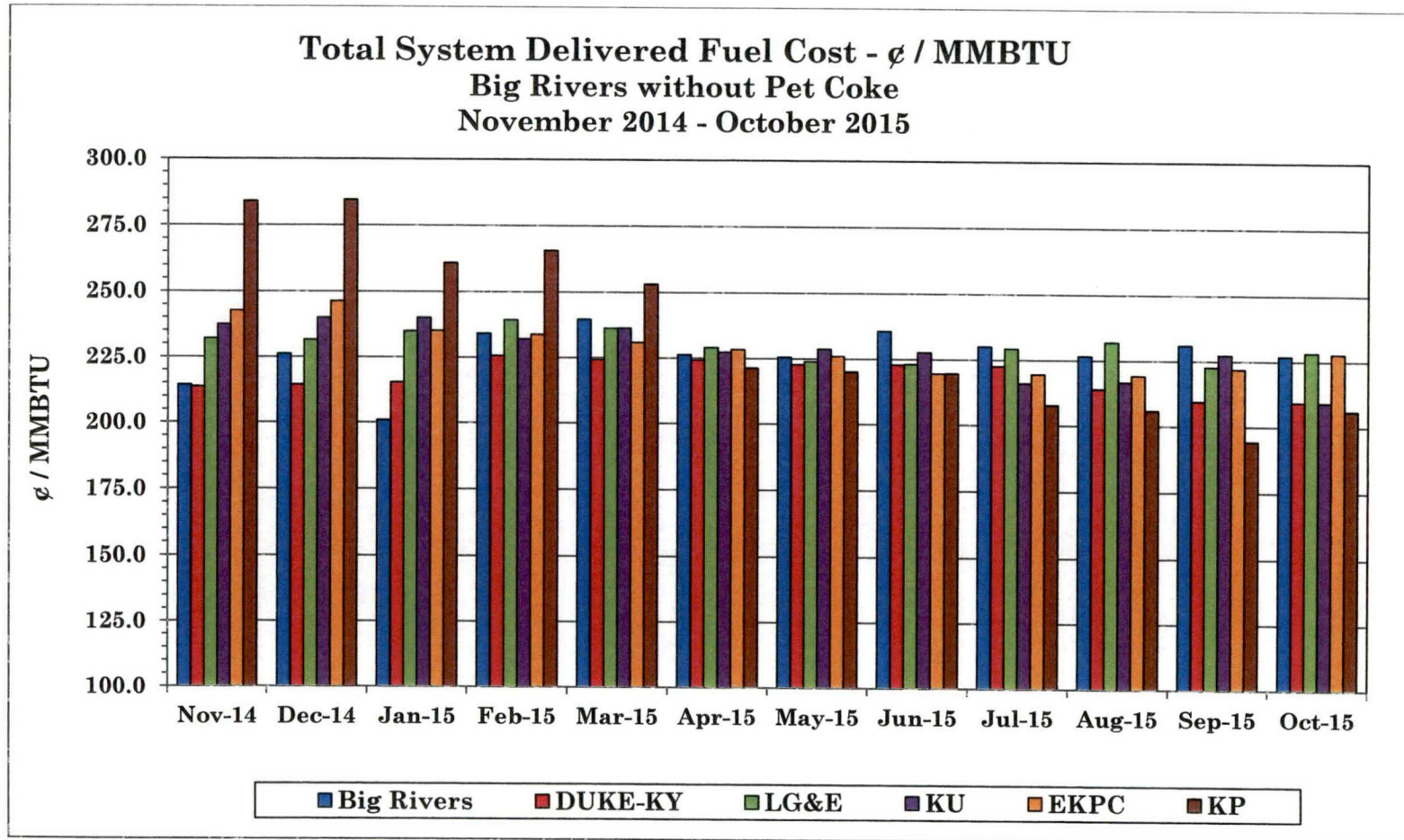
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Witness: Mark W. McAdams

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**Big Rivers Electric Corporation
Case No. 2017-00006**



Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

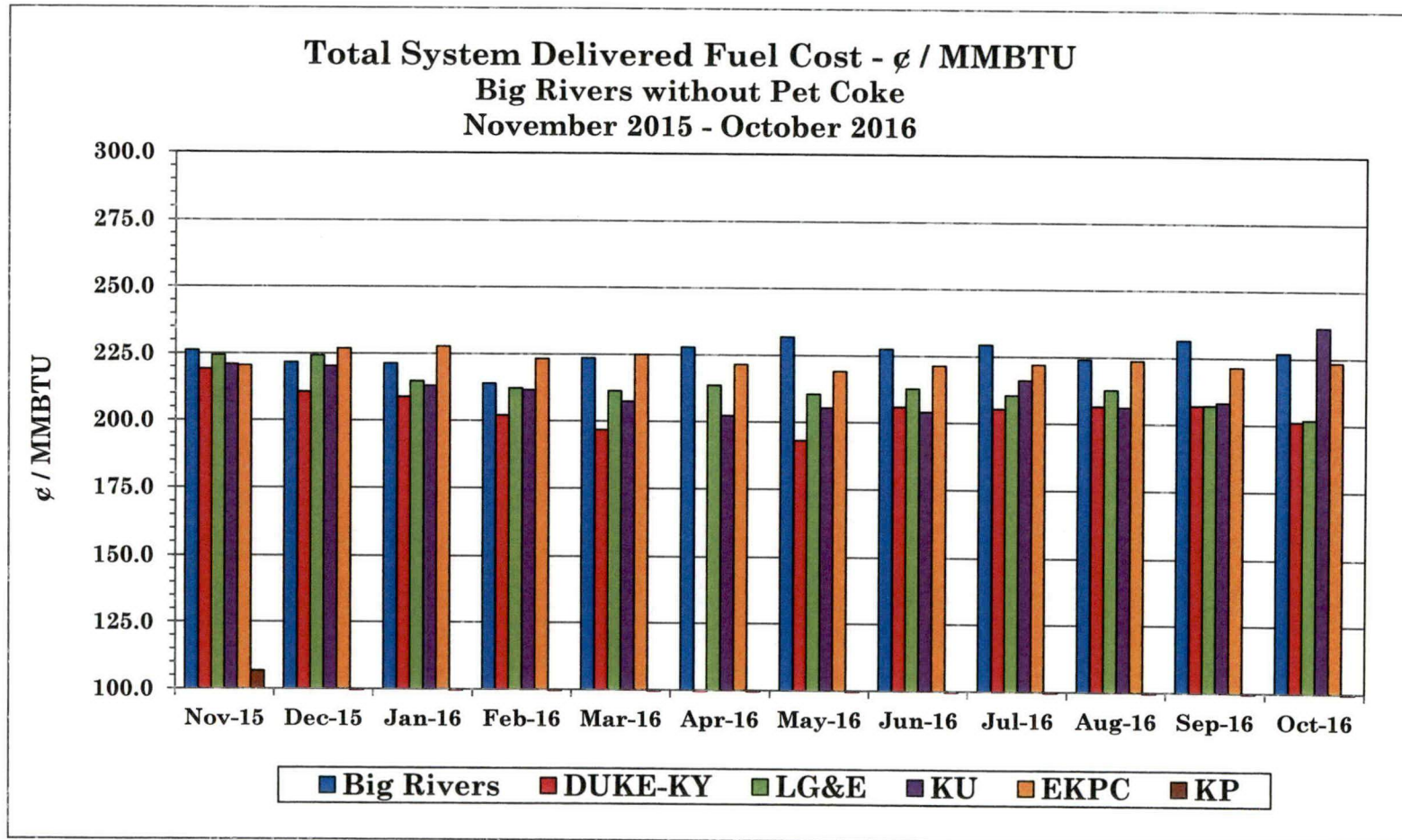
Case No. 2017-00006

Witness: Mark W. McAdams

Attachment for Response to PSC 1-18

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**Big Rivers Electric Corporation
Case No. 2017-00006**



Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

Case No. 2017-00006

Witness: Mark W. McAdams

Attachment for Response to PSC 1-18

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**Big Rivers Electric Corporation
Case No. 2017-00006**

Cents per MMBTU (Big Rivers with Pet Coke)

Company	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15
Big Rivers Electric Corporation	209.46	216.02	199.51	227.76	232.22	211.27
Duke Energy - Kentucky ¹	213.66	214.39	215.27	225.74	224.40	224.40
Louisville Gas and Electric Company	232.03	231.47	234.83	239.23	236.16	229.07
Kentucky Utilites Company	237.41	239.83	240.04	232.01	236.25	227.44
East Kentucky Power Cooperative	242.70	246.20	235.10	233.80	230.90	228.40
Kentucky Power ²	284.11	284.64	260.94	265.59	252.99	221.32

Company	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
Big Rivers Electric Corporation	208.53	225.41	227.63	220.13	218.79	214.77
Duke Energy - Kentucky ¹	222.86	222.95	222.53	214.04	209.50	209.33
Louisville Gas and Electric Company	223.92	223.11	229.30	231.93	222.57	228.39
Kentucky Utilites Company	228.74	227.63	216.00	216.61	227.26	209.25
East Kentucky Power Cooperative	226.00	219.50	219.50	219.20	221.90	227.90
Kentucky Power ²	220.04	219.59	207.77	206.03	194.38	206.13

Note(s):

- 1.- Duke Energy-Kentucky costs are for the East Bend Plant only; no reported April 2016 coal purchases for East Bend Plant.
- 2.- Kentucky Power's Big Sandy #2 retired in 2015 and Big Sandy #1 converted to natural gas in mid-2016.

Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

Case No. 2017-00006

Witness: Mark W. McAdams

Attachment for Response to PSC 1-18

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**Big Rivers Electric Corporation
Case No. 2017-00006**

Cents per MMBTU (Big Rivers with 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 ¹	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 ²	106.81	0.00	0.00	0.00	0.00	0.00

Company	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
Big Rivers Electric Corporation	231.87	227.52	229.39	224.15	231.42	221.73
Duke Energy - Kentucky ¹	193.06	205.84	205.36	206.53	207.02	201.14
Louisville Gas and Electric Company	210.40	212.68	210.39	212.64	207.13	201.87
Kentucky Utilites Company	205.40	203.94	215.91	206.25	208.12	236.54
East Kentucky Power Cooperative	218.90	221.30	222.00	223.70	221.30	223.30
Kentucky Power ²	0.00	0.00	0.00	0.00	0.00	0.00

Note(s):

- 1.- Duke Energy-Kentucky costs are for the East Bend Plant only; no reported April 2016 coal purchases for East Bend Plant.
- 2.- Kentucky Power's Big Sandy #2 retired in 2015 and Big Sandy #1 converted to natural gas in mid-2016.

Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

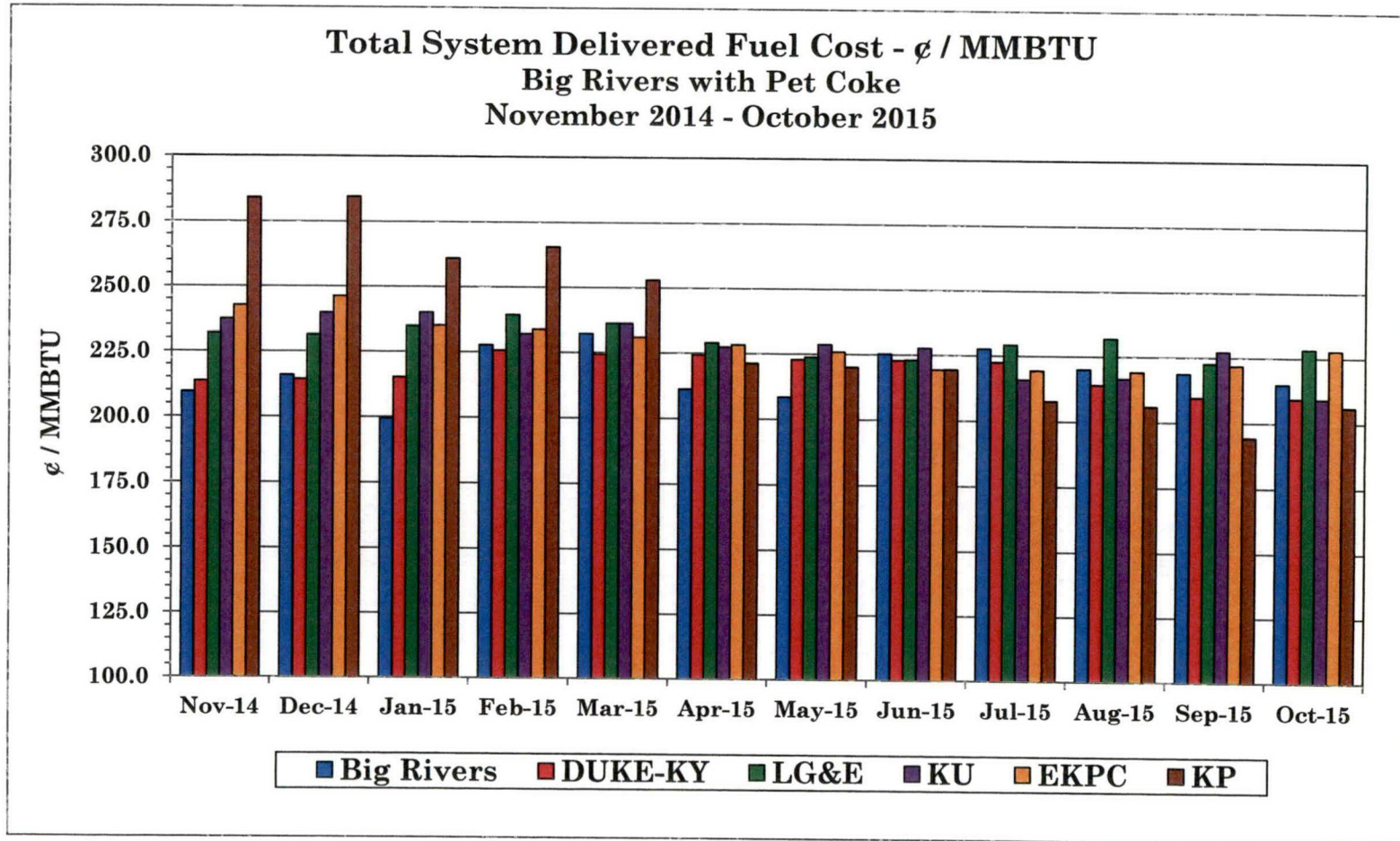
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**Big Rivers Electric Corporation
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Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

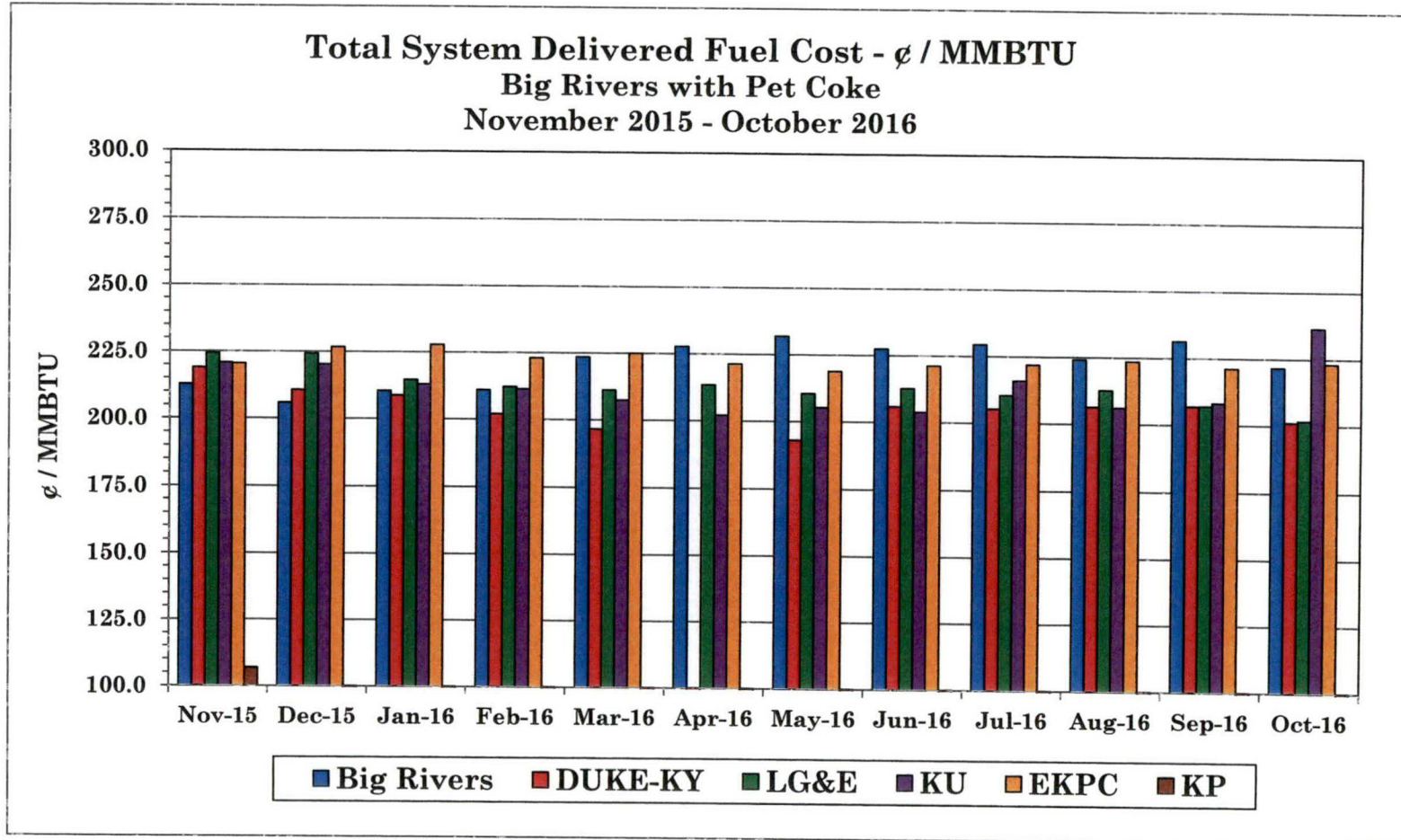
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**Big Rivers Electric Corporation
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Source: Utilities' Monthly FAC Filings with Kentucky Public Service Commission

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1 **Item 19) For the period under review by generating station, list the**
2 **percentages of Big Rivers' coal delivered by:**

3

4

a. Rail;

5

b. Truck;

6

c. Barge; and

7

d. Other (specify)

8

9 **Response) Big Rivers' solid fuels deliveries by generating station for November**
10 **1, 2014, through October 31, 2016, are as follows:**

11

	a. Rail	b. Truck	c. Barge	d. Other
Coleman ⁷	0%	0%	0%	0%
Green	0%	9.03%	90.97%	0%
Reid ⁸	0%	100%	0%	0%
Station II	0%	99.40%	0.60%	0%
Wilson	0%	70.30%	29.70%	0%

12

13

14 **Witness) Mark W. McAdams**

15

⁷ Coleman Station was idled in May 2014.

⁸ Reid Station was idled in April 2016.

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1 **Item 20)** *For each generating station, state the methods of coal delivery*
2 *currently available.*

3

4 **Response)** The currently available methods for coal deliveries to Big Rivers'
5 generating stations is shown below.

