

Kentucky Energy Planning and Inventory Commission Report to the Kentucky Public Service Commission on Big Rivers Electric Corporation's Proposed Retirement of the Robert A. Reid Combustion Turbine

Date of Completion: 24 July 2025

Report Prepared By: Kentucky Energy Planning & Inventory Commission Executive Board & Staff with support and contributions from: Midcontinent Independent System Operator (MISO), University of Kentucky Center for Applied Energy Research, and University of Kentucky Center for Business & Economic Research

Date of Transmission to KY PSC: 28 July 2025

Table of Contents

1. Introduction	2
2. Description of the Unit & Proposed Retirement	2
3. EPIC Review Procedure	3
4. Forced Outage as Justification for Unit Retirement	4
5. Findings and Recommendations [KRS 164.2807(7)(f)]	6
5.1 Impact on Dispatchable and Reliable Power Supply	6
5.2 Alternatives to Retirement.....	7
5.3 Land Use Impacts	8
5.4 Statewide & Local Economic Impact.....	8
5.5 Revenue Impacts	9
5.6 Energy Supply & Economic Development Implications	10
6. Compliance with KRS 278.264 Requirements	11
7. Summary of Conclusions	11
9. Appendices.....	12

1. Introduction

1 This report has been prepared by the Kentucky Energy Planning and Inventory
2 Commission (EPIC) Executive Board in accordance with the statutory requirements set
3 forth in KRS 164.2807 and KRS 278.264. The report evaluates Big Rivers Electric
4 Corporation's (Big Rivers) proposed retirement of the Robert A. Reid Combustion Turbine
5 (Reid CT), located at Sebree Station in Webster County, Kentucky.

6 EPIC's mandate includes assessing the retirement's impact on the reliability and resilience
7 of the Kentucky Bulk Power System, economic outcomes (including revenue impacts,
8 near-term economic impact and impact of future economic development), electric power
9 generating capacity and energy supply, and land use. The report culminates in findings and
10 a recommendation to the Kentucky Public Service Commission (PSC).

Report Structure:

11 This report is structured to align with the statutory requirements outlined in KRS 164.2807.

2. Description of the Unit & Proposed Retirement

12 The Robert A. Reid Combustion Turbine, also referred to as Reid CT Unit 2, is a 65-
13 megawatt natural gas-fired simple cycle combustion turbine-based electric generating unit
14 located at Sebree Station, 9000 Highway 2096 in Robards, Webster County. Originally
15 commissioned in 1976 as a fuel oil unit, the Reid CT was retrofitted in 2001 to burn natural
16 gas and further transitioned to a natural gas-dominant operation in 2010. The unit
17 participates in the Midcontinent Independent System Operator (MISO) market with
18 seasonal capacity accreditation varying from 41.8 MW in summer to 65.6 MW in the fall.
19 Big Rivers owns 100% of the unit.

1 In 2024, the unit suffered a catastrophic mechanical failure that has rendered it inoperable.
2 Investigations led by GE Vernova, the original equipment manufacturer (OEM), identified
3 extensive damage including a sheared shaft in the atomizing air compressor, damaged
4 turbine blades, cracked welds, and over pressurization of the lubrication system. According
5 to the OEM, the turbine has surpassed the threshold for rotor life extension, registering
6 approximately 5,750 ‘factored starts’ compared to the 5,000-start benchmark. Repair
7 estimates include a rotor replacement cost of approximately \$15 million with an 18-month
8 lead time, or a complete "Flange to Flange" upgrade at a cost of \$26 million. The net book
9 value of the unit is reported at around \$5 million.

10 In addition to mechanical degradation, the increased runtime in 2024 resulted in the unit
11 exceeding nitrogen oxide (NOx) emission limits, which may require installation of a
12 Continuous Emissions Monitoring System (CEMS) or periodic stack testing.

13 The Reid CT serves primarily as a peaking unit within Big Rivers’ 1,274 MW generation
14 portfolio, which also includes the D.B. Wilson coal-fired station, the Robert D. Green
15 natural gas fired generating station (formerly coal-fired), hydroelectric capacity, and 160
16 MW of solar. While Reid CT historically experienced limited runtime - totaling 2,181
17 hours from 2015 to 2024 - it was dispatched more frequently in 2023 and 2024, culminating
18 in 703 hours of run time and delivering 19,164.84 MWh of electrical energy in 2024 –
19 44.7% of all electrical energy generated by the unit since 1 January 2015.

3. EPIC Review Procedure

20 In accordance with KRS 164.2807, Big Rivers shall submit an application to the PSC
21 requesting approval to retire the Reid CT no earlier than 180 days post-provision of their
22 Notice of Intent (NOI) to retire the Reid CT to the EPIC Executive Director. Per EPIC
23 Policy, following receipt of a complete EPIC Form 1 ‘Application Document Package’ by
24 the EPIC Executive Director, NOI is considered provided, initiating a 135-day EPIC
25 review timeline. By day 90 of this review timeline, the EPIC Executive Board must host a

1 public comment hearing (held in the county of the electric generating unit retirement) to
2 receive public input on the proposed unit retirement. By day 135, the EPIC Executive
3 Board must submit its report of findings and recommendations to the PSC.

4 Big Rivers submitted notice of its intent to retire the Reid CT to the EPIC Executive
5 Director on 18 March 2025, via electronic mail. In accordance with statutory requirements,
6 a public comment hearing to receive input from the public in the county of the unit
7 retirement was scheduled and held on 4 June 2025. This hearing was held in the Circuit
8 Court Room of the Webster County Courthouse in Dixon, Kentucky. The hearing was
9 advertised in a local Webster County newspaper, the Sebree Banner, on the EPIC website,
10 and was announced at the 12 May 2025 meeting of the EPIC Commission to elect
11 Executive Board members. During the 4 June 2025 public comment hearing,
12 representatives of Big Rivers were present, along with Dr. Rodney Andrews and Mr. Ed
13 Holmes of the EPIC Executive Board. Commission staff and staff from the University of
14 Kentucky Center for Applied Energy Research were also in attendance.

15 No members of the public were present at the public comment hearing, and no public
16 comment was or has subsequently been provided.

17 As part of the 18 March 2025 filing by Big Rivers, the EPIC Executive Committee received
18 and reviewed supplementary information (NOI addenda) from Big Rivers, including GE's
19 inspection report, historical unit dispatch and MISO commitment data, and projected
20 capacity positions.

4. Forced Outage as Justification for Unit Retirement

21 The occurrence of a forced outage - even one involving catastrophic mechanical failure –
22 is not uncommon and does not, by itself, constitute justification for the retirement of a
23 fossil fuel-fired electric generating unit under Kentucky law. KRS 278.264(2) establishes
24 a rebuttable presumption against such retirements, and KRS 164.2807(1) affirms the
25 Commonwealth's policy of preserving dispatchable, reliable, and resilient electric

1 generating capacity to meet present and future capacity and energy needs. These statutes
2 collectively reflect the General Assembly's intent to ensure that retirement decisions are
3 not made without full evaluation of system impacts, economic consequences, and
4 alternative solutions.

5 The EPIC Executive Board recognizes a legitimate concern that forced outages may be
6 invoked as a mechanism to accelerate or justify the retirement of electric generating units.
7 This risk is particularly acute in circumstances where repair costs are high or where
8 evolving market or environmental factors have diminished a unit's economic viability. If
9 utilities were permitted to defer maintenance or decline repairs following a mechanical
10 failure and then cite that condition as a basis for retirement, it could undermine the
11 rebuttable presumption established by KRS 278.264(2), which is intended to safeguard
12 long-term system adequacy and resilience. Normalizing such a practice would risk
13 reducing retirement evaluations to post hoc endorsements of operational outcomes, rather
14 than forward-looking assessments based on reliability standards, capacity needs, and
15 economic impacts. If a forced outage were treated as de facto evidence of obsolescence or
16 redundancy, retirement decisions could become reactive, unanchored from the statutory
17 criteria, and potentially erode Kentucky's dispatchable (firm) electric generation portfolio.

