1	COMMONWEALTH OF KENTUCKY
2 3	BEFORE THE PUBLIC SERVICE COMMISSION
3 4	IN THE MATTER OF:
5	IN THE MATTER OF;
6	APPLICATION OF BIG RIVERS )
7	ELECTRIC CORPORATION ) CASE NO. 2019-269
8	FOR ENFORCEMENT OF RATE )
9	AND SERVICE STANDARDS
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18	DIRECT TESTIMONY
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20	OF
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22	BRAD BICKETT
23	RELIABILITY COMPLIANCE MANAGER
24 25	CITY OF HENDERSON UTILITY COMMISSION d/b/a HENDERSON MUNICIPAL POWER & LIGHT
25 26	U/D/A HENDERSON MONICIPAL POWER & LIGHT
27	ON BEHALF OF
28	ON BEHALF OF
29	INTERVENOR CITY OF HENDERSON, KENTUCKY, AND
30	HENDERSON UTILITY COMMISSION d/b/a
31	HENDERSON MUNICIPAL POWER & LIGHT
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1		DIRECT TESTIMONY	
2 3		OF	
4 5		BRAD BICKETT	
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### 1 I. INTRODUCTION

2 Q. Please describe your job responsibilities and background.

3 Α. As the Reliability Compliance Manager for Henderson, I am responsible for electric 4 reliability compliance, transmission and regulatory matters, and wholesale power 5 arrangements. I oversaw the development of Henderson's Integrated Resource Plans and 6 the subsequent procurement of new power supply resources after retirement of Station 7 Two. I managed the integration of Henderson into the Midcontinent Independent System 8 Operator, Inc. ("MISO") as a Market Participant ("MP") and Transmission Owner 9 ("TO"), while procuring new services for transmission operations and balancing authority 10 responsibilities in MISO. I have also retained necessary professional services for energy 11 and capacity market participation and transmission owner responsibilities in MISO. For 12 North American Electric Reliability Corporation ("NERC") requirements, I developed an 13 internal compliance program for Henderson that covers all its applicable obligations as a 14 TO, Distribution Provider, and Load Serving Entity. Before Henderson, I worked for Big 15 Rivers Electric Corporation as a Plant Engineer at the Henderson Station Two power 16 plant in Sebree, Kentucky. I earned my Bachelor of Science in Electrical Engineering 17 Technology from Western Kentucky University in 2002. I am currently pursuing a 18 Master of Business Administration degree from the University of Southern Indiana and 19 expect to graduate in December 2020. A copy of my Resume is attached as Exhibit 20 Bickett-1. 21 **O**. Have you previously testified before the Kentucky Public Service Commission?

22 A.

No

- Q. Have you previously testified or submitted testimony in any federal or state court or
   administrative agency proceedings?
- 3 A. Yes. I have submitted testimony on behalf of Henderson Municipal Power & Light in a
- 4 pending Federal Energy Regulatory Commission (FERC) proceeding involving a
- 5 proposed Joint Pricing Zone Agreement between Henderson and Big Rivers, and Big
- 6 Rivers' objection to MISO's designation of Henderson as a Transmission Owner entitled
- 7 to receive a share of transmission revenue.
- 8 II. <u>PURPOSE OF TESTIMONY</u>
- 9 Q. What is the purpose of your testimony?
- 10 A. The purpose of my testimony is to:
- 11 1. Explain Henderson's MISO Obligations (prior to 2019);
- 12 2. Explain Henderson's transition into the MISO market;
- 13 3. Describe Henderson's capacity planning requirements;
- 14 4. Respond to mischaracterizations in Big Rivers' testimony; and
- 15 5. Explain MISO fees invoiced to Henderson from December 2010 to May 2016

### 16 III. HENDERSON'S MISO OBLIGATIONS (PRIOR TO FEB 2019)

- 17 Q. What NERC reliability functions currently apply to Henderson?
- 18 A. Henderson is registered with the North American Electric Reliability Corporation
- 19 (NERC) as a Distribution Provider, Transmission Owner, Balancing Authority, and
- 20 Transmission Planner.

