### SULLIVAN, MOUNTJOY, STAINBACK & MILLER PSC

ATTORNEYS AT LAW

Ronald M. Sullivan

Jesse T. Mountjoy

Frank Stainback

James M. Miller

Michael A. Fiorella

Allen W. Holbrook

R. Michael Sullivan

Bryan R. Reynolds\*

Tyson A. Kamuf

Mark W. Starnes

C. Ellsworth Mountjoy

\*Also Licensed in Indiana

Mr. Jeff Derouen **Executive Director** 

October 17, 2014

**Public Service Commission** 

211 Sower Boulevard, P.O. Box 615

Frankfort, Kentucky 40602-0615

RECEIVED

OCT 2 0 2014

PUBLIC SERVICE COMMISSION

Re:

In the Matter of: An Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2013 through April 30, 2014 Case No. 2014-00230

Dear Mr. Derouen:

Enclosed for filing are an original and eight (8) copies of Big Rivers Electric Corporation's responses to the Public Service Commission Staff's third request for information in the above-mentioned 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 listed on the attached service list by first-class mail.

Sincerely,

Tyson Kamuf

TAK/bh Enclosures

DeAnna Speed CC. Service List

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

> 100 St. Ann Building PO Box 727 Owensboro, Kentucky 42302-0727

### Service List PSC Case No. 2014-00230

Michael L. Kurtz, Esq. Kurt J. Boehm, Esq. Jody Kyler Cohn, Esq. BOEHM, KURTZ & LOWRY Attorneys at Law 36 East Seventh Street, Suite 1510 Cincinnati, OH 45202

### AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### **VERIFICATION**

I, Lindsay N. Barron, 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.

COMMONWEALTH OF KENTUCKY )
COUNTY OF HENDERSON )

SUBSCRIBED AND SWORN TO before me by Lindsay N. Barron on this the day of October, 2014.

Notary Public, Ky. State at Large My Commission Expires 03-03-2018

### AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### 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.

Vicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY ) COUNTY OF HENDERSON

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the /6th day of October, 2014.

Notary Public, Ky. State at Large

My Commission Expires 03-03-2018

### **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.	2014-00230
FROM	)		
NOVEMBER 1, 2013 THROUGH APRIL 30, 2014	)		

Responses to Commission Staff's Third Request for Information dated October 10, 2014

FILED: October 20, 2014

**ORIGINAL** 

# AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### Response to Commission Staff's Third Request for Information dated October 10, 2014

### October 20, 2014

1	Item 1)	Ref	fer to Big Rivers' response to Item 2 of the Kentucky
2	Industrial	Ut	ility Customers, Inc.'s Initial Request for Information
3	("KIUC's Fi	irst	Request").
4			
5		a.	Explain why Big Rivers does not assign its lowest fuel cost
6			generation resources each hour to native load.
7		b.	State whether Big Rivers is aware that other Kentucky
8			generators assign their lowest fuel cost generation
9			resources each hour to native load.
10		c.	For each month during the period under review, provide
11			the dollar amount of fuel costs that would have been
12			included in the calculation of the fuel adjustment clause
13			if Big Rivers had assigned its lowest fuel cost generation
14			to native load customers each hour and compare that
15			amount to the dollar amount that was included in the
16			calculation.
17			
18	Response)		
19		a.	Big Rivers' fuel costs have always been based on weighted
20			average inventory costs, as required by the Fuel Adjustment
21			Clause ("FAC") regulation, and Big Rivers has used system
22			average costs to allocate fuel costs between native load and off-
23			system sales since the 1980's. Big Rivers cannot describe why
24			any other method is not employed. Big Rivers cannot determine

## AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### Response to Commission Staff's Third Request for Information dated October 10, 2014

### October 20, 2014

from its records why the average fuel cost allocation methodology was originally selected because the individuals who made those decisions are no longer employed by the Company; however, it is Big Rivers' expectation that the decision was based on the interpretation of the FAC regulation in effect at that time. Regardless of the origination, Big Rivers believes it is a reasonable method of allocating fuel costs.

Big Rivers' current fuel cost allocation methodology is built into the determination of its base rates. Big Rivers' fuel cost allocation methodology was used in the test periods filed in Big Rivers' last three rate cases and to establish Big Rivers' current rates, which were approved by the Commission as being fair, just and reasonable. It would be unreasonable and a violation of the matching principle to change how Big Rivers allocates fuel costs between native load and off-system sales for purposes of calculating FAC charges outside of a general rate case where the reasonableness of an alternate allocation methodology can be considered in the context of Big Rivers' overall financial circumstances, including whether Big Rivers' rates are still fair, just and reasonable with such a change.