18 This concern is particularly relevant amid rising electricity demand, regulatory uncertainty,
19 and growing dependence on intermittent energy resources. The statutory framework
20 separates the cause of a unit's unavailability from the question of whether its retirement is
21 warranted or reasoned, ensuring that decisions are not driven by incidental mechanical
22 events. Within this framework, the inoperability of a generating unit—even for an extended
23 period—does not independently establish sufficient cause justifying retirement approval of
24 a dispatchable electric generating unit.

25 EPIC's responsibility under KRS 164.2807 is to assess the implications of the proposed
26 retirement on Kentucky's Bulk Power System reliability, economic and land use impacts,
27 and the adequacy of Kentucky's dispatchable capacity and energy supply. Whether a unit
28 is operational or not, or whether repairs are feasible or cost-effective, are matters that may
29 be relevant to the utility's internal planning or to proceedings before the PSC, but they are

1 not relevant to EPIC’s statutory charge. Accordingly, EPIC expresses no finding as to
2 whether the Reid CT’s outage supports or undermines the proposed unit retirement and
3 reiterates that the presence of a forced outage is not a factor in its evaluation under the
4 applicable statutes - the condition or operability of the unit is not among the statutory
5 considerations that govern this report.

5. Findings and Recommendations [KRS 164.2807(7)(f)]

5.1 Impact on Dispatchable and Reliable Power Supply

6 In a letter provided to the EPIC Executive Director by Big Rivers (Dated 18 June 2025 and
7 appended hereto as Appendix B), Big Rivers confirmed coordination with their RTO/ISO
8 on the Reid CT retirement. On 22 January 2025, Big Rivers filed an Attachment Y Notice
9 with the MISO to suspend Reid CT, effective 1 March 2025, due to a forced outage that
10 began 25 August 2024. MISO’s response on 30 January 2025 confirmed the suspension,
11 noting that MISO Tariff Section 38.2.7.a.i excludes generators on forced outage from being
12 designated as System Support Resources (SSR). Thus, no study evaluating system
13 reliability impacts was conducted by MISO. At this time, EPIC is in process of developing
14 the independent capacity to evaluate generating unit retirement impacts on system
15 reliability. As such, EPIC is presently unable to independently evaluate system reliability
16 impacts.

17 At the request of the EPIC Executive Board, Big Rivers has provided record of each
18 instance when the subject unit has been dispatched in response to a MISO Maximum
19 Generation Emergency Declaration Step 1 or greater (NERC Energy Emergency Alert or
20 EEA). In the past decade (2016 to present), the subject unit has been dispatched in response
21 to an EEA event on eight (8) occasions, each corresponding with regional or superregional
22 ambient temperature extremes, including summer heatwaves, unseasonably warm
23 temperatures approaching unit outage season (Fall outage season), ‘polar vortex’ events
24 and winter storms.

1 Notably, the subject unit was called upon to support MISO capacity requirements during
2 Winter Storm Uri (February 2021) – an event during which balancing authorities
3 throughout the central and southern US experienced capacity resource inadequacy due to
4 high loads and elevated unit forced outage rates; the most notable system failure occurring
5 on the Energy Reliability Council of Texas (ERCOT) system.

6 Additionally, the unit was called upon to support MISO capacity requirements on the
7 evening of 23 December 2022 during Winter Storm Elliot. MISO experienced capacity
8 derates of generating units across its territory due, in part, to interruptions of natural gas
9 supply. This, in concert with abnormally high system load forecasting errors driven by
10 historic low temperatures for December, resulted in the need to access demand response
11 resources. At the time of EEA declaration, MISO system resources totaled roughly 119,000
12 MW, of which approximately 111,000 MW were generating. MISO did not require load
13 shedding. Additionally, MISO continued to export power to neighboring systems
14 throughout 23 and 24 December 2022, including to Tennessee Valley Authority (TVA)
15 and Louisville Gas & Electric and Kentucky Utilities (LKE) – two systems which did
16 employ load curtailment during the weather event.

17 The EPIC Executive Board notes that, should the retirement of the Reid CT generating unit
18 occur prior to the commissioning of replacement ‘like’ dispatchable capacity, the result
19 will be a < 0.5% diminution in the Commonwealth’s installed firm generating capacity.

5.2 Alternatives to Retirement

20 Alternatives to unit retirement have been considered by Big Rivers, including lifecycle
21 extension of the unit which could involve rotor replacement or system upgrades. However,
22 this alternative has thus far been deemed economically infeasible.

23 In conversation with representatives from Big Rivers during the Public Comment Hearing,
24 EPIC Executive Board Members Rodney Andrews and Ed Holmes were informed of
25 additional alternatives under consideration by Big Rivers, to include the construction of
26 replacement capacity in the form of three smaller capacity, and independently dispatchable,

1 dual-fuel fired electric generating units capable of providing a combined capacity
2 equivalent to that of, or exceeding, the existing Reid CT unit. These dual-fuel units could
3 enhance system reliability and adequacy during adverse events, such as extreme weather
4 or fuel supply disruptions, by providing fuel flexibility and independent dispatch capability.
5 The estimated timeline for procurement of Unit 2 replacement parts is approximately 18
6 months, while delivery and commissioning of new dual-fueled units is estimated, by Big
7 Rivers (per conversation occurring during the same Public Comment Hearing), at 24
8 months. Given the similarity in timeline, replacement with multiple dual-fuel units is likely
9 preferable, as it offers enhanced reliability and flexibility compared to repairing the
10 existing unit.

11 Of note, Big Rivers' 2023 Integrated Resource Plan (IRP) additionally includes a proposed
12 635 MW natural gas combined cycle (NGCC) plant, with potential commissioning between
13 2029 and 2032.

14 The EPIC Executive Board recommends that these alternatives be further evaluated –
15 particularly the proposed dual-fueled units – and that compliance with the requirements of
16 KRS 278.264 be established by the PSC, prior to proceeding with a decision on the
17 proposed unit retirement.

5.3 Land Use Impacts

18 The EPIC Executive Board finds that there are no expected land use impacts associated
19 with the proposed unit retirement. Sebree Station remains operational and no change in site
20 status, footprint, or use is anticipated.

5.4 Statewide & Local Economic Impact

21 According to analysis conducted by the University of Kentucky Center for Business &
22 Economic Research – UK CBER (see Appendix C), the retirement of the Reid CT

1 generating unit is expected to have minimal economic impact on Kentucky and Webster
2 County. From 2016 to 2024, the unit's annual electricity output varied significantly,
3 averaging 4,663 MWh per year. At Kentucky's 2023 average retail electricity price of 9.96
4 cents/kWh, this output equates to an annual value of approximately \$464,388.

5 If the unit is retired and not replaced, the loss in electric output could translate to an
6 estimated 0.88 jobs and \$73,400 in annual labor income lost in Kentucky, including 0.61
7 jobs and \$51,100 in Webster County, according to IMPLAN modeling.

8 In 2024, the unit's output peaked at 19,165 MWh—well above its typical performance. If
9 this high-output year were used as a baseline, the estimated impact would rise to 3.65 jobs
10 and \$303,000 in statewide labor income lost, including 2.51 jobs and \$210,200 in Webster
11 County.

12 These estimates include direct effects (losses at Big Rivers), indirect effects (losses in
13 supply chains), and induced effects (losses in local spending by affected workers). Notably,
14 however, Big Rivers does not anticipate reducing employment due to the retirement, which
15 suggests the actual economic effects may be less than projected by IMPLAN modelling.

