

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

ELECTRONIC TARIFF FILING OF)	
BIG RIVERS ELECTRIC CORPORATION)	Case No.
AND KENERGY CORP. TO IMPLEMENT)	2021-00289
A NEW STANDRY SERVICE TARIFF)	

Big Rivers Electric Corporation and Kenergy Corp.

Joint Responses to Kimberly-Clark Corporation's Second Set of Data Requests dated

September 17, 2021

FILED: October 1, 2021

BIG RIVERS ELECTRIC CORPORATION

ELECTRONIC TARIFF FILING OF BIG RIVERS ELECTRIC CORPORATION AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

VERIFICATION

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

Mark J. Eacret

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Mark J. Eacret on this the day of September, 2021.

Notary Public, Kentucky State at Large

My Commission Expires

VCHODER 31 2024

BIG RIVERS ELECTRIC CORPORATION

ELECTRONIC TARIFF FILING OF BIG RIVERS ELECTRIC CORPORATION AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

VERIFICATION

I, John Wolfram, verify, state, and affirm that the information 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.

John Wolfram

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by John Wolfram on this the day of September, 2021.

Notary Public, Kentucky State at Large

My Commission Expires

ELECTRONIC TARIFF FILING OF BIG RIVERS ELECTRIC CORPORATION AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

Joint Response to Kimberly-Clark Corporation's Second Set of Data Requests dated September 17, 2021

1	Item 1)	Please refer to Big Rivers response to KC 1-1 c. i., Attachment KC
2	1-1 (JW	Att3 CNF) - Big Rivers_COSS_2019_FILED, tab 'Alloc-Opt1.'
3	a.	Please confirm the net embedded cost of generation capacity for the
4		LIC class is \$14.2541/kW per unit 12 CP.
5		i. If not, please provide the correct cost of generation capacity in
6		\$/kW per unit 12 CP.
7	b.	Please confirm the net embedded cost of generation capacity for the
8		LIC class is \$12.3359/kW per unit of individual LIC customer
9		$monthly\ kW\ demands.$ This rate is equal to the LIC Net Production
10		Rate Rev Req of \$21,832,407 divided by the 1,769,832 sum of the
11		$individual\ customer\ kW\ demands\ for\ the\ LIC\ class.$
12		i. If not, please provide the correct cost of generation capacity in
13		lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:
14	c.	Please confirm the net embedded cost of transmission capacity for
15		the LIC class is \$5.9188/kW per unit 12 CP.

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1	i	. If not, please provide the correct cost of generation capacity in
2		\$/kW per unit 12 CP.
3	d. Pl	ease confirm the net embedded cost of transmission capacity for
4	th	e LIC class is \$5.1223/kW per unit of individual LIC customer
5	m	onthly kW demands. This rate is equal to the LIC Net Production
6	Ra	ate Rev Req of \$9,065,653 divided by the 1,769,832 sum of the
7	in	$dividual\ customer\ kW\ demands\ for\ the\ LIC\ class.$
8	i	. If not, please provide the correct cost of generation capacity in
9		$\label{eq:linear_state} $\/kW$ per unit of individual LIC customer monthly kW demands.
10		
11	Response)	
12	a.	through d. Confirmed.
13	a.	through d. (i) Not applicable.
14		
15	Witness)	John Wolfram
16		

ELECTRONIC TARIFF FILING OF BIG RIVERS ELECTRIC CORPORATION AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

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- 1 Item 2) Please refer to Big Rivers response to KC 1-1 c. i., Attachment KC
- 2 1-1 (JW Att3 CNF) Big Rivers_COSS_2019_FILED, tab 'Alloc-Opt1,' and Big
- 3 Rivers response to KC 1-2 f.
- 4 Big Rivers' response to KC 1-2 f states that "transmission service to the
- 5 smelters is provided by MISO. MISO invoices a third-party energy
- 6 manager operating as market participant on behalf of the smelters. Big
- 7 Rivers, as the transmission owner, receives some of that revenue from
- 8 *MISO.*"
- 9 Big Rivers response to KC 1-1 c. i., Attachment KC 1-1 (JW Att3 CNF) –
- 10 Big Rivers_COSS_2019_FILED, tab 'Alloc-Opt1' shows transmission
- 11 revenues of \$14,882,739 from HMPL Joint Pricing Zone, Century Sebree
- 12 and Century Hawesville.