6

	Rail	Truck	Barge
Coleman	Not Available	Available	Available
Green	Not Available	Available	Available
Reid	Not Available	Available	Available
Station II	Not Available	Available	Available
Wilson	Not Available	Available	Available

7

8

9 **Witness)** Mark W. McAdams

10

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1 **Item 21)**

2 *a. State Big Rivers' coal inventory level in tons and in number*
3 *of days' supply as of October 31, 2016. Provide this*
4 *information by generating station and in the aggregate.*

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

7 *c. Compare Big Rivers' coal inventory as of October 31, 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 the excessive inventory.*

12 *e.*

13 *(1) State whether Big Rivers expects any significant*
14 *changes in its current coal inventory target within the*
15 *next 12 months.*

16 *(2) If the response is yes, state the expected change and the*
17 *reasons for this change.*

18

19 **Response)**

20 a. As of October 31, 2016, Big Rivers' generating stations
21 individually and in the aggregate had the following inventory
22 levels and days' supply.

23

24

25

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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	1,152,328.93	65	86	1,520,543.69
Reid Station ³	0.00	0	0	0.00
Station II ⁴	361,506.83	292	134	165,969.76
Green Station ⁵	207,288.60	53	165	640,214.40
Coleman Station ⁶	0.00	0	0	0.00
Wilson Station ⁷	583,533.51	141	173	714,359.53

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
Station II	30 – 60Days
Green	30 – 60 Days
Coleman	0 Days
Wilson	30 – 60 Days

8

d. The actual inventory for Henderson Station Two ("Station II")
exceeds the target range by 232 days. Reduced demand for
electricity and the planned outage on Station II Unit 1 in 2016,
plus unscheduled outages and other scheduled maintenance
outages caused Station II to exceed its target range. Station II
Unit 1 had a Basic Planned Outage of 1,194 hours from May 1,

9

10

11

12

13

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1 2016, through June 19, 2016. There were unscheduled outages on
2 Station II Unit 1 and Unit 2, during the period under review,
3 totaling 808 hours, other planned maintenance outages totaling
4 339 hours, and reserve outages (economic) totaling 55 hours.
5 Wilson Station exceeded its target range by 81 days due to the
6 impact of electricity market conditions and demand. Wilson had
7 un-scheduled outages during the period under review of 235 hours
8 and reserve outages of 29 hours. Big Rivers' Total System
9 exceeded its target range by five days.

10 e.

11 (1) Yes.

12 (2) Big Rivers, as part of its sold fuel procurement plans, has
13 intentionally reduced its sold fuel procurement in order to
14 reclaim coal and pet coke that was and is currently held in
15 inventory during the course 2016 and forward into 2017.
16 During 2016, Big Rivers reduced inventory by 366,000 tons as
17 compared to end-of-year 2015. By intentionally reducing its
18 market purchases, Big Rivers is focused on inventory
19 reductions at the Station II and Wilson generating stations.
20 Focused inventory reduction is occurring at Station II during
21 2017, which includes reclaiming nearly 50% of the stations'
22 fuel requirements to ensure inventory reduction. Projections
23 indicate that Big Rivers will have inventory within targets by
24 late third to early fourth quarter of 2017 (barring any further
25 reduced generation as a result of unplanned outages or market

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1 conditions). Market conditions will continue to play a
2 significant role in the pace and overall quantity of inventory
3 reduction.
4

Footnotes -

¹ Green Station had a petcoke inventory level of 2,439.55 tons as of October 31, 2016 and had a target blend of 18% with Green coal. Wilson Station had a petcoke inventory level of 121,033.32 tons as of October 31, 2016 and has a target blend of 15% with Wilson coal.

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

³ Reid Station Unit 1 was in Idled Reserve Status for 184 days. Reid 1 was put in Idled Status effective April 1, 2016. It is not known at this time if this will be a permanent status. The duration of generation was reduce to 0 days.

⁴ Station II Units 1 and 2 had unscheduled and scheduled maintenance hours of 2,341.2 hours and Unit 1 had a Basic Planned outage of 1,194 hours from April 29 through June 19, 2016. These hours were equivalent to 25 days. The duration of generation was reduced to 134 days. There were unscheduled hours of 808 and other minor scheduled outage hours of 39 at Station II Units 1 and 2 during the period under review. These hours were equivalent to 24 days for Station II. There were reserve hours of 55 hours for Station II and this was equivalent to 1 day. Inventory is being reduced to meet the new target; however, due to existing inventory and contract coal, the reduction will still occur over the remainder of 2017.

⁵ Green Units 1 and 2 had unscheduled and scheduled maintenance hours of 107.7 hours. Green Units 1 and 2 also had reserve hours of 516.8 hours during the period under review. These hours were equivalent to 19 days. The duration of generation was reduced to 165 days.

⁶ Coleman Station Units 1, 2 and 3 were placed on Inactive Reserve Status on May 8, 2014, and this totaled 13,248.0 hours which was equivalent to 184 days. The duration of generation was reduced to 0 days. Coleman Station will have no inventory going forward because it has been idled.

⁷ Wilson had 234.7 unscheduled maintenance hours. Wilson had reserve outage hours of 29.1. These hours were equivalent to 11 days. The duration of generation was reduced to 173 days.

5

6

7 Witness) Mark W. McAdams

8

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1 **Item 22)**

2 *a. State whether Big Rivers has audited any of its coal*
3 *contracts during the period from May 1, 2016, to October 31,*
4 *2016.*

5 *b. If the response is 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 of*
10 *the audit.*

11

12 **Response)**

13 a. Big Rivers has not audited any of its coal contracts during the
14 period from May 1, 2016, to October 31, 2016.

15 b. Not Applicable.

16

17

18 **Witness)** Mark W. McAdams

19

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1 **Item 23)**

2 *a. State whether Big Rivers has received any customer*
3 *complaints regarding its FAC during the period from May*
4 *1, 2016 to October 31, 2016.*

5 *b. If the response is 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 its
11 FAC during the period from May 1, 2016 to October 31, 2016.

12 b. Not Applicable.

13

14

15 **Witness)** Nicholas R. Castlen

16

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1 **Item 24)**

2 *a. State whether Big Rivers is currently involved in any*
3 *litigation with its current or former coal suppliers.*

4 *b. If the response is 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 Rivers;*

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

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

14 *c. State the current status of all litigation with coal suppliers.*

15

16 **Response)**

17 a. Big Rivers is not currently involved in any litigation with any of
18 its current or former coal suppliers.

19 b.(1) – b.(5) Not Applicable.

20 c. Not Applicable.

21

22

23 **Witness)** Mark W. McAdams

24

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1 **Item 25) List each written coal supply solicitation issued during the**
2 **period May 1, 2016, to October 31, 2016.**

3

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

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

17

18 **Response) Big Rivers did not issue any written coal supply solicitations during**
19 **the period May 1, 2016, to October 31, 2016.**

20

21

22 **Witness) Mark W. McAdams**

23

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1 **Item 26)** *List each oral solicitation for coal supplies issued during the*
2 *period from May 1, 2016 to October 31, 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 the*
11 *vendor selected. Provide the bid tabulation sheet or other*
12 *document that ranks the proposals. (This document shall*
13 *identify all vendors who made offers.) State the reasons for*
14 *each selection. For each lowest-cost bid not selected,*
15 *explain why the bid was not selected.*

16

17 **Response)**

18 *a. On August 26, 2016, Big Rivers orally (via telephone and e-mail)*
19 *solicited two petroleum coke resellers, TCP PetCoke Corporation*
20 *and Oxbow Energy Solutions, in regard to potential availability of*
21 *a small spot order of 30,000 to 60,000 tons of petroleum coke for*
22 *delivery during the fourth quarter of 2016. Big Rivers' Green*
23 *Station was utilizing petroleum coke per generating plan and, if*
24 *the current generation continued at plan, could potentially run*

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1 out of petroleum coke for blending sometime in October or
2 November of 2016. The quality of the petroleum coke ranged from
3 13,500 to 14,200 BTU/lb., 6 to 8% moisture, 0.25 to 1% ash, 10-
4 12% volatile matter, sulfur 5.0 to 7.0%, and HGI 38 to 55.

5 b. TCP PetCoke provided a bid of \$23.35/ton F.O.B. barge, while
6 Oxbow Energy Solutions provided a bid [REDACTED]
7 [REDACTED]. Big Rivers had recently completed a
8 solicitation for barging services and had offers in hand from Canal
9 Barge Line "(Canal") and Ingram Barge Lines "(Ingram") for
10 delivery of pet coke. Those offers were refreshed in regard to
11 transportation, with Canal providing a firm Q4 2016 offer of
12 \$17.65/ton for transport, and Ingram [REDACTED]. Canal's offer
13 was combined with TCP PetCoke's \$23.35/ton F.O.B. barge
14 pricing for a total delivered pricing of \$41/ton or \$1.4643/MMBTU.
15 Oxbow's offer was [REDACTED]. TCP PetCoke's
16 offer, along with Canal Barge Line transportation, was accepted
17 for the small spot purchase of petroleum coke (BRE-16-004) and
18 transportation (BRE-16-005) and was delivered to Big Rivers'
19 Green generating station.

20
21
22 **Witness)** Mark W. McAdams
23

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1 **Item 27)** *For the period from May 1, 2016, to October 31, 2016, list each*
2 *vendor from whom coal was purchased and the quantity and nature of*
3 *each purchase (e.g., spot or contract). For the period under review in*
4 *total, provide the percentage of purchases that were spot versus contract.*

5

6 **Response)** Please see the schedule below.

7

For the Period from May 1, 2016, through October 31, 2016

Purchase Vendor	Fuel Type	Purchase Tonnage	Contract Type
Sebree Mining	Coal	587,620.30	Contract
Foresight Coal	Coal	132,150.09	Contract
KenAmerican Resources	Coal	247,292.69	Contract
Rhino Energy	Coal	182,497.20	Contract
Peabody COALSALES	Coal	190,362.00	Contract
Alliance Coal	Coal	108,123.77	Contract
TCP PetCoke Corporation	Pet Coke	17,318.55	Spot
Total Tonnage		1,465,364.60	

For the Period from November 1, 2014, through October 31, 2016

Percentage Spot Purchase Tons	17.58 %
Percentage Contract Purchase Tons	82.42 %
Percentage Total Purchase Tons	100.00 %

8

9

10 **Witness)** Mark W. McAdams

11

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1 **Item 28)** *For the period from May 1, 2016 to October 31, 2016, list each*
2 *vendor from whom natural gas was purchased for generation and the*
3 *quantity and nature of each purchase (e.g., spot or contract). For the*
4 *period under review in total, provide the percentage of purchases that*
5 *were spot versus contract.*

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 May 1, 2016, through October 31, 2016. Also on the following page
10 please see the percentage of purchases that were either spot versus contract for
11 the period under review in total.

