

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF BIG RIVERS)	CASE NO.
ELECTRIC CORPORATION FOR APPROVAL)	2020-00183
OF SOLAR POWER CONTRACTS)	

COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION
TO BIG RIVERS ELECTRIC CORPORATION

Big Rivers Electric Corporation (BREC), pursuant to 807 KAR 5:001, is to file with the Commission an electronic version of the following information. The information requested herein is due on August 14, 2020. The Commission directs BREC to the Commission's March 16, 2020 and March 24, 2020 Orders in Case No. 2020-00085¹ regarding filings with the Commission. The Commission expects the original documents to be filed with the Commission within 30 days of the lifting of the current state of emergency. All responses in paper medium shall be appropriately bound, tabbed, and indexed. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

Each response shall include the name of the witness responsible for responding to the questions related to the information provided. Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC Mar. 16, 2020), Order at 5–6. Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC Mar. 24, 2020), Order at 1–3.

preparer or the person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

BREC shall make timely amendment to any prior response if BREC obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which BREC fails or refuses to furnish all or part of the requested information, BREC shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, BREC shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Refer to the application, page 4, lines 19–21. Explain whether either the Kentucky Municipal Energy Agency (KyMEA) or Owensboro Municipal Utilities (OMU) have specifically requested a certain amount of renewable power from BREC.

2. Refer to the application, page 6, lines 4–8. Explain whether BREC has any other specific customers for the solar power not consumed by Nucor.

3. Refer to the application, page 6, lines 18–21 through page 7, lines 1–2.

a. Provide a copy of recent credit reports that support BREC's assertion that diversifying its supply portfolio enhances its credit profile.

b. Explain whether BREC has other economic development prospects that are interested in renewable power.

4. Refer to the application, Exhibit 4, Direct Testimony of Mark Eacret (Eacret Testimony), page 6 of 40.

a. Explain how the 260 megawatts (MW) solar purchase serves as a hedge of energy and capacity required to serve Nucor.

b. Explain the importance of the stated hedge price structure.

5. Refer to the application, page 8, lines 14–18, page 10, lines 4–11, Eacret Testimony, page 14 of 40, lines 8–13, through 15 of 40, lines 1–14, and Exhibit Eacret-5.

a. Provide Exhibit Eacret-5 with the addition of the solar contracts.

b. Explain how MISO counts capacity derived from solar generation.

c. Explain whether there are seasonal variations in the anticipated output and capacity value of the solar facilities.

d. Explain the differences between MISO's Business Practices Manual and MISO's proposed Effective Load Carrying Capability approaches to calculating capacity values.

e. Explain the status of MISO's proposed Effective Load Carrying Capability approach.

6. Refer to the Eacret Testimony, page 6 of 40, lines 13–15. Provide the derivation of the approximate energy and capacity hedge percentages.

7. Refer to the Eacret Testimony, page 9 of 40, lines 8–25 through page 12 of 40, lines 1–11, and Exhibit Eacret-4. Provide the bid evaluation analysis that supports the referenced discussion and Exhibit.

8. Refer to the Eacret Testimony, page 10 of 40. Provide a more detailed explanation of the meaning of and the implications for BREC of the statements on lines 6–12.

9. Refer to the Eacret Testimony, page 10 of 40, line 22. Provide the results of MISO interconnection studies, if available, and explain whether there are any mitigating measures that must be taken to maintain the integrity of the transmission system.

10. Refer to the Eacret Testimony, page 11 of 40. Elaborate on the concerns that BREC had with multiple parties sharing generation from a single facility.

11. Refer to the Eacret Testimony, page 11 of 40. Explain BREC’s concerns regarding Geronimo’s intention to construct a 160 MW facility.

12. Refer to the Eacret Testimony, page 12 of 40. Explain how the two CES facility locations “diversifies LMP basis risk.”

13. Refer to the Eacret Testimony, page 12 of 40. Provide a description of the resource planning model scenarios (including the optional resources offered for model selection) in a manner similar to what BREC provided in its most recent Integrated Resource Plan (IRP) that were examined relative to the solar purchases, where the model continued to select the solar purchases.

14. Refer to the Eacret Testimony, page 14. Explain whether BREC expects the non-renewal of the OMU and KMEA contracts.

15. Refer to the Eacret Testimony, page 16 of 40, lines 2–19. The Commission is aware of a possible renewable power contract between city of Henderson and a merchant solar provider. Explain whether BREC is aware of any system integration or stability issues, such as maintaining voltage and thermal limits, would occur for itself or MISO when this additional facility comes online.

16. Refer to the Eacret Testimony, page 15 of 40. Provide the projected remaining lives for each of BREC’s generating resources.