5.5 Revenue Impacts

16 The EPIC Executive Board finds that, following analysis by UK CBER, retirement of the
17 Reid CT unit is expected to have minimal impact on state and local tax revenues, consistent
18 with its limited economic impact. If the unit's retirement leads to a reduction in
19 employment and earnings, there may be a small decrease in state tax collections. Using
20 assumed effective rates of 3% for income tax and 3.8% for sales tax, the estimated average
21 annual loss in labor income could reduce state revenues by approximately \$4,200 per year.
22 This estimate only reflects losses associated with Reid CT and does not consider offsetting
23 tax revenues from alternative in-state generation sources providing for energy deficits.

24 Webster County does not levy an occupational license tax, so it would not experience any
25 tax revenue loss from reduced earnings or employment related to the unit's closure.

1 There may also be some impact on tangible property tax revenues. Kentucky and local
2 jurisdictions (Webster County and the Webster County School District) levy certain
3 property taxes. Retiring Reid CT could reduce the taxable value of property in these
4 districts, possibly affecting future property tax revenues or necessitating rate adjustments.
5 However, specific impacts are unknown, as data on the unit's assessed taxable value and
6 associated tax bills has not been evaluated.

5.6 Energy Supply & Economic Development Implications

7 The retirement of the Reid CT unit is expected to have minimal impact on regional
8 electricity supply and future economic development. The unit produced an average of
9 4,663 MWh per year, representing just 0.01% of Kentucky's total retail electric sales in
10 2023 and 0.4% of the state's net summer capacity.

11 Big Rivers has secured replacement capacity through the MISO capacity auction for Spring
12 2025 and plans to continue participating in future auctions. Big Rivers has retained
13 interconnection rights at the Sebree site and is evaluating the potential for a new 635 MW
14 combined cycle natural gas plant, with potential commissioning between 2029 and 2032.

15 Given Reid CT's small contribution to the state's total generation, its retirement and
16 resultant loss of capacity (assuming no prompt replacement) is unlikely to limit economic
17 development in the region. Although a formal model to evaluate economic development
18 impacts has not yet been developed, the limited scale of Reid CT suggests any effects
19 would be negligible and could be offset through wholesale market purchases. Should the
20 Public Service Commission find that KRS 278.264 requires immediate replacement of lost
21 Reid CT capacity, the EPIC Executive Board finds that the proposed replacement with
22 three smaller, independently dispatchable dual-fuel units would enhance system reliability
23 and adequacy during adverse events, such as extreme weather or fuel supply disruptions,
24 by providing fuel flexibility and increased operational resilience.

6. Compliance with KRS 278.264 Requirements

1 The filing submitted by Big Rivers does not clearly and comprehensively delineate specific
2 plans to promptly supplant the lost generating capacity resulting from the retirement of
3 Reid Unit 2 CT with equivalent dispatchable capacity owned and operated by Big Rivers.
4 However, the proposed replacement with three smaller, independently dispatchable dual-
5 fuel units, as discussed during the Public Comment Hearing, would likely enhance system
6 reliability and adequacy during adverse events, such as extreme weather or fuel supply
7 disruptions, due to their fuel flexibility and independent dispatch capability.

8 The EPIC Executive Board refrains from issuing a definitive finding as to whether the
9 proposed retirement of the Reid CT complies with the provisions of KRS 278.264.
10 However, the EPIC Executive Board strongly recommends that the Public Service
11 Commission undertake a rigorous and thorough evaluation of the dual-fuel replacement
12 capacity proposed by Big Rivers. Such evaluation should encompass a detailed assessment
13 of the timeline for commissioning, the planned generating capacity, and the primary and
14 backup fuel capabilities of the proposed replacement units to ensure compliance with all
15 applicable statutory requirements and to safeguard against a diminution of dispatchable
16 capacity within Big Rivers' system, while recognizing the potential for enhanced reliability
17 and resilience.

7. Summary of Conclusions

18 The EPIC Executive Board issues no formal recommendation with respect to the Public
19 Service Commission's approval, denial, or other action on the proposed Reid CT unit
20 retirement. However, adherence to KRS 278.264 must be considered with respect to the
21 proposed replacement of lost capacity with dual-fuel units of equivalent or greater capacity,
22 which could enhance system reliability and adequacy during adverse events due to their
23 fuel flexibility and independent dispatch capability.

9. Appendices

- 1 • **Appendix A:** Big Rivers' Notice of Intent and EPIC Form 1 (Cover Letter, Pages
2 1-16, GE Vernova Inspection Report [Exhibit A, Pages 17-25], MISO Attachment
3 Y Notice and Response [Exhibits B and C, Pages 26-31], MISO Maximum
4 Generation Emergency Declarations [Exhibit E, Pages 34-35]).
- 5 • **Appendix B:** Big Rivers' 18 June 2025 Data Response on MISO Evaluation
- 6 • **Appendix C:** University of Kentucky Center for Business & Economic Research
7 Report of Findings - Analysis of Big Rivers Electric Corporation's Proposed
8 Retirement of the Robert A. Reid Combustion Turbine



EPIC REPORT - APPENDIX A

March 18, 2025

*Via Electronic Mail Delivery to rodney.andrews@uky.edu
and USPS Priority Mail Express*

Rodney Andrews
University of Kentucky CAER
2540 Research Park Drive
Lexington, Kentucky 40511

RE: Notice of Intent to Retire the Robert A. Reid Combustion Turbine

Dear EPIC Executive Director:

Due to a catastrophic failure of our natural gas-fired combustion turbine generating unit known as the Robert A. Reid Combustion Turbine ("Reid CT"), Big Rivers Electric Corporation ("Big Rivers") must retire the unit, and by this letter, we give notice of our intent to retire the Reid CT.

The Reid CT is located in Webster County, Kentucky. It was commercialized in 1976 and has a nameplate capacity of 65 MW. As fully explained below, the Reid CT ceased operating in 2024 as a result of the catastrophic failure. Due to the age of the unit, the uneconomic extensive repairs that would be required to make the Reid CT again operable, as well as other considerations, Big Rivers has no reasonable alternative but to retire the unit.

KRS 278.264 requires that prior to retiring an electric generating unit, a utility must apply to the Kentucky Public Service Commission (the "Commission" or "PSC") for an order approving the retirement. Section 7(i) of KRS 164.2807 states:

No retirement application to the Public Service Commission under KRS 278.264 shall be deemed administratively complete unless it includes either the executive committee's report submitted pursuant to this section or evidence that more than one hundred eighty



EPIC Executive Director

March 18, 2025

Page 2 of 14

(180) days have passed since notice was submitted to the commission as required in paragraph (b) of this subsection and no executive committee report or determination has been provided to the utility.¹

KRS 278.262 defines “retirement” or “retired” as “the closure or the complete and permanent cessation of operations at an electric generating unit.” Big Rivers did not choose to cease operations of the Reid CT and does not consider this event a typical “retirement” within the meaning intended by the General Assembly to invoke KRS 278.262, KRS 278.264,² or KRS 164.2807. Nevertheless, the statutory definition does not expressly exclude a unit’s involuntary retirement. As such, Big Rivers submits this notice to EPIC and respectfully requests that the Executive Committee issue a final report so that Big Rivers can move forward with the retirement process.

Additionally, Big Rivers’ application to the PSC will include a request for a regulatory asset for the retirement of the Reid CT to mitigate the financial impacts of the retirement, but before Big Rivers can establish a regulatory asset, Big Rivers must obtain the PSC’s approval and must show our primary lender, the U.S. Department of Agriculture’s Rural Utilities Service (“RUS”), that the unit has officially been retired.