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

20

21

22

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1

For the Period from May 1, 2016, through October 31, 2016

Purchase Vendor	Fuel Type	MCF	Contract Type
CIMA Energy, LTD	Natural Gas	58,850	Spot
Tenaska Marketing Ventures	Natural Gas	2,067	Spot

For the Period from November 1, 2014, through October 31, 2016

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

2

3

4 **Witness) Wayne O'Bryan**

5

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1 **Item 29)** *State whether Big Rivers engages in hedging activities for its*
2 *coal or natural gas purchases used for generation. If the response is yes,*
3 *describe the 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

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1 **Item 30) For each generating station or unit for which a separate coal**
2 **pile is maintained, state for the period from May 1, 2016, to October 31,**
3 **2016 the actual amount of coal burned in tons, actual amount of coal**
4 **deliveries in tons, total kWh generated, and actual capacity factor at**
5 **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

Plant	Coal & Pet Coke Burn (Tons)	Coal & Pet Coke Receipts (Tons)	Net kWh	Capacity Factor (Net MWh) / (Period Hrs x MW rating)
Reid Station (Coal)	0.00	0.00	(8,541,000)	-2.98%
Station Two (Coal) *	165,969.76	240,204.70	372,315,470	57.98%
Green Station (Coal)	496,978.40	500,333.92	1,353,072,908	67.49%
Green Station (Pet Coke) **	143,236.00	17,318.55		
Coleman Station (Coal)	0.00	0.00	(4,314,000)	-0.22%
Wilson Station (Coal)	613,826.23	707,507.43	1,611,469,940	87.51%
Wilson Station (Pet Coke) **	100,533.30	0.00		

* Net of City of Henderson. City of Henderson generation take was 426,476,000 kWhs. Part of the City of Henderson generation take was 118,786,000 kWhs for excess energy not taken by Big Rivers effective June 1, 2016.

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

13

14

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1

2 **Witness) Mark W. McAdams**

3

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 31) For each natural gas generating unit, state for the period from**
2 **May 1, 2016 to October 31, 2016, the actual amount of natural gas burned,**
3 **total kWh generated and actual capacity factor at which the plant**
4 **operated.**

5

6 **Response)** Big Rivers Electric Corporation has only one natural gas generating
7 unit and this is the Reid Combustion Turbine ("CT"). Please see the table below
8 for the actual amount of natural gas ("NG") burned, total kWh generated, and net
9 kWh generated.

10

Big Rivers Electric Corporation			
For the Period from May 1, 2016, through October 31, 2016			
Generating Unit	NG Burned (Mcf)	Total kWh Generated	Net kWh Generated
Reid CT	60,317	3,678,000	3,316,000

11

12 Big Rivers calculates capacity factors per the IEEE⁹ Std. 762-2006 as
13 approved by the American National Standards Institute. Gross Capacity Factor
14 ("GCF") is the gross energy that was produced by a generating unit in a given
15 period as a fraction of the gross maximum generation ("GMG"). GMG is the
16 period hours (PH) *times* the gross maximum capacity (GMC). Net Capacity Factor
17 ("NCF") is the net energy that was produced by a generating unit in a given period
18 as a fraction of the net maximum generation ("NMG"). NMG is the period hours
19 (PH) *times* the net maximum capacity (NMC). The GCF and NCF for Big Rivers'
20 Reid CT Turbine are shown in the table below.

⁹ IEEE = Institute of Electrical and Electronics Engineers.

Case No. 2017-00006

Response to PSC 1-31

Witnesses: Wayne O'Bryan (NG Generating Units) and

Jason C. Burden (Capacity Factor)

Page 1 of 2

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1

Big Rivers Electric Corporation Gross Capacity Factor and Net Capacity Factor Reid Station CT							
	May- 2016	Jun- 2016	Jul- 2016	Aug- 2016	Sep- 2016	Oct- 2016	Period
GCF	0	0.48	2.40	2.46	0.89	1.31	1.26
NCF	0	0.34	2.23	2.34	0.81	1.20	1.16

2

3

4 **Witnesses:** Wayne O'Bryan (*NG Generating Units*) and
5 Jason C. Burden (*Capacity Factor*)

6

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 32)**

2 *a. During the period from May 1, 2016 to October 31, 2016,*
3 *have there been any changes to Big Rivers' written policies*
4 *and procedures regarding its fuel procurement?*

5 *b. If yes,*

6 *(1) Describe the changes;*

7 *(2) State the date(s) the changes were made;*

8 *(3) Explain why the changes were made; and*

9 *(4) Provide the written policies and procedures as changed.*

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

14

15 **Response)**

16 a. Yes. During the period May 1, 2016, through October 31, 2016,
17 Big Rivers made changes to the following fuel-related policies and
18 procedures:

19 i. Policy No. 111 – Hedge Policy;

20 ii. Policy No. 120 – Fuel Procurement Policy and Procedure.

21 b. (1) through (4)

22

23

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 Policy No. 111 – Hedge Policy

2 On September 16, 2016, Big Rivers clarified references
3 to Big Rivers' Energy-Related Transaction Authority Policy
4 (Board Policy 105).

5

6 Policy No. 120 – Fuel Procurement Policy and Procedure

7 On September 16, 2016, Big Rivers made the following
8 changes –

9 i. Unified all references to Big Rivers Electric Corporation as
10 'Big Rivers' versus prior use of 'Company';

11 ii. Clarified references to other Big Rivers' policies including –

12 (1) Energy-Related Transaction Authority Policy (Board
13 Policy 105),

14 (2) Solid Fuel Inventory Policy (Board Policy 121),

15 (3) Board of Directors Ethics Policy (Board Policy 102),
16 and

17 (4) Conflicts of Interest Policy (Board Policy 108) for Big
18 Rivers' employees;

19 iii. Clarified references to Big Rivers' Fuel Procurement
20 organization;

21 iv. Minor wording and formatting changes.

22

23 c. Big Rivers' other fuel procurement policies and procedures were
24 not changed during the period of May 1, 2016, through October

Case No. 2017-00006

Response to PSC 1-32

Witnesses: Mark W. McAdams (Coal) and

Wayne O'Bryan (Natural Gas)

Page 2 of 3

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 31, 2016. In the table below, Big Rivers lists those unchanged
2 policies and procedures, the dates of their last changes, and the
3 proceedings in which Big Rivers provided them to the
4 Commission.
5

Big Rivers Electric Corporation Policies and Procedures for Fuel Procurement				
Number	Name	Date Last Change	Provided In	Date Provided
105	Energy-Related Transaction Authority	2016-02-23	Case No. 2016-00235	2016-08-26
105	Appendix A: Energy-Related Transaction Authority Policy	2016-04-05 2016-04-15	Case No. 2016-00235	2016-08-26
121	Solid Fuel Inventory Policy	2015-08-21	Case No. 2016-00006	2016-02-19
122	Energy-Related Transaction Credit Policy	2016-11-15	Case No. 2016-00235	2016-08-26
122	Addendum: Energy-Related Transaction Credit Policy	2016-11-06	Case No. 2016-00235	2016-08-26

6
7
8 **Witnesses)** Mark W. McAdams (*Coal*) and
9 Wayne O'Bryan (*Natural Gas*)
10

Policy No. 111 – Hedge Policy

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	09/16/2016	

1. Objective

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

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

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

2. Hedge Policy Criteria

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

a. Volumetric and Lead Time Criteria for Hedging

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

Rolling Monthly Hedge Ranges

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

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	09/16/2016	

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

Lead Time	Months 1 thru 3	Months 4 thru 12	Quarters 5 thru 8	Quarters 9 thru 12	Years 4 thru 5
Measurement Period	Rolling	Rolling	Rolling	Rolling	Calendar Year
Hedging Frequency	Monthly	Monthly	Quarterly	Quarterly	Annual
Range (%)	80-100	75-100	50-85	25-75	0-50

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

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

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

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

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	09/16/2016	

b. MISO Resource Adequacy Requirements

Big Rivers will comply with all MISO capacity requirement rules.

c. Congestion Hedging with Financial Transmission Rights (FTR)

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

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

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

d. Emission Allowance Hedging

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

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

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

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

e. Resource Diversity Management

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

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	09/16/2016	

Capacity resources (generation and purchased power contracts) shall not exceed 30 percent concentration from a single resource or supplier. Fuel supply contracts will be diversified such that no more than 40 percent (but not more than 1.5 million tons) will be from a single supplier that has the ability to source coal from multiple coal mining operations to supply Big Rivers for any rolling 12-month period. For fuel suppliers that have the ability to source coal from a single mining operation, no more than 25% (but not more than 1.0 million tons) will be from such supplier to supply Big Rivers for any rolling 12-month period.

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

f. Risk Measurement and Compliance Reporting

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

Responsibility

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

Number	Date	Notes	Approved by
Original	06/15/2007	Approved to be effective at close of unwind	Board
Rev 1	03/16/2012	Update out-of-date language (joining MISO, old policy reference), general cleanup	Board
Rev 2	09/18/2015	Update terminology (I.E. energy to Commodity, coal to solid fuel, electricity to purchased power), removed Appendix A (out-of-date examples) and Appendix B (no longer applicable), updated emission allowance section to be more concise and clarified resource diversity language.	Board
Rev 3	09/16/2016	Clarified Policy Reference	Board



BOARD POLICY

Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	09/16/2016	

Deleted: 18/2015

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Hedge Policy				
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- **Hedging Frequency:** This is primarily useful in conjunction with the rolling measurement period. This is the frequency that the rolling measurement period changes for policy compliance reporting purposes. The hedging frequency period prevents, for example, a situation where the transaction execution staff would have to hedge month 36 (the last month of quarter 12) at a time where monthly purchases are very illiquid (not readily available).
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Commodity hedging will be a complementary hedging activity since Big Rivers has natural gas and coal-fired generation. Big Rivers may also hedge with Commodities if it enters a transaction that uses a natural gas, fuel oil, or coal index price to derive its electricity cost. Such natural gas, fuel oil, and coal-related generation or purchase transactions, while considered capacity, would not be considered Commodity



BOARD POLICY

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Big Rivers will comply with all MISO capacity requirement rules.