1	Q.	Is Henderson a MISO Market participant? If yes, please explain.
2	Α.	Yes. After obtaining Henderson Utility Commission approval, and by execution of the
3		necessary regulatory agreements, Henderson became a MISO Load Serving Entity,
4		Market Participant, and Transmission Owner on February 1, 2019.
5	Q.	Was Henderson subject to the MISO tariff prior to becoming a market participant?
6	A.	Only indirectly. It is my understanding that Henderson's load and Station Two were
7		represented in MISO by Big Rivers acting as the Market Participant on Henderson's
8		behalf.
9	Q.	Did Henderson execute any agreement or otherwise authorize Big Rivers to register
10		the Station Two units in MISO or to commit the units to take service from MISO
11		prior to February 1, 2019?
12	A.	No. Henderson had no direct interactions with MISO concerning Henderson's load or
13		Station Two and had no agreements with MISO. Henderson also had no agreement(s)
14		with Big Rivers related to MISO prior to February 1, 2019. In fact, Henderson advised
15		Big Rivers on a number of occasions that Henderson was negotiating with a third party to
16		register the Station Two units on Henderson's behalf and to act as Henderson's market
17		participant in MISO.
18	Q.	According to Big Rivers, Henderson was subject under the terms of the Power Sales
19		Contract and System Reserves Agreement to obligations imposed by the MISO. Do
20		you agree?
21	А.	No. The Power Sales Contract and System Reserves Agreement were entered into prior
22		to Big Rivers' joining MISO and, to my knowledge, neither were amended to address a
23		transition to MISO or MISO market operations and related MISO issues. Big Rivers

1		never sought to modify those agreements and to extend MISO Market Participant
2		obligations to Henderson. Additionally, while Big Rivers joined MISO in 2010, Big
3		Rivers did not bring any MISO-related issues to Henderson's attention until 2017.
4	Q.	Please describe your understanding of the reason Big Rivers elected to join MISO.
5	A.	My understanding is that Big Rivers joined MISO in order to maintain Contingency
6		Reserves necessary to cover its most severe single contingency, that being the loss of its
7		Wilson generating Unit. As a NERC-registered Balancing Authority, Big Rivers was
8		subject to this contingency reserve requirement under the NERC Reliability Standard
9		BAL-002. To my knowledge, neither Henderson Station Two nor the Henderson load
10		contributed to Big Rivers' inability to comply with the NERC Balancing Authority
11		requirements. Following is an excerpt from the Direct Testimony of David Crockett in
12		Big Rivers' application seeking Commission authority to transfer functional control of its
13		transmission system to MISO effective September 1, 2010:
14		For Big Rivers, the most severe single contingency is the loss of its
15		Wilson Unit which has a maximum capacity of 417 MWs. Without a
16		Reserve Sharing Group arrangement, Big Rivers must maintain 417 MWs
17		of Contingency Reserve to comply with BAL-002 supplied from either
18		generation, controllable load resources, or coordinated adjustments to
19		Interchange Schedules. The Contingency Reserve arrangement must
20		provide for recovery of up to 417 MWs within 15 minutes after the start of
21		the Reportable Disturbance. Prior to January 1, 2010, Big Rivers complied
22		with its BAL-002 requirement by participating in various Reserve Sharing
23		Group arrangements, which substantially reduced Big Rivers' individual

1		Contingency Reserve responsibility Big Rivers' requirement under the
2		MCRSG Agreement as defined below was 32 MWs (this obligation has
3		varied over the years). (Direct Testimony of David Crockett, Exhibit 2,
4		Page 11, Case No. 2010-0043).
5	Q.	Did NERC reliability standard BAL-002 requirements apply to Henderson at the
6		time Big Rivers joined MISO?
7	A.	No. Henderson was neither registered as a Balancing Authority, nor did Henderson
8		perform the Balance Authority function.
9	Q.	Did the BAL-002 requirements apply to Big Rivers before Big Rivers joined MISO?
10	А.	Yes
11	Q.	Did Big Rivers provide notice to Henderson that BAL-002 requirements would
12		result in additional costs under the Station Two contracts, prior to Big Rivers'
13		decision to join MISO?
14	А.	I am unaware of any such notice.
15	IV.	HENDERSON'S TRANSITION TO MISO
16	Q.	Are the BAL-002 requirements applicable to Henderson now?
17	А.	Yes. Henderson became registered with NERC as a Balancing Authority effective on
18		March 1, 2019.
19	Q.	Why did Henderson become a NERC balancing authority in 2019?
20	А.	In October 2018, Big Rivers unilaterally decided to stop acting as the Balancing
21		Authority for Henderson after Henderson agreed to become a Market Participant in
22		MISO. The letter in which Big Rivers provided this notice is attached to my testimony as
23		Exhibit Bickett-2.

