

Ronald M. Sullivan
Jesse T. Mountjoy
Frank Stainback
James M. Miller
Michael A. Fiorella
R. Michael Sullivan
Bryan R. Reynolds*
Tyson A. Kamuf
Mark W. Starnes
C. Ellsworth Mountjoy
John S. Wathen

November 18, 2014

Via Federal Express

Jeff Derouen
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0615

RECEIVED
NOV 19 2014
PUBLIC SERVICE
COMMISSION

*Also Licensed in Indiana

Re: *In the Matter of: an Examination by the Public Service Commission of the Environmental Surcharge Mechanism of Big Rivers Electric Corporation for the Six-Month Billing Period Ending July 31, 2014 and the Pass Through Mechanism of its Three Member Distribution Cooperatives,*
PSC Case No. 2014-00323

Dear Mr. Derouen:

Enclosed for filing in the above-referenced matter are an original and seven (7) copies of Big Rivers Electric Corporation's responses to the Public Service Commission Staff's First Request for Information and an original and seven (7) copies of the Direct Testimony of Nicholas R. Castlen in support of the reasonableness of the environmental surcharge mechanisms of Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative Corporation. I certify that on this date, copies of this letter, the testimony, and the responses were served on all parties of record by first-class mail.

Sincerely,



Tyson Kamuf

TAK/lm
Enclosures

Telephone (270) 926-4000
Telecopier (270) 683-6694

100 St. Ann Building
PO Box 727
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42302-0727

cc: DeAnna Speed
Gregory J. Starheim
Scott Ribble
Burns E. Mercer

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

VERIFICATION

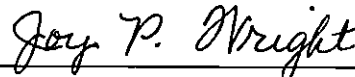
I, Nicholas R. (Nick) Castlen, verify, state, and affirm that that the Direct Testimony and data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the 17 day of November, 2014.



Notary Public, Ky. State at Large
My Commission Expires _____

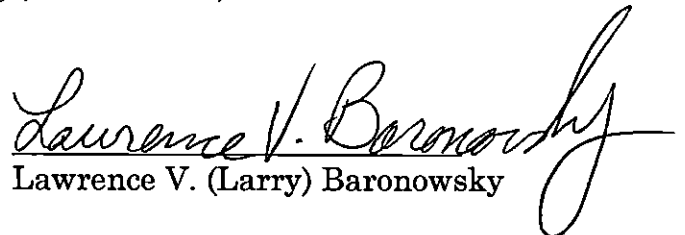
Notary Public, Kentucky State-At-Large
My Commission Expires: July 3, 2018
ID 513528

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

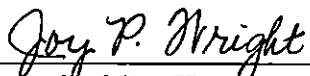
VERIFICATION

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


Lawrence V. (Larry) Baronowsky

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Lawrence V. (Larry)
Baronowsky on this the 17 day of November, 2014.


Notary Public, Ky. State at Large
My Commission Expires _____

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



BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

VERIFICATION

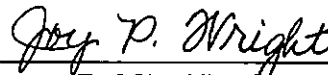
I, Eric M. Robeson, verify, state, and affirm that that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Eric M. Robeson

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Eric M. Robeson on this the 17 day of November, 2014.



Notary Public, Ky. State at Large
My Commission Expires _____

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

ORIGINAL



Your Touchstone Energy® Cooperative 

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

**AN EXAMINATION)
BY THE PUBLIC SERVICE COMMISSION)
OF THE ENVIRONMENTAL SURCHARGE)
MECHANISM OF BIG RIVERS ELECTRIC)
CORPORATION FOR THE)
SIX-MONTH BILLING PERIOD ENDING)
JULY 31, 2014)
AND THE PASS THROUGH MECHANISM)
OF ITS THREE MEMBER DISTRIBUTION)
COOPERATIVES)**

Case No. 2014-00323

**Responses to Commission Staff's
Initial Request for Information
dated October 24, 2014**

FILED: November 19, 2014

ORIGINAL

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 **Item 1)** *Prepare a summary schedule showing the calculation of $E(m)$*
2 *and the surcharge factor for the expense months covered by the billing*
3 *period under review. Form 1.1 can be used as a model for this summary.*
4 *Include the expense months for the two expense months subsequent to the*
5 *billing period in order to show the over- and under-recovery adjustments*
6 *for the months included for the billing period. Include a calculation of*
7 *any additional over- or under-recovery amount Big Rivers believes needs*
8 *to be recognized for the billing period under review. Include all*
9 *supporting calculations and documentation for the additional over- or*
10 *under-recovery.*

11

12 **Response)** Please see the attached schedule, in the format of Form 1.10,
13 covering each of the expense months from December 2013, through July 2014,
14 (*i.e.*, the expense months covered by the billing periods under review plus the
15 immediately following two months). No additional over/under recovery is sought
16 by Big Rivers Electric Corporation.

17

18

19 **Witness)** Nicholas R. Castlen

20

**Big Rivers Electric Corporation
Case No. 2014-00323**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Months: December 2013 to July 2014

Calculation of Total E(m)

1	E(m) = OE - BAS + RORB, where				
2	OE	=	Pollution Control Operating Expenses		
3	BAS	=	Total Proceeds from By-Product and Allowance Sales		
4	RORB	=	[(RB/12) x (RORORB)]		
5				<u>December 2013</u>	<u>January 2014</u>
6					
7				Environmental Compliance Plans	Environmental Compliance Plans
8					
9					
10	OE	=	\$ 2,349,391	=	\$ 2,447,581
11	BAS	=	\$ 6,977	=	\$ 21,598
12	RORB	=	\$ 9,563	=	\$ 10,544
13					
14	E(m)	=	\$ 2,351,977	=	\$ 2,436,527
15					

Calculation of Jurisdictional Environmental Surcharge Billing Factor

17					
18					
19					
20	Jurisdictional Allocation Ratio for the Month	=	78.391089%	=	76.155449%
21	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio	=	\$ 1,843,740	=	\$ 1,855,548
22	Adjustment for (Over)/Under Recovery	=	\$ 534,278	=	\$ 287,040
23	Prior Period Adjustment (if necessary)	=	\$ -	=	\$ -
24					
25	Net Jurisdictional E(m) = Jurisdictional E(m) plus (Over)/Under				
26	plus Prior Period Adjustment(s)	=	\$ 2,378,018	=	\$ 2,142,588
27					
28	R(m) = Average Monthly Member System Revenue for the 12 Months				
29	Ending with the Current Expense Month	=	\$ 36,277,297	=	\$ 35,785,567
30					
31	Jurisdictional Environmental Surcharge Billing Factor:				
32	CESF: E(m) / R(m); as a % of Revenue	=	6.555113%	=	5.987296%

**Big Rivers Electric Corporation
Case No. 2014-00323**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Months: December 2013 to July 2014

Calculation of Total E(m)

1 E(m) = OE - BAS + RORB, where

2 OE = Pollution Control Operating Expenses

3 BAS = Total Proceeds from By-Product and Allowance Sales

4 RORB = [(RB/12) x (RORORB)]

		<u>February 2014</u>		<u>March 2014</u>
		Environmental Compliance Plans		Environmental Compliance Plans
10	OE	= \$ 2,142,172	= \$	1,935,901
11	BAS	= \$ 20,042	= \$	22,498
12	RORB	= \$ 15,268	= \$	19,953
14	E(m)	= \$ 2,137,398	= \$	1,933,356