BACKGROUND

Big Rivers is a generation and transmission cooperative incorporated June 14, 1961, with our headquarters in Owensboro, Kentucky. Big Rivers owns, operates and maintains electric generation and transmission facilities, and we purchase, transmit, and sell electricity at wholesale. Our principal purpose is to satisfy the wholesale electricity requirements of, and provide shared services to, our three distribution cooperative Member-Owners, who are Jackson Purchase Energy Corporation, Kenergy Corp. and Meade County Rural Electric Cooperative Corporation (collectively, the “Members”). The Members, in turn provide retail electric service to approximately 121,000 consumer-members located in all or parts of 22 western Kentucky counties: Ballard, Breckenridge, Caldwell, Carlisle, Crittenden, Daviess, Graves, Grayson, Hancock, Hardin Henderson, Hopkins,

¹ Section 7(h) of KRS 164.2807 requires the executive committee’s written report and any dissenting statements provided to the PSC to be included in the application to the PSC under KRS 278.264.

² KRS 278.264(1) requires a utility under the jurisdiction of the PSC to obtain **prior** approval from the PSC before retiring an electric generating unit.

EPIC Executive Director

March 18, 2025

Page 3 of 14

Livingston, Lyon, Marshall, McCracken, McLean, Meade, Muhlenberg, Ohio, Union, and Webster.

In addition to the Reid CT, Big Rivers owns and operates the D.B. Wilson (“Wilson”) Station and the Robert D. Green (“Green”) Station. Wilson Station consists of a single, 417 MW coal-fired generating unit near Centertown, Kentucky. Green Station includes two units (231 MW and 223 MW) that were converted from coal-fired units to burn natural gas in 2022. The Green Station and the Reid CT are located at Big Rivers’ Sebree Station near Sebree, Webster County, Kentucky.

Big Rivers’ generation resources total 1,274 MW, including rights to 178 MW of contracted hydro capacity from the Southeastern Power Administration (“SEPA”) and 160 MW of contracted solar capacity from the Unbridled Solar, LLC facility near Big Rivers’ Sebree Station.³

Big Rivers also owns, operates and maintains a network of 1,353 miles of transmission lines and 29 substations to provide transmission power to its Members and third party entities served under our Open Access Transmission Tariff.

Big Rivers became a fully-integrated member of the Midcontinent Independent System Operator (“MISO”) on December 1, 2010, and participates in MISO’s real-time and day-ahead energy and capacity markets. While much of Big Rivers’ generating capacity is dedicated to Big Rivers’ native load, it has capitalized on its available resources both by its participation in MISO and through bilateral power sales contracts.

Big Rivers’ Reid CT went into service in March of 1976, as a fuel oil unit. It was retrofitted to a dual-fueled unit, to burn natural gas as well as fuel oil, in 2001 for SO₂ and NO_x control. The Reid CT was converted to primarily natural gas fired in July of 2010. The Reid CT has been utilized as a peaking unit.

In FERC Case Number ER22-495-000, filed by MISO in November 2021 and accepted by FERC in September 2022, MISO introduced seasonal capacity requirements to the annual MISO capacity auction (the Planning Resource Auction or “PRA”) to account for the unique risk profile of each season. While the Reid CT’s nameplate capacity is 65 MW, the unit’s MISO seasonal capacity accreditation is 44.5 MW for Spring, 65.6 MW for Fall, 59.4 MW for Winter, and 41.8 MW for Summer.

³ In PSC Case No. 2022-00296, Big Rivers sought and received PSC approval of an amendment to a solar purchase power agreement, the “Unbridled PPA,” that was originally approved in PSC Case No. 2020-00183. Unbridled Solar’s 160 MW facility located in Henderson and Webster Counties, began its operations in the first quarter of 2025.

EXPLANATION OF THE REASON FOR RETIREMENT

Big Rivers' Integrated Resource Plans ("IRPs"), filed triennially with the PSC, have explained that "the expected Retirement Date of the Reid CT will depend greatly on the number of operating hours experienced over the next several years." Due in part to its comparatively low operations and maintenance ("O&M") expenses and despite its age, Big Rivers did not intend to retire the unit. However, in 2024, the Reid CT experienced several significant Forced Outages.

GE Vernova, the unit's Original Equipment Manufacturer ("OEM"), was brought in multiple times in 2024. Ultimately, during the most recent Forced Outage, GE opened the unit for a major inspection and found that a sheared shaft was causing a lube oil reservoir to over-pressurize, resulting in gear box pressurization and oil blowing past labyrinth seals (*see* Photo No. 3).

PHOTO #1



Photo #1 shows the sheared shaft in the atomizing air compressor, which caused a Forced Outage. The compressor was removed and the piping system was refabricated to make the unit operable. The lead time for the compressor was 24 weeks. Photo #2 shows the refabrication of the piping.

PHOTO #2



PHOTO #3



Photo #3 shows oil coming from the labyrinth seals due to air over-pressurizing the system, which was caused by the sheared shaft shown in the above image.

The inspections' major discoveries included:

1. 1st, 2nd, and 3rd stage buckets need replacement;
2. 2nd stage shrouds need replacement due to rubbing;
3. Oil and air seals for T2 and T3 damaged and out of specifications;
4. T3 Babbitt damage;
5. Thermocouple wires melted;
6. Cracked welds in diffuser struts;
7. Cracked welds throughout the exhaust; and
8. Rotor unable to return to service (see discussion below).

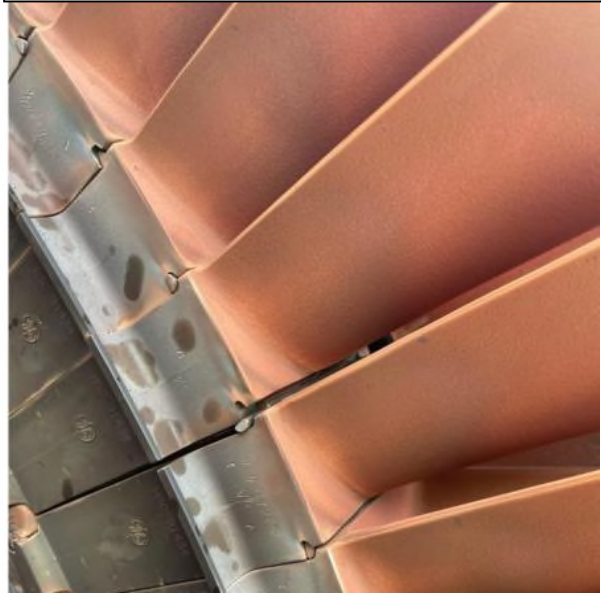
The following photos illustrate the discoveries.

EPIC Executive Director
March 18, 2025
Page 6 of 14

PHOTO #4



PHOTO #5



The above photos show turbine blades with excessive clearance. The blades are designed to lock together with centrifugal force. However, they cannot lock together due to the damage. The turbine blades require replacement.

PHOTO #6

Photo #6 shows the damage to an oil deflector that prevents sealing oil inside the unit.



EPIC Executive Director
March 18, 2025
Page 7 of 14

PHOTO #7



Photo #7 shows one of the damaged air seals in need of replacement. The damage allows air into the oil system causing over pressurization.

PHOTO #8



Photo #8 is one example of severe cracks on the exhaust due to age and heat cycles.