Q. As of March 1, 2019, is Henderson in compliance with all requirements as a NERC
 registered balancing authority?

A. Yes. Under a Coordinated Functional Registration (CFR) agreement, MISO is the
Balancing Authority and Henderson is responsible for requirements as a Local Balancing
Authority (LBA). Gridforce Energy Management, LLC, performs the LBA services for
Henderson.

Q. Please explain how Henderson obtained the LBA Services Agreement with
Gridforce Energy Management, LLC.

9 A. Henderson issued a Request for Proposals (RFP) for Transmission Operator and Local

10 Balancing Authority services on November 6, 2018. Gridforce Energy Management,

11 LLC, was the winning bidder with a bid of approximately six-hundred-thousand dollars

12 (\$600,000) per year. Big Rivers submitted a competing bid in the amount of \$3.2 million

13 for four months of service (Feb 2019 through May 2019). The Big Rivers bid would have

14 cost Henderson \$9.6 million per year. Henderson assumed Big Rivers would be able to

15 provide these services in a more cost-effective manner than other potential bidders

16 because Big Rivers had previously provided the services and would not have to add any

17 staff or equipment. For reasons that elude Henderson, Big Rivers voluntarily passed up

an opportunity to gain potential revenue of up to six-hundred-thousand dollars (\$600,000)

19 per year.

## 20 V.

# V. <u>HENDERSON CAPACITY PLANNING REQUIREMENTS</u>

Q. Are Big Rivers' and Henderson's NERC contingency reserve requirements based
upon the MISO planning reserve margin requirement ("PRMR")?

1	А.	No. Big Rivers confuses these two concepts. Contingency Reserve is an operating
2		requirement under the NERC Reliability Standard BAL-002. Contingency reserves are
3		meant to respond in minutes. See NERC White Paper titled "Balancing and Frequency
4		Control" attached to my testimony as Exhibit Bickett-3 for more information about
5		contingency reserves. Planning Reserves is an annual calculation meant to account for
6		long-term generation outages and errors in load forecasts. The MISO Planning Reserve
7		Margin Requirement is part of a MISO practice to ensure Resource Adequacy. There is
8		currently no NERC requirement for Planning Reserve Margin within the SERC
9		Reliability Corporation region, where Big Rivers and Henderson systems are located. See
10		2019 Long-Term Reliability Assessment by NERC, attached to my testimony as Exhibit
11		Bickett-4, for more information about Planning Reserves.
12	Q.	If there is no specific NERC requirement for planning reserve margin applicable to
	-	
13	-	Henderson, did Big Rivers have a basis for extending a MISO planning reserve
13 14	-	
	A.	Henderson, did Big Rivers have a basis for extending a MISO planning reserve
14		Henderson, did Big Rivers have a basis for extending a MISO planning reserve margin requirement to Henderson before February 1, 2019?
14 15		Henderson, did Big Rivers have a basis for extending a MISO planning reserve margin requirement to Henderson before February 1, 2019? No. Under the Power Sales Contract, Henderson alone had the right, and sole authority,
14 15 16		<ul> <li>Henderson, did Big Rivers have a basis for extending a MISO planning reserve</li> <li>margin requirement to Henderson before February 1, 2019?</li> <li>No. Under the Power Sales Contract, Henderson alone had the right, and sole authority,</li> <li>to determine its annual capacity reservation from Station Two, and allocated the</li> </ul>
14 15 16 17		<ul> <li>Henderson, did Big Rivers have a basis for extending a MISO planning reserve</li> <li>margin requirement to Henderson before February 1, 2019?</li> <li>No. Under the Power Sales Contract, Henderson alone had the right, and sole authority,</li> <li>to determine its annual capacity reservation from Station Two, and allocated the</li> <li>remainder to Big Rivers. Per the Station Two Contracts, and under the NERC Reliability</li> </ul>
14 15 16 17 18		Henderson, did Big Rivers have a basis for extending a MISO planning reserve margin requirement to Henderson before February 1, 2019? No. Under the Power Sales Contract, Henderson alone had the right, and sole authority, to determine its annual capacity reservation from Station Two, and allocated the remainder to Big Rivers. Per the Station Two Contracts, and under the NERC Reliability Standards, neither MISO, nor Big Rivers, had authority over Henderson's capacity
14 15 16 17 18 19	A.	Henderson, did Big Rivers have a basis for extending a MISO planning reserve margin requirement to Henderson before February 1, 2019? No. Under the Power Sales Contract, Henderson alone had the right, and sole authority, to determine its annual capacity reservation from Station Two, and allocated the remainder to Big Rivers. Per the Station Two Contracts, and under the NERC Reliability Standards, neither MISO, nor Big Rivers, had authority over Henderson's capacity reservation from Station Two.
14 15 16 17 18 19 20	A.	<ul> <li>Henderson, did Big Rivers have a basis for extending a MISO planning reserve margin requirement to Henderson before February 1, 2019?</li> <li>No. Under the Power Sales Contract, Henderson alone had the right, and sole authority, to determine its annual capacity reservation from Station Two, and allocated the remainder to Big Rivers. Per the Station Two Contracts, and under the NERC Reliability Standards, neither MISO, nor Big Rivers, had authority over Henderson's capacity reservation from Station Two.</li> <li>Is there another example when Big Rivers confuses the concepts of contingency</li> </ul>