17 **Calculation of Jurisdictional Environmental Surcharge Billing Factor**

20	Jurisdictional Allocation Ratio for the Month	= 46.835735%	=	43.616093%
21	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio	= \$ 1,001,066	= \$	843,254
22	Adjustment for (Over)/Under Recovery	= \$ 47,644	= \$	914,712
23	Prior Period Adjustment (if necessary)	= \$ -	= \$	-
25	Net Jurisdictional E(m) = Jurisdictional E(m) plus (Over)/Under plus Prior Period Adjustment(s)	= \$ 1,048,710	= \$	1,757,966
28	R(m) = Average Monthly Member System Revenue for the 12 Months Ending with the Current Expense Month	= \$ 34,279,069	= \$	32,450,204
31	Jurisdictional Environmental Surcharge Billing Factor:			
32	CESF: E(m) / R(m); as a % of Revenue	= 3.059330%	=	5.417427%

Big Rivers Electric Corporation

Case No. 2014-00323

Calculation of Total E(m) and Jurisdictional Surcharge Billing Factor

For the Expense Months: December 2013 to July 2014

Calculation of Total E(m)

1	E(m) = OE - BAS + RORB, where				
2	OE	=	Pollution Control Operating Expenses		
3	BAS	=	Total Proceeds from By-Product and Allowance Sales		
4	RORB	=	[(RB/12) x (RORORB)]		
5				<u>April 2014</u>	<u>May 2014</u>
6					
7				Environmental Compliance Plans	Environmental Compliance Plans
8					
9					
10	OE	= \$	2,256,112	= \$	1,672,442
11	BAS	= \$	25,433	= \$	-
12	RORB	= \$	25,051	= \$	26,173
13					
14	E(m)	= \$	2,255,730	= \$	1,698,615

Calculation of Jurisdictional Environmental Surcharge Billing Factor

17					
18					
19					
20	Jurisdictional Allocation Ratio for the Month	=	38.809546%	=	56.070358%
21	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio	= \$	875,439	= \$	952,420
22	Adjustment for (Over)/Under Recovery	= \$	458,377	= \$	991,229
23	Prior Period Adjustment (if necessary)	= \$	-	= \$	-
24					
25	Net Jurisdictional E(m) = Jurisdictional E(m) plus (Over)/Under				
26	plus Prior Period Adjustment(s)	= \$	1,333,816	= \$	1,943,649
27					
28	R(m) = Average Monthly Member System Revenue for the 12 Months				
29	Ending with the Current Expense Month	= \$	30,521,846	= \$	28,513,247
30					
31	Jurisdictional Environmental Surcharge Billing Factor:				
32	CESF: E(m) / R(m); as a % of Revenue	=	4.370037%	=	6.816653%

**Big Rivers Electric Corporation
Case No. 2014-00323**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Months: December 2013 to July 2014

Calculation of Total E(m)

1	E(m) = OE - BAS + RORB, where				
2	OE	=	Pollution Control Operating Expenses		
3	BAS	=	Total Proceeds from By-Product and Allowance Sales		
4	RORB	=	[(RB/12) x (RORORB)]		
5				<u>June 2014</u>	<u>July 2014</u>
6					
7				Environmental Compliance Plans	Environmental Compliance Plans
8					
9					
10	OE	= \$	1,587,618	= \$	2,461,632
11	BAS	= \$	-	= \$	-
12	RORB	= \$	33,571	= \$	41,335
13					
14	E(m)	= \$	1,621,189	= \$	2,502,967
15					

Calculation of Jurisdictional Environmental Surcharge Billing Factor

17					
18					
19					
20	Jurisdictional Allocation Ratio for the Month	=	65.017814%	=	50.273862%
21	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio	= \$	1,054,062	= \$	1,258,338
22	Adjustment for (Over)/Under Recovery	= \$	653,306	= \$	755,509
23	Prior Period Adjustment (if necessary)	= \$	-	= \$	-
24					
25	Net Jurisdictional E(m) = Jurisdictional E(m) plus (Over)/Under				
26	plus Prior Period Adjustment(s)	= \$	1,707,368	= \$	2,013,847
27					
28	R(m) = Average Monthly Member System Revenue for the 12 Months				
29	Ending with the Current Expense Month	= \$	26,592,908	= \$	24,683,935
30					
31	Jurisdictional Environmental Surcharge Billing Factor:				
32	CESF: E(m) / R(m); as a % of Revenue	=	6.420388%	=	8.158533%

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 **Item 2)** *For each of the three Member Cooperatives, prepare a*
2 *summary schedule showing the Member Cooperative's pass-through*
3 *revenue requirement for the months corresponding with the billing period*
4 *under review. Include the two months subsequent to the billing period*
5 *included in the review period. Include a calculation of any additional*
6 *over- or under-recovery amount the Member Cooperative believes needs to*
7 *be recognized for the billing period under review. Include all supporting*
8 *calculations and documentation for the additional over- or under-*
9 *recovery.*

10
11 **Response)** The attached two sets of schedules (Attachment 1 for non-dedicated
12 delivery points and Attachment 2 for dedicated delivery points) reflect Big Rivers'
13 Members' environmental surcharge pass-through for the months corresponding to
14 Big Rivers' expense months of December 2013, through May 2014, applied to
15 Members' invoices for the service months of January 2014, through June 2014,
16 which Big Rivers billed to its Members February 2014, through July 2014. As
17 illustrated in the attached schedules, there is no billing lag for dedicated delivery
18 point customers.

19 As requested by the Commission, the attached schedules include the
20 Members' two billing months immediately following the review period. The
21 information on the attached schedules was obtained from the Members' monthly

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 Environmental Surcharge Schedules provided by Big Rivers' Members. Other
2 than the on-going cumulative over/under recovery mechanism, no additional
3 over/under recovery amount is requested.

4

5

6 Witness) Nicholas R. Castlen

7

BIG RIVERS ELECTRIC CORPORATION
Case No. 2014-00323

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KENERGY CORP. ENVIRONMENTAL SURCHARGE REVIEW NON-DEDICATED DELIVERY POINT CUSTOMERS
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(a)	(b)	(c)	(d)	(e)	(f)
Mo/Yr	Big Rivers' Invoice ES Amount for Service Month	(Over)/Under Recovery [from (f)]	Total Recoverable [(b) + (c)]	ES Amount Billed to Kenergy's Customers (Line 11 per Filing)	(Over)/Under Recovery [(d) for 2nd preceding month less (e) for current month]
Jan-14	\$ 603,901.94	\$ (52,822.62)	\$ 551,079.32	\$ 475,740.33	\$ (52,822.62)
Feb-14	\$ 494,765.42	\$ (36,725.06)	\$ 458,040.36	\$ 465,127.59	\$ (36,725.06)
Mar-14	\$ 226,302.72	\$ 42,371.63	\$ 268,674.35	\$ 508,707.69	\$ 42,371.63
Apr-14	\$ 276,403.67	\$ 41,564.73	\$ 317,968.40	\$ 416,475.63	\$ 41,564.73
May-14	\$ 254,647.72	\$ 43,083.58	\$ 297,731.30	\$ 225,590.77	\$ 43,083.58
Jun-14	\$ 469,396.36	\$ (38,571.26)	\$ 430,825.10	\$ 356,539.66	\$ (38,571.26)
Jul-14	\$ 472,223.74	\$ (36,433.25)	\$ 435,790.49	\$ 334,164.55	\$ (36,433.25)
Aug-14	\$ 611,798.96	\$ (4,047.05)	\$ 607,751.91	\$ 434,872.15	\$ (4,047.05)