18	Transmission Revenue		
19	HMPL Joint Pricing Zone		\$ (1,568,113)
20	Century Sebree		\$ 7,664,958
21	Century Hawesville		\$ 8,785,894
22			\$ 14,882,739

- a. As a transmission owner, please explain in detail how Big Rivers
- 14 receives compensation from the MISO for transmission service
- 15 provided on Big Rivers transmission facilities?

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1		i. What are the rates at which Big Rivers receives revenue from
2		the MISO for transmission service provided on Big Rivers
3		owned transmission facilities?
4	b .	Please clarify whether the transmission revenue that is shown in
5		Att3 as an offset to the Big Rivers retail transmission revenue
6		requirement is received directly from Century Sebree and Century
7		Hawesville, or from MISO?
8	c.	What transmission rates do the smelters pay for
9		transmission service?
10		i. Please provide supporting workpapers and analyses.
11	d.	What proportion of the transmission costs paid by the smelters to
12		MISO does Big Rivers receive from MISO as a transmission owner?
13		i. Please provide supporting workpapers and analyses.
14	e.	Does Big Rivers receive any additional transmission revenues
15		from MISO?
16		i. Please provide supporting workpapers and analyses.

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1	f.	Please explain what are the HMPL Joint Pricing Zone negative
2		transmission revenues?
3		
4	Respon	se)
5	a.	MISO charges transmission customers for wholesale transmission service
6		pursuant to the rates, terms and conditions of the MISO Tariff. For use of
7		Big Rivers' transmission facilities, MISO charges customers the rates
8		applicable to the Big Rivers Electric Corporation ("BREC") pricing zone.
9		Each month, MISO sends Big Rivers the transmission revenue detail and
10		the payment of such revenues, pursuant to the MISO Tariff.
11		i. Big Rivers receives transmission revenue in accordance with MISO's
12		tariff which is published on the MISO OASIS.1 The rate is a formula
13		rate that is updated each year based on historical data provided by Big
14		Rivers to MISO via Attachment O of the MISO Tariff. The Attachment
15		O data for Big Rivers for each year is published in the Attachment O

¹ OASIS = Open Access Same-Time Information System.

ELECTRONIC TARIFF FILING OF **BIG RIVERS ELECTRIC CORPORATION** AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

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1		spreadsheet on the "Nonlevelized RUS 12" tab, lines 16-22, on the
2		MISO website at:
3		https://www.misoenergy.org/markets-and-operations/settlements/to-
4		rate-data/BREC/#t=10&p=0&s=tsposteddate&sd=desc
5	b.	Big Rivers receives transmission revenue directly from MISO.
6	c.	Each month, MISO publishes rates for each sink node. The smelters pay
7		the rates at the BREC.BREC sink node.
8		i. The published rates can be found at:
9		www.oatioasis.com/woa/docs/MISO/MISOdocs/Transmission_Rates.html
10	d.	For Schedule 1 services, Big Rivers is the sole provider and receives 100%
11		of the Schedule 1 charges paid by the smelters. For Schedule 2 and
12		Schedule 26 services, Big Rivers receives only a portion of the Schedule 2
13		and Schedule 26 charges paid by the smelters since Big Rivers is not the
14		sole provider of those services. In 2020 and 2021, Big Rivers received 15.9%
15		to 19% of the Schedule 2 charges and a very small percentage of the
16		Schedule 26 charges. See the Excel file attached to this response for detail,

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1		Attachment KC 2-2d. For Schedule 9 services, Big Rivers receives 100% of
2		the Schedule 9 charges but then shares a percentage of that revenue with
3		Henderson Municipal Power & Light ("HMP&L") as a result of MISO
4		designating HMP&L as a Transmission-Owner in the Big Rivers pricing
5		zone. Big Rivers is challenging that designation in FERC Docket No. ER
6		19-776-001, which is pending.
7		i. See the above referenced Excel file attachment to this response.
8	e.	Big Rivers could receive revenue from any entity that utilizes the Big Rivers
9		transmission system pursuant to the MISO Tariff, such as Owensboro
10		Municipal Utilities (OMU) and the Kentucky Municipal Energy Agency
11		(KyMEA). Big Rivers records all such revenue to Account 456, Other
12		Electric Revenue.
13		i. See the Excel file attached to this response, Attachment KC 2-2e.
14	f.	HMP&L is both a transmission owner and load customer in Big Rivers'
15		service territory. HMP&L gets paid more for its portion of the transmission
16		service it claims to provide in the Big Rivers service territory than it pays