1		proposed for MISO approval in an email on May 16, 2018. Big Rivers discusses
2		operating characteristics during the 2018 Planning Year and states that the units operated
3		simultaneously less than 20 percent of the hours in that planning year. This may be
4		relevant to contingency reserves but is irrelevant for MISO planning reserve requirement
5		calculations, which rely in part on a generator's historical forced outage rates and not the
6		actual operating hours.
7	Q.	Big Rivers asserts that Henderson should have reserved more capacity out of
8		Station Two during the planning years 2013-2014 through 2018-2019. Did Big
9		Rivers communicate to Henderson that Henderson had reserved insufficient
10		capacity?
11	А.	Yes, but not until May 2018. In June 2017, Big Rivers and Henderson were negotiating
12		the terms of an agreement to place the Station Two units in an economic commitment
13		mode of operation in MISO. As part of that agreement, Henderson would be the MISO
14		Market Participant for Station Two and the Station Two load. Email communications
15		exchanged during that time were the first discussions between the parties about MISO
16		Resource Adequacy requirements. That is when Big Rivers explained its historical
17		calculations of Henderson load requirements according to the MISO Resource Adequacy
18		rules. My response to Big Rivers' communications concerning the Resource Adequacy
19		issue is attached to my testimony as Exhibit Bickett-5.
20		The first written notice from Big Rivers asserting that Henderson should reserve more
21		capacity from Station Two came to me from Mark Eacret in an email on May 14, 2018.
22		This email referenced the MISO planning year beginning on June 1, 2018. Big Rivers
23		followed up this email with a letter to Henderson on May 22, 2018. It is worth nothing