Further, regardless of the methodology used to allocate fuel costs in Big Rivers' rate case test periods, the costs to Big Rivers' Members are virtually the same. For instance, in Big Rivers' last rate case filing, the Public Service Commission used

1

2



## AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### Response to Commission Staff's Third Request for Information dated October 10, 2014

### October 20, 2014

1 2 3

reduced the system average fuel costs used to calculate FAC
charges significantly (due to lower price spot fuel purchases). If
changing the fuel cost allocation methodology reduces the
volume of off-system sales which it could, due to the effect of
such a change on the calculation of margins used in the off-
system sales decision-making process then such a change
could actually be detrimental to the Members and their
ratepayers. In other words, changing the fuel cost allocation
methodology has implications on Big Rivers' Load Mitigation
Plan and the related operational decisions, like determining
whether or not to dispatch Wilson. If the lowest fuel cost (which
is Wilson) is allocated to native load, then the decision to
dispatch Wilson for an off-system sale with the higher
"allocated" fuel costs may not be economically justified. If
Wilson is not dispatched, the lower cost unit is not run, and the
Members do not get the benefit through the FAC. This is
further complicated by the fact that, pursuant to the
Commission's Order in Case No. 2013-00199, Big Rivers' base
rates do not include all of the costs of operating Wilson Station;
base rates do not include any depreciation expenses and only
include the fixed costs of an idled Wilson Station. Since native
load customers are not paying the depreciation or full fixed costs
of operating Wilson Station in base rates, this raises the
question of whether the fuel costs of the Wilson Station should

## AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### Response to Commission Staff's Third Request for Information dated October 10, 2014

### October 20, 2014

1 be included in the FAC at all. This paradoxical situation. 2 coupled with the relatively narrow range of fuel costs across Big 3 Rivers' power plants, supports the continued use of average fuel costs in the Big Rivers FAC.. 5 b. Big Rivers has recently been made aware that some other 6 utilities in Kentucky allocate their lowest fuel costs to native load sales. However, because Big Rivers is a cooperative, it is 7 distinctly different from the investor-owned utilities ("IOUs") which operate in the Commonwealth. Because Big Rivers does 9 not have shareholders who share the margins from off-system 10 11 sales, the allocation of average fuel costs between native load and off-system sales is reasonable. Unlike an IOU, when Big 12 Rivers earns a margin, it benefits Big Rivers' Members - not 13 shareholders -- through building equity, positive impact on 14 credit rating evaluations, and improved rates on borrowings. 15 Big Rivers is currently investigating the details of how 16 other utilities perform the calculations necessary to allocate fuel 17 costs on an hourly stacked costs basis. While that investigation 18 19 is not yet complete, Big Rivers does not currently have a process 20 in place necessary to perform the requested calculations. With 21 significant time, effort and research, Big Rivers expects that it would be able to mimic the allocation methodology used by 22

23

others in the Commonwealth; however, as a cooperative, Big

### AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### Response to Commission Staff's Third Request for Information dated October 10, 2014

### October 20, 2014

	Rivers feels this will only result in a shift of costs from the FAC
	to base rates.
C	e. As noted above, Big Rivers does not have the process in place to
	allocate fuel costs between off-system sales and native load on
	an hourly stacked cost basis. Big Rivers has not before
	considered such a process for allocation, and the development of
	the process would require a significant amount of time, research
	and effort. However, Big Rivers has calculated an estimate of
	the potential impact by allocating Big Rivers' least expensive
	units based on monthly average costs for each specific unit to
	native load on an hourly basis and applying the cost differential
	per MWh to FAC generation volumes used to serve native load.
	The estimated impact of the change in methodology is
	highlighted on the attachment to this response.
	The estimates were calculated using Big Rivers' best
	available methodology given the timeline for responding to these
	data requests. While these estimates project the potential
	differences caused by a change in allocation methodology, Big
	Rivers respectfully suggests that a change in methodology is not
	warranted at this time; such a change should only be considered
	in the context of Big Rivers' next general rate case, if at all
	And the second s
Witness) I	Lindsay N. Barron

24

Case No. 2014-00230 Response to Third Staff Item 1 Witness: Lindsay N. Barron Page 6 of 6

