COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2022 THROUGH OCTOBER 31, 2024	**)**	**Case No. 2025-00343**

DIRECT TESTIMONY

OF

THOMAS L. MELTON
SENIOR POWER PORTFOLIO OPTIMIZATION ANALYST
ENERGY SERVICES

ON BEHALF OF

BIG RIVERS ELECTRIC CORPORATION

PURSUANT TO ORDERING PARAGRAPH NO. 6
OF THE COMMISSION'S DECEMBER 19, 2025, ORDER

FILED: January 23, 2026

BIG RIVERS ELECTRIC CORPORATION

AN ELECTRONIC EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM NOVEMBER 1, 2022 THROUGH OCTOBER 31, 2024

CASE NO. 2025-00343

VERIFICATION

I, Thomas L. Melton, 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.

Thomas L. Melton

COMMONWEALTH OF KENTUCKY)

COUNTY OF DAVIESS)

21st SUBSCRIBED AND SWORN TO before me by Thomas L. Melton, on this the _____ day of January, 2026.

Notary Public, Kentucky State at Large

Kentucky ID Number

My Commission Expires

TYSON KAMUF
Notary Public
Commonwealth of Kentucky
Commission Number KYNP43028
My Commission Expires Feb 22, 2026

DIRECT TESTIMONY
OF
THOMAS L. MELTON

Q. Please state your name, business address, and position.

A. My name is Thomas L. Melton. I am employed by Big Rivers Electric Corporation ("Big Rivers" or the "Company"), 710 W. Second Street, Owensboro, Kentucky 42301 as the Senior Power Portfolio Optimization Analyst, Energy Services. I report to Micah Bushnell, VP Energy Services.

Q. Please describe your job responsibilities.

A. As Senior Power Portfolio Optimization Analyst, I am responsible for long-term energy and capacity marketing and short-term energy hedging activities at Big Rivers. I am also responsible for coordination of daily Midcontinent Independent System Operator, Inc. ("MISO") market activities that include unit offer strategy, interface with ACES Power Marketing, and oversight of the market Awards Process. Other responsibilities include scheduling Southeast Power Administration ("SEPA") energy and capacity, natural gas account management, contract management, interface with the MISO Independent Market Monitor, and performing a variety of official roles within the MISO structure.

Q. Briefly describe your education and work experience.

A. I have bachelor's degrees in business administration and psychology from Kentucky Wesleyan College (2001). I also have a Master of Business Administration (MBA) from Murray State University (2005) with an emphasis in Economic and Financial Analysis.

I have approximately 20 years of combined energy industry experience in both gas and electric utilities and non-regulated marketing companies. My primary experience is in natural gas trading and risk/portfolio management. I also have approximately 6 years of supply chain and commodity risk management experience in the consumer-packaged goods sector. I joined Big Rivers Electric Corporation in July 2023 as Senior Power Portfolio Optimization Analyst in Energy Services.

Q. Have you previously testified before this Commission?

A. Yes. I sponsored responses to information requests in Case No. 2025-00078, Big Rivers' most recent six-month fuel adjustment clause ("FAC") review.[1]

[1] *In the Matter of: An Electronic Examination of the Application of the Fuel Adjustment Clause of Big Rivers Electric Corporation from November 1, 2023 through April 30, 2024.* P.S.C. Case No. 2025-00078.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to respond to the following subparts of Ordering Paragraph No. 6 of the Commission's Order dated December 19, 2025, in this matter:

> (f) Any changes in the wholesale electric power market that occurred during the review period or that BREC expects to occur within the next two years that have significantly affected or will significantly affect BREC's electric power procurement practices.
>
> (g) Actions taken by BREC to mitigate purchased power related costs for its customers.
>
> (h) Any planned outages that extended beyond the estimated time of the outage and how BREC addressed the extended outage, and any resulting capacity and energy shortfalls.
>
> (i) Whether BREC engaged in any off systems sales or intersystem sales to offset high fuel or power costs during the period under review.
>
> (j) How BREC bids its generating units into MISO energy markets, including, but not limited to the following: how BREC determines the manner in which individual generating units are offered into MISO's day ahead market (must run, economic dispatch etc.); who makes those decisions; and what level of control MISO has over the dispatch of BREC's generating units.

(l) Any cost/benefit analysis BREC has performed regarding its participation in MISO.

Q. Discuss any changes in the wholesale electric power market that occurred during the review period or that BREC expects to occur within the next two years (i.e., 2027 and 2028) that have significantly affected or will significantly affect BREC's electric power procurement practices.

A. Market expectations are for IndyHub prices to remain strong with 2026 prices currently averaging right at $60/MWh. IndyHub price projections for 2027 and 2028 are currently averaging $66/MWh and $70/MWh respectively. Expectations are for pricing to remain strong with market volatility continuing into the 2026-2028 period. Some drivers of this market volatility include forecasted higher fuel costs (coal/natural gas), demand growth from industrial/technology sector expansion (tech data centers), tighter supply markets with demand outpacing supply growth, increased lead times in new generation assets and grid modernization, and higher winter and summer peak demands. Market uncertainty is increasing price volatility as a result. Natural gas prices continue to remain resilient with 2026 prices forecast to remain in the $4.00-4.25 range. The 2027 and 2028 outlook does show some small price retreat in the forecast to the $3.75-4.00 range for that period. This price forecast is mostly driven by a strong gas production forecast and

the continued rise in renewable power (solar/wind) picking up during peak daytime hours requiring less gas burn to generate electricity. Liquefied natural gas ("LNG") exports will remain strong and domestic industrial and residential usage is seeing modest growth.

