

ORIGINAL



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

ELECTRONIC)	Case No.
2020 INTEGRATED RESOURCE PLAN OF)	2020-00299
BIG RIVERS ELECTRIC CORPORATION)	

**Responses to Ben Taylor and the Sierra Club's
Supplemental Requests for Information
dated
April 20, 2021**

FILED: May 11, 2021

ORIGINAL

BIG RIVERS ELECTRIC CORPORATION

**ELECTRONIC
2020 INTEGRATED RESOURCE PLAN OF
BIG RIVERS ELECTRIC CORPORATION
CASE NO. 2020-00299**

VERIFICATION

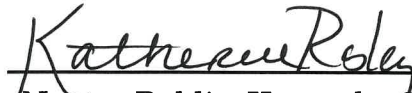
I, Nathaniel A. ("Nathan") Berry, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Nathaniel A. ("Nathan") Berry

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Nathaniel A. ("Nathan") Berry on this the 1st day of May, 2021.



Notary Public, Kentucky State at Large

Kentucky ID Number

KYNP16841

My Commission Expires

October 31, 2024

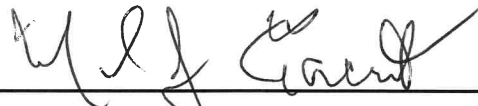


BIG RIVERS ELECTRIC CORPORATION

**ELECTRONIC
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VERIFICATION

I, Mark J. Eacret, 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.



Mark J. Eacret

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

11th SUBSCRIBED AND SWORN TO before me by Mark J. Eacret on this the
day of May, 2021.



Notary Public, Kentucky State at Large

Kentucky ID Number

KYNP16841

My Commission Expires

October 31, 2024



BIG RIVERS ELECTRIC CORPORATION

**ELECTRONIC
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VERIFICATION


I, Michael S. ("Mike") Mizell, 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.



Michael S. ("Mike") Mizell

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Michael S. ("Mike") Mizell on this the 17th day of May, 2021.



Notary Public, Kentucky State at Large
Kentucky ID Number KVNP16841
My Commission Expires October 31, 2024



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Supplemental Requests for Information
dated April 20, 2021

May 11, 2021

1 **Item 1)** *Refer to Big Rivers' response to Sierra Club's RFI 1-1(b), and to*
2 *the IRP's "optimal plan" to form a coalition of partners to invest in a 592 MW*
3 *natural gas combined cycle ("NGCC") unit at Sebree or Coleman, see IRP pp.*
4 *33, 137, 140.*

5 *a. Please confirm that Big Rivers has no update on any efforts or*
6 *progress to form such a coalition occurring since the Company's*
7 *March 19, 2021, response to Sierra Club's RFI 1-1(b). If not*
8 *confirmed, please provide a detailed narrative update on all such*
9 *interceding developments*

10 *b. Explain whether outreach to, or conversations with, potential*
11 *partners will continue between now and when the PSC renders a*
12 *decision in PSC Case No. 2021-00079, or conversely whether such*
13 *efforts to explore the NGCC partnership are on hold pending the*
14 *outcome of that proceeding.*

15 *c. Confirm when within 2024 (e.g., by January 1, December 31, other)*
16 *that preferred scenario in the IRP envisioned Big Rivers taking the*
17 *90 MW from the NGCC.*

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1 **Response)**

2 a. Big Rivers confirms that it has no update on any efforts or progress to form
3 a coalition since March 19, 2021.

4 b. While there is currently no outreach and no conversations with potential
5 partners, Big Rivers has not put the effort on hold. These efforts could start
6 again if circumstances warrant.

7 c. January 1, 2024.

8

9

10 **Witness)** Mark J. Eacret

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1 **Item 2)** *Refer to Big Rivers' response to Sierra Club's RFI 1-2. Please*
2 *confirm that Big Rivers has no update about any new planning or modeling*
3 *related to new assumptions/inputs or forecasts about carbon regulation,*
4 *taxation, trading, or other effective pricing, since the Company's March 19,*
5 *2021, response to Sierra Club's RFI 1-2. If not confirmed, please identify and*
6 *explain all such carbon related updates.*

7

8 **Response)** Big Rivers confirms that there has been no such update.