### Big Rivers Electric Corporation Case No. 2014-00230

		Nov-13	Dec-13		Jan-14	Feb-14		Mar-14	Apr-14		Total
As Filed:  Total Cost of Fuel for Generation Allocated to Native Load Sales (FAC filings), \$ Native Load Sales Volumes from Generation (MWh)	\$	11,117,156 452,019,763	\$ 11,677,597 451,031.346	\$	13,277,071 483,866,567	\$ 5,640,044 220,532.495	\$	4,813,373 186,387.640	\$ 3,939,896 161,217,954	\$	50,465,137 1,955,055.765
Total Cost of Fuel for Generation Allocated to Native Load Sales (FAC filings), \$/MWh	s	24.59	\$ 25.89	\$	27.44	\$ 25.57	s	25.82	\$ 24.44	\$	1144
Proforma - Estimated Fuel Cost by Ranking Generators for Native Load Total Estimated Fuel Cost by Ranking Generators for Native Load - \$ Native Load Sales Volumes from Generation (MWh)	\$	10,510,259 452,019.763	\$ 10,986,613 451,031.346	\$	12,710,987 483,866.567	\$ 5,297,757 220,532.495	\$	4,521,992 186,387.640	\$ 3,742,670 161,217.954	\$	47,770,276 1,955,055.765
Estimated Fuel Cost by Ranking Generators for Native Load - \$/MWh	s	23.25	\$ 24.36	\$	26.27	\$ 24.02	\$	24.26	\$ 23.21	s	24.43
Difference: Difference in Total Fuel Cost Allocated to Native Load - \$ Difference in Cost of Fuel for Generation Allocated to Native Load - \$/MWh	s s	606,897	690,984 1.53	-	566,084 1.17	342,287 1.55	\$	291,381 1.56		\$	2,694,861 1.38

Case No. 2014-00230 Attachment for Response to Third Staff Item 1 Witness: Lindsay N. Barron Page 1 of 1

# AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2013 THROUGH APRIL 30, 2014 CASE NO. 2014-00230

### Response to Commission Staff's Third Request for Information dated October 10, 2014

### October 20, 2014

Item 2)	Refer to Big Rivers' response to Item 8 of KIUC's First Request.
Provide the	e supporting calculations for each of the average fuel costs that
appear in l	both columns of the table.
Response)	Please see the attachment.
Witness)	Nicholas R. Castlen
	Provide the appear in (

## Big Rivers Electric Corporation Calculation of Average Fuel Cost per MWh for Native Load and Off-System Sales in Monthly Form A Filing November 2013 through April 2014

	Source		Nov-13		Dec-13		Jan-14	Feb-14		Mar-14		Apr-14
Native Load Sales: Total Cost of Fuel for Generation	Form A Filing, p. 2 <sup>(1)</sup>	s	14,065,770	\$	17,078,728	\$	17,439,186	\$ 17,565,646	\$	19,212,416	\$	18,288,530
Less: Make Whole Payments	Form A Filing, p. 2	\$	26,097	\$	6,675	\$	4,904	\$ 15,276	\$	9,148	\$	-
Plus: Fuel (Assigned Cost During F.O.)	Form A Filing, p. 2	\$	419,248	\$	1,199,264	\$	2,321,452	\$ 310,637	\$	340,644	\$	- 2
Less: Fuel (Substitute Cost for F.O.)	Form A Filing, p. 2	\$	65,923	\$	440,550	\$	1,351,743	\$ 54,704	\$	69,422	\$	
Less: Fuel (Supp. and Back-Up Energy to Smelters)	Form A Filing, p. 2	\$	195,581	\$	276,852	\$	308,161	\$ -	\$		\$	12
Less: Domtar Back-Up/ Imbalance Generation	Form A Filing, p. 2	\$	3,263	\$	5,690	\$	3,487	\$ 10,235	\$	6,349	\$	27,257
Less: Fuel Cost of Generation for OSS	(2)	\$	3,076,998	\$	5,870,628	\$	4,815,272	\$ 12,156,024	\$	14,654,768	\$	14,321,377
Total Cost of Fuel for Generation Allocated to Native Load Sales		\$	11,117,156	\$	11,677,597	\$	13,277,071	\$ 5,640,044	\$	4,813,373	\$	3,939,896
Native Load Sales Volumes from Generation (MWh)	(3)		452,019.763		451,031.346		483,866.567	220,532.495		186,387.640		161,217.954
Native Load - Fuel Cost per MWh of Generation		S	24.59	\$	25.89	S	27.44	\$ 25.57	S	25.82	S	24.44
Off-System Sales:												
Total Cost of Fuel for Generation Allocated to Off-System Sales	(2)	\$	3,076,998	\$	5,870,628	\$	4,815,272	\$ 12,156,024	\$	14,654,768	\$	14,321,377
Off-System Sales Volumes from Generation (MWh)	(4)		128,901.112		242,347.599		189,234.943	496,508.754		600,162.486		586,076.982
Off-System Sales - Fuel Cost per MWh of Generation (5)		S	23.87	S	24.22	\$	25.45	\$ 24.48	\$	24.42	S	24.44

<sup>(1)</sup> Total cost of fuel for generation is equal to the sum of Coal Burned, Pet Coke Burned, Oil Burned, Gas Burned, and Propane Burned reported on a page 2 of Big Rivers' monthly Form A filing.

