April 6, 2017

Skill. Integrity. Efficiency.

#### VIA FEDERAL EXPRESS

RECEIVED

APR 0 7 2017

PUBLIC SERVICE

Dr. Talina R. Mathews 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 are an original and ten copies of Big Rivers Electric Corporation's responses to the Public Service Commission Staff's Third Request for Information in the above-referenced matter.

I certify that on this date a copy of this letter and a copy of the responses were served on each of the persons shown on the attached service list by first class mail.

Sincerely,

787

Tyson Kamuf Counsel for Big Rivers Electric Corporation

TAK/abg

Enclosures

cc:

Service List DeAnna Speed

#### Service List PSC Case No. 2017-00006

Michael L. Kurtz Kurt J. Boehm Jody Kyler Cohn BOEHM, KURTZ & LOWRY 36 East Seventh Street Suite 1510 Cincinnati, Ohio 45202 Counsel for Kentucky Industrial Utility Customers, Inc.

### **ORIGINAL**



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PUBLIC SERVICE COMMISSION

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 )	Cara Na
OF BIG RIVERS ELECTRIC CORPORATION )	Case No.
FROM	2017-00006
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016	

Response to Commission Staff's Third Request for Information dated March 28, 2017

FILED: April 7, 2017

**ORIGINAL** 

#### 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, 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 )

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

Notary Public, Kentucky State at Large

My Commission Expires

10/31/2020

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

Jason C. Burden

COMMONWEALTH OF KENTUCKY )
COUNTY OF HENDERSON )

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

Notary Public, Kentucky State at Large

My Commission Expires

10/31/2020

# 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 the Commission Staff's Third Request for Information dated March 28, 2017

#### April 7, 2017

1	Item 1)	Refer to Big Rivers' response to Commission Staff's Second
2	Request for I	Information ("Staff's Second Request"), Item 2, Attachment 1,
3	page 1 of 2.	
4		
5	a.	Refer to the row for the expense month of June 2016.
6		Confirm that the amount in column "h" should be
7		289,686,270 rather than 289,688,270.
8	<b>b.</b>	Refer to the rows for the expense months of July 2016
9		through September 2016. Explain why the amounts in
10		column "d" do not reconcile with the Total Fuel Cost per
11		kWh for these months as revised and filed with the fuel
12		adjustment clause filing for the expense month of October
13		2016 (Appendix A, page 1 of 8).
14		
15	Response)	
16	a.	Confirmed. The amount in column "h" should be 289,686,270
17		kWhs. With this change, the equation shown on line 7, page 2 of
18		4, of Big Rivers' response to Item 2 of the Staff's Second Request
19	-	would yield the same result though the denominator decreased by
20		2,000 kWhs. The restated equation is:
21		

## 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 the Commission Staff's Third Request for Information dated March 28, 2017

#### April 7, 2017

1	
	\$148,173,802 - (\$2,534,350)
	$$0.022992 \text{ per kWh} = {6,554,759,432 \text{ kWhs}}$
2	
3	b. The column "d" numbers for July 2016 through September 2016
4	were typographical errors. A <u>revised</u> Attachment 1 and a <u>revised</u>
5	Attachment 2 are provided with the response. The input data
6	changing from the prior attachments are shown in bold green
7	Please note, other than the change to column "h" addressed in
8	sub-part 1a, there are <u>no changes</u> to the totals on Attachment 2.
9	With the changes to column "h" mentioned in sub-part 1a
10	and the changes to column "d" for July 2016 through September
11	2016, the following differences occur:

12

## 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 the Commission Staff's Third Request for Information dated March 28, 2017

#### April 7, 2017

1

	<u>Original</u> Attachment 1 (Filed Mar 20, 2017)	<u>Revised</u> Attachment 1 (Filed Apr 7, 2017)	<u>Revised</u> Attach 1 – <u>Original</u> Attach 1 Difference
12-Month Average Nov 2015 – Oct 2016 [Column (d)]	\$ 0.021773	\$ 0.022139	\$ 0.000366
12-Month Average Nov 2015 - Oct 2016 [Column (e)]	\$ 0.000841	\$ 0,001207	\$ 0.000366
24-Month Average Nov 2015 - Oct 2016 [Column (d)]	\$ 0.022366	\$ 0.022550	\$ 0.000184
24-Month Average Nov 2015 - Oct 2016 [Column (e)]	\$ 0.001434	\$ 0.001618	\$ 0.000184