9

10

11 **Witness)** Michael S Mizell

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1 **Item 3) *Refer to Big Rivers' February 28, 2021, application in PSC Case***
2 ***No. 2021-00079, Electronic Application Of Big Rivers Electric Corporation***
3 ***For A Certificate Of Public Convenience And Necessity Authorizing The***
4 ***Conversion Of The Green Station Units To Natural Gas-Fired Units And An***
5 ***Order Approving The Establishment Of A Regulatory Asset, in which the***
6 ***Company seeks approval to convert the Green Station to gas-fired and to put***
7 ***the plants two into service as gas-fired as early as March 11 and April 30,***
8 ***2022, respectively, ahead of the plant's June 1, 2022, deadline to cease coal-***
9 ***fired operations—a proposal that would supersede the IRP's "optimal" case.***

10 ***a. Please identify the specific date, or timeline of dates, of meetings,***
11 ***conversations, votes, or other event or processes, when Big Rivers***
12 ***decided to replace the IRP's purportedly optimal case—namely,***
13 ***forming a coalition of partners to invest in a 592 MW NGCC plant,***
14 ***of which Big Rivers would take 90 MW of power—with the now-***
15 ***purportedly least-cost plan of converting Green to gas-fired for mid-***
16 ***2022 operations. (If such explanation is already present in Big***
17 ***Rivers' public filings in Case No. 2021- 00079, and Big Rivers has***

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1 *nothing responsive to add beyond that, you may refer Sierra Club to*
2 *the specific portion(s) of that record.)*

3 ***b. Whereas the IRP's optimal case has Green retiring in June 2022, and***
4 ***Big Rivers not taking new power from the potential NGCC until***
5 ***2024, please explain in detail whether and why it is prudent for Big***
6 ***Rivers to convert Green for service by 2022, as opposed to later. In so***
7 ***doing, without limitation, please discuss all reasons why Big Rivers***
8 ***does not believe it would be prudent to idle Green in June 2022 as***
9 ***already planned, conduct a broad evaluation in 2022-2023 of***
10 ***possible options (including a clean power portfolio) for new***
11 ***power/capacity that may be needed by 2024, and then pursue the***
12 ***result of that evaluation at such time ahead of 2024, if indeed***
13 ***power/capacity is needed for 2024. (If such explanation and***
14 ***discussion is already present in Big Rivers' public filings in Case***
15 ***No. 2021-00079, and Big Rivers has nothing responsive to add beyond***
16 ***that, you may refer Sierra Club to the specific portion(s) of that***
17 ***record.)***

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- 1 ***c. Whereas the IRP's optimal case has Big Rivers taking only 90 MW of***
2 ***power from the potential NGCC in 2024, please explain in detail***
3 ***whether and why it is prudent for Big Rivers to convert both Green***
4 ***units (whose respective output capabilities as gas-converted units***
5 ***will apparently be 211 MW and 203 MW) as opposed to just one. (If***
6 ***such explanation is already present in Big Rivers' public filings in***
7 ***Case No. 2021- 00079, and Big Rivers has nothing responsive to add***
8 ***beyond that, you may refer Sierra Club to the specific portion(s) of***
9 ***that record.)***
- 10 ***d. Please confirm whether Big Rivers plans on a gas-converted Green***
11 ***Station meeting approximately the same, less, or more load than***
12 ***coal-fired Green has been satisfying in recent years, and further***
13 ***identify what that load (whether the same, less, or more than at***
14 ***present) would be. If the answer varies over time, please provide the***
15 ***projected/estimated load that all future years in which Big Rivers***
16 ***would envision a gas-converted Green operating. (If such***
17 ***explanation is already present in Big Rivers' public filings in Case***

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1 *No. 2021-00079, and Big Rivers has nothing responsive to add beyond*
2 *that, you may refer Sierra Club to the specific portion(s) of that*
3 *record.)*

4
5 **Response)** Big Rivers disagrees with the premise of the question that its proposal
6 to convert the two Green Station units to natural gas “supersedes” the optimal plan
7 under the IRP. Partnering in a natural gas combined cycle (“NGCC”) unit is the lower
8 cost option over the long term, but Big Rivers has been unable to identify
9 counterparties willing to invest in the project at this time. Subsequent to the IRP
10 analysis, Big Rivers continued to evaluate ways to resolve its capacity need since the
11 NGCC option was not viable without partners. That analysis (which is included in
12 Big Rivers’ application in Case No. 2021-00079¹) showed that purchasing the capacity
13 in MISO or converting the Green Station units to natural gas were the least-cost
14 options that did not involve a NGCC unit, and were economically equivalent. The

¹ See *In the Matter of: Electronic Application off Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity Authorizing the Conversion of the Green Station Units to Natural Gas-Fired Units and an Order Approving the Establishment of a Regulatory Asset*, Case No. 2021-00079. Application filed March 1, 2021.

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1 Green natural gas conversion has the added benefits of eliminating the market risk
2 that Big Rivers would be subject to were it to rely on market purchases, and providing
3 dynamic voltage support in the Sebree area. *See* Big Rivers’ application in Case No.
4 2021-00079; the Direct Testimony of Michael T. Pullen attached as Exhibit A to Big
5 Rivers’ application in Case No. 2021-00079; Big Rivers’ response to Item 3 of the
6 Commission Staff’s Second Request for Information in Case No. 2021-00079.

7 a. Not applicable.

8 b. The IRP analysis evaluated only Big Rivers’ capacity needs compared to its
9 native load. It did not include Big Rivers’ obligations under its power sales
10 contracts with Owensboro Municipal Utilities (“OMU”) and the Kentucky
11 Municipal Energy Agency (“KYMEA”) because, on a long-term basis, Big
12 Rivers does not want to build capacity significantly above that needed by
13 its native load in the event those contracts are not renewed, and Big Rivers
14 could provide the capacity needed for those contractual obligations through
15 market purchases. The desire not to have substantial excess capacity is an
16 especially important consideration for Big Rivers after just having gone

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1 through substantial efforts over the past decade to mitigate the loss of the
2 smelter load and to right-size our generation compared to our native load.

3 If Big Rivers' application in Case No. 2021-00079 is approved, the
4 cost of the Green natural gas conversion will be fully depreciated over the
5 remaining term of the longer of the OMU and KYMEA contracts. So,
6 converting both units to natural gas does not impose a risk of being left with
7 excess capacity if those contracts are not renewed. Also, since the Green
8 conversion and the option of relying on market purchases for those
9 contractual obligations are economically equivalent, and since the Green
10 conversion eliminates the market risk of the market option, converting the
11 Green unit to natural gas in 2022 is preferred. *See* the Direct Testimony of
12 Michael T. Pullen in Case No. 2021-00079; Big Rivers' responses to Items
13 10, 13, and 14 of the Commission's Staff's First Request for Information in
14 Case No. 2021-00079.

15 c. *See* Big Rivers' response to sub-part b, above; *see also* the Direct
16 Testimonies of Michael T. Pullen and Mark Eacret, attached as Exhibits A
17 and B, respectively, to Big Rivers' application in Case No. 2021-00079.

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1 d. The Green natural gas conversion is for needed capacity. Big Rivers
2 anticipates that the Green units will be dispatched less after the conversion
3 than they are currently. See Big Rivers' response to Item 4 of the
4 Commission Staff's Second Request for Information in Case No. 2021-
5 00079; Big Rivers' response to Item 17 of the Attorney General's Initial
6 Request for Information in Case No. 2021-00079.

7

8

9 **Witness)** Nathanial A. Berry

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