JACKSON PURCHASE ENERGY CORPORATION ENVIRONMENTAL SURCHARGE REVIEW NON-DEDICATED DELIVERY POINT CUSTOMERS
--

(a)	(b)	(c)	(d)	(e)	(f)
Mo/Yr	Big Rivers' Invoice ES Amount for Service Month	(Over)/Under Recovery [from (f)]	Total Recoverable [(b) + (c)]	ES Amount Billed to JPEC's Customers (Line 11 per Filing)	(Over)/Under Recovery [(d) for 3rd preceding month less (e) for current month]
Jan-14	\$ 314,415.48	\$ (48,356.86)	\$ 266,058.62	\$ 179,756.16	\$ (48,356.86)
Feb-14	\$ 263,353.44	\$ (109,852.11)	\$ 153,501.33	\$ 369,256.77	\$ (109,852.11)
Mar-14	\$ 123,239.66	\$ (21,531.49)	\$ 101,708.17	\$ 281,843.78	\$ (21,531.49)
Apr-14	\$ 150,660.98	\$ 59,071.14	\$ 209,732.12	\$ 206,987.48	\$ 59,071.14
May-14	\$ 149,717.82	\$ 41,903.10	\$ 191,620.92	\$ 111,598.23	\$ 41,903.10
Jun-14	\$ 263,769.79	\$ 16,086.82	\$ 279,856.61	\$ 85,621.35	\$ 16,086.82
Jul-14	\$ 262,555.79	\$ (51,841.69)	\$ 210,714.10	\$ 261,573.81	\$ (51,841.69)
Aug-14	\$ 349,876.95	\$ (38,990.95)	\$ 310,886.00	\$ 230,611.87	\$ (38,990.95)

BIG RIVERS ELECTRIC CORPORATION
Case No. 2014-00323

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION ENVIRONMENTAL SURCHARGE REVIEW NON-DEDICATED DELIVERY POINT CUSTOMERS					
(a)	(b)	(c)	(d)	(e)	(f)
Mo/Yr	Big Rivers' Invoice ES Amount for Service Month	(Over)/Under Recovery [from (f)]	Total Recoverable [(b) + (c)]	ES Amount Billed to MCRECC's Customers (Line 11 per Filing)	(Over)/Under Recovery [(d) for 1st preceding month less (e) for current month]
Jan-14	\$ 279,567.56	\$ (25,838.97)	\$ 253,728.59	\$ 198,375.67	\$ (25,838.97)
Feb-14	\$ 217,793.23	\$ 18,194.85	\$ 235,988.08	\$ 235,533.74	\$ 18,194.85
Mar-14	\$ 98,102.77	\$ 42,915.56	\$ 141,018.33	\$ 193,072.52	\$ 42,915.56
Apr-14	\$ 113,314.45	\$ 39,504.72	\$ 152,819.17	\$ 101,513.61	\$ 39,504.72
May-14	\$ 91,030.33	\$ (7,713.78)	\$ 83,316.55	\$ 160,532.95	\$ (7,713.78)
Jun-14	\$ 168,976.19	\$ (13,677.12)	\$ 155,299.07	\$ 96,993.67	\$ (13,677.12)
Jul-14	\$ 170,418.54	\$ (4,135.42)	\$ 166,283.12	\$ 159,434.49	\$ (4,135.42)
Aug-14	\$ 219,903.17	\$ (4,587.05)	\$ 215,316.12	\$ 170,870.17	\$ (4,587.05)

BIG RIVERS ELECTRIC CORPORATION
Case No. 2014-00323

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KENERGY CORP-ENVIRONMENTAL SURCHARGE REVIEW DEDICATED DELIVERY POINT CUSTOMERS

(a)	(b)	(c)	(d)
Service Mo/Yr	Big Rivers Electric Invoice Amount for Service Month	Service Month to Retail Consumer	Monthly Over/Under (Column (b) less column (c))
Jan-14	\$ 1,130,297.30	\$ 1,130,297.30	\$ -
Feb-14	\$ 249,785.02	\$ 249,785.02	\$ -
Mar-14	\$ 141,504.08	\$ 141,504.08	\$ -
Apr-14	\$ 224,176.66	\$ 224,176.66	\$ -
May-14	\$ 182,793.68	\$ 182,793.68	\$ -
Jun-14	\$ 283,172.86	\$ 283,172.86	\$ -
Jul-14	\$ 281,738.70	\$ 281,738.70	\$ -
Aug-14	\$ 350,957.18	\$ 350,957.18	\$ -

JACKSON PURCHASE ENERGY CORPORATION ENVIRONMENTAL SURCHARGE REVIEW DEDICATED DELIVERY POINT CUSTOMERS
--

(a)	(b)	(c)	(d)
Service Mo/Yr	Big Rivers Electric Invoice Amount for Service Month	Service Month To Retail Consumer	Monthly (Over)/Under Recovery (Column (b) Less column (c))
Jan-14	\$ 2,192.09	\$ 2,192.09	\$ -
Feb-14	\$ 2,178.73	\$ 2,178.73	\$ -
Mar-14	\$ 1,183.58	\$ 1,183.58	\$ -
Apr-14	\$ 2,180.79	\$ 2,180.79	\$ -
May-14	\$ 2,320.47	\$ 2,320.47	\$ -
Jun-14	\$ 2,761.49	\$ 2,761.49	\$ -
Jul-14	\$ 2,552.13	\$ 2,552.13	\$ -
Aug-14	\$ 3,088.75	\$ 3,088.75	\$ -

Meade County Rural Electric Cooperative Corporation has no dedicated delivery point customers.

BIG RIVERS ELECTRIC CORPORATION

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FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 **Item 3)** *Refer to Form 2.5, Operating and Maintenance Expenses, for*
2 *each of the expense months covered by each billing period under review.*
3 *For each of the expense line items listed on this schedule, explain the*
4 *reason(s) for any change in the expense levels from month to month if that*
5 *change is greater than plus or minus 10 percent.*

6

7 **Response)** Please see the attached schedule of Operating and Maintenance
8 ("O&M") expenses, including the requested variance explanations, for the six
9 expense months covered by the billing period under review.