As supported by the GE inspection report attached here to as Exhibit A, Big Rivers evaluated multiple repair options. The total cost of a rotor replacement alone was estimated at \$15 million with an 18-month lead time. Based on the unit's number of starts, GE recommended not returning the rotor to service. The Reid CT currently has experienced 4,417 Actual Starts in its operating history. However, the Factored Starts, which take into account different operating conditions that may significantly impact the stress on the turbine components such as start type

EPIC Executive Director

March 18, 2025

Page 8 of 14

(hot, warm, cold), are around 5,750 starts.⁴ There is a rotor life extension option; however, GE would not recommend that option due to other equipment failures outside of the rotor. Big Rivers also considered a “Flange to Flange” upgrade of the unit. However, the upgrade would cost around \$26 million for equipment only. The Reid CT’s current Net Book Value is around \$5 million. Due to the age of the generator, such an investment would be risky. The Generator Stator is still original (1976). Based on the age alone, GE would recommend to rewind, which is a costly process. The rewind and turbine repairs would exceed \$20 million. Also, a significant amount of auxiliary equipment is still original.

As depicted below in Table No.1, the Reid CT’s total run number hours increased significantly in 2024, due in part to the decrease in natural gas prices. The Reid CT has exceeded its NO_x emission limits based on the 2024 run time and will now be required to install Continuous Emissions Monitoring System (“CEMS”) for NO_x and CO₂ monitoring or perform periodic stack testing per the methodology outlined in 40 CFR Part 75 Appendix E.⁵ If Big Rivers chose the “Flange to Flange” upgrade option, in addition to the above referenced significant cost of construction, Big Rivers would be required to enter in a New Source Review for air permitting based upon the generation change to the unit.

MISO REQUIREMENT FOR NOTICE OF GENERATOR SUSPENSION OR RETIREMENT

Under the MISO Tariff, market participants that have decided to retire or suspend a generation resource must submit a notice (Attachment Y Notice). A copy of the completed Attachment Y Notice that Big Rivers submitted to MISO on January 22, 2025, for the suspension of the Reid CT is attached hereto as Exhibit B. On February 3, Big Rivers received notification via mail that MISO had received the suspension notification and that Reid CT would be suspended from the MISO market effective March 1, 2025. A copy of MISO’s letter dated January 30, 2025, is attached hereto as Exhibit C. The Reid CT may remain in a Suspension Status for thirty-six (36) cumulative months during any five (5) year period. Therefore, MISO requires that prior to March 1, 2028, Big Rivers will either officially retire the unit or make the unit available to the market again.

⁴ See GE Power’s GER3620P Heavy Duty Gas Turbine Operating Maintenance Considerations, *available at* https://id.dcsmodule.com/js/htmledit/kindeditor/attached/20210911/20210911093317_93385.pdf.

⁵ <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-75/appendix-Appendix%20E%20to%20Part%2075>

EPIC Executive Director
March 18, 2025
Page 9 of 14

EPIC FORM 1

A completed EPIC Form 1- Notice of Proposed Retirement of Fossil Fuel-Fired Electric Generating Plant is enclosed.

SYSTEM IMPACT STATEMENT

MISO's January 30, 2025, letter acknowledged that the unit was inoperable due to a Forced Outage and confirmed that "as the Reid CT is not an operational generation resource, the System Support Resource ("SSR") provisions of the MISO Tariff do not apply." This letter gives Big Rivers the right to suspend the unit for up to three years, at which point we would have to officially retire the unit or return it to service. Since retirement requires the EPIC's final report and the PSC's approval, we cannot file for retirement with MISO until the report is issued and PSC approval is obtained. But we have had multiple discussions with MISO that the path that we are heading down is retirement, so they are aware of our final plans. At no point during our conversations with MISO were any reliability concerns brought up relating to the retirement of this unit. This unit has been inoperable for almost a year, and it has not had any major system impacts. Most likely, Big Rivers will keep the unit in MISO's Suspension status for the full three years, allowing us to retain the MISO Generation Interconnection rights associated with the Reid CT. This would help to lower interconnection costs should Big Rivers build at that site.

A. Unit Dispatch History

Attached hereto as Exhibit D is an Excel file with worksheets showing the Reid CT's hourly Real Time Meter Data from June 1, 2015 through December 31, 2024 and MISO Commitment Reasons from May 1, 2019 through December 31, 2024. Below are tables summarizing the data.

Unit operating conditions have changed as of the last two years, with the unit being called on more frequently. As Table 2 below shows, MISO called upon the Reid CT in 2023 and 2024 mostly for economic reasons, due in part to a decrease in natural gas prices.

EPIC Executive Director

March 18, 2025

Page 10 of 14

TABLE #1 Real-Time Meter Data June 1, 2015-December 31, 2024					
Numbers of Hours Online/Year		MWhs/Year			
2015	47	2015	944.00		
2016	240	2016	3,931.61		
2017	115	2017	1,340.69		
2018	143	2018	2,317.39		
2019	234	2019	4,176.35		
2020	114	2020	1,460.74		
2021	205	2021	2,840.48		
2022	45	2022	575.95		
2023	335	2023	6,154.76		
2024	703	2024	19,164.84		
Total:	2181	Total:	42,906.81		

TABLE #2 MISO Commitment Reasons May 1, 2019 - December 31, 2024					
Percentage/Year					
	Capacity	Must Run	T-xx	VLR	SRPB
2019	53.33%	2.42%	21.21%	23.03%	0.00%
2020	75.23%	13.76%	11.01%	0.00%	0.00%
2021	61.50%	9.09%	13.37%	16.04%	0.00%
2022	80.00%	17.50%	2.50%	0.00%	0.00%
2023	96.92%	1.54%	1.54%	0.00%	0.00%
2024	95.90%	3.70%	0.00%	0.13%	0.26%
Total	85.79%	4.80%	4.93%	4.36%	0.13%

Capacity = The unit ran for economic reasons

Must Run = Most likely ran for testing related reasons

T-xx = Transmission/ Reliability Event

VLR = Voltage Reliability Event

SRPB = South Regional Power Balancing Event. MISO requires the unit to run to help balance the two footprints.

B. Compliance Plan

Per MISO market rules, Big Rivers obtained replacement capacity for the Reid CT for the Spring 2025 capacity auction, satisfying our capacity obligation for this period.

MISO annually determines seasonal minimum Planning Reserve Margin (“PRM”) requirements that would result in the MISO system experiencing a less than one-day loss-of-load event (“LOLE”) every 10 years, per the MISO Tariff.⁶ MISO’s PRM requirement for 2025, which includes transmission losses, is 10.6%.

Big Rivers’ projections for our capacity position fluctuate with new information and changes from MISO related to its capacity accreditation for generating units and other processes. The loss of the Reid CT in current projections results in seasonal capacity deficits for the 2026-2027 MISO Planning Year. Big Rivers will make bilateral capacity purchases or participate in the annual MISO capacity auction to alleviate any shortages and satisfy the MISO PRM requirements. Beginning in Planning Year 2027-28, Big Rivers is projected to have excess capacity as a result of the expiration of an off-system power sales agreement.

Big Rivers’ plan for compliance with KRS 278.262 and KRS 278.264 (collectively ‘2023 Senate Bill 4’ requirements) mirrors our plan to continue compliance with KRS 278.030(2), which requires every utility to furnish adequate, efficient and reasonable service to its customers. The base case from Big Rivers’ 2023 Integrated Resource Plan included the addition of a 635 MW natural gas combined cycle generator, which would be located near Big Rivers’ existing Sebree plant location. If this facility were to get built, it would likely be completed sometime between 2029 and 2032. However, since the conclusion of the 2023 IRP proceeding, Big Rivers is taking a fresh look at our next resource, and Big Rivers’ analysis to determine our future resource needs is underway. Big Rivers plans to file its next IRP and any required requests for certificates of public convenience and necessity with the PSC in 2026.