Fuel cost of generation for off-system sales is calculated by multiplying the off-systems sales volume from generation (MWh) by the system average generation fuel cost per MWh. See pages 2 through 7 for detail calculations of system average generation fuel cost per MWh by month for November 2013 through April 2014.

<sup>(3)</sup> See page 8 for calculation of native load sales volumes from generation by month for November 2013 through April 2014.

<sup>&</sup>lt;sup>(4)</sup> Off-system sales volumes from generation calculated as total off-system sales volumes minus off-system sales volumes from purchased power.

<sup>(5)</sup> See pages 2 through 7 for detail calculations of system average generation fuel cost per MWh by month for November 2013 through April 2014.

### BIG RIVERS ELECTRIC CORPORATION FUEL BURNED

FUEL BURNED November-13

MONTH OF

	TON/GAL/MCF		Cost	Gross KWH	NET KWH	S/MWH
Reid:		\$	1	-	(1,510,000)	\$ -
Coal	-	\$				
Oil	-	\$	-			
<u>C1</u> :		\$		-	-	\$ -
Coal	-	\$				
Gas	-	\$	÷			
Propane	-	\$				
<u>C2</u> :		S				\$ -
Coal	-	\$	-			
Gas	-	\$	-			
Propane	-	\$	•			
<u>C3</u> :		S	2.		-	S -
Coal	-	\$	-			
Gas	-	\$				
Propane	-	\$	-			
Coleman - Total:		\$	-		-	\$ -
Coal Gas		\$				
Propane		\$				
		-				
Gas Turbine:		\$	24,329.38	289,290	228,720	\$ 106.37
Oil	-	\$				
Gas	5,464.00	\$	24,329.38			
Wilson:		\$	6,053,427.34	303,667,610	283,627,100	\$ 21.34
Coal	107,037.23	\$	5,018,033.79	303,007,010	203,027,100	J 21.54
PetCoke	17,090.00	\$	924,075.10			
Oil	35,768.67	\$	111,318.45			
H1 (net of city take):		S	2,023,676.74	83,521,306	74,826,316	\$ 27.04
Coal Oil	33,161.48 1,883.00	\$	2,017,773.26 5,903.48			
Oil	1,883,00	Ф	3,903.48			
H2 (net of city take):		S	2,017,455.10	82,598,694	73,628,704	\$ 27.40
Coal	33,154.86	\$	2,017,370.45			
Oil	27.00	\$	84.65			
a				155 130 000	1 10 155 000	[6 27.22]
Station Two:	66 216 21	S	4,041,131.84	166,120,000	148,455,020	\$ 27.22
Coal Oil	66,316.34 1,910.00	\$	4,035,143.71 5,988.13			
Oil	1,910.00	Ψ	5,766.15			
<u>G1</u> :		\$	871,294.82	36,152,600	30,908,369	\$ 28.19
Coal	13,818.68	\$	631,275.99			
PetCoke	1,959.00	\$	82,324.82			
Oil	50,223.00	\$	157,694.01			
<u>G2</u> :		\$	3,075,585.75	158,723,490	143,978,752	\$ 21.36
Coal	56,351.10	\$	2,574,276.03	100,120,400	1.0,710,102	2 -1.00
PetCoke	11,661.00	\$	490,040.70			
Oil	3,589.00	\$	11,269.02			
2000 2000		-				[6 22.57]
Green - Total:	70.170.70	\$	3,946,880.57	194,876,090	174,887,121	\$ 22.57
Coal PetCoke	70,169.78 13,620.00	\$	3,205,552.02 572,365.52			
Oil	53,812.00	\$	168,963.03			
Oil	33,012.00	Ψ	100,700,00			
System Total:		\$	14,065,769.13	664,952,990	605,687,961	\$ 23.22
				Line Losses	16,437,138	
System Total (Net of	Losses):	S	14,065,769.13	Net kWh	589,250,823	\$ 23.87 per MV
Summar	y of Fuel Burned fo			- 171 - 111 -		
	Coal		12,258,729.52			
	Pet Coke	\$	1,496,440.62			
	Oil	\$	286,269.61			
	Gas	\$	24,329.38			
	Propane	\$	-			
	repaire		14,065,769.13			