10

11

12 **Witnesses)** Nicholas R. Castlen (Schedules of O&M Expenses) and
13 Lawrence V. Baronowsky (Reason(s) for Changes in Expense Levels)

14

Big Rivers Electric Corporation
Case No. 2014-00323
Form 2.5 - Operating and Maintenance Expense Analysis

Variance Explanations:

Anhydrous Ammonia:

Dec-13 vs. Nov-13	158%	The increase was due to increased generation at HMP&L and timing of product delivery and invoicing at Wilson and HMP&L.
Jan-14 vs. Dec-13	-50%	The decrease was due to 21% reduction in generation (225 FOH) and timing of product delivery and invoicing at Wilson.
Feb-14 vs. Jan-14	21%	The increase was due to increased generation at Wilson from previous month.
May-14 vs Apr-14	-54%	The decrease was due to a 55% reduction in generation at Wilson and HMP&L.

Disposal-Flyash/Bottom Ash/ Sludge:

Dec-13 vs. Nov-13	25%	The increase was due to a 36% increase in generation at Green and HMP&L that was offset slightly by a decrease at Wilson due
Jan-14 vs. Dec-13	23%	The increase was due to 6% increase in generation at Green and HMP&L and the contractor hauled more tons of bottom ash in
Feb-14 vs. Jan-14	-31%	The decrease was due to a 10% decrease in generation at Green & HMP&L and the contractor hauled fewer tons of bottom ash
Mar-14 vs. Feb-14	11%	The increase was due to a 10% increase in generation between Green, HMP&L and Wilson.
Apr-14 vs. Mar-14	14%	The Wilson landfill management contract was allowed to lapse in anticipation of idling the Wilson station at the end of April 2014. The increase was due to a price increase from the interim landfill contractor at Wilson.
May-14 vs Apr-14	-31%	The decrease was due to a 528 hour planned outage at Wilson.

Fixation Lime:

Dec-13 vs. Nov-13	31%	The increase was due to a 36% increase in generation at Green and HMP&L.
Jan-14 vs. Dec-13	-33%	The decrease was due to timing of product delivery and invoicing and operational needs at the Wilson landfill.
Apr-14 vs. Mar-14	13%	The increase was due to timing of product delivery and invoicing at Green and operational needs at the Wilson landfill.
May-14 vs Apr-14	-29%	The decrease was due to a 528 hour planned outage at Wilson and 25% decrease in generation at HMP&L.

Reagent Limestone:

Jan-14 vs. Dec-13	19%	The increase was due to timing of product delivery and invoicing at Wilson.
Feb-14 vs. Jan-14	-35%	The decrease was due to timing of product delivery and invoicing at Wilson.
Mar-14 vs. Feb-14	25%	The increase was due to timing of product delivery and invoicing at Wilson.
May-14 vs Apr-14	-39%	The decrease was due to a 528 hour planned outage at Wilson.

Reagent-Lime:

Dec-13 vs. Nov-13	33%	The increase was due to a 36% increase in generation at Green and HMP&L.
Jan-14 vs. Dec-13	22%	The increase was due to 6% increase in generation at Green and HMP&L and timing of product delivery and invoicing at Green.
Feb-14 vs. Jan-14	-12%	The decrease was due to a 10% decrease in generation at Green & HMP&L.
Mar-14 vs. Feb-14	-16%	The decrease was due to timing of product delivery and invoicing at Green.
Apr-14 vs. Mar-14	19%	The increase was due to timing of product delivery and invoicing at Green.
May-14 vs Apr-14	-12%	The decrease was due to a 26% reduction in generation at HMP&L.

Big Rivers Electric Corporation
Case No. 2014-00323
Form 2.5 - Operating and Maintenance Expense Analysis

Emulsified Sulfur for SO₂:

Dec-13 vs. Nov-13	-74%	Emulsified sulfur is ordered on an as needed basis and added in batch based on scrubber chemistry. Two invoices (loads) were processed in November and no invoices were processed in December at HMP&L.
Jan-14 vs. Dec-13	69%	Emulsified sulfur is ordered on an as needed basis and added in batch based on scrubber chemistry. No invoices (loads) were processed in December and one invoice was processed in January at HMP&L.
Feb-14 vs. Jan-14	32%	Emulsified sulfur is ordered on an as needed basis and added in batch based on scrubber chemistry. No invoices (loads) were processed in January and one invoice was processed in February at Wilson.
Mar-14 vs. Feb-14	-31%	Emulsified sulfur is ordered on an as needed basis and added in batch based on scrubber chemistry. One invoice (load) was processed in February and no invoices were processed in March at Wilson.

Reagent-Dibasic Acid:

Dec-13 vs. Nov-13	-21%	The decrease was due to a 5% reduction in generation and timing of product delivery and invoicing at Wilson.
Jan-14 vs. Dec-13	-18%	The decrease was due to 21% reduction in generation (225 FOH) at Wilson.
Feb-14 vs. Jan-14	48%	The increase was due to a 30% increase in generation from previous month and timing of product delivery and invoicing at Wilson.
Mar-14 vs. Feb-14	-50%	The decrease was due to timing of product delivery and invoicing at Wilson.
Apr-14 vs. Mar-14	103%	The increase was due to timing of product delivery and invoicing at Wilson.
May-14 vs Apr-14	-100%	The decrease was due to a 528 hour planned outage at Wilson.

Reagent-Sodium BiSulfite for SO₂:

Jan-14 vs. Dec-13	-41%	Sodium BiSulfite is ordered on an as needed basis and added in batch based on scrubber chemistry. The decrease was due to 21% reduction in generation (225 FOH) and an attempt to drop inventory to zero by end of January for planned layup at Wilson.
Apr-14 vs. Mar-14	-17%	Sodium BiSulfite is ordered on an as needed basis and added in batch based on scrubber chemistry. The decrease was due to
May-14 vs Apr-14	-67%	The decrease was due to a 528 hour planned outage at Wilson.

Hydrated Lime - SO₃:

Dec-13 vs. Nov-13	63%	The increase was due to timing of product delivery and invoicing and operational needs related to ambient conditions at Wilson.
Jan-14 vs. Dec-13	-31%	The decrease was due to operational needs related to ambient conditions at Wilson.
Feb-14 vs. Jan-14	-64%	The decrease was due to operational needs related to ambient conditions at Wilson.
Mar-14 vs. Feb-14	-100%	The decrease was due to operational needs related to ambient conditions at Wilson.

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 **Item 4)** *Refer to Big Rivers' monthly environmental surcharge reports*
2 *for the expense months in this review period. Provide the calculations and*
3 *supporting data for the rates of return included in each monthly*
4 *environmental surcharge filing. Provide all supporting calculations and*
5 *documentation in Excel spreadsheet format, with formulas intact and*
6 *unprotected and all rows and columns accessible.*

7

8 **Response)** Please see the attachment to this response for the calculations and
9 supporting data for the rates of return included in each monthly environmental
10 surcharge filing for the expense months in this review period. These calculations
11 are also provided in Excel spreadsheet format, with formulas intact and
12 unprotected and all rows and columns accessible, on the CD accompanying these
13 responses.