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6	Witness) Mark J. Eacret
5	
4	
3	transmission revenue for the HMP&L payment.
2	its load. The negative revenue represents the reduction in Big Rivers
1	for the transmission service it utilizes in the Big Rivers service territory for

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1	Item 3)	Please refer to Big Rivers response to KC 1-1 c. i., Attachment KC
2	1-1 (JW	Att3 CNF) - Big Rivers_COSS_2019_FILED, tab 'Alloc-Opt1,' and
3	ER21-12	40 Big Rivers 2021 Informational Filing for Formula Rate Update. 1
4	a.	In Attachment A, page 1, line 17 of the 2021 Information Filing for
5		$Formula\ Rate\ Update,\ the\ Network\ and\ Point\ to\ Point\ transmission$
6		rate is shown to be \$1.615/kW/Mo.
7		i. Does this \$1.615/kW/Mo rate represent the rate at which Big
8		Rivers receives compensation from the MISO for transmission
9		service provided on Big Rivers transmission facilities?
10		1. If not, please explain in detail, and at what rates, Big
11		Rivers does receive compensation from the MISO.
12		$ii. \ \ Please\ explain\ in\ the\ detail\ the\ reason\ why\ this\ rate\ differs\ from$
13		the \$5.9188/kW per unit 12 CP cost in Big Rivers' COSS?

¹ Big Rivers 2021 Informational Filing for Formula Rate Update.

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1	iii. Please p	rovide suppo	orting workpa	vers or ca	lculations to
2	2 reconcile	the differ	ence between	these two	o rates for
3	3 transmis	ion service.			
4	b. Does Big Riv	ers have a di	ifferent transm	ission cost	of service for
5	5 wholesale cu	tomers relat	ive to the tran	nsmission co	ost of service
6	6 retail custom	rs on a per u	nit basis?		
7	7 i. Please ex	olain in deta	il why or why no	ot.	
8	8 ii. If the tra	smission cos	t of service is th	e same for u	pholesale and
9	9 retail cu	tomers on a	per unit basis	, please exp	lain why the
10	Network	ınd Point to	Point transmiss	sion rate is a	lifferent than
11	1 the embe	ded transmis	ssion cost of ser	vice.	
12	2				
13	Response)				
14	4 a.				
15	i. The rate	represents th	e per-unit amo	unt charged	by MISO to
16	6 transmiss	on customers	for network and	point-to-poin	t transmission

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service for the 12-month period pursuant to the MISO Tariff Attachment O. This rate changes annually as it is a formula rate approved by FERC; the approved rate is the formula. The rate at which Big Rivers is compensated by MISO can differ from this; please see the response to Item 2-2. ii. The cost of service study calculations prepared for Big Rivers and filed Attachment KC with 1-1 (JW Att3 CNF) Big are different than the calculations Rivers COSS 2019 FILED performed in the MISO Attachment O. The former is a fully allocated, embedded electric cost of service study performed consistent with the industry- and Commission-accepted methods outlined in the NARUC Electric Utility Cost Allocation Manual. The latter is a calculation of an Annual Transmission Revenue Requirement pursuant to the FERC-approved MISO Attachment O. The latter determines a target annual transmission revenue requirement, including an allowed rate of return on investment, while the former does not. While there are

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1		similarities, the two serve different purposes, meet different
2		regulatory objectives, and are not designed to work in conjunction with
3		one another.
4		iii. For the reasons described in response to part a (ii) it is not reasonable
5		to perform a reconciliation of the two amounts.
6	b.	Big Rivers has a different transmission cost of service for wholesale
7		customers relative to the transmission cost of service for retail customers
8		on a per unit basis to the extent that the per-unit rates charged to wholesale
9		customers are established in the transmission formula rate approved by the
10		FERC in the MISO Tariff, while retail customers are charged bundled (i.e.
11		transmission and generation combined) rates approved by the Commission.
12		The FERC-approved wholesale charges change annually via the formula
13		rate, while the Commission-approved retail charges are stated rates (and
14		also do not stem from the cost of service study referenced in this data
15		request).
16		i. Please see the response to sub-part b.

i. Please see the response to sub-part b.