FUEL BURNED

MONTH OF December-13

	TON/GAL/MCF		Cost	Gross KWH	NET KWH	S/MWH
Reid:		\$		-	(1,658,000)	\$ -
Coal	*	\$				
Oil	-	\$	•			
<u>C1</u> :		\$				\$ -
Coal	•	\$				
Gas Propane		\$	*			
5.00						
<u>C2</u> :		\$	+			\$ -
Coal Gas	-	\$				
Propane		\$				
<u>C3</u> :		\$	-	-	-	\$ -
Coal	•	\$	•			
Gas		\$				
Propane	-	3	-			
Coleman - Total:		S	9	-	2	S -
Coal	-	\$	-			
Gas	-	\$	-			
Propane		\$	•			
Cae Turbina		•	12 491 02	110 120	57 470	© 234 50
Gas Turbine: Oil		\$	13,481.92	118,130	57,470	\$ 234.59
Gas	2,435,00	\$	13,481.92			
	-1.55155					
Wilson:			5,852,576.17	290,376,280	270,336,348	\$ 21.65
Coal	104,356.85		4,839,288.03			
PetCoke	15,495.00	\$	807,064.82			
Oil	67,145.52	•	206,223.32			
H1 (net of city take):		\$	2,165,696.42	88,577,150	79,533,760	\$ 27.23
Coal	35,847.77	\$	2,165,696.42			
Oil		\$	-			
III (		•	2227 (07.21	05 212 050	75 006 470	[6 20 20]
H2 (net of city take): Coal	36,574.12		<b>2,226,696.34</b> 2,209,577.91	85,312,850	75,996,470	\$ 29.30
Oil	5,469.00	\$	17,118.43			
	1	1.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Station Two:			4,392,392.76	173,890,000	155,530,230	\$ 28.24
Coal	72,421.89		4,375,274.33			
Oil	5,469.00	\$	17,118.43			
<u>G1</u> :		S	3,524,157.01	177,117,690	161,026,426	\$ 21.89
Coal	59,945.72		2,707,874.06	177,117,000	101,020,120	Ψ 21,05
PetCoke	14,614.00	\$	673,375.12			
Oil	45,983.00	\$	142,907.83			
C2.		6	2 206 120 26	154 700 210	140 200 002	[ 22.40 ]
G2: Coal	53,624.49		3,296,120.26 2,422,330.82	154,708,310	140,309,992	\$ 23.49
PetCoke	13,074.00	\$	602,415.93			
Oil	87,319.00	\$	271,373.51			
	1					
Green - Total:			6,820,277.27	331,826,000	301,336,418	\$ 22.63
Coal	113,570.21		5,130,204.88			
PetCoke Oil	27,688.00 133,302.00	\$	1,275,791.05 414,281.34			
Oil	133,302.00	9	414,201,34			
System Total:		\$ 1	7,078,728.12	796,210,410	725,602,466	\$ 23.54
		6	070 720 12	Line Losses	20,559,811	[6 2/22] ····
System Total (Net of L			7,078,728.12	Net kWh	705,042,655	\$ 24.22 per MW
<u>Summary a</u>	of Fuel Burned for		4,344,767.24			
	Coal Pet Coke		2,082,855.87			
	Oil	\$	637,623.09			
	Gas	\$	13,481.92			
	Propane	\$	-			
		\$ 1	7,078,728.12			