2

4 Witness) Roger D. Hickman

5

### Big Rivers Electric Corporation Summary of Fuel Adjustment Clause Calculation Components November 01, 2014 through October 31, 2016

(a)	(b)	(c)	(d)	(e) = (c) - (d)	<b>(f)</b>	(g)	(h)
Expense Month	Billing Month	Base Fuel Cost per kWh <sup>1</sup>	Total Fuel Cost per kWh <sup>1</sup>	FAC Factor 1	Over/(Under) Recovery <sup>2</sup>	Fuel Cost \$ Schedule ("Fm") <sup>3</sup>	Sales(kWhs) Schedule ("Sm") 4
Nov 2014	Jan 2015	\$0.020932	\$0.023528	\$0.002596	\$79,030	6,633,041	281,921,640
Dec 2014	Feb 2015	\$0.020932	\$0.022482	\$0.001550	\$39,868	6,683,457	297,279,390
Jan 2015	Mar 2015	\$0.020932	\$0.023427	\$0.002495	\$52,483	7,757,638	331,139,411
Feb $2015$ $^{5}$	Apr 2015	\$0.020932	\$0.024102	\$0.003170	(\$23,137)	7,757,726	321,866,071
Mar 2015	May 2015	\$0.020932	\$0.024637	\$0.003705	(\$157,249)	6,835,026	277,423,822
Apr 2015	Jun 2015	\$0.020932	\$0.025064	\$0.004132	(\$210,625)	5,528,404	220,574,830
May 2015	Jul 2015	\$0.020932	\$0.021315	\$0.000383	\$74,593	5,086,349	238,627,289
Jun 2015	Aug 2015	\$0.020932	\$0.021526	\$0.000594	\$17,720	6,132,635	284,893,596
Jul 2015 6	Sep 2015	\$0.020932	\$0.022904	\$0.001972	\$18,762	7,248,735	316,479,854
Aug 2015	Oct 2015	\$0.020932	\$0.022545	\$0.001613	(\$70,332)	6,485,662	287,670,427
Sep 2015	Nov 2015	\$0.020932	\$0.023560	\$0.002628	(\$41,260)	6,174,932	262,090,356
Oct 2015	Dec 2015	\$0.020932	\$0.020429	(\$0.000503)	(\$78,282)	4,745,668	232,302,510
Twelve-Mo	nth Average	\$0.020932	\$0.022960	\$0.002028			
Nov 2015	Jan 2016	\$0.020932	\$0.021872	\$0.000940	(\$2,881)	5,206,167	238,030,276
Dec 2015	Feb 2016	\$0.020932	\$0.022782	\$0.001850	\$20,893	5,929,088	260,256,073
Jan 2016 7	Mar 2016	\$0.020932	\$0.021970	\$0.001038	\$111,389	7,040,670	320,466,470
Feb 2016	Apr 2016	\$0.020932	\$0.021465	\$0.000533	(\$40,977)	5,962,629	277,778,386
Mar 2016	May 2016	\$0.020932	\$0.021415	\$0.000483	(\$18,716)	5,196,584	242,663,843
Apr 2016	Jun 2016	\$0.020932	\$0.020786	(\$0.000146)	(\$9,551)	4,633,095	222,889,693
May 2016	Jul 2016	\$0.020932	\$0.020296	(\$0.000636)	(\$985)	4,660,637	229,637,681
Jun 2016 8	Aug 2016	\$0.020932	\$0.021856	\$0.000924	(\$38,190)	6,331,489	289,686,270
Jul 2016 8	Sep 2016	\$0.020932	\$0.023368	\$0.002436	(\$224,150)	7,212,482	308,650,870
Aug 2016 8	Oct 2016	\$0.020932	\$0.023579	\$0.002647	(\$402,519)	7,302,577	309,712,016
Sep 2016 8	Nov 2016	\$0.020932	\$0.023017	\$0.002085	(\$662,818)	6,229,998	270,671,678
Oct 2016	Dec 2016	\$0.020932	\$0.023267	\$0.002335	(\$967,416)	5,399,113	232,046,980
Twelve-Mor	nth Average	\$0.020932	\$0.022139	\$0.001207	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	, , , , , , , , , , , , , , , , , , , ,