1		that this notice of an alleged capacity deficiency came after Big Rivers sent a letter to
2		Henderson on May 1, 2018, giving "Notice of Termination of Station Two Contracts".
3		I would also note that MISO's annual Resource Adequacy process for the 2018-2019
4		Planning Year began in 2017 and concluded in April 2018 with MISO's annual capacity
5		auction. It is during this time frame that all MISO Market Participants, including Big
6		Rivers, establish and meet their Resource Adequacy obligations. This time frame
7		similarly applied to the previous five planning years, i.e. 2013-2014 through 2017-2018.
8		Thus, Big Rivers' communications in May 2018 are inconsistent with those prior five
9		years in which there was no discussion about a reservation requirement related to MISO
10		Resource Adequacy.
11	Q.	Before Henderson became a MISO market participant, please explain how
12		Henderson established and communicated its resource and load planning
12 13		Henderson established and communicated its resource and load planning information to Big Rivers.
	A.	
13	A.	information to Big Rivers.
13 14	A.	information to Big Rivers. Henderson determined its capacity requirements necessary to meet its forecasted peak
13 14 15	A.	information to Big Rivers. Henderson determined its capacity requirements necessary to meet its forecasted peak demand in accordance with the NERC reference margin of 15 percent for predominantly
13 14 15 16	A.	information to Big Rivers. Henderson determined its capacity requirements necessary to meet its forecasted peak demand in accordance with the NERC reference margin of 15 percent for predominantly thermal systems in the SERC Reliability Corporation region. In compliance with NERC
13 14 15 16 17	A.	<ul> <li>information to Big Rivers.</li> <li>Henderson determined its capacity requirements necessary to meet its forecasted peak</li> <li>demand in accordance with the NERC reference margin of 15 percent for predominantly</li> <li>thermal systems in the SERC Reliability Corporation region. In compliance with NERC</li> <li>Reliability Standard MOD-031, Henderson provided load forecast information to Big</li> </ul>
13 14 15 16 17 18	A.	information to Big Rivers. Henderson determined its capacity requirements necessary to meet its forecasted peak demand in accordance with the NERC reference margin of 15 percent for predominantly thermal systems in the SERC Reliability Corporation region. In compliance with NERC Reliability Standard MOD-031, Henderson provided load forecast information to Big Rivers on an annual basis. See emails from Big Rivers dated January 27, 2017, and
13 14 15 16 17 18 19	A.	information to Big Rivers. Henderson determined its capacity requirements necessary to meet its forecasted peak demand in accordance with the NERC reference margin of 15 percent for predominantly thermal systems in the SERC Reliability Corporation region. In compliance with NERC Reliability Standard MOD-031, Henderson provided load forecast information to Big Rivers on an annual basis. See emails from Big Rivers dated January 27, 2017, and January 31, 2018, attached to my testimony as Exhibit Bickett-6 and Exhibit Bickett-7

1		that specified the amount of capacity reserved to Henderson and the surplus capacity
2		allocated to Big Rivers.
3	Q.	Before May 2018, did Big Rivers ever question Henderson's resource and load
4		planning methodology?
5	А.	I am not aware of any such comments or notice from Big Rivers.
6	Q.	Please explain Henderson's capacity rescrvations for each planning year beginning
7		in 2013-2014 through 2018-2019.
8	А.	Consistent with the NERC reference margin and Henderson's past business practices,
9		Henderson reserved enough capacity to cover its projected demand with a 15 percent
10		reserve margin for each of those planning years. For each planning year, the actual
11		energy taken from Station Two is provided to demonstrate that Henderson did not
12		underestimate its energy requirements:
13		• 2013-2014: Henderson's forecasted peak for the summer of 2013 was 110MW.
14		Henderson reserved 115MW of capacity from Station Two and had 12MW of
15		capacity from SEPA (Southeastern Power Administration). Henderson's actual
16		system peak demand in 2013 was 108MW and the maximum energy taken from
17		Station Two at its peak hour in 2013 was 104MW Note: In Attachment 1 to Big
18		Rivers' Response to Henderson's Supplemental Data Requests, Henderson's peak
19		demand for 2013-2014 is listed as 115MW. I do not know the source of that
20		value.
21		• 2014-2015: Henderson's forecasted peak for the summer of 2014 was 110MW.
22		Henderson reserved 115MW of capacity from Station Two and had 12MW of
23		capacity from SEPA (Southeastern Power Administration). Henderson's actual