Case No. 2014-00230 Attachment to Response for PSC 3-2

Witness: Nicholas R. Castlen

### BIG RIVERS ELECTRIC CORPORATION FUEL BURNED

	MONTH OF		FUEL BURNE				
	MONTH OF		Janua	ry-14			
	TON/GAL/MCF	_	Cost	Gross KWH	NET KWH	\$	MWH
Reid:		\$	761,293.90	23,033,640	19,692,640	\$	38.66
Coal Oil	11,485.94 20,290.00	\$	698,114.28 63,179.62				
<u>C1</u> :	20,290.00	S				\$	- 1
Coal	-	\$		21	-	3	
Gas	-	\$	-				
Propane	-	\$	-				
<u>C2</u> :		\$				\$	4.0
Coal		\$	-				
Gas Propane	-	\$					
rropane	-	3					
<u>C3</u> :		\$	-		4.	\$	
Coal	-	\$	-				
Gas	-	\$					
Propane	-	Þ	-				
Coleman - Total:		S	-	2	-	\$	-
Coal	5	\$	-			-	
Gas	-	\$	-				
Propane	^	\$	*				
Gas Turbine:		S	13,481.92	109,600	48,040	\$	280.64
Oil		\$	-				
Gas	1,941.00	\$	13,481.92				
Wilson:		S	5,170,984.75	228.999.740	211,261,430	\$	24.48
Coal	80,023.22	\$	3,754,417.40	220,777,740	211,201,430	4	24.40
PetCoke	21,914.64	\$	1,141,433.23				
Oil	90,690.75	\$	275,134.12				
H1 (net of city take):		S	2,126,748.94	87,401,582	77,742,862	\$	27.36
Coal	35,884.28	\$	2,126,671.09	87,401,382	11,142,802	9	27.50
Oil	25.00	\$	77.85				
				01.000.110	72 452 020		27.02
H2 (net of city take): Coal	33,733.53	\$	2,016,439.47 1,999,207.54	81,268,418	72,453,938	\$	27.83
Oil	5,534.00	\$	17,231.93				
	L. L					_	
Station Two:	60 617 91	\$	4,143,188.41	168,670,000	150,196,800	\$	27.59
Coal Oil	69,617.81 5,559.00	\$	4,125,878.63 17,309.78				
	3,003.50	-	27,002.77				
<u>G1</u> :		8	3,693,367.57	181,441,650	164,791,165	\$	22.41
Coal	62,358.69	\$	2,899,279.99				
PetCoke Oil	12,328.00 65,395.00	\$	591,265.67 202,821.91				
OII	03,333.00	Ψ	202,021.01			1	Marie S.
<u>G2</u> :		\$	3,656,869.37	179,241,810	163,606,220	\$	22.35
Coal	65,597.37	\$	3,049,857.88				
PetCoke Oil	12,526.00 2,015.00	\$	600,761.99 6,249.50				
Oii	2,013.00	Ψ	0,215.55				
Green - Total:		\$	7,350,236.94	360,683,460	328,397,385	\$	22.38
Coal	127,956.06 24,854.00	\$	5,949,137.87				
PetCoke Oil	67,410.00	\$	1,192,027.66 209,071.41				
O.I.	07,110.00	Ψ.	200,000				
System Total:		\$	17,439,185.92	781,496,440	709,596,295	\$	24.58
				Line Losses	24 247 220		
System Total (Net of	Losses).	2	17,439,185.92	Line Losses Net kWh	24,247,338 685,348,957	\$	25.45 per MWI
	of Fuel Burned for				000,040,007	9	per min
	Coal		14,527,548.18				
	Pet Coke	\$	2,333,460.89				
	Oil	\$	564,694.93				
	Gas Propane	\$	13,481.92				
	Tropane	Ψ					

\$ 17,439,185.92

#### BIG RIVERS ELECTRIC CORPORATION FUEL BURNED

	MONTH OF		FUEL BURNE			
	MONTH OF	H	Februa	iry-14		
	TON/GAL/MCF		Cost	Gross KWH	NET KWH	S/MWH
Reid:		\$	880,537.15	29,516,730	25,977,730	\$ 33.90
Coal	14,640.19	\$	821,988.11			
Oil	18,587.00	\$	58,549.04			
<u>C1</u> :		\$	-		-	\$ -
Coal Gas	-	\$				
Propane	-	\$				
<u>C2</u> :		S	-		-	\$ -
Coal	-	\$				
Gas		\$				
Propane		\$	7			
<u>C3</u> :		S	-		2	\$ -
Coal	-	\$				
Gas		\$	-			
Propane	-	\$	-			
Coleman - Total:		S	2.	(2)		\$ -
Coal	- 1	\$	-			
Gas		\$	-			
Propane	-	\$	-			
Gas Turbine:		\$	80,793.56	707,720	648,650	\$ 124.56
Oil		\$	-	707,720	0 10,000	\$ 121.50
Gas	12,181.00	\$	80,793.56			
NV/11		6	C 204 272 72	209 102 950	279 110 647	[6 22 67]
Wilson: Coal	124,395.60	\$	6,304,372.72 6,143,898.68	298,102,850	278,110,647	\$ 22.67
PetCoke	-	\$	-			
Oil	52,019.76	\$	160,474.04			
			1 000 000 00	100 505 105	60 202 107	[6 26 77]
H1 (net of city take): Coal	30,906.70	\$	1,828,232.67 1,807,918.32	102,535,185	68,292,187	\$ 26.77
Oil	6,449.00	\$	20,314.35			
H2 (net of city take):	1 20.551.05	\$	1,766,896.73	95,448,878	63,739,533	\$ 27.72
Coal Oil	29,654.06 10,239.00	\$	1,734,643.89 32,252.84			
0	10,257.00	Ψ.	52,252.51			
Station Two:		\$	3,595,129.40	197,984,063	132,031,720	\$ 27.23
Coal	60,560.76	\$	3,542,562.21			
Oil	16,688.00	\$	52,567.19			
<u>G1</u> :		\$	3,434,144.05	166,502,440	151,120,012	\$ 22.72
Coal	56,648.52	\$	2,564,818.39			
PetCoke	15,830.00	\$	762,499.44			
Oil	34,158.00	3	106,826.22			
<u>G2</u> :		\$	3,270,667.98	162,351,510	148,336,606	\$ 22.05
Coal	55,369.78	\$	2,506,922.16			
PetCoke	15,473.00	\$	745,303.46			
Oil	5,897.00	D	18,442.36			
Green - Total:		\$	6,704,812.03	328,853,950	299,456,618	\$ 22.39
Coal	112,018.30	\$	5,071,740.55			
PetCoke	31,303.00	\$	1,507,802.90			
Oil	40,055.00	\$	125,268.58			
System Total:		S	17,565,644.86	855,165,313	736,225,365	\$ 23.86
Suntan Tatal (Na	L neenels	6	17 565 644 96	Line Losses Net kWh	18,766,064 717,459,301	\$ 24.48 per MWh
System Total (Net of I Summary	Losses): of Fuel Burned for		17,565,644.86 eneration :	IVEL KAVII	/17,459,301	3 24.46 per MWI
	Coal	_	15,580,189.55			
	Pet Coke	\$	1,507,802.90			
	Oil	\$	396,858.85			
	Gas	\$	80,793.56			
	Propane	\$	17,565,644.86			
		9	.,,000,044.00			(