Big Rivers is located in MISO Local Resource Zone (“LRZ”) 6, and the seasonal LOLE targets determined in the Planning Year 2025-2026 LOLE study are shown

⁶ To determine the LOLE targets for each season that will be used to calculate the PRM and Local Reliability Requirements (“LRR”), MISO followed the process first solving the LOLE model to an annual value of 0.1 and then checking the seasonal distribution. If a season had an LOLE value of at least 0.01, then its target would be set to that LOLE. If a season had less than 0.01 LOLE, additional analysis was performed until the target of 0.01 LOLE was met.

EPIC Executive Director
 March 18, 2025
 Page 12 of 14

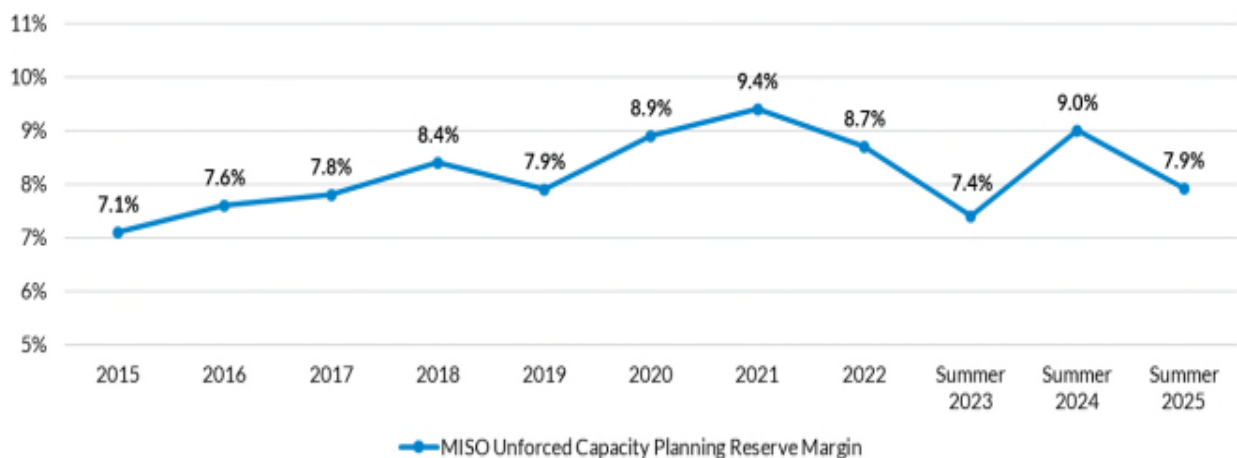
in Table 4, below, which is a copy of Table 3-11 from the MISO 2025–2026 Loss of Load Expectation Study Report.⁷

Region	Summer	Fall	Winter	Spring
MISO-wide	0.10	0.01	0.01	0.01
LRZ 1	0.099	0.01	0.01	0.01
LRZ 2	0.091	0.01	0.01	0.01
LRZ 3	0.098	0.01	0.01	0.01
LRZ 4	0.01	0.01	0.10	0.01
LRZ 5	0.01	0.01	0.094	0.01
LRZ 6	0.091	0.01	0.01	0.01
LRZ 7	0.099	0.01	0.01	0.01
LRZ 8	0.01	0.01	0.093	0.01
LRZ 9	0.026	0.047	0.02	0.01
LRZ 10	0.069	0.015	0.01	0.012

Table 3-11: Planning Year 2025-2026 Seasonal LOLE Distribution

MISO’s Planning Reserve Margin requirement changes over time, and its history is shown in Chart 2 below, which is a copy of Figure 1-1 from the MISO 2025–2026 Loss of Load Expectation Study Report.

Chart 2 Comparison of PRM Targets across 10 years



⁷ MISO’s 2025-2026 LOLE Report is available at: <https://cdn.misoenergy.org/PY%202025-2026%20LOLE%20Study%20Report662942.pdf>.

EPIC Executive Director
March 18, 2025
Page 13 of 14

C. EEA Declaration History

Attached hereto as Exhibit E is a list of “Maximum Generation Emergency Declarations,” EEA 1 or higher events from MISO that included Big Rivers from 2010-2024, including event details.

ECONOMIC IMPACT STATEMENT

A. Direct and Indirect Employment Impacts

There will be no direct employment impact. As discussed above, the Reid CT is located at the Sebree Station with the Green plant. All operation and maintenance of the Reid CT was performed by Green plant employees. There are no employees assigned directly to the Reid CT. As discussed below in Subsection C, Big Rivers does not anticipate any indirect employment impact as a result of the Reid CT retirement.

B. Supply Chain Impacts

Big Rivers does not have any contracted fuel or reagents for the Reid CT. The only fuel that was supplied to that unit was natural gas. When the unit was called on from MISO to run, Big Rivers would purchase natural gas on the market for that requested run. Big Rivers did not have any firm gas or contracted fuel of any sort for that unit. There should not be any supply chain impacts.

C. Other Local Economic Impacts

As described above, the Sebree Station, where the Reid CT is located, is not being closed. The maintenance work contracted to local third parties, such as grounds maintenance, security, environmental sampling, and supply vendors will still be needed. Big Rivers will no longer incur the cost of operations and maintenance directly related to the Reid CT, but we do not contemplate any local economic impact from the reduced spending.

EPIC Executive Director
March 18, 2025
Page 14 of 14

CONCLUSION

We thank EPIC and its Executive Committee and staff and look forward to working with you on this new process.

Please feel free to contact me if you have any questions related to this submission.

Sincerely,

/s/ Tyson Kamuf

Tyson Kamuf
General Counsel
Phone: 270-844-6185
E-Mail: tyson.kamuf@bigrivers.com

Enclosures (2): EPIC Form 1
 The hard copy version includes a USB flash drive containing
 Exhibit D.

EPIC Form 1 - Notice of Proposed Retirement of Fossil Fuel-Fired Electric Generating Plant

Version 2025.01.29

Submitting Entity's Information:

In accordance with KRS 164.2807 Section 1, subsection (7)(b),
Big Rivers Electric Corporation ("Big Rivers") ("Submitting Entity")
gives Notice to the Commonwealth of Kentucky Energy Planning and Inventory
Commission of its intent to retire an existing coal, oil, or natural gas-fired electric
generating plant or unit.

Submitting Entity's percent ownership stake in generating plant/unit: [100] %

Submitting Entity's Business Address:

Mailing address: P.O. Box 20015, Owensboro, Kentucky 42304
Street address: 710 W. Second Street, Owensboro, Kentucky 42301

Submitting Entity's Ownership Information:

Big Rivers is a rural electric cooperative corporation organized pursuant to
KRS Chapter 279. Its three Member-Owner distribution electric cooperatives include
Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric
Cooperative Corporation.

Submitting Entity's Jurisdiction of Organization/Incorporation:

Big Rivers was incorporated in the Commonwealth of Kentucky on June 14, 1961.