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

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

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

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

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



BOARD POLICY

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

e. Resource Diversity Management

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

Capacity resources (generation and purchased power contracts) shall not exceed 30 percent concentration from a single resource or supplier. Fuel supply contracts will be diversified such that no more than 40 percent (but not more than 1.5 million tons) will be from a single supplier that has the ability to source coal from multiple coal mining operations to supply Big Rivers for any rolling 12-month period. For fuel suppliers that have the ability to source coal from a single mining operation, no more than 25% (but not more than 1.0 million tons) will be from such supplier to supply Big Rivers for any rolling 12-month period.

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

f. Risk Measurement and Compliance Reporting

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

Responsibility

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

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Number	Date	Notes	Approved by
Original	06/15/2007	Approved to be effective at close of unwind	Board
Rev 1	03/16/2012	Update out-of-date language (joining MISO, old policy reference), general cleanup	Board
Rev 2	09/18/2015	Update terminology (I.E. energy to Commodity, coal to solid fuel, electricity to purchased power), removed Appendix A (out-of-date examples) and Appendix B (no longer applicable), updated	Board



BOARD POLICY

Policy Number: 111

Hedge Policy				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	06/15/2007	Date Last Revised	09/16/2016	

Deleted: 18/2015

Deleted: 18/2015

emission allowance section to be more concise and clarified resource diversity language.

Rev 3 09/16/2016 Clarified Policy Reference Board

Policy No. 120 – Fuel Procurement Policies and Procedures

Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	12/20/2007	Date Last Revised	09/16/2016	

Policy Purpose

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

FUEL PROCUREMENT POLICIES AND PROCEDURES

A. Definitions:

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

Fuel Procurement Policies and Procedures				
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016	Approved by BOARD
Original Approval Date	12/20/2007	Date Last Revised	09/16/2016	

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

B. Fuel Procurement Policies:

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

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

C. Organization:

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

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2. Organizational Responsibility. The VP Production to whom the Director reports, has the responsibility for fuel procurement. The Director is responsible for the Department. Other departments may be called upon by the Department to the extent the Director or VP Production considers advisable in the execution of the functions of the Department.

3. Approval Authority (Award Recommendation). An Award Recommendation will be prepared for all fuel purchases that exceed the term, tenor, or notional amount of authority of the Director which is specified in the Energy Related Transaction Authority Policy (Board Policy 105). The Award Recommendation will be drafted by the Director. Contractual agreements and amendments for procurement shall be reviewed by Fuels legal counsel, and executed by the VP Production within the authority granted by the Energy Related Transaction Authority Policy (Board Policy 105). Greater expenditures shall require the signature of Big Rivers' President and Chief Executive Officer when such expenditure is within his trading authority as established by the Board of Directors ("Board"). These levels of authority may be amended, supplemented, or superseded as dictated by Big Rivers.

4. Reports. The Director will instruct the Department to prepare, maintain and distribute reports to management and others as deemed necessary for business operations and regulatory requirements.

5. Records. The Department shall maintain the following records:
 - a. Open Contract Files. The Department shall maintain the following on open status for at least one-year or longer as the contract term or other conditions warrant:
 1. For each current contract supplier, the files will contain:
 - a) Contract documents, amendments, purchase orders and escalation documentation;
 - b) General correspondence;
 - c) Invoices and invoice verification data;
 - d) Delivery records and quality analyses data;
 - e) Inspection reports and other data.
 2. A record of transportation equipment owned or leased by Big Rivers (as applicable).
 3. A list containing current suppliers and known potential Suppliers of fuel.
 - b. Closed Contract Files. The Department shall maintain its files according to Big Rivers' record retention plan.

6. General Administrative Duties. The Department shall subscribe to and have membership in appropriate trade and industry publications and/or associations, to include reports of governmental or consulting agencies concerning fuel, reagent, and related transportation market information, to include fuel prices and/or projections. Department personnel shall use their best efforts to keep current with fuel market conditions, prices and availability, and other developments relating to fuel procurement.

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D. Fuel Supply Procedures:

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

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

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

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

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

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

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

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

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

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

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

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

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the final list (log) of bidders, a copy of the entire bid package; bidder's responses; and the bid evaluation summary used for decision support.

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

E. Fuel Supply and Reagent Agreement Administration:

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

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

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

F. Fuel and Reagent Supply Agreement Enforcement:

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

G. Inventory Levels:

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

Big Rivers shall maintain an adequate inventory while allowing for enough flexibility to permit inventory levels to be responsive to known and anticipated changes in conditions in an attempt to avoid risks and stoppages due to unforeseen conditions. Inventory shall be recommended based upon, but not limited to, supplier performance, environmental conditions, labor matters, logistical issues and concerns, and generation requirements and dispatch. The general level of inventory

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shall be monitored for such matters and recommendations to adjust inventory to meet anticipated conditions shall be made from time to time. Such inventory recommendations shall be made by the Director for approval by Senior Management and shall be in accordance with or modify concurrently Solid Fuel Inventory Policy (Board Policy 121).

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

H. Emergency Procurement:

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

I. Transportation Services Contracts:

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

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

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

J. Ethics and Conduct:

Big Rivers recognizes the importance of following appropriate business ethics to guide the conduct of the Department in the performance of its duties and responsibilities. Fuels staff shall adhere to the ethical standards and policies of Big Rivers including, but not limited to, the Board of Directors Ethics Policy (Board Policy 102) and the Conflicts of Interest Policy (Board Policy 108) for Big Rivers' Employees. Also, each contractual document shall denote that the contract was prepared and executed in ethical dealing.

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

Number	Date	Notes	Approved by
Original	12/21/2007	Approved to be effective at close of unwind	Board
Rev 1	03/16/2012	Update out of date language and staffing changes	Board
Rev 2	03/14/2013	Update due to title change	
Rev 3	03/21/2014	Add date last reviewed line, section header and change "mmBTU" to "gallon"	Board
Rev 4	09/19/2014	Change Chief Operating Officer to VP Production	Board
Rev 5	08/21/2015	Add reference to Board Policy 105 – Energy Related Transaction Authority and Board Policy 121 – Solid Fuel Inventory; general clean up	Board
Rev 6	09/16/2016	Unified all references to Big Rivers Electric Corporation to Big Rivers, clarified policy references, minor wording change	Board



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Policy Purpose

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

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FUEL PROCUREMENT POLICIES AND PROCEDURES

A. Definitions:

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

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10. "VP Production" means Big Rivers' principal individual responsible for power generation and fuel procurement, among other duties.

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11. "Solicitation" means the process of soliciting bids (written or oral) for the supply of fuel, reagent, and/or related transportation services.

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12. "Spot Contract" is a type of agreement that may be issued by Big Rivers for the supply of fuel, reagent, or related transportation of such with a term of typically one year or less.

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13. "Spot Purchase" means any purchase of fuel, reagent, or related transportation on behalf of Big Rivers where the terms and conditions are incorporated in the Letter Agreement, Purchase Order or Spot Contract and the term is typically of one year or less.

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14. "Station" means one of Big Rivers' generating facilities.

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15. "Supplier" means the seller or counterparty to an agreement who is obligated to comply with and fulfill the agreement's terms and conditions.

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16. "Unit" means a generating unit at a station.

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17. "Unit bus bar cost" is the total variable production cost including the maintenance cost associated with burning the fuel.

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B. Fuel Procurement Policies:

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

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

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7. Spot Purchases. Spot purchases may be made by Big Rivers whenever considered advisable by the Director in furtherance of Big Rivers' fuel and reagent needs, subject to the limit of authority as outlined by Energy Related Transaction Authority Policy (Board Policy 105).

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8. Documentation. Contracts shall be signed by a duly appointed officer of the Supplier and an Officer of Big Rivers. A purchase order may be issued for a spot purchase. A purchase order shall contain all terms of that purchase. Further, the Department shall maintain documentation of the final list (log) of bidders, a copy of the entire bid package; bidder's responses; and the bid evaluation summary used for decision support.

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

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E. Fuel Supply and Reagent Agreement Administration:

1. Compliance. The Department shall review and analyze daily business and operational reports to properly administer all fuel and transportation agreements.

2. Coal weights. Coal weights shall be obtained by either Big Rivers or by Supplier, upon agreement by Big Rivers. Coal weight is obtained by scale or draft method, depending upon Big Rivers' site or methodology employed by Supplier to ascertain weights. In either event, coal weights are obtained by industry-accepted standards, and in cases where scales are utilized, are duly tested and maintained in proper order for such purpose. In cases where draft weights are utilized, Big Rivers employs processes to verify actions to obtain draft weights and that such measures are by industry-accepted standards. Coal quantity is obtained by Station personnel and reported through the fuels information system or is provided by the Supplier pursuant to the contract agreement.

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3. Coal sampling. Coal sampling and analysis shall be performed by either Big Rivers or the Supplier, upon agreement by Big Rivers. Coal sampling and analysis shall be performed according to procedures adopted by Big Rivers' laboratory in accordance with A.S.T.M. standards for coal sampling, coal sample preparation, coal sample identification, handling of sample, and coal analysis. Coal quality is assessed and reported through the fuels information system by Big Rivers' laboratory personnel or is provided by the Supplier pursuant to the contract agreement.