### BIG RIVERS ELECTRIC CORPORATION FUEL BURNED

March-14

MONTH OF

	MONTHOF	-	Marc	11-1-4		
	TON/GAL/MCF		Cost	Gross KWH	NET KWH	S/MWH
Reid:		S	963,878.00	35,549,820	31,626,820	\$ 30.48
Coal	1,739.78	\$	939,716.81			
Oil	7,629.00	\$	24,161.19			
<u>C1</u> :		\$	-	2	-	\$ -
Coal	-	\$	140			
Gas		\$	-			
Propane	-	\$	-			
<u>C2</u> :		S		- 1	-	\$ -
Coal		\$		-		
Gas		\$	-			
Propane	-	\$	-			
<u>C3</u> :		s	2.		-	\$ -
Coal		\$			-	3 -
Gas		\$				
Propane		\$				
Coleman - Total:		\$	¥.	4	-	\$ -
Coal		\$				
Gas	-	\$				
Propane	-	\$	-			
Gas Turbine:		\$	38,954.95	403,200	340,950	\$ 114.25
Oil		\$	30,934.93	403,200	340,930	3 114.23
Gas	6,664.00	\$	38,954.95			
14791			C 025 150 50	225 (81 270	202 021 524	[6 22.46]
Wilson:	125 040 40	S	6,825,158.50	325,681,270	303,921,524	\$ 22,46
Coal PetCoke	135,948.48	\$	6,705,930.67			
Oil	38,649,26	\$	119,227.83			
	20,0.1212	100	110344104			
H1 (net of city take):		\$	2,150,838.53	90,975,649	81,545,849	\$ 26.38
Coal	36,745.24	\$	2,150,838.53			
Oil	-	\$	-			
		-		00 001 251	70 772 551	[6 2607]
H2 (net of city take):	26 670 92	\$	2,151,047.20	89,081,351	79,762,551	\$ 26.97
Coal Oil	36,679.82 1,275.00	\$	2,147,009.25 4,037.95			
Oil	1,275.00	Ф	4,037.93			
Station Two:		S	4,301,885.73	180,057,000	161,308,400	\$ 26.67
Coal	73,425.06	\$	4,297,847.78			
Oil	1,275.00	\$	4,037.95			
eri.			2 400 074 62	166 100 600	150 751 521	[6 22 21]
<u>G1</u> :	57 400 02	S	3,498,874.63	166,408,600	150,751,531	\$ 23.21
Coal	57,480.93	\$	2,620,319.93 741,595.19			
PetCoke	15,394.16 42,947.00	\$	136,959,51			
Oil	72,747,00	9	130,337,31			
<u>G2</u> :		\$	3,583,664.14	178,347,400	162,725,866	\$ 22.02
Coal	65,303.00	\$	2,976,896.03			
PetCoke	12,378.53	\$	596,320.83			
Oil	3,276.00	\$	10,447.28			
Cusan Total		6	7 002 520 77	244 756 000	212 477 207	S 22.50
Green - Total:	122,783.93	\$	7,082,538.77 5,597,215.96	344,756,000	313,477,397	\$ 22.59
Coal PetCoke	27,772,69	\$	1,337,916.02			
Oil	46,223.00	\$	147,406.79			
OII	10,223.00	9	117,100,75			
System Total:		\$	19,212,415.95	886,447,290	810,675,091	\$ 23.70
				Time Transce	22 064 024	
Printers Tratal (No. 4 C)	Locace):	c	10 212 415 05	Line Losses	23,864,934 786,810,157	\$ 24.42 per MW
System Total (Net of I	Losses): of Fuel Burned for		19,212,415.95 eneration :	Net kWh	/00,010,15/	3 24.42 per MW
Summary		_	17,540,711.22			
	Coal Pet Coke	\$	1,337,916.02			
	Oil	5	294,833.76			
	Gas	\$	38,954.95			
	Propane	\$	-			
			19,212,415.95			