1		system peak demand in 2014 was 108MW and the maximum energy taken from
2		Station Two at the peak hour in 2014 was 101MW. Note: In Attachment 1 to Big
3		Rivers' Response to Item No. 43 of Henderson's Supplemental Data Requests,
4		Henderson's peak demand for 2014-2015 is listed as 116MW. I do not know the
5		source of that value.
6	•	2015-2016: Henderson's forecasted peak for the summer of 2015 was 110MW.
7		Henderson reserved 115MW of capacity from Station Two and had 12MW of
8		capacity from SEPA (Southeastern Power Administration). Henderson's actual
9		system peak demand in 2015 was 109MW and the maximum energy taken from
10		Station Two at the peak hour in 2015 was 102MW.
11	•	2016-2017: Henderson's forecasted peak for the summer of 2016 was 109MW.
12		Henderson reserved 115MW of capacity from Station Two and had 12MW of
13		capacity from SEPA (Southeastern Power Administration). Henderson's actual
14		system peak demand in 2016 was 107MW and the maximum energy taken from
15		Station Two at the peak hour in 2016 was 99MW. Note: In Attachment 1 to Big
16		Rivers' Response to Item No. 43 of Henderson's Supplemental Data Requests,
17		Henderson's peak demand for 2014-2015 is listed as 110MW. I do not know the
18		source of that value. In fact, Attachment 3 shows the Henderson forecasted
19		summer peak to be 109MW.
20	•	2017-2018: Henderson's forecasted peak for the summer of 2017 was 108MW.
21		Henderson reserved 115MW of capacity from Station Two and had 12MW of
22		capacity from SEPA (Southeastern Power Administration). Henderson's actual

1		system peak demand in 2017 was 110MW and the maximum energy taken from
2		Station Two at the peak hour in 2017 was 102MW.
3		• 2018-2019: Henderson's forecasted peak for the summer of 2018 was 107MW.
4		Henderson reserved 115MW of capacity from Station Two and had 12MW of
5		capacity from SEPA (Southeastern Power Administration). Henderson's actual
6		system peak demand in 2018 was 106MW and the maximum energy taken from
7		Station Two at the peak hour in 2018 was 100MW.
8	Q.	Please describe the notice that Big Rivers sent to Henderson requesting an increase
9		to its reservation from Station Two.
10	А.	After Big Rivers notified Henderson on May 1, 2018, that the Station Two Contracts had
11		terminated, I received an email from Mark Eacret dated May 14, 2018 stating that
12		Henderson should increase its capacity reservation from Station Two. The email stated
13		that, by Big Rivers' calculation, Henderson was short by eight Zonal Resource Credits
14		(ZRCs) in MISO. Henderson also received a letter containing the same information.
15	Q.	How did Henderson respond to that capacity deficiency notice?
16	А.	While Henderson did not agree with Big Rivers that Henderson was deficient, Henderson
17		nevertheless purchased eight ZRCs from a third party and had the credits transferred to
18		Big Rivers via the MISO capacity tracking tool. Henderson's letter to Big Rivers dated
19		May 25, 2018, is attached to my testimony as Exhibit Bickett-8.
20	Q.	Did Big Rivers accept the ZRC transfer?
21	А.	No.
22	Q.	Were the ZRCS valid to satisfy any purported capacity deficiency for Big Rivers in
23		MISO?