Case No. 2017-00006

<u>Revised Attachment 1</u> for Response to PSC 2-2
Witness: Roger D. Hickman
Page 1 of 2

### Big Rivers Electric Corporation Summary of Fuel Adjustment Clause Calculation Components November 01, 2014 through October 31, 2016

(a)	<b>(b)</b>	(c)	(d)	(e)	<b>(f)</b>	(g)	(h)
				= (c) - (d)			
		Base Fuel	Total Fuel				
Expense	Billing	Cost per	Cost per	FAC	Over/(Under)	Fuel Cost \$	Sales(kWhs)
Month	Month	kWh 1	kWh 1	Factor 1	Recovery 2	Schedule ("Fm") $^3$	Schedule ("Sm") 4
24-Month	Average	\$0.020932	\$0.022550	\$0.001618			
24.35	m . 1						
24-Month					(\$2,534,350)	148,173,80	-//
Two-Year Aver	age Fuel Cost =					\$ 0.02299	2

The notes on the following page provide source information for data and relevant explanations.

#### Note(s):

- 1.- See Big Rivers' Monthly Form A filing, page 1 of 2.
- 2.- See Big Rivers' Monthly Form A filing, page 2 of 4; see also Big Rivers' Monthly Form A filing, page 4 of 4.
- 3.- See Big Rivers' Monthly Form A filing, page 1 of 2; also see Big Rivers' Monthly Form A filing, page 2 of 4.
- 4.- See Big Rivers' Monthly Form A filing, page 1 of 2; also see Big Rivers' Monthly Form A filing, page 3 of 4.
- 5.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the March 2015 Expense Month and May 2015 Billing Month.
- 6.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the August 2015 Expense Month and October 2015 Billing Month.
- 7.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the February 2016 Expense Month and April 2016 Billing Month.
- 8.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the October 2016 Expense Month and December 2016 Billing Month.

# Big Rivers Electric Corporation Summary of Fuel Adjustment Clause Calculation Components November 01, 2014 through October 31, 2016 Excludes monthly credit of \$311,111 from Fuel Cost beginning in October 2015 Expense Month

(a) (b) (c) (d) (e) (f) (g) (h)

(a)	(b)	(c)	(d)	(e)	<b>(f)</b>	(g)	(h)
				= (c) - (d)			
			$\underline{Restated}$				
		Base Fuel	Total Fuel	$\underline{Restated}$		$\underline{Restated}$	
Expense	Billing	Cost per	Cost per	FAC	Over/(Under)	Fuel Cost \$	Sales(kWhs)
Month	Month	kWh 1	kWh	Factor	Recovery 2	Schedule ("Fm")	Schedule ("Sm") $^3$
Nov 2014	Jan 2015	\$0.020932	\$0.023528	\$0.002596	\$79,030	6,633,041	281,921,640
Dec 2014	Feb 2015	\$0.020932	\$0.022482	\$0.001550	\$39,868	6,683,457	297,279,390
Jan 2015	Mar 2015	\$0.020932	\$0.023427	\$0.002495	\$52,483	7,757,638	331,139,411
Feb 2015 4	Apr 2015	\$0.020932	\$0.024102	\$0.003170	(\$23,137)	7,757,726	321,866,071
Mar 2015	May 2015	\$0.020932	\$0.024637	\$0.003705	(\$157,249)	6,835,026	277,423,822
Apr 2015	Jun 2015	\$0.020932	\$0.025064	\$0.004132	(\$210,625)	5,528,404	220,574,830
May 2015	Jul 2015	\$0.020932	\$0.021315	\$0.000383	\$74,593	5,086,349	238,627,289
Jun 2015	Aug 2015	\$0.020932	\$0.021526	\$0.000594	\$17,720	6,132,635	284,893,596
Jul 2015 5	Sep 2015	\$0.020932	\$0.022904	\$0.001972	\$18,762	7,248,735	316,479,854
Aug 2015	Oct 2015	\$0.020932	\$0.022545	\$0.001613	(\$70,332)	6,485,662	287,670,427
Sep 2015	Nov 2015	\$0.020932	\$0.023560	\$0.002628	(\$41,260)	6,174,932	262,090,356
Oct 2015	Dec 2015	\$0.020932	\$0.021768	\$0.000836	(\$78,282)	5,056,779	232,302,510
Twelve-Mon	th Average	\$0.020932	\$0.023072	\$0.002140			
Nov 2015	Jan 2016	\$0.020932	\$0.023179	\$0.002247	(\$2,881)	5,517,278	238,030,276
Dec 2015	Feb 2016	\$0.020932	\$0.023977	\$0.003045	\$20,893	6,240,199	260,256,073
Jan 2016 6	Mar 2016	\$0.020932	\$0.022941	\$0.002009	\$111,389	7,351,781	320,466,470
Feb 2016	Apr 2016	\$0.020932	\$0.022585	\$0.001653	(\$40,977)	6,273,740	277,778,386
Mar 2016	May 2016	\$0.020932	\$0.022697	\$0.001765	(\$18,716)	5,507,695	242,663,843
Apr 2016	Jun 2016	\$0.020932	\$0.022182	\$0.001250	(\$9,551)	4,944,206	222,889,693
May 2016	Jul 2016	\$0.020932	\$0.021650	\$0.000718	(\$985)	4,971,748	229,637,681
Jun 2016 7	Aug 2016	\$0.020932	\$0.022930	\$0.001998	(\$38,190)	6,642,600	289,686,270
$\mathrm{Jul}\ 2016 \qquad ^7$	Sep 2016	\$0.020932	\$0.024376	\$0.003444	(\$224,150)	7,523,593	308,650,870
Aug 2016 7	Oct 2016	\$0.020932	\$0.024583	\$0.003651	(\$402,519)	7,613,688	309,712,016
Sep 2016 7	Nov 2016	\$0.020932	\$0.024166	\$0.003234	(\$662,818)	6,541,109	270,671,678
Oct 2016	Dec 2016	\$0.020932	\$0.024608	\$0.003676	(\$967,416)	5,710,224	232,046,980
Twelve-Mon	th Average	\$0.020932	\$0.023323	\$0.002391			