14

15

16 **Witness)** Nicholas R. Castlen

17

Big Rivers Electric Corporation
Case No. 2014-00323
Calculation of Rate of Return on Environmental Compliance Rate Base
For the Expense Months: December 2013 to May 2014

Calculation of Monthly Rate of Return

		<u>Dec-13</u>	<u>Jan-14</u>
1			
2	<u>Month-to-Date Interest Expense on Long-Term Debt:</u>		
3	RUS - Series A Note	\$ 396,821.26	\$ 396,875.64
4	RUS - Series B Note	\$ 670,154.10	\$ 679,948.90
5	CoBank - Series 2012A Notes	\$ 836,481.47	\$ 829,505.42
6	CFC - Series 2012B Refinance Note	\$ 847,103.17	\$ 1,022,551.78
7	CFC - Series 2012B Equity Note	\$ 185,284.56	\$ 185,284.56
8	Series 2010A P.C. Bonds	\$ 416,500.00	\$ 416,500.00
9			
10	(a) Total Monthly Interest Expense on Long-Term Debt	\$ 3,352,344.56	\$ 3,530,666.30
11			
12	Total Outstanding Long-Term Debt (Beginning of Month)	\$ 852,980,908.70	\$ 853,085,747.12
13	Total Outstanding Long-Term Debt (End of Month)	\$ 853,085,747.12	\$ 853,097,475.39
14	(b) Average Outstanding Long-Term Debt during Month	\$ 853,033,327.91	\$ 853,091,611.26
15			
16	(c) Number of Days During Year	365	365
17			
18	(d) Number of Days During Month	31	31
19			
20	(e) Average Cost of Debt [(a) ÷ (b)] x [(c) ÷ (d)]	4.63%	4.87%
21			
22	(f) Applicable TIER ¹	1.24	1.24
23			
24	(g) Rate of Return on Environmental Compliance Rate Base [(e) x (f)]	5.74%	6.04%
25			
26			
27			

¹ Times Interest Earned Ratio ("TIER") applicable to the average cost of debt for calculating the Rate of Return on Environmental Compliance Plan Rate Base per the ES - Environmental Surcharge Tariff approved by Order of the Commission dated October 1, 2012 (Case No. 2012-00063).

Big Rivers Electric Corporation
Case No. 2014-00323
Calculation of Rate of Return on Environmental Compliance Rate Base
For the Expense Months: December 2013 to May 2014

Calculation of Monthly Rate of Return

	<u>Feb-14</u>	<u>Mar-14</u>
1		
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¹ Times Interest Earned Ratio ("TIER") applicable to the average cost of debt for calculating the Rate of Return on Environmental Compliance Plan Rate Base per the ES - Environmental Surcharge Tariff approved by Order of the Commission dated October 1, 2012 (Case No. 2012-00063).

Big Rivers Electric Corporation
Case No. 2014-00323
Calculation of Rate of Return on Environmental Compliance Rate Base
For the Expense Months: December 2013 to May 2014

Calculation of Monthly Rate of Return

	<u>Apr-14</u>	<u>May-14</u>
1		
2	<u>Month-to-Date Interest Expense on Long-Term Debt:</u>	
3	\$ 384,129.64	\$ 396,935.84
4	\$ 667,423.38	\$ 689,670.83
5	\$ 795,915.99	\$ 822,446.52
6	\$ 983,306.95	\$ 1,015,866.16
7	\$ 183,803.25	\$ 183,803.25
8	\$ 416,500.00	\$ 416,505.67
9		
10	\$ 3,431,079.21	\$ 3,525,228.27
11		
12	\$ 850,110,265.88	\$ 850,121,656.60
13	\$ 850,121,656.60	\$ 847,041,236.67
14	\$ 850,115,961.24	\$ 848,581,446.64
15		
16	365	365
17		
18	30	31
19		
20	4.91%	4.89%
21		
22	1.24	1.24
23		
24	6.09%	6.06%
25		
26		
27		

¹ Times Interest Earned Ratio ("TIER") applicable to the average cost of debt for calculating the Rate of Return on Environmental Compliance Plan Rate Base per the ES - Environmental Surcharge Tariff approved by Order of the Commission dated October 1, 2012 (Case No. 2012-00063).

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 **Item 5)** *Refer to the monthly environmental surcharge report for the*
2 *expense month of December 2013. Provide ES Forms 3.00 and 3.10 that*
3 *were omitted from the monthly report.*

4

5 **Response)** Please see attachments for ES Forms 3.00 and 3.10 for the December
6 2013, expense month.

7

8

9 **Witness)** Nicholas R. Castlen

10

**BIG RIVERS ELECTRIC CORPORATION
ENVIRONMENTAL SURCHARGE REPORT**

Monthly Average Revenue Computation of R(m)

For the Expense Month Ending: December 31, 2013

Revenues from Member Systems							Total Company Revenues		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Month	Base Rate Revenues	Fuel Clause Revenues	Non-FAC PPA Revenues	Environmental Surcharge Revenues	Total (2)+(3)+(4)+(5)	Total Excluding Environmental Surcharge (6)-(5)	Off-System Sales	Total (6)+(8)	Total Excluding Environmental Surcharge (9)-(5)
Jan-13	\$ 39,667,621	\$ 2,352,659	\$ (569,036)	\$ 2,233,271	\$ 43,684,515	\$ 41,451,244	\$ 4,952,414	\$ 48,636,929	\$ 46,403,658
Feb-13	\$ 36,326,828	\$ 2,949,864	\$ (690,689)	\$ 2,091,277	\$ 40,677,280	\$ 38,586,003	\$ 5,152,545	\$ 45,829,825	\$ 43,738,548
Mar-13	\$ 38,599,003	\$ 3,395,157	\$ (751,640)	\$ 1,998,252	\$ 43,240,772	\$ 41,242,520	\$ 4,873,895	\$ 48,114,667	\$ 46,116,415
Apr-13	\$ 35,119,405	\$ 2,719,827	\$ (545,778)	\$ 1,943,237	\$ 39,236,691	\$ 37,293,454	\$ 6,344,920	\$ 45,581,611	\$ 43,638,374
May-13	\$ 37,184,296	\$ 3,158,926	\$ (667,862)	\$ 1,959,881	\$ 41,635,241	\$ 39,675,360	\$ 6,369,941	\$ 48,005,182	\$ 46,045,301
Jun-13	\$ 38,022,261	\$ 3,196,526	\$ (744,767)	\$ 2,150,673	\$ 42,624,693	\$ 40,474,020	\$ 4,297,752	\$ 46,922,445	\$ 44,771,772
Jul-13	\$ 39,297,514	\$ 2,894,034	\$ (757,120)	\$ 2,174,573	\$ 43,609,001	\$ 41,434,428	\$ 7,837,546	\$ 51,446,547	\$ 49,271,974
Aug-13	\$ 35,380,908	\$ 2,650,882	\$ (685,720)	\$ 2,050,507	\$ 39,396,577	\$ 37,346,070	\$ 8,410,368	\$ 47,806,945	\$ 45,756,438
Sep-13	\$ 29,696,589	\$ 1,344,244	\$ (240,502)	\$ 1,470,315	\$ 32,270,646	\$ 30,800,331	\$ 8,541,159	\$ 40,811,805	\$ 39,341,490
Oct-13	\$ 24,263,748	\$ 1,456,005	\$ (197,307)	\$ 1,312,591	\$ 26,835,037	\$ 25,522,446	\$ 9,994,085	\$ 36,829,122	\$ 35,516,531
Nov-13	\$ 28,044,375	\$ 1,441,672	\$ (112,372)	\$ 1,859,202	\$ 31,232,877	\$ 29,373,675	\$ 5,231,034	\$ 36,463,911	\$ 34,604,705
Dec-13	\$ 30,751,665	\$ 1,528,136	\$ (151,784)	\$ 1,932,812	\$ 34,060,829	\$ 32,128,017	\$ 8,856,255	\$ 42,917,084	\$ 40,984,272
Totals	\$ 412,354,213	\$ 29,087,932	\$ (6,114,577)	\$ 23,176,591	\$ 458,504,159	\$ 435,327,568	\$ 80,861,914	\$ 539,366,073	\$ 516,189,482
Average Monthly Member System Revenues, Excluding Environmental Surcharge, for 12 Months Ending Current Expense Month.						\$ 36,277,297			
Member System Allocation Percentage for Current Month (Environmental Surcharge excluded from Calculations): Column (7) / Column (10) =									78.391089%