1	А.	Yes. By not accepting the ZRC transfer, Big Rivers forfeited the financial value
2		associated with the ZRCs. Because MISO's Resource Adequacy price was low for 2018-
3		2019, the financial value was not significant, but it was also not zero. I would also like to
4		point out that MISO Market Participants are allowed to buy ZRCs directly from MISO's
5		capacity auction. Although Henderson acted in good faith to bilaterally procure ZRCs
6		and provide them to Big Rivers, direct procurement from MISO's auction is an option
7		MISO makes available. Big Rivers, under its own rationale of extending MISO
8		obligations to Henderson, should have also extended this option to Henderson but did not
9		do so.
10	Q.	Big Rivers contends that Big Rivers rejected the credits because they were
11		purchased in Zone 9, rather than in Zone 6, where Henderson's load is located. Was
11		pur chased in Zone 9, rather than in Zone 0, where Henderson's load is located. Was
12		this a valid reason for Big Rivers to reject the transfer?
	А.	
12	A.	this a valid reason for Big Rivers to reject the transfer?
12 13	A.	this a valid reason for Big Rivers to reject the transfer? No. There was no price separation (Auction Clearing Price) between the LRZ (Local
12 13 14	A.	this a valid reason for Big Rivers to reject the transfer? No. There was no price separation (Auction Clearing Price) between the LRZ (Local Resource Zone) where the purchased ZRCs originated and Henderson's LRZ. From Page
12 13 14 15	A.	<ul> <li>this a valid reason for Big Rivers to reject the transfer?</li> <li>No. There was no price separation (Auction Clearing Price) between the LRZ (Local Resource Zone) where the purchased ZRCs originated and Henderson's LRZ. From Page 95 of the MISO Business Practice Manual:</li> </ul>
12 13 14 15 16	A.	<ul> <li>this a valid reason for Big Rivers to reject the transfer?</li> <li>No. There was no price separation (Auction Clearing Price) between the LRZ (Local Resource Zone) where the purchased ZRCs originated and Henderson's LRZ. From Page 95 of the MISO Business Practice Manual:</li> <li>If a Load is located in an LRZ with a higher ACP than the LRZ or ERZ</li> </ul>
12 13 14 15 16 17	A.	<ul> <li>this a valid reason for Big Rivers to reject the transfer?</li> <li>No. There was no price separation (Auction Clearing Price) between the LRZ (Local Resource Zone) where the purchased ZRCs originated and Henderson's LRZ. From Page 95 of the MISO Business Practice Manual:</li> <li>If a Load is located in an LRZ with a higher ACP than the LRZ or ERZ where the Resource is located, the MP serving the Load will pay an</li> </ul>
12 13 14 15 16 17 18	A.	<ul> <li>this a valid reason for Big Rivers to reject the transfer?</li> <li>No. There was no price separation (Auction Clearing Price) between the LRZ (Local Resource Zone) where the purchased ZRCs originated and Henderson's LRZ. From Page 95 of the MISO Business Practice Manual:</li> <li>If a Load is located in an LRZ with a higher ACP than the LRZ or ERZ where the Resource is located, the MP serving the Load will pay an amount equal to the difference of the ACPs between the LRZ and the LRZ</li> </ul>

1		The ACPs for each LRZ were known in April 2018, so it was a known fact that no price			
2		separation existed between Zone 9 and Zone 6, and thus, no reason for Big Rivers to			
3		reject the ZRCs in May 2018.			
4	Q.	Refer to Big Rivers' response to Item No. 22 of Commission Staff's initial request			
5		for information, as revised on June 11, 2020. Big Rivers states that "price separation			
6		between Local Resource Zones may occur due to constraints binding in the PRA. As			
7		the Market Participant responsible to MISO for settlement of charges related to			
8		Henderson, Big Rivers would have been subject to risk should price separation have			
9		occurred." Does this statement provide a valid reason for Big Rivers to reject the			
10		transfer of eight ZRC's from Henderson to Big Rivers?			
11	A.	No. Big Rivers would have been subject to risk should price separation have occurred,			
12		but that did not occur because the MISO Planning Reserve Auction had already cleared			
13		by the time Big Rivers submitted a notice to HMP&L in May 2018 that it needed			
14		additional capacity to meet MISO Resource Adequacy obligations. There was, in fact, no			
15		price separation between the Zone 9 ZRCs that Henderson had transferred to Big Rivers			
16		and Zone 6 ZRCs.			
17	VI.	MISCHARACTERIZATIONS IN BIG RIVER'S TESTIMONY			
18	Q.	What, if any, benefits associated with MISO membership did Big Rivers pass			
19		through to Henderson?			
20	Α.	I am not aware of any such benefit. Henderson received the same services from Big			
21		Rivers before and after Big Rivers joined MISO, per terms of the Station Two contracts.			
22		Big Rivers retained all MISO revenue paid for Station Two generation, even though			
23		Henderson never authorized Big Rivers to act as the Market Participant or Asset Owner			