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BOARD POLICY

Policy Number: 120

Fuel Procurement Policies and Procedures			
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016
Original Approval Date	12/20/2007	Date Last Revised	09/16/2016
			Approved by BOARD

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4. Amendments. A contract shall not be materially amended except after analysis by the Department and recommendation of the Director or the VP Production. No material contract or purchase order addendum shall be made except upon legal review of such amendment, recommendation of the Director and the approval of the VP Production pursuant to the limits of the Energy Related Transaction Authority, Policy (Board Policy 105). Amendments to contracts that were originally approved by the Board shall also be approved by the Board.

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5. Contract Administration. The Director and the Department shall remain informed as to the terms and conditions of each current contract, and maintain the necessary data to administer the contracts. Every supplier request for a change in terms, conditions, or prices must be written and supported by adequate data in conformity with the contract. Each such request shall be analyzed by the Department against the contract provisions, and reported with recommendations to the Director. After review by the Director, the supplier request and Department's recommendations shall be approved as required by Big Rivers. If any request is not approved in whole or in part, the Director shall advise the supplier, specifying Big Rivers' objections with an adequate explanation. If the supplier's request is not approved, negotiation between the supplier and Big Rivers as dictated by contract terms shall be the primary method of resolving the issue.

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

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7. Inspections. The Director shall request inspections of mining and other facilities of a contract fuel and/or reagent supplier or other facilities as required or deemed necessary to manage the performance and contractual relationship (Contract Administration).

F. Fuel and Reagent Supply Agreement Enforcement:

1. General Enforcement Policy. Supplier obligations under Fuel or Reagent Supply Agreements shall be enforced by Big Rivers in a reasonable, fair, and practical manner to achieve supplier compliance with Big Rivers' overall procurement policy and the continuing supply of fuel to meet current and anticipated system requirements.

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2. Director Responsibility. Whenever it is determined that a shipment does not meet Fuel Supply or Reagent Agreement terms, the Director, or his/her designee, shall inform the supplier and direct that subsequent shipments be in compliance. When necessary the VP Production and the Director may determine, or receive advice, as to further action needed to assure fuel or reagent supply agreement compliance.

3. Legal Assistance. The Department shall have access to, and shall receive advice from, legal counsel as provided by Big Rivers on any matter relating to fuel, reagent, and related transportation procurement, contracts and amendments thereto, administration, and enforcement. Should a dispute as to a supplier's performance fail to be satisfactorily resolved by the Director,

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BOARD POLICY

Policy Number: 120

Fuel Procurement Policies and Procedures			
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the matter shall be referred to legal counsel. Legal counsel may consider further negotiation, arbitration (if provided by the contract), or litigation. No arbitration or litigation shall commence except on the advice of said counsel with approval by Senior Management.

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G. Inventory Levels:

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

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Big Rivers shall maintain an adequate inventory while allowing for enough flexibility to permit inventory levels to be responsive to known and anticipated changes in conditions in an attempt to avoid risks and stoppages due to unforeseen conditions. Inventory shall be recommended based upon, but not limited to, supplier performance, environmental conditions, labor matters, logistical issues and concerns, and generation requirements and dispatch. The general level of inventory shall be monitored for such matters and recommendations to adjust inventory to meet anticipated conditions shall be made from time to time. Such inventory recommendations shall be made by the Director for approval by Senior Management and shall be in accordance with or modify concurrently Solid Fuel Inventory Policy (Board Policy 121).

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

H. Emergency Procurement:

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

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I. Transportation Services Contracts:

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

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Unless otherwise dictated by Emergency situations, the Solicitation process will be utilized for transportation services. The selection of transportation provider will generally be based upon, but



BOARD POLICY

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not necessarily limited to cost, reliability, insurance, past / current performance, container availability and suitability for purpose, material handling capacities and constraints, transportation mix, and any other mitigating factors in terms of logistics.

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

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J. Ethics and Conduct:

Big Rivers recognizes the importance of following appropriate business ethics to guide the conduct of the Department in the performance of its duties and responsibilities. Fuels staff shall adhere to the ethical standards and policies of Big Rivers including, but not limited to, the Board of Directors Ethics Policy (Board Policy 102) and the Conflicts of Interest Policy (Board Policy 108) for Big Rivers' Employees. Also, each contractual document shall denote that the contract was prepared and executed in ethical dealing.

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

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Number	Date	Notes	Approved by
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BOARD POLICY

Policy Number: 120

Fuel Procurement Policies and Procedures			
Original Effective Date	07/16/2009	Date Last Reviewed	09/16/2016
Original Approval Date	12/20/2007	Date Last Revised	09/16/2016
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Original	12/21/2007	Approved to be effective at close of unwind	Board
Rev 1	03/16/2012	Update out of date language and staffing changes	Board
Rev 2	03/14/2013	Update due to title change	
Rev 3	03/21/2014	Add date last reviewed line, section header and change "mmBTU" to "gallon"	Board
Rev 4	09/19/2014	Change Chief Operating Officer to VP Production	Board
Rev 5	08/21/2015	Add reference to Board Policy 105 – Energy Related Transaction Authority and Board Policy 121 – Solid Fuel Inventory; general clean up	Board
Rev 6	09/16/2016	Unified all references to Big Rivers Electric Corporation to Big Rivers, clarified policy references, minor wording change	Board

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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, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 33)**

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 May 1, 2016, to*
5 *October 31, 2016.*

6 *b. If the response is 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 May 1, 2016, through October 31, 2016. Big Rivers is also
16 unaware of any unreported violation prior to the current period
17 under review.

18 b.

19 (1) - (3)

20 Not Applicable.

21

22

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

24 **Wayne O'Bryan (Natural Gas)**

Case No. 2017-00006

Response to Staff Item 33

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
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FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 34) *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 May 1, 2016, to October 31, 2016.***

5

6 **Response) There were no changes in the organizational structure and/or**
7 **personnel of the departments or divisions that are responsible for Big Rivers fuel**
8 **procurement activities occurring between the period May 1, 2016, to October 31,**
9 **2016.**

10

11

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

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

14

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 35)**

- 2 *a. Identify all changes that Big Rivers made during the period*
3 *from May 1, 2016, to October 31, 2016, to its maintenance*
4 *and operation practices that 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 from May 1, 2016, to October 31, 2016, Big
11 Rivers made no changes to its maintenance and operation
12 practices which affected its fuel usage. Big Rivers did extend the
13 23-day planned outage on Station II Unit 1 to 52 days due to the
14 increase work scope of replacing the primary air heater baskets
15 that were scheduled to be changed in the spring of 2017. For
16 more information on the replacement of the air heat baskets,
17 please see Big Rivers' response to Item 39 of these information
18 requests.
19 b. Big Rivers estimates that Station II Unit 1 burned 33,664 less
20 tons of coal during the period from May 1, 2016, to October 31,
21 2016, as a results of the extended outage.

22

23

24

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
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**Response to Commission Staff's Request for Information
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February 20, 2017

1

2 **Witnesses) Jason C. Burden (*a. only*) and**

3 **Mark W. McAdams (*b. only*)**

4

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 36)**

2 *a. List all intersystem sales during the period from May 1,*
3 *2016, to October 31, 2016, in which Big Rivers used a third*
4 *party's transmission system.*

5 *b. For each sale listed above:*

6 *(1) Describe the effect on the FAC calculation of line losses*
7 *related to intersystem sales when using a third party's*
8 *transmission system;*

9 *(2) State the line-loss factor used for each transaction and*
10 *describe how such line-loss factor was determined.*

11

12 **Response)**

13 *a. Big Rivers had no intersystem sales during the period under*
14 *review in which it used a third party's transmission system.*

15 *b.*

16 *(1) Not Applicable.*

17 *(2) Not Applicable.*

18

19

20 **Witnesses) Wayne O'Bryan (a. and b.(2) only) and**

21 **Nicholas R. Castlen (b.(1) only)**

22

Case No. 2017-00006

Response to PSC 1-36

**Witnesses: Wayne O'Bryan (a. and b.(2) only) and
Nicholas R. Castlen (b.(1) only)**

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**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 37)**

- 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 from May 1, 2016, to October 31, 2016.*

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 has not made any changes to its methodology for
21 calculating intersystem line losses during the period from May 1,
22 2016, to October 31, 2016.

23

24

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
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February 20, 2017

1

2 **Witnesses) Nicholas R. Castlen (*a. only*) and**

3 **Wayne O'Bryan (*b. only*)**

4

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
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**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 38)** *State whether Big Rivers has solicited bids for coal with the*
2 *restriction that it was not mined through strip mining or mountain top*
3 *removal. If the response is yes, explain the reasons for the restriction on*
4 *the solicitation, the quantity in tons and price per ton of the coal*
5 *purchased as a result of this solicitation, and the difference between the*
6 *price of this coal and the price it could have obtained for the coal if the*
7 *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

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 **Item 39)** *Provide a detailed discussion of any specific generation*
2 *efficiency improvements Big Rivers has undertaken during the period*
3 *from May 1, 2016 to October 31, 2016*

4
5 **Response)** During the planned outage on Station II – Unit # 1 which began April
6 29, 2016, the primary air heater baskets (which were originally identified to be
7 replaced in the spring 2017 outage) were found to be in worse than anticipated
8 condition. Inasmuch as the air heater baskets were on-site in preparation for the
9 2017 spring outage, Big Rivers chose to replace the primary air heater baskets
10 during this earlier planned outage. The decision to change out the air heater
11 baskets changed the outage duration from 23 days to 52 days with the increased
12 work scope. Pre-outage, 'A' primary air heater air side efficiency had dropped
13 from 60% to 36%, indicating that the exit gas temperature was not transferring
14 heat to the air side. Going into the outage, it was thought that most of the
15 efficiency could be regained by wedging the baskets so that air could be evenly
16 balanced across the baskets again since 'B' primary air heater air side wasn't
17 showing the same efficiency loss. The initial inspection showed that the baskets
18 on both 'A' and 'B' side had surpassed their useful life, requiring replacement. Big
19 Rivers replaced both "Hot-end" and "Cold-end" baskets on 'A' and 'B' primary air
20 heaters that were originally scheduled for replacement in 2017. Post outage, the
21 gas side and air side efficiency returned to their design parameters on both
22 primary air heaters.