**BIG RIVERS ELECTRIC CORPORATION
ENVIRONMENTAL SURCHARGE REPORT
Monthly Revenue Detail for Average Revenue Computation of R(m)**

For the Expense Month Ending: December 31, 2013

Class	Revenue						Total
	Demand	Energy	Base Rates	FAC	Non-FAC PPA	ES	
Rural	\$ 6,258,576	\$ 8,286,758	\$ 14,545,334	\$ 615,114	\$ (92,101)	\$ 906,507	\$ 15,974,188
Large Industrial	\$ 1,572,308	\$ 2,348,879	\$ 3,921,187	\$ 203,413	\$ (30,457)	\$ 246,302	\$ 4,340,445
Subtotal	\$ 7,830,884	\$ 10,635,637	\$ 18,466,521	\$ 818,527	\$ (122,558)	\$ 1,152,809	\$ 20,315,299

Smelter	Base Monthly Energy (KWH)	Premium (\$0.00025 / kWh)	Base Monthly Energy	Base Monthly Energy Less Premium		FAC	Non-FAC PPA	ES	Total
				Energy	Premium				
Alcan	273,136,707	\$ 68,284	\$ 12,353,427	\$ 12,285,143	\$ 709,609	\$ (29,226)	\$ 780,002	\$ 13,745,528	
Century	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	273,136,707	\$ 68,284	\$ 12,353,427	\$ 12,285,143	\$ 709,609	\$ (29,226)	\$ 780,002	\$ 13,745,528	

Total				\$ 30,751,664	\$ 1,528,136	\$ (151,784)	\$ 1,932,811	\$ 34,060,827
--------------	--	--	--	---------------	--------------	--------------	--------------	---------------

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

1 **Item 6)** *Refer to Big Rivers' response to Commission Staff's Second*
2 *Request for Information in Case No. 2014-00097, Item 2.⁴*

3
4 *a. Provide an update of Big Rivers' evaluation of the results*
5 *of the particulate tests conducted at Wilson Station which*
6 *indicated that Big Rivers could potentially comply with*
7 *the Mercury and Air Toxics Standard ("MATS")*
8 *requirements.*

9 *b. Provide an update of the status of the one-year extension*
10 *request for MATS compliance submitted to the Kentucky*
11 *Division of Air Quality. Provide copies of any*
12 *documentation received regarding the granting or denial*
13 *of the extension if available.*

14
15
16 **Response)**

17 *a. Big Rivers has concluded that the Wilson Station can comply*
18 *with all emission standards of the MATS rule by utilizing Dry*

⁴ Case No. 2014-00097, *An Examination by the Public Service Commission of the Environmental Surcharge Mechanism of Big Rivers Electric Corporation for the Six-Month Billing Period Ending January 31, 2014 and the Pass Through Mechanism of Its Three Member Distribution Cooperatives* (Ky. PSC Sept. 10, 2014).

BIG RIVERS ELECTRIC CORPORATION

**AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION
OF THE ENVIRONMENTAL SURCHARGE MECHANISM
OF BIG RIVERS ELECTRIC CORPORATION
FOR THE SIX-MONTH BILLING PERIOD ENDING JULY 31, 2014
AND THE PASS THROUGH MECHANISM
OF ITS THREE MEMBER DISTRIBUTION COOPERATIVES
CASE NO. 2014-00323**

**Response to Commission Staff's
Initial Request for Information
dated October 24, 2014**

November 19, 2014

- 1 Sorbent Injection ("DSI") only. Big Rivers will install a new DSI
2 system in 2015 to conform with the provisions of the rule.
3 b. Please see the attached letters from the Division of Air Quality,
4 Department of Environmental Protection, Commonwealth of
5 Kentucky's Energy and Environment Cabinet granting
6 extension requests for Big Rivers' Green Station, Reid Station,
7 and Wilson Station, respectively.

8
9

10 **Witness)** Eric M. Robeson

11



Steven L. Beshear
Governor

**Energy and Environment Cabinet
Department for Environmental Protection**

Leonard K. Peters
Secretary

Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
www.air.ky.gov

September 23, 2014

Mr. Mark Bertram,
Manager, Environmental Services
Big Rivers Electric Corporation
P.O. Box 24
Henderson, Kentucky 42419-0024

RE: Compliance extension approval for 40 CFR 63, Subpart UUUUU
Permittee Name: Big Rivers Electric Corporation
Source Name: Green Station
AI/ID/Activity: 44411/21-233-00052/APE20140001
Permit: V-05-031 R1

Dear Mr. Bertram:

This letter is in response to your letter dated July 28, 2014, requesting a compliance extension to the federal Mercury and Air Toxic Standards (MATS) requirements for the Green Station located in Webster County, Kentucky. After reviewing the request, the Division concludes that the submittal contains sufficient information to make a determination regarding the request for an extension of compliance. Furthermore, the Division grants the compliance extension request for Emissions Units 1 and 2 until April 16, 2016. This compliance extension applies to the requirements established under 40 CFR 63, Subpart UUUUU.

In accordance with 40 CFR 63.6(i)(4), the conditions of the extension of compliance, specifically the compliance date, granted through this approval letter will be incorporated into the Title V permit upon the next significant revision or renewal. If you have further questions regarding this matter, please contact Mr. Derek Picklesimer, Combustion Section Supervisor of the Permit Review Branch at (502) 564-3999, extension 4464.

Sincerely,

Sean Alteri
Director

SA/DP

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Steven L. Beshear
Governor

**Energy and Environment Cabinet
Department for Environmental Protection**

Leonard K. Peters
Secretary

Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
www.air.ky.gov

June 9, 2014

Mr. Mark Bertram,
Manager, Environmental Services
Big Rivers Electric Corporation
201 Third Street
P.O. Box 24
Henderson, Kentucky 42419-0024

RE: Compliance extension approval for 40 CFR 63, Subpart UUUUU
Permittee Name: Big Rivers Electric Corporation
Source Name: Reid/Henderson Station II Generating Station
AI/ID/Activity: 4196/21-233-00001/APE20140001
Permit: V-11-003

Dear Mr. Bertram:

This letter is in response to your letter dated May 9, 2014, requesting a compliance extension to the federal Mercury and Air Toxic Standards (MATS) requirements for the Reid/Henderson Station II Generating Station located in Webster County, Kentucky. After reviewing the request, the Division concludes that the submittal contains sufficient information to make a determination regarding the request for an extension of compliance. Furthermore, the Division grants the compliance extension request for Reid Unit 1 until April 16, 2016. This compliance extension applies to the requirements established under 40 CFR 63, Subpart UUUUU.