### BIG RIVERS ELECTRIC CORPORATION FUEL BURNED NTH OF April-14

	business (12)	FUEL BURNED						
	MONTH OF		Apri					
	TON/GAL/MCF	_	Cost	Gross KWH	NET KWH		/MWH	
Reid:		S	928,717.95	35,388,830	31,663,830	\$	29.33	
Coal Oil	17,252.25 3,212.00	\$	918,487.36 10,230.59					
<u>C1</u> :	5,212.00	S	1,432,90			\$		Government Imposition
Coal		\$	1,432.90		-	φ		Patriot Coal
Gas		\$						04.01.13 - 8.19.13
Propane		\$						
<u>C2</u> :		\$	1,525.34		-	\$	,	
Coal Gas	-	\$	1,525.34					
Propane		\$						
<u>C3</u> :		S	1,664.01			\$	-	
Coal	- 1	\$	1,664.01	-		9	-	
Gas	-	\$	-					
Propane	-	\$	*					
Coleman - Total:		S	4,622.25			\$	-	
Coal		\$	4,622.25					
Gas	-	\$	-					
Propane	-	Þ						
Gas Turbine:		\$	9.54	-	(63,240)	\$	(0.15)	
Oil	-	\$	9.54					
Gas	-	٥	9,34					
Wilson:		\$	6,753,229.89	319,198,090	297,868,202	\$	22.67	
Coal	132,645.38	\$	6,627,825.38					
PetCoke Oil	480.00 31,938.39	\$	24,379.58 101,024.93					
	1,000,000					_		
H1 (net of city take):	25.017.02	\$	1,542,892.52	66,239,086	58,879,456	\$	26.20	
Coal Oil	25,917,03 6,848,00	\$	1,521,080.86 21,811.66					
H2 (net of city take): Coal	33,616,96	\$	1,980,901.47 1,972,992.83	83,220,914	73,619,424	\$	26.91	
Oil	2,483.00	\$	7,908.64					
Station Two:	59,533.99	\$	<b>3,523,793.99</b> 3,494,073.69	149,460,000	132,498,880	\$	26.59	
Coal Oil	9,331.00	\$	29,720.30					
<u>G1</u> :	64 111 21		3,739,397.41	175,715,970	159,596,920	\$	23.43	
Coal PetCoke	64,111.21 12,656.00	\$	2,971,650.75 623,366.22					
Oil	45,051.00	\$	144,380.44					
C2.		6	2 229 759 07	158,981,930	144,773,622	2	23.06	
G2: Coal	65,303.00	\$	3,338,758.07 2,727,334.77	138,981,930	144,773,022	1	25.00	
PetCoke	12,378.53	\$	540,914.02					
Oil	3,276.00	\$	70,509.28					
Green - Total:		\$	7,078,155.48	334,697,900	304,370,542	\$	23.26	
Coal	122,951.48	\$	5,698,985.52		7-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3			
PetCoke	23,638.00	\$	1,164,280.24					
Oil	67,052.00	\$	214,889.72					
System Total:		\$	18,288,529.10	838,744,820	766,338,214	\$	23.86	
				Line Losses	17,927,852			
System Total (Net of	Losses):	S	18,288,529.10	Net kWh	748,410,362	S	24.44	per MWh
	of Fuel Burned for	r Ge	eneration :					- War
	Coal		16,743,994.20					
	Pet Coke Oil	\$	1,188,659.82 355,865.54					
	Gas	\$	9.54					
	Propane	\$						
		\$	18,288,529,10					

## Big Rivers Electric Corporation Calculation of Native Load Sales Volumes from Generation November 2013 through April 2014

	<u>Nov-13</u>	Dec-13	Jan-14	<u>Feb-14</u>	<u>Mar-14</u>	<u>Apr-14</u>
Net Generation (before losses)	605,687,961	725,602,466	709,596,295	736,225,365	810,675,091	766,338,214
Less: Back-Up & Supp. Sales to Smelters from Generation	8,193,256	11,428,818	12,110,410	4	-	-
Less: Domtar Back-Up Power Sales from Generation	136,692	234,892	137,027	418,052	260,031	1,115,426
Less: Inter-system Sales from Generation	128,901,112	242,347,599	189,234,943	496,508,754	600,162,486	586,076,982
Less: System Losses	16,437,138	20,559,811	24,247,348	18,766,064	23,864,934	17,927,852
Native Load Sales Volumes from Generation	452,019,763	451,031,346	483,866,567	220,532,495	186,387,640	161,217,954

Case No. 2014-00230 Attachment to Response for PSC 3-2 Witness: Nicholas R. Castlen

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