23

24 **Witness)** Jason C. Burden

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 40) *State whether all contracts related to commodity and/or***
2 ***transportation have been filed with the Commission. If any contracts have***
3 ***not been filed, explain why they have not been filed and provide a copy.***

4

5 **Response) All contracts related to commodity and/or transportation have been**
6 **filed with the Commission.**

7

8

9 **Witness: Mark W. McAdams**

10

BIG RIVERS ELECTRIC CORPORATION

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1 **Item 41)** *Identify any issues that could affect fuel costs for the two-year*
2 *period that remain unresolved or unsettled. Include in the response any*
3 *issues related to billings from a regional transmission operator. Consider*
4 *this a continuing request to inform the Commission if Big Rivers becomes*
5 *aware of any issues during the course of this proceeding.*

6

7 **Response)** An issue that could have an impact and/or affect fuel costs for the
8 two-year period that remains unresolved/unsettled are associated costs for Excess
9 Henderson Energy for Station II as discussed in Case No. 2016-00278.¹⁰

10

11

12 **Witness)** Mark W. McAdams

13

¹⁰ See *In the Matter of: Application of Big Rivers Electric Corporation for a Declaratory Order*, Case No. 2016-00278.

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 42) *Explain in detail how Big Rivers classifies a generation***
2 ***outage as forced or scheduled.***

3

4 **Response)** Big Rivers classifies a generation outage as "forced" when the unit is
5 immediately unavailable due to an unanticipated event in which the repair could
6 not have been planned or delayed. Big Rivers classifies a generation outage as
7 "scheduled" when the problem has been identified, an action plan has been
8 established to facilitate the repairs, and an estimated duration for returning the
9 unit to service has been determined prior to the generator being removed from
10 service. These classifications are consistent with the standards of the IEEE.

11

12

13 **Witness) Jason C. Burden**

14

BIG RIVERS ELECTRIC CORPORATION

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**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 43) Refer to Big Rivers' Form A and Form B filings for the October**
2 **2016 expense month. A number of adjustments were made for the months**
3 **of June–September 2016. Provide a narrative explanation of the**
4 **adjustments, the reason(s) for the adjustments, and the effect the**
5 **adjustments had on the FAC.**

6

7 **Response)** The prior period adjustments included in Big Rivers' Form A and
8 Form B filings for the October 2016 expense month related to the following four
9 items:

10

11 1. Beginning in June 2016, Big Rivers stopped taking portions of
12 Henderson Municipal Power & Light's ("HMP&L") monthly Excess
13 Henderson Energy from Station II when such energy was determined to
14 be uneconomic ("HMP&L's Uneconomic Excess Henderson Energy").
15 However, the reports used to prepare Big Rivers' monthly Form A filings
16 for the expense months of June 2016 through August 2016 inadvertently
17 included HMP&L's Uneconomic Excess Henderson Energy volumes
18 (provided in the table below) in the reported inter-system sales volumes.

19

Month	HMP&L's Uneconomic Excess Energy Volumes (kWhs)
Jun-16	18,140,000
Jul-16	23,989,000
Aug-16	21,285,000

20

BIG RIVERS ELECTRIC CORPORATION

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February 20, 2017

1 As a result, the "Inter-system Sales including interchange-out"
2 volumes (reported on Page 3 of Big Rivers' Form A filings for the
3 expense months of June 2016 through August 2016) were overstated,
4 and Big Rivers' "System Losses" were understated by the amounts of
5 HMP&L's Uneconomic Excess Henderson Energy volumes during those
6 months. This ultimately caused the fuel costs allocated to inter-system
7 sales in Big Rivers' original Form A filings for the June, July, and
8 August 2016 expense months to be overstated, and the cost of fuel
9 allocated to Big Rivers' Members to be understated, by approximately
10 \$197,100, \$234,800, and \$208,600, respectively.

11 Adjustments to correct these errors were included in Appendix A
12 to Big Rivers' Form A filing for the October 2016 expense month. The
13 net effects of these adjustments on Big Rivers' total recoverable fuel cost
14 ("F(m)") by expense month are provided in the table below.
15

Expense Month	Effect on Total F(m)
Jun-16	\$197,100
Jul-16	\$234,800
Aug-16	\$208,600
Total	\$640,500

- 16
- 17 2. Green Unit 2's net generation originally reported for August 2016, and
18 included in the "Generation (Net)" kWh amount reported on Page 3 of
19 Big Rivers' original Form A filing for the August 2016 expense month,
20 was overstated by 206,092 kWh. The overstated net generation for
21 Green Unit 2 caused Green Unit 2's average fuel cost per kWh to be

BIG RIVERS ELECTRIC CORPORATION

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February 20, 2017

1 slightly understated, which ultimately impacted the forced outage
2 calculations, causing the "Fuel (Substitute Cost for Forced Outage)"
3 (included on Page 2 of Big Rivers' original Form A filing for the August
4 2016 expense month) to be understated by approximately \$300.

5 An adjustment to correct this error was included in Appendix A to
6 Big Rivers' Form A filing for the October 2016 expense month. The net
7 effect of this adjustment was a reduction of approximately \$300 to Big
8 Rivers' total F(m) for the August 2016 expense month.

- 9 3. HMP&L's Uneconomic Excess Henderson Energy not taken by Big
10 Rivers during September 2016 (26,510,000 kWh) was properly excluded
11 from the "Inter-system Sales including interchange-out" volumes
12 reported on Page 3 of Big Rivers' original Form A filing for the
13 September 2016 expense month but was inadvertently included in the
14 inter-system sales volumes used to calculate the cost of fuel allocated to
15 inter-system sales on Page 2. As a result, the fuel costs allocated to
16 inter-system sales in Big Rivers' original Form A filing for the
17 September 2016 expense month was overstated, and Big Rivers' total
18 F(m) was understated, by approximately \$669,200.

19 An adjustment to correct this error was included in Appendix A to
20 Big Rivers' Form A filing for the October 2016 expense month. The net
21 effect of this adjustment was an increase of approximately \$669,200 to
22 Big Rivers' total F(m) for the September 2016 expense month.

- 23 4. The "Pet Coke Burned" amount reported on page 2 of Big Rivers' original
24 Form A filing for the September 2016 expense month was overstated by
25 \$693,932. An accounting adjustment was made in September 2016 to

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
FROM NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016
CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 debit (*i.e.*, increase) Green's pet coke inventory balance for \$693,932 and
2 credit (*i.e.*, decrease) fuel expense by \$693,932 for Green's pet coke
3 burned. However, the accounting adjustment was inadvertently
4 excluded from the monthly fuel burned report used to prepare Big
5 Rivers' Form A filing for the September 2016 expense month, which
6 caused the "Pet Coke Burned" amount to be overstated by \$693,932 (*i.e.*
7 the amount of the adjustment not included in the fuel burned report
8 used to prepare the filing).

9 An adjustment to correct this error was included in Appendix A to
10 Big Rivers' Form A filing for the October 2016 expense month. The
11 adjustment reduced the total fuel costs allocated to inter-system sales in
12 Big Rivers' September 2016 Form A filing by \$419,000 and reduced the
13 total fuel costs allocated to Big Rivers' Members by approximately
14 \$274,900. Accordingly, the net effect on Big Rivers' FAC was a decrease
15 of approximately \$274,900 to Big Rivers' total F(m) for the September
16 2016 expense month.

17
18 The net effects of these four adjustments, included in Appendix A to
19 Big Rivers' Form A filing for the October 2016 expense month, are summarized in
20 the table on the following page.

21
22
23

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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CASE NO. 2017-00006**

**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1

Net Effects of Adjustments Included in Appendix A to Big Rivers' October 2016 Form A Filing on Big Rivers' Total Recoverable Fuel Cost (F(m)) by Expense Month					
\$ 000's					
Item No.	Jun-16	Jul-16	Aug-16	Sep-16	Total
1.	\$ 197.1	\$ 234.8	\$ 208.6	\$ -	\$ 640.5
2.	-	-	(0.3)	-	(0.3)
3.	-	-	-	669.2	669.2
4.	-	-	-	(274.9)	(274.9)
Total	\$ 197.1	\$ 234.8	\$ 208.3	\$ 394.3	\$ 1,034.5

2

3

4 **Witness)** Nicholas R. Castlen

5

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
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**Response to Commission Staff's Request for Information
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February 20, 2017

1 **Item 44) Refer to Big Rivers Form B filings for the September and**
2 **October 2016 expense months, page 1 of 21, Footnote 1.**

3
4 **a. Provide the journal entries made by Big Rivers related to**
5 **each of these footnotes.**

6 **b. Explain in detail what is meant by, "The shortfall for**
7 **September was offset against the revenue for September to**
8 **the City of Henderson for the Excess Energy not taken by**
9 **Big Rivers" as well as the same quote for October. Include**
10 **in the response any dollar amounts related to these**
11 **statements.**

12
13 **Response)**

14 **a. Please see redacted versions of Attachments 1 and 2 for the**
15 **September and October 2016 journal entries, respectively, related**
16 **to Footnote 1, on page 1 of 21, of the Form B filings for those**
17 **months. CONFIDENTIAL versions of these attachments are**
18 **being filed with a Petition for Confidential Treatment.**

19 **b. Please see redacted Attachments 3 and 4 for the invoices from**
20 **Henderson Municipal Power & Light (HMP&L) to Big Rivers for**
21 **the Excess Henderson Energy for September and October 2016,**
22 **respectively. The monthly Excess Henderson Energy invoices are**
23 **prepared by Big Rivers on HMP&L's behalf. CONFIDENTIAL**
24 **versions of these attachments are being filed with a Petition for**
25 **Confidential Treatment.**

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION OF THE APPLICATION OF THE FUEL
ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION
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**Response to Commission Staff's Request for Information
dated February 6, 2017**

February 20, 2017

1 For September 2016, HMP&L received revenues of
2 [REDACTED] for its Excess Henderson Energy, which consisted of
3 [REDACTED] from Big Rivers for the Excess Henderson Energy
4 purchased by Big Rivers and [REDACTED] for the revenues earned
5 on the Excess Henderson Energy sold into the Midcontinent
6 Independent System Operator (MISO) wholesale power market.
7 HMP&L's September 2016 revenues of [REDACTED] from the
8 Excess Henderson Energy were offset by charges from Big Rivers
9 for the costs associated with Big Rivers' coal [REDACTED] and
10 lime inventory [REDACTED] which Big Rivers supplied for
11 HMP&L's Excess Henderson Energy sold into MISO.