In accordance with 40 CFR 63.6(i)(4), the conditions of the extension of compliance, specifically the compliance date, granted through this approval letter will be incorporated into the Title V permit upon the next significant revision or renewal. If you have further questions regarding this matter, please contact Mr. Derek Picklesimer, Combustion Section Supervisor of the Permit Review Branch at (502) 564-3999, extension 4464.

Sincerely,

E-Signed by Sean Alteri
VERIFY authenticity with ApproveIt
Sean Alteri

Sean Alteri
Director

SA/DP

Printed on Recycled Paper



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Steven L. Beshear
Governor

Energy and Environment Cabinet
Department for Environmental Protection

Leonard K. Peters
Secretary

Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
www.air.ky.gov

June 23, 2014

Mr. Mark Bertram,
Manager, Environmental Services
Big Rivers Electric Corporation
201 Third Street
P.O. Box 24
Henderson, KY 42419-0024

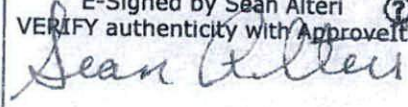
RE: Compliance extension approval for 40 CFR 63, Subpart UUUUU
Permittee Name: Big Rivers Electric Corporation
Source Name: Wilson Station
AI/ID/Activity: 3319/21-183-00069/APE20140001

Dear Mr. Bertram:

This letter is in response to your letter dated May 5, 2014, and additional information received on June 12, 2014, requesting a compliance extension to the federal Mercury and Air Toxic Standards (MATS) requirements for the Wilson Station located in Ohio County, Kentucky. After reviewing the request, the Division concludes that the submittal contains sufficient information to make a determination regarding the request for an extension of compliance. Furthermore, the Division grants the compliance extension request for Emission Unit 01 (W1) until April 16, 2016. This compliance extension applies to the requirements established under 40 CFR 63, Subpart UUUUU.

In accordance with 40 CFR 63.6(i)(4), the conditions of the extension of compliance, specifically the compliance date, granted through this approval letter will be incorporated into the Title V permit upon the next significant revision or renewal. If you have further questions regarding this matter, please contact Mr. Derek Picklesimer, Combustion Section Supervisor of the Permit Review Branch, at (502) 564-3999, extension 4464.

Sincerely,

E-Signed by Sean Alteri
VERIFY authenticity with ApproveIt


Sean Alteri
Director

SA/dp

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ORIGINAL

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

AN EXAMINATION BY THE PUBLIC)
SERVICE COMMISSION OF THE)
ENVIRONMENTAL SURCHARGE)
MECHANISM OF BIG RIVERS ELECTRIC)
CORPORATION FOR THE SIX-MONTH)
BILLING PERIOD ENDING JULY 31, 2014)
AND THE PASS THROUGH MECHANISM)
OF ITS THREE MEMBER DISTRIBUTION)
COOPERATIVES)

Case No.
2014-00323

DIRECT TESTIMONY

OF

NICHOLAS R. CASTLEN

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION,
KENERGY CORP., AND
MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

FILED: November 19, 2014

Case No. 2014-00323
Witness: Nicholas R. Castlen
Page 1 of 9

1
2
3
4

**DIRECT TESTIMONY
OF
NICHOLAS R. CASTLEN**

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

6 A. My name is Nicholas R. Castlen, and my business address is Big Rivers
7 Electric Corporation ("Big Rivers"), 201 Third Street, Henderson, Kentucky,
8 42420. I am the Manager of Finance at Big Rivers.

9 **Q. Please summarize your education and professional experience.**

10 A. I received a Bachelor of Science in Accounting from the University of
11 Kentucky in 2006 and a Master of Science in Accounting from the
12 University of Kentucky in 2007. I became a Certified Public Accountant
13 ("CPA") in the state of Kentucky in 2007.

14 Before assuming my current position as Manager of Finance in July
15 2013, I was a Staff Accountant at Big Rivers primarily responsible for the
16 accounting and administration of the Company's long- and short-term debt
17 obligations and various rate mechanisms. Prior to joining Big Rivers, I was
18 a Revenue Accounting Analyst at LG&E and KU Energy LLC from
19 December 2009 to April 2012, where I was responsible for various financial
20 accounting, reporting, and analysis roles for retail and wholesale, electric
21 and gas utility revenues. From January 2006 to December 2009, I was
22 employed by PricewaterhouseCoopers LLP as an Audit and Assurance
23 Associate.

24

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

2 A. As the Manager of Finance my primary responsibilities involve providing
3 direction and oversight to corporate accounting and finance activities
4 related to the Company's financial reporting requirements, debt
5 administration, financial forecasting, cash management, taxes (income,
6 property, sales, and use), and fixed assets. Additionally, I am responsible
7 for Big Rivers' following rate mechanisms and the related filings with the
8 Kentucky Public Service Commission ("Commission"): Fuel Adjustment
9 Clause ("FAC"), Environmental Surcharge ("ES"), Unwind Surcredit ("US"),
10 and Non-FAC Purchased Power Adjustment ("NFPPA").

11 **Q. Have you previously testified before the Commission?**

12 A. Yes. I've provided testimony and responses to data requests in Case Nos.
13 2012-00534, 2013-00139, 2013-00347, and 2014-00097 (reviews of Big
14 Rivers' ES mechanism). I have also served as a witness and provided
15 responses to data requests in Case Nos. 2012-00555, 2013-00266, 2013-
16 00449, and 2014-00230 (reviews of Big Rivers' FAC mechanism).

17 **Q. On whose behalf are you filing this testimony?**

18 A. I am filing this testimony on behalf of Big Rivers and its three member
19 distribution cooperatives, Jackson Purchase Energy Corporation ("JPEC"),
20 Kenergy Corp. ("Kenergy"), and Meade County Rural Electric Cooperative
21 Corporation ("Meade County") (collectively, "the Members").

22

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

2 A. The purpose of my testimony is to describe the application of Big Rivers' ES
3 mechanism as billed from February 1, 2014 through July 31, 2014 (which
4 corresponds to the expense months of December 2013 through May 2014).
5 Additionally, I have coordinated with Big Rivers' Members in the
6 preparation of this testimony and prepared responses to the Commission
7 Staff's First Request for Information ("Commission's Initial Requests") that
8 accompany this testimony.

9 This testimony also includes information the Members have provided
10 me in support of their pass-through mechanisms that are also under review
11 in this proceeding and that the Members use to pass through, to their retail
12 members, the costs Big Rivers charges to them under Big Rivers' ES
13 mechanism. The review period for the Members' pass-through mechanisms
14 that corresponds to the February 1, 2014 through July 31, 2014 billing
15 period for Big Rivers' environmental surcharge mechanism are the billing
16 months of March 2014 through August 2014 for non-dedicated delivery
17 point customers (*i.e.*, there is a one-month lag for non-dedicated delivery
18 point customers), and February 2014 through July 2014 for dedicated
19 delivery point customers (*i.e.*, there is no billing lag for dedicated delivery
20 point customers).