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1		ii.	Please see the response to sub-part b.
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3			
4	Witness)	J	ohn Wolfram
5			

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1	Item 4)	Refer to Big Rivers' Excel Attachment KC 1-1 (JW Att3 CNF) –
2	Big Rive	ers_COSS_2019_FILED to Response KC 1-1, tab 'Rates-Opt1.'
3	a.	The workpaper indicates that the LIC cost-based demand charge is
4		16.452/kW-Mo. Please provide workpapers or analyses showing the
5		derivation of this cost-based rate using the results of the cost-of-
6		service study.
7	b.	Please explain the reasons why Big Rivers' current LIC demand
8		charge of \$10.715/kW-Mo differs from the cost-based rate?
9	<i>c</i> .	Does Big Rivers believe it is appropriate to utilize a top-down rate
10		design for the LICSS tariff, starting with the LIC rates if the LIC
11		rates are not cost-based?
12		i. Please explain why or why not.
13		

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1 Response)

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2 The referenced spreadsheet is the workpaper. The derivation of the costa. based rate on tab "Rates-Opt-1" was explained in Case No. 2021-00061.1 3 In that case, I began with the per-unit energy charges from the cost-of-4 service study and adjusted it to remove the effects of the Fuel Adjustment 5 Clause, the Non-Smelter Non-FAC Purchased Power Adjustment, and the 6 7 energy-related portion of the Environmental Surcharge. This yields the 8 energy charge on a basis comparable to that of the tariff rate. Then I computed the demand charge such that the overall class revenues (before 9 10 applying the Member Revenue Stability Mechanism) were achieved while holding the other rate riders constant. I performed these steps for both the Rural Delivery Service (RDS) and Large Industril Customer (LIC) 12 13 customer classes. This is explained in my Direct Testimony in Case No. 14 2021-00061.

¹ See In the Matter of: Electronic Application of Big Rivers Electric Corporation for Annual Report on MRSM Credit, P.S.C. Case No. 2021-00061, Application (filed February 26, 2021).

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1	b.	See the Commission's Order dated June 9, 2021, in Case No. 2021-00061, at
2		the top of page 12, which states, "Finally, the Commission notes that the
3		COSSs illustrate that the subsidization between the RDS and LIC classes is
4		minimal and finds that no change to the current rate allocations is
5		warranted."
6	c.	Big Rivers believes it is appropriate to utilize a top-down rate design for the
7		LICSS tariff, starting with the LIC rates.
8		i. It is appropriate for the LICSS rate to be established on the same basis
9		as the rates applicable to Big Rivers' other industrial customers
10		pursuant to the LIC tariff.
11		
12		
13	Witne	ess) John Wolfram
14		

ELECTRONIC TARIFF FILING OF BIG RIVERS ELECTRIC CORPORATION AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

Joint Response to Kimberly-Clark Corporation's Second Set of Data Requests dated September 17, 2021

1	Item 5)	Refer to Big Rivers' response to KC 1-4. Please provide similar
2	8760 hourly	y load data broken out between the RDS class and the LIC class.
3		
4	Response)	Please see the Excel file provided with these responses.
5		
6		
7	Witness)	Mark J. Eacret
8		

ELECTRONIC TARIFF FILING OF BIG RIVERS ELECTRIC CORPORATION AND KENERGY CORP. TO IMPLEMENT A NEW STANDBY SERVICE TARIFF CASE NO. 2021-00289

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1	Item 6)	Refer to Big Rivers' response to PSC 1-2. "Paper Excellence				
2	(former)	ly Domtar) and Kimberly Clark Corporation are the only two large				
3	industrial members of which Big Rivers is aware who potentially may					
4	subscribe to one or all of the services to be offered through the proposed					
5	LICSS tariff for the period 2022–2026."					
6	a.	Please explain why Big Rivers believes these two customers are the				
7		only LIC customers who may potentially take service under the				
8		LICSS tariff.				
9						
10	Respons	se:				
11	a.	Big Rivers and Kenergy are in regular contact with the large industrial				
12		customers and none, other than Paper Excellence and Kimberly Clark				
13		Corporation, have expressed any plans for, or interest in, installing				
14		generation which would require standby service.				
15						
16	Witness	Mark J. Eacret				

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