12 For October 2016, HMP&L received revenues of
13 [REDACTED] for its Excess Henderson Energy, which consisted of
14 [REDACTED] from Big Rivers for the Excess Henderson Energy
15 purchased by Big Rivers and [REDACTED] for the revenues earned
16 on HMP&L's Excess Henderson Energy sold into the MISO
17 wholesale power market. HMP&L's October 2016 revenues of
18 [REDACTED] were partially offset by a [REDACTED] charge from
19 Big Rivers for the costs associated with Big Rivers' coal, which Big
20 Rivers supplied for HMP&L's Excess Henderson Energy sold into
21 MISO

22
23
24 **Witness:** Nicholas R. Castlen

**Big Rivers Electric Corp
FINAL JOURNAL REPORT**

Party Name: Big Rivers
Report Format: Final
September 2016

Resp Center	Responsibility From	Project	Resource Type	Process	Code Value	Debit	Credit
0999	10	BRACCRUAL	COAL-EE	0699	14350054		
0999	10	BRFUELINV	COALINV-GN	0699	15113000	\$4,441,011.47	
0999	10	BRFUELINV	COAL-TR-GN	0699	15113100	\$326,806.56	
0999	10	BRFUELINV	COAL-TR-GN	0699	15113100		\$55,079.85
0999	10	BRFUELINV	COALINV-WL	0699	15114000	\$5,156,569.35	
0999	10	BRFUELINV	COAL-TR-WL	0699	15114100	\$441,852.05	
0999	10	BRFUELINV	COAL-TR-WL	0699	15114100		\$1,401,227.61
0999	10	BRFUELINV	COALINV-ST	0699	15115000	\$3,659,824.34	
0999	10	BRFUELINV	COALINV-ST	0699	15115000		
0999	10	BRACCRUAL	COAL-G	0699	23201500		\$4,712,738.18
0999	10	BRACCRUAL	COAL-SII	0699	23201500		\$3,659,824.34
0999	10	BRACCRUAL	COAL-W	0699	23201500	\$371,547.04	
0999	10	BRACCRUAL	COAL-W	0699	23201500		\$4,568,740.83

Journal Entry Type: J030 - dsa-0916 PJ 773577

Journal Entry Description: Coal Purchased

Journal Mask: J030

Totals: [REDACTED]

Period To Apply Year: 2016 Month: September

Entry By David J. Ashby

Review By David J. Ashby

Approval By DW 10/12/16

* Portion of Sep-2016 entry above related to Big Rivers' coal used for HMP&L's Excess Henderson Energy not taken by Big Rivers:

Dr. Acct. 14350054 - Accounts Receivable-SII Fuel-Excess Energy [REDACTED]

Cr. Acct. 15115000 - Fuel Inventory-Coal-SII [REDACTED]

Big Rivers Electric Corp
FINAL JOURNAL REPORT
Party Name: Big Rivers
Report Format: Final
September 2016

Resp Center	Responsibility From	Project	Resource Type	Process	Code Value	Debit	Credit
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Report Totals: XXXXXXXXXX

Station II Coal Inventory											
	<u>Month</u>	<u>Tons</u>	<u>Dollars</u>	<u>\$/Ton</u>	<u>MMBTU's</u>	<u>\$/mmbtu</u>	<u>Moisture</u>	<u>Ash</u>	<u>BTU</u>	<u>Sulfur</u>	<u>Heat-EIA</u>
Ending Inventory	Aug-16	336,862.34	20,411,312.60	\$60.5924	8,223,133.3100	\$2.482182	7.71	9.68	12,245	3.43	
Physical Inventory	Sep-16										
Purchases	Sep-16	60,425.59	3,659,824.34	\$60.5675	1,476,238.48	\$2.479155	8.30	9.07	12,215	3.29	24.43
Station Transfer	Sep-16			\$0.0000							
Subtotal	Sep-16	397,287.93	24,071,136.94	\$60.5886	9,699,371.79	\$2.481721	7.80	9.59	12,240	3.41	
		0.00		\$0.0000							
Usage-H 1	Sep-16	19,831.99	1,201,593.38	\$60.5886	486,677.04	\$2.468975	8.84	7.96	12,270	3.17	24.5400
Usage-H 2	Sep-16	21,865.06	1,324,774.34	\$60.5886	535,212.94	\$2.475229	8.86	8.18	12,239	3.27	24.4780
Usage by HMP&L(City)	Sep-16										
			\$0.00								
Ending Inventory	Sep-16	348,160.79	21,094,590.14	\$60.5886	8,495,388.96	\$2.483063	7.85	9.97	12,500	3.51	
Physical Inventory	Oct-16										
Purchases	Oct-16	43,185.56	2,551,776.09	\$59.0886	1,054,663.25	\$2.419517	0.00	0.00	0	0.00	24.42
Station Transfer	Oct-16			\$0.0000							
Subtotal	Oct-16	391,346.35	23,646,366.23	\$60.4231	9,550,052.21	\$2.476046	6.98	8.87	11,121	3.12	
		0.00		\$0.0000							
Usage-H 1	Oct-16	10,593.83	640,112.23	\$60.4231	262,472.73	\$2.438776	8.82	7.36	12,388	3.09	24.7760
Usage-H 2	Oct-16	9,668.16	584,180.36	\$60.4231	240,621.17	\$2.427801	8.29	7.41	12,444	3.05	24.8880
Usage by HMP&L(City)	Oct-16										
			\$0.00								
Ending Inventory	Oct-16	361,506.82	21,843,368.98	\$60.4231	8,813,730.52	\$2.478334	7.08	9.19		3.21	

**Big Rivers Electric Corp
FINAL JOURNAL REPORT**

Party Name: Big Rivers
Report Format: Final
October 2016

Resp Center	Responsibility From	Project	Resource Type	Process	Code Value	Debit	Credit
0999	10	BRACCRUAL	COAL-EF	0699	14350054		
0999	10	BRFUELINV	COALINV-GN	0699	15113000	\$3,963,084.83	
0999	10	BRFUELINV	COAL-TR-GN	0699	15113100		\$79,877.26
0999	10	BRFUELINV	COALINV-WL	0699	15114000	\$6,842,426.52	
0999	10	BRFUELINV	COAL-TR-WL	0699	15114100	\$186,910.74	
0999	10	BRFUELINV	COAL-TR-WL	0699	15114100		\$441,852.05
0999	10	BRFUELINV	COALINV-ST	0699	15115000	\$2,551,776.09	
0999	10	BRFUELINV	COALINV-ST	0699	15115000		
0999	10	BRACCRUAL	COAL-G	0699	23201500		\$3,883,207.57
0999	10	BRACCRUAL	COAL-SII	0699	23201500		\$2,551,776.09
0999	10	BRACCRUAL	COAL-W	0699	23201500		\$6,587,485.21

Journal Entry Type: J030 - dja-1016 PJ 802578

Journal Entry Description: Coal Purchased

Journal Mask: J030

Totals: [REDACTED]

Period To Apply Year: 2016 Month: October

Entry By David J. Ashley

Review By David J. Ashley

Approval By DJA 11/11/16

* Portion of Oct-2016 entry above related to Big Rivers' coal used for HMP&L's Excess Henderson Energy not taken by Big Rivers:

Dr. Acct. 14350054 - Accounts Receivable-SII Fuel-Excess Energy [REDACTED]

Cr. Acct. 15115000 - Fuel Inventory-Coal-SII [REDACTED]

Big Rivers Electric Corp
FINAL JOURNAL REPORT

Party Name: Big Rivers
Report Format: Final
October 2016

Resp Center	Responsibility From	Project	Resource Type	Process	Code Value	Debit	Credit
------------------------	--------------------------------	----------------	----------------------	----------------	-------------------	--------------	---------------

Report Totals: 

Station II Coal Inventory

	<u>Month</u>	<u>Tons</u>	<u>Dollars</u>	<u>\$/Ton</u>	<u>MMBTU's</u>	<u>\$/mmbtu</u>	<u>Moisture</u>	<u>Ash</u>	<u>BTU</u>	<u>Sulfur</u>	<u>Heat-EIA</u>
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		0.00		\$0.0000							
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Usage by HMP&L(City)	Sep-16										
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Station Transfer	Oct-16			\$0.0000							
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		0.00		\$0.0000							
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Usage by HMP&L(City)	Oct-16										
			\$0.00								
Ending Inventory	Oct-16	361,506.82	21,843,368.98	\$60.4231	8,813,730.52	\$2.478334	7.08	9.19		3.21	

Case No. 2017-00006

Attachment 2 for Response to PSC 1-44

Witness: Nicholas R. Castlen

Page 3 of 3

In the Matter of:

AN EXAMINATION OF THE APPLICATION)
OF THE FUEL ADJUSTMENT CLAUSE OF)
BIG RIVERS ELECTRIC CORPORATION) Case No.
FROM) 2017-00006
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016)

CONFIDENTIAL ATTACHMENTS (INVOICES)
Attachment 3 and Attachment 4

to

Item 44 of the Commission Staff's Data Request
dated August 6, 2017
FILED: August 20, 2017

**INFORMATION SUBMITTED UNDER PETITION FOR CONFIDENTIAL
TREATMENT**