21

22

1 **Q. Please provide a brief overview of Big Rivers' ES mechanism.**

2 A. Big Rivers' ES mechanism was approved by Order of the Commission dated
3 June 25, 2008, in Case No. 2007-00460, which was part of the transaction
4 that unwound Big Rivers' 1998 lease with E.ON U.S. LLC and its affiliates
5 (the "Unwind Transaction") that was approved by Order of the Commission
6 dated March 6, 2009, in Case No. 2007-00455. Big Rivers' ES went into
7 effect immediately following the July 16, 2009, closing of the Unwind
8 Transaction for service commencing July 17, 2009.

9 Big Rivers' environmental compliance plan approved by the
10 Commission in Case No. 2007-00460 (the "2007 Plan") consists of programs,
11 and the related costs, for controlling sulfur dioxide ("SO₂"), nitrogen oxide
12 ("NO_x"), and sulfur trioxide ("SO₃"). The environmental surcharge costs Big
13 Rivers may recover under KRS 278.183, and its 2007 Plan, include the costs
14 of reagents, sludge and ash disposal, and emission allowances.

15 For the SO₂ program, Big Rivers recovers through its ES mechanism
16 the costs of reagents, the costs for the disposal of coal combustion
17 byproducts (fly ash, bottom ash, and scrubber sludge), and the costs of
18 purchasing SO₂ emission allowances. For the NO_x program, Big Rivers
19 recovers the costs of reagents and the costs of purchasing additional NO_x
20 emission allowances as needed. For the SO₃ program, Big Rivers recovers
21 reagent costs. Due to generating unit design differences and Big Rivers'
22 compliance plan, each of Big Rivers' generating units utilizes a different

1 combination of reagents. Depending on the unit facilities, various reagents
2 are used to treat the flue gas, thereby removing the three targeted
3 emissions. The SO₂ reagents are comprised of emulsified sulfur, lime,
4 fixation lime, limestone, dibasic acid, and sodium bisulfite. The NO_x
5 reagents are comprised of anhydrous ammonia and emulsified sulfur. The
6 reagent used for SO₃ is hydrated lime. Note that the 2007 Plan included
7 only operating and maintenance ("O&M") costs.

8 In its Order dated October 1, 2012, in Case No. 2012-00063, the
9 Commission approved certain additions to the 2007 Plan relating to the
10 Mercury and Air Toxics Standards ("MATS") rule. The additions (the "2012
11 Plan") included installing activated carbon injection and dry sorbent
12 injection systems and emission control monitors at Big Rivers' Coleman,
13 Wilson, and Green generating stations; and installing emission control
14 monitors at Henderson Municipal Power & Light's Station Two generation
15 station. The 2012 Plan includes both the capital and O&M costs associated
16 with the projects, as well as recovery of Big Rivers' actual costs incurred in
17 Case No. 2012-00063 (amortized over three years).

18 Please note that as a result of the terminations of retail power
19 contracts by two aluminum smelters, Big Rivers idled its Coleman
20 generation station in May 2014. As a result, Big Rivers does not plan to
21 proceed with the MATS projects at the Coleman station at this time.
22 However, Big Rivers will complete the MATS projects at Coleman prior to it

1 returning to service.

2 Big Rivers' ES mechanism allows Big Rivers to recover costs related
3 to the 2007 Plan (which only includes O&M costs) and the 2012 Plan, less
4 proceeds from by-product and emission allowance sales, plus or minus an
5 ongoing cumulative under- or over-recovery adjustment.

6 **Q. Please provide a brief overview of the Members' pass-through**
7 **mechanisms.**

8 A. The Members' pass-through mechanisms allow each Member to bill its
9 retail customers for the portion of Big Rivers' environmental surcharge that
10 Big Rivers bills each Member. JPEC's pass-through mechanism was
11 approved by the Commission in Case No. 2008-00010; Kenergy's
12 mechanism was approved by the Commission in Case No. 2008-00009; and
13 Meade County's was approved by the Commission in Case No. 2007-00470.

14 **Q. Have there been any changes to Big Rivers' environmental**
15 **surcharge mechanism since the prior review?**

16 A. No.

17 **Q. Has Big Rivers sold any SO₂ or NO_x allowances during the expense**
18 **months corresponding to the billing periods under review in this**
19 **case?**

20 A. Yes. While the Coleman generation units were designated as System
21 Support Resource ("SSR") units within MISO, Big Rivers sold SO₂ and NO_x
22 allowances from its inventory to cover the allowances used by its Coleman

1 generation units. During the period under review, the Coleman generation
2 units were designated as SSR units for the expense months of December
3 2013 through April 2014. Big Rivers charged market prices for the
4 allowances used at Coleman during those months. These amounts were
5 reported as sales in the monthly ES filings on ES Forms 2.31 (SO₂
6 allowances), 2.32 (NO_x - Ozone Season allowances), and 2.33 (NO_x -
7 Annual Allowances). The net proceeds from the sales of these allowances
8 were included in the monthly ES filings during the review period as a
9 reduction to total recoverable environmental compliance expenses (E(m)) on
10 ES Form 1.10 during the respective months.

11 **Q. Has Big Rivers' environmental surcharge mechanism been**
12 **accurately compiled, and is it operating as intended?**

13 A. Yes.

14 **Q. Have the Members' pass-through mechanisms been accurately**
15 **compiled, and are they operating as intended?**

16 A. The Members believe their pass-through mechanisms have been accurately
17 compiled and are operating as intended.

18 **Q. Are the amounts charged under Big Rivers' environmental**
19 **surcharge mechanism during the review period just and**
20 **reasonable?**

21 A. Yes.

22 **Q. Are the amounts charged under the Members' pass-through**

1 **mechanisms during the review period just and reasonable?**

2 A. The Members believe the amounts charged under their pass-through
3 mechanisms are just and reasonable.

4 **Q. Do Big Rivers and its Members have additional over- or under-**
5 **recovery amounts they believe need to be recognized?**

6 A. No. Big Rivers and its Members are not requesting any additional over- or
7 under-recovery amounts. The normal over/under recovery carry-forward
8 element of Big Rivers' environmental surcharge mechanism is operating as
9 intended.

10 **Q. Did Big Rivers recover any capital costs through its ES mechanism**
11 **during the period under review?**

12 A. Yes. Big Rivers recovered capital costs associated with its 2012 Plan
13 projects during the period under review through the inclusion of
14 Construction Work-in-Progress balances for its 2012 Plan projects in the
15 calculation of environmental compliance rate base on ES Form 2.00 in its
16 monthly ES filings.

17 **Q. What Base Environmental Surcharge Factor ("BESF") cost did Big**
18 **Rivers use during the review period?**

19 A. Big Rivers had no environmental surcharge related costs in its base rates
20 during the review period.

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

22 A. Yes, it does.