The MISO Capacity Market for Zone 6 cleared relatively low for the 2024-2025 planning year with Summer Capacity Prices settling at $30/MW-Day, Fall Capacity Prices settling at $15/MW-Day, Winter Capacity Prices settling at $0.75/MW-Day, and Spring Capacity Prices settling at $34.10/MW-Day. MISO has since implemented a new process to clear the Planning Resource Auction ("PRA") utilizing Reliability Based Demand Curves ("RBDC") which resulted in higher clearing prices for the 2025-2026 planning year. For the 2025-2026 planning year the summer season cleared at $666.50/MW-Day, the fall season at $91.60/MW-Day, the winter season at $33.20/MW-Day, and the spring season at $69.88/MW-Day.

For the 2026-2027 planning year we are [redacted] This is occurring as Wilson will run for economics and SEPA will run when hydrological conditions are favorable, but due to [redacted]

[redacted] the Reid CT remains inoperable due to a catastrophic forced outage.

Q. Please discuss any actions taken by BREC to mitigate purchased power-related costs for its customers.

A. As explained in Big Rivers' response to Item No. 31 of the Commission Staff's First Request for Information in Appendix B of the Commission's December 19, 2025 Order, Big Rivers has a natural hedge on our portfolio as we own coal and natural gas resources and have a power purchase agreement with SEPA. These resources (subject to fuel procurement) are balanced against our on and off system load to determine if we are deficient power or have excess power. At that point, we monitor prices over the course of the year to find optimal price points to hedge and then take hedge positions that correspond to the limits mentioned in Big Rivers' Board Policy 111 - Hedge Policy.

Q. Discuss any planned outages that extended beyond the estimated time of the outage and how BREC addressed the extended outage, and any resulting capacity and energy shortfalls.

A. The majority of Big Rivers' planned maintenance outages during this review period stayed within their scheduled window, with few exceptions. Planned or scheduled outages that fell outside their planned window included a Wilson scheduled outage from December 2, 2022 to December 4, 2022, due to ID fan balancing and repairs. Similarly, another Wilson scheduled outage for March 17, 2023, to March 19, 2023, addressed ID fan balancing and precipitator hopper cleanup. Replacement energy was purchased from the market for these periods.

Q. Discuss whether BREC engaged in any off-system sales or intersystem sales to offset high fuel or power costs during the period under review.

A. Big Rivers did engage in off-system sales during the period under review as we sold off excess power either bilaterally or directly to the MISO market.

Q. Please describe how BREC bids its generating units into MISO energy markets, including, but not limited to:

a. how BREC determines the manner in which individual generating units are offered into MISO's day ahead market (must run, economic dispatch etc.);

b. who makes those decisions; and

c. what level of control MISO has over the dispatch of Big Rivers' generating units

A.

a. Big Rivers offers its generating units into the MISO market each day through the Generation Offer process. Big Rivers provides MISO with a great deal of data on each unit's operating characteristics (availability, minimum and maximum generation levels, ramp rate, start costs, etc.) and a cost curve, which provides a formula for determining the variable operating cost at various points within a unit's operating range. If a unit is available (*i.e.*, not unavailable due to an outage), the default setting would be to set the Commitment Status[2] on the Generation Offer to "Economic," to ensure recovery of costs if MISO commits the unit.

For coal units expected to operate economically at a steady state for long periods of time ("Baseload Units"), Big Rivers will frequently set the Commitment Status to "Must Run." "Must Run" status is used to minimize starting and stopping the unit and associated increased maintenance costs. Must Run status might also be used to minimize expensive starts, such as when a unit is projected to generate economically on Friday and Monday, but not on the intervening weekend or during any period when prices are volatile and a stop and start is considered operationally problematic. Big

[2] MISO Commitment Statuses include: Outage, Emergency, Economic, Must-Run, and Not Participating, as defined in the MISO Business Practice Manual.

Rivers might also offer a unit as Must Run if a steady generation level is needed for performance or environmental testing or to manage coal inventories as units approach retirement. Big Rivers also offers Baseload Units as "Must Run" if a long period of elevated Locational Marginal Prices ("LMP's") is expected.

b. Big Rivers' VP of Generation, Manny Zeringue, makes the decisions.

c. Generation qualifying as capacity for Resource Adequacy purposes has a daily "must offer" requirement. Big Rivers must make its generation available to MISO each day, and MISO may call upon that generation for economic or reliability reasons. Big Rivers is free to impose operating restrictions on the unit if it is unavailable or de-rated, but that will affect the amount of capacity MISO accredits to that unit in the future. The MISO Market Monitor will watch for restrictions that fall outside of established guidelines and question them. Beyond that, MISO is free to operate the unit consistent with the unit's operating characteristics and restrictions. MISO combines Big Rivers' generation offers with those of all other market participants and chooses the combination of assets that meets load while minimizing cost and maintaining reliability.

Q. Please discuss any cost/benefit analysis BREC has performed regarding its participation in MISO.

A. A cost/benefit analysis was performed by Charles River Associates in 2010. It concluded that Big Rivers had no viable options for meeting its Contingency Reserve requirement other than a stand-alone, self-supply plan or by joining MISO.[3] The main benefit that we experience in the MISO Market is not having to carry Operating Reserves. At this point in time, we do not believe that it is cost feasible to build the additional generators to carry these Operating Reserves. Another option is for Big Rivers to join the PJM Market, but we are not interconnected with their system. This option is not a viable alternative to participation in MISO at this time.

Q. Does this conclude your testimony?

A. Yes.

[3] *See In the Matter of: Application of Big Rivers Electric Corporation for Approval to Transfer Functional Control of its Transmission System to Midwest Independent Transmission System Operator, Inc.,* Case No. 2010-00043.