Submitting Entity Authorized Representative Contact information:

(Person 1)

Name: Tyson Kamuf

Title: General Counsel

Address:

710 W. Second Street
Owensboro, Kentucky 42301

Email: tyson.kamuf@bigrivers.com

Telephone: (270)844-6185

(Person 2)

Name: Don Gulley

Title: President and CEO

Address:

710 W. Second Street
Owensboro, Kentucky 42301

Email: don.gulley@bigrivers.com

Telephone: (270)844-6101

Identity of Generating Plant/Unit Subject to Notice of Intent to Retire:

Location (Address):

Sebree Station
9000 Highway 2096
Robards, Webster County, Kentucky 42452

Unit Name: Reid CT - Unit 2 ("Unit")

Nameplate Rating in MW: 65 MW

Primary Fuel: Natural Gas

Back-up Fuel: Fuel Oil

RTO/ISO Market Participation: Midcontinent Independent System Operator (MISO)

Desired Date of Retirement: The Unit is Inoperable



EPIC Submission
Reid CT, 2025
Exhibit A

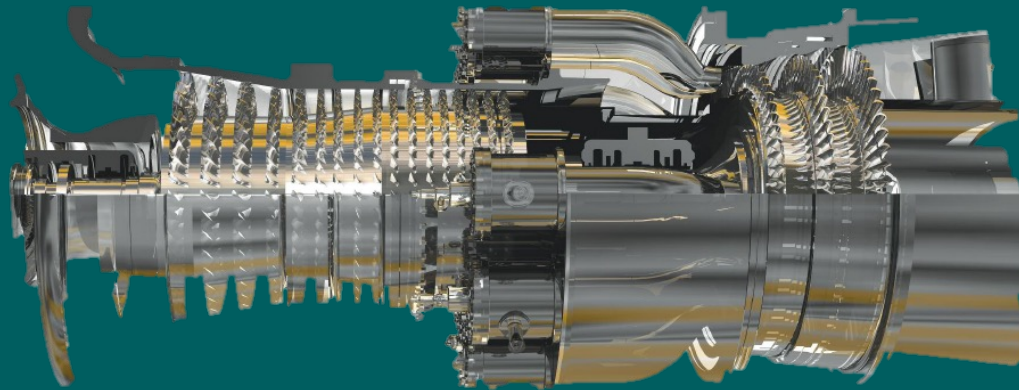
Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station





GE VERNOVA

7C – BIG RIVERS



Date 10/17/2024

© 2024 GE Vernova and/or its affiliates. All rights

GE Power

© 2020, General Electric Company.

GE Proprietary Information - The information contained in this document is General Electric Company (GE) proprietary information. It is the property of GE and shall not be used, disclosed to others or reproduced without the express written consent of GE, including, but without limitation, in the creation, manufacture, development, or derivation of any repairs, modifications, spare parts, or configuration changes or to obtain government or regulatory approval to do so, if consent is given for reproduction in whole or in part, this notice and the notice set forth on each page of this document shall appear in any such reproduction in whole or in part. The information contained in this document may also be controlled by the US export control laws. Unauthorized export or re-export is prohibited. This presentation and the information herein are provided for information purposes only and are subject to change without notice. NO REPRESENTATION OR WARRANTY IS MADE OR IMPLIED AS TO ITS COMPLETENESS, ACCURACY, OR FITNESS FOR ANY PARTICULAR PURPOSE.

© 2024 GE Vernova and/or its affiliates. All rights reserved.



Confidential. Not to be copied, distributed, or reproduced without prior approval.

2

Rotor Concerns

Compressor / Turbine Rotor lifetime starts

Rotor Life Extension (RLE) required at 5000 factored starts. Max life post RLE is 7,400 starts

Turbine rotor wheel wear

Excessive bucket movement indicating wheel wear and potential for seal pin liberation

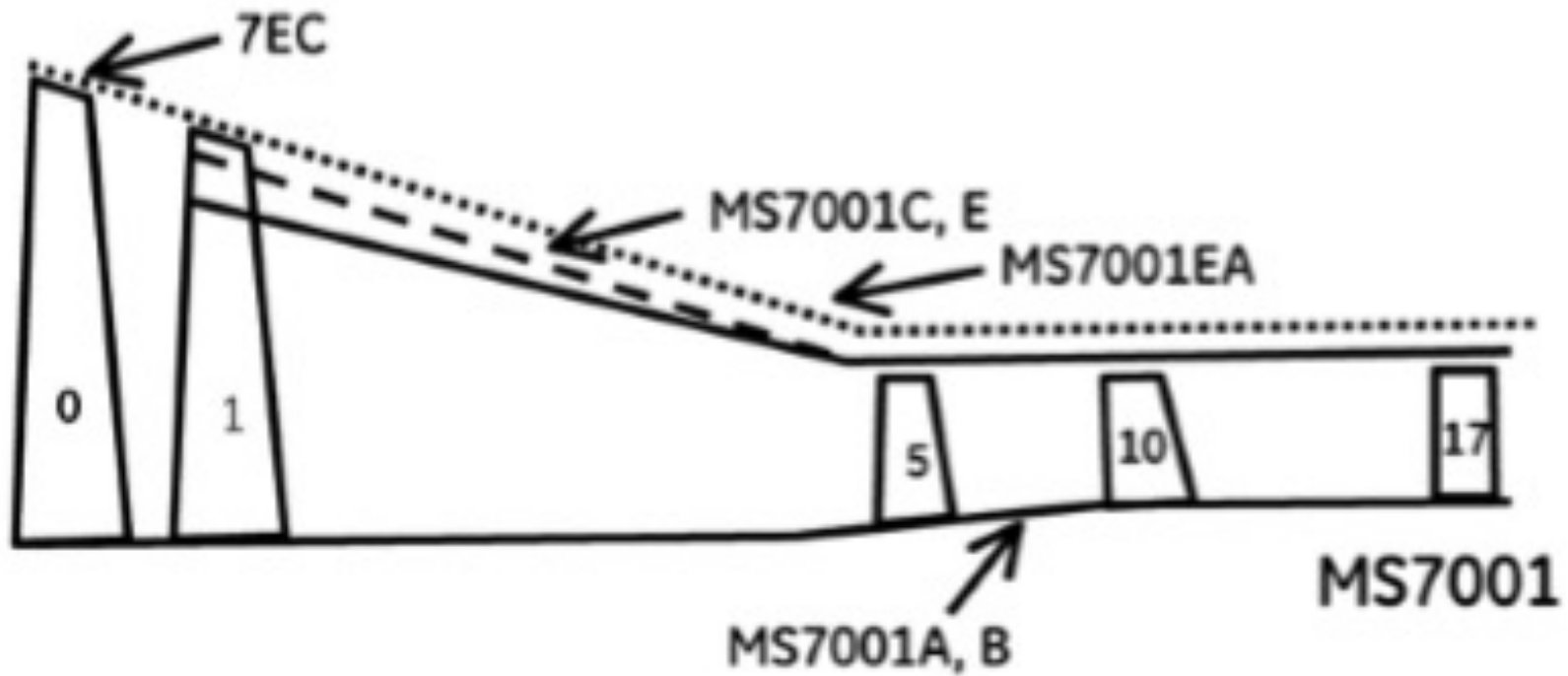
Conclusion

If indeed rotor has ~4,600 actual starts, a conservative factor of factored starts is 1.25

This effectively puts the rotor at approx. 5,750 factored starts which is after the point of need for rotor life extension inspection and replacement parts.