Case No. 2017-00006

Revised Attachment 2 for Response to PSC 2-2

Witness: Roger D. Hickman

Page 1 of 2

#### **Big Rivers Electric Corporation**

#### Summary of Fuel Adjustment Clause Calculation Components

#### November 01, 2014 through October 31, 2016

#### **Excludes** monthly credit of \$311,111 from Fuel Cost beginning in October 2015 Expense Month

(a)	<b>(b)</b>	(c)	(d)	(e)	<b>(f)</b>	(g)	(h)
			•	= (c) - (d)			
			$\underline{Restated}$	•			
•		Base Fuel	Total Fuel	<u>Restated</u>		$\underline{Restated}$	
Expense	Billing	Cost per	Cost per	FAC	Over/(Under)	Fuel Cost \$	Sales(kWhs)
<u> Month</u>	Month	kWh 1	kWh	Factor_	Recovery 2	Schedule ("Fm")	Schedule ("Sm") <sup>3</sup>
							_
24-Month	Average	\$0.020932	\$0.023197	\$0.002265			

#### Note(s):

- 1.- See Big Rivers' Monthly Form A filing, page 1 of 2.
- 2.- See Big Rivers' Monthly Form A filing, page 2 of 4; see also Big Rivers' Monthly Form A filing, page 4 of 4.
- 3.- See Big Rivers' Monthly Form A, page 1 of 2; also see Big Rivers' Monthly Form A, page 3 of 4.
- 4.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the March 2015 Expense Month and May 2015 Billing Month.
- 5.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the August 2015 Expense Month and October 2015 Billing Month.
- 6.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the February 2016 Expense Month and April 2016 Billing Month.
- 7.- Reflects adjustments reported with Big Rivers' Monthly Form A filing for the October 2016 Expense Month and December 2016 Billing Month.

## 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 the Commission Staff's Third Request for Information dated March 28, 2017

#### April 7, 2017

1	Item 2) Refer to Big Rivers' response to Staff's Second Request, Item 3.
2	Confirm that the response indicates that the North America Electric
3	Reliability Corporation guidelines and the Institute of Electrical and
4	Electronics Engineers guidelines are the same. If this cannot be
5	confirmed, explain.
6	
7	Response) Confirmed.
8	
9	
10	Witness) Jason C. Burden