- for Henderson Station Two. Furthermore, Big Rivers was never authorized to act as the
   Market Participant for Henderson load.
- Q. Did Henderson benefit from Big Rivers' membership in MISO by receiving the
  ability to satisfy Henderson's contingency reserve requirements?
- A. As stated by Big Rivers during its Commission filing in 2010, the contingency reserve
   requirement was applicable to loss of its Wilson Unit and not the Henderson Load. To my
- 7 knowledge, neither Henderson Station Two nor the Henderson load was a contributing
- 8 factor in Big Rivers' inability to comply with the NERC Balancing Authority
- 9 requirement. Based on data from the Big Rivers' 2010 Integrated Resource Plan,
- 10 Henderson peak demand was only about 7.5 percent of Big Rivers' peak demand.
- Q. Wholesale market revenue could be a significant MISO benefit. What revenue was
   received by Big Rivers from MISO for Station Two units?
- A. My understanding is that Big Rivers received all revenue from MISO related to Station
   Two's participation in MISO's Energy, Ancillary Services, and Resource Adequacy
   markets.
- 16 Q. Was there ever any revenue from MISO for system reserves, ancillary services,
- 17 and/or make-whole payments received by Big Rivers remitted to Henderson for
- 18 Station Two generation?
- 19 A. While the possibility for sharing MISO revenue was discussed in 2017 during
- 20 negotiations between Henderson and Big Rivers to put the Station Two Units in
- 21 "economic commit" status in MISO, I am aware of no such payments from Big Rivers to
- 22 Henderson.

1	Q.	Did Henderson receive a benefit in the form of easy access to replacement energy			
2		when the Station Two units were unavailable?			
3	A.	It is not clear to me how replacement energy was characterized as a MISO benefit to			
4		Henderson. Under the Station Two Contracts, Big Rivers was required to provide			
5		replacement energy when the Station Two Units were unavailable, and Henderson was			
6		required to pay for the cost of that energy.			
7	VII.	MISO FEES INVOICED TO HENDERSON FROM DECEMBER 2010			
8		THROUGH MAY 2016			
9	Q.	Are you familiar with the MISO fees calculated by Big Rivers as described in the			
10		Direct Testimony of Mark Eacret?			
11	A.	Yes.			
12	Q.	Please provide a breakdown of these MISO fees and explain why Henderson agrees			
13		or disagrees with the Big Rivers' cost allocations.			
14	A.	1. \$357,908.62 was the amount calculated by Big Rivers for operation reserve costs			
15		allocated to Henderson load for regulation, spinning, and supplemental reserves.			
16		Henderson disputes these charges because Henderson did not require these operating			
17		reserves for its load. Furthermore, Henderson never received any MISO revenue for			
18		operating reserves provided by Station Two.			
19		2. \$753,538.92 was the amount calculated by Big Rivers and allocated to Henderson			
20		load for network and/or point-to-point transmission service. Henderson disputes these			
21		charges because Henderson did not require transmission service and Henderson was not a			
22		customer of Big Rivers.			

1		3.	\$272,801.97 was the amount calculated by Big Rivers and allocated to Henderson		
2		load to recover costs from MISO market participants under grandfathered agreements.			
3		Henderson disputes these charges because Henderson was not a market participant during			
4		the referenced time period.			
5		4.	\$38,512.03 was the amount calculated by Big Rivers and allocated to Henderson		
6		load to recover costs incurred to perform Local Balancing Authority (LBA) services for			
7		Henderson. Henderson agrees with these charges because Big Rivers did perform			
8		Balancing Authority services for Henderson during the referenced time period.			
9	VIII.	CONCLUSION			
10	Q.	Does this conclude your testimony?			
11	A.	Yes.			

#### BEFORE THE PUBLIC SERVICE COMMISSION IN THE MATTER OF APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR ENFORCEMENT OF RATE AND SERVICE STANDARDS CASE NO. 2019-269

#### **VERIFICATION**

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

Sead Brikett

COMMONWEALTH OF KENTUCKY COUNTY OF HENDERSON

SUBSCRIBED AND SWORN to before me by Brad Bickett on this the 13 day of July, 2020.

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Jammy Kougler Notary Public, Kentucky State at Large My Commission Expires: 5/28/2021 Notary ID #: 5 7 9 7 8 |\_\_\_\_