7 E Class Rotor Differences

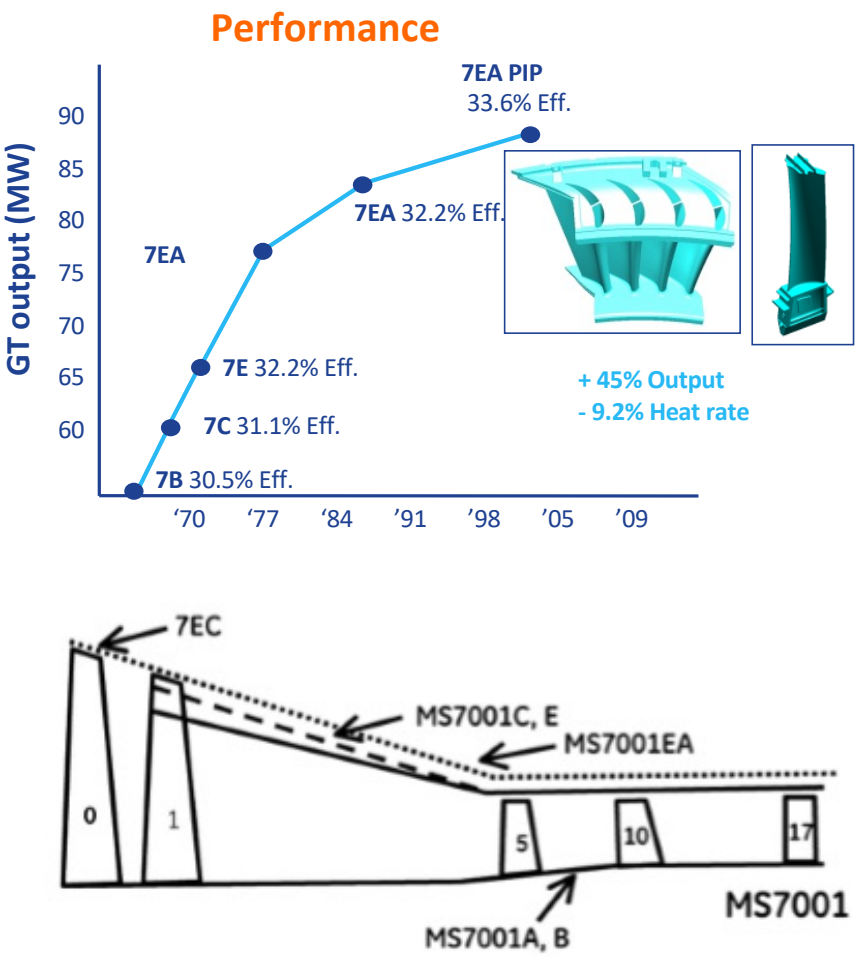


© 2024 GE Vernova and/or its affiliates. All rights reserved.

7E history

	7A/B	7C/E	7EA
Years	1970-79	1974-84	1984-present
Output (MW)	51 – 62	68.5 – 77.9	80.1 – 88.5
Air Flow (pph)	1850 - 1967	2129 - 2210	2300 - 2400
Tfire (°F)	1650 – 1850	1950 – 2020	2020 – 2055
Compressor	7B	7C/E	7EA (1/4“ longer)
Hot Gas Path	7A-uncooled, 7B – S1B cooled	S2B cooled	Materials / Seals AA S3B/N
Fleet Size	~220 units	~130 units	~880 units

New Design IGV Introduction Dates: 1977, 1987



Rotor Conversions

Replacing 7C Rotor using 7E Parts

This option takes a New or Refurbished **7E** rotor and adapts it to a 7C configuration.

Scope of Supply (not exhaustive):

- Modified No. 2 Bearing Housing (adds spacer to Forward Air Seal).
- New Thrust bearing Shims for axial alignment.
- New set of compressor blades (Stage 1-8 are 7B-specific, Stages 8-17 are same as 7E).
- New Load Coupling to match flange bolt circle radius.

Replacing 7C Rotor using 7EA Parts

This option takes a New or Refurbished **7EA** rotor and adapts it to a 7C configuration.

Scope of Supply (not exhaustive):

- Modified No. 2 Bearing Housing (adds spacer to Forward Air Seal).
- New Thrust bearing Shims for axial alignment.
- New compressor casings due to larger diameter
- New set of compressor blades (Stage 1-17)
- New Load Coupling to match flange bolt circle radius.



© 2024 GE Vernova and/or its affiliates. All rights reserved.

7C conversion to 7EA

This option replaces the existing 7C and converts it to a 7EA. The estimated scope of supply is as follows:

- New or Refurbished 7EA Unit Rotor (un-bucketed) including Unit Rotor Marriage hardware
- New Compressor Casing (Inlet & Bearing Assembly, Compressor and Compressor Discharge Casing)
- Inlet IGV 7EA
- Inlet – Number 1 Bearing Machining
- Number 2 Bearing Housing Modification (or a new Number 2 Bearing)
- Bolting & Doweling Arrangement
- Turbine Base Modifications
- Inlet Plenum Modifications
- Feed and Drain Piping Modifications for Number 1 Bearing

With the upgrade to the 7EA compressor, the Gas Turbine(s) will require additional airflow which may impact the inlet filter house.



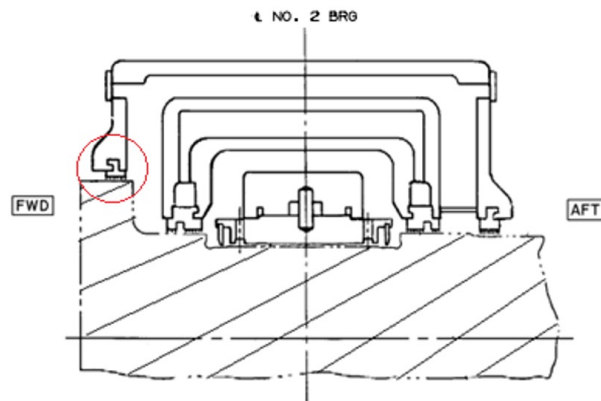
**Estimated GT Performance Improvement
Output >+12.5%; Heatrate -1.2%**

© 2024 GE Vernova and/or its affiliates. All rights reserved.

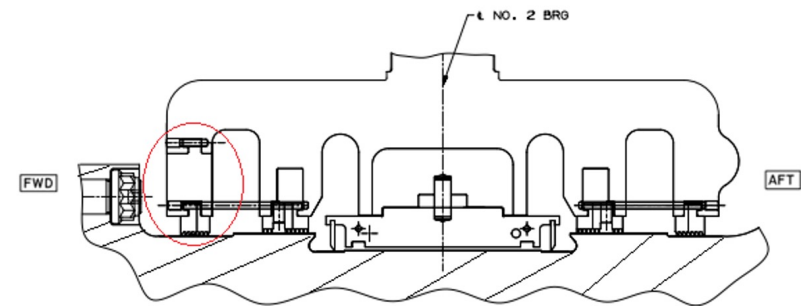
7C vs. 7E/7EA rotor & Number 2 Bearing

Compressor / Turbine

Rotor overall length is the same, however compressor rotor is 5.5" longer, Turbine rotor is 5.5" shorter. This changes where the Number 2 bearing seals on the rotor.



Current No. 2 Bearing housing with a Stationary Air Seal landing on the OD of the flange on the forward side of TR.



Modified No. 2 Bearing housing with a spacer in between the Stationary Air Seal old location and the new Stationary Air Seal on the forward side of TR (not on the OD of flange in this case).





EPIC Submission
Reid CT, 2025
Exhibit B

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station



MISO
FERC Electric Tariff
ATTACHMENTS

ATTACHMENT Y
Notification of Resource/SCU/Pseudo-tied Out Generator Change
34.0.0

ATTACHMENT Y

Notification of Generation Resource/SCU/Pseudo-tied Out Generator

Change of Status,

Including Notification of Rescission

This is a notification of change of status of a Generation Resource, Synchronous Condenser Unit (“SCU”), or Pseudo-tied out Generator in accordance with Section 38.2.7.a of the Tariff. An electronic copy of the completed form will be accepted by the Transmission Provider, however, a form will not be considered complete until the original form containing an original signature, including all attachments, is received by the Transmission Provider at the following address: MISO, Attention: Director Resource Utilization; 720 City Center Drive, Carmel, IN 46032.

The Transmission Provider may request additional information as reasonably necessary to support operations under the Tariff.

Owner of the Generation Resource, SCU or Pseudo-tied out Generator:

Big Rivers Electric Corporation (BRPS)

Name of Market Participant: Big Rivers Electric Corporation (BRPS)

Owner’s state of organization or incorporation Kentucky

Generation Resource/SCU/Pseudo-tied Out Generator [plant and unit number(s)] BREC.REIDCT