17. Refer to the application, Eacret Testimony, page 15 of 40, and Eacret Exhibit-5.

a. Provide an updated table with BREC’s Zonal Resource Credits and credits under MISO’s proposed Effective Load Carrying Capability approach along with the equivalent measures for each generating unit beginning in 2017 through 2032. Along with the table, explain the effects of the purchase on BREC’s reserve margin.

b. Explain and provide additional support for how the solar energy becomes an economic energy purchase.

c. Provide an updated example of BREC’s FAC filings (or FAC support documentation) that will be used to document and support the economic energy purchase monthly.

d. Explain how the cost of the purchased solar energy will be reduced by the value of capacity, ancillary services, and environmental attributes and how these cost reductions will be documented in the monthly FAC filings or support documentation.

18. Refer to the Eacret Testimony, page 16 of 40, lines 2–19. If the Commission approves BREC’s solar contract applications, explain whether the addition of any

additional renewable generation on BREC's system would present problems in maintaining the planning reserve margin and operating the MISO system in BREC's Zone at acceptable voltage and thermal limits. If so, explain what those problems are and how they could be resolved.

19. Refer to the Eacret Testimony, page 16 of 40.

a. Explain whether MISO is actively discouraging or not approving renewable energy projects for interconnection that would push the percentage of renewable generation above the 30 percent threshold.

b. Provide a detailed explanation of the integration and reliability problems that occur when more of the amount of renewable energy exceeds the 30 percent threshold.

c. Explain how BREC will treat the energy potential and capacity of its existing generation units if all 260 MW of solar energy is being purchased.

20. Refer to the Eacret Testimony, page 17 of 40. Referencing the article regarding National Grid's problems with solar projects in the link below, describe Geronimo's relationship to National Grid and whether BREC is aware of any negative issues associated with Geronimo renewable project implementation.

<https://www.utilitydive.com/news/alleged-national-grid-management-problems-at-the-highest-levels-prompt-ma/564938/>

21. Refer to the Eacret Testimony, page 18 of 40 and page 23 of 40.

a. Confirm that BREC will purchase the output, which includes the energy, ancillary services, and all environmental rights from the solar facility.

b. Explain the ancillary services associated with the solar facility output and how BREC's members will benefit from those services.

22. Refer to the Eacret Testimony, page 18 of 40 and page 20 of 40. Explain whether BREC acting as the Market Participant means that the three solar providers are technically selling the output into MISO and BREC is buying it back according to the contract pricing arrangements regardless of MISO hourly locational marginal prices.

23. Refer to the Eacret Testimony, page 20 of 40, lines 1–4. Explain how BREC will shadow settle the expected MISO energy, capacity, and ancillary service revenues.

24. Refer to the Eacret Testimony, page 20 of 40. Provide any estimations of interconnection costs for each project.

25. Refer to the Eacret Testimony, page 29, lines 1–4 and Exhibit Eacret-15. If not provided elsewhere, provide a copy of the economic analysis in electronic format with all cells and formulas visible and unprotected.

26. Refer to the Eacret Testimony, page 29. Explain why the model selects solar until the maximum reserve margin is reached.

27. Refer to the Eacret Testimony, page 30 of 40, lines 20–23 through page 32, lines 1–8. Provide a numerical example of the calculations described in the discussion.

28. Refer to the Eacret Testimony, page 40 of 40. Describe any potential costs of renegotiation of contracts.

29. Refer to the Eacret Testimony, page 40 of 40. Provide the actual flat rates charged to OMU and the expected rates to be charged to Nucor.

30. Refer to the Eacret Testimony generally. Explain whether BREC has other customers that want or need renewable energy to satisfy sustainable energy goals.

31. Refer to the Eacret Testimony, Exhibit Eacret-12. Provide a more detailed explanation of the differences between the Plexos LT Plan and ST Plan models and how each model approached the analyses.

32. Refer to the application, page 13, Footnote 10, and Exhibit 5, Direct Testimony of Paul G. Smith (Smith Testimony), page 7 of 8, lines 2–7

a. Explain the reasoning behind S&P rating agency's treating 25–50 percent of BREC's payments under the contracts as fixed charges when calculating various coverage ratios and, if possible, provide a copy of S&P's report to BREC explaining its rationale.

b. Explain whether the rating agencies would treat any other BREC contracted market power purchase the same way.

33. Refer to the Smith Testimony, page 8 of 8, lines 4–17.

a. Explain how the Solar Contract's improvement of Environmental, social, and governance rating criteria count as mitigating factors and the extent to which these mitigating factors help offset the negative effects of S&P's treatment of the payments under the contracts

b. Provide copies of the latest rating agency reports.



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cc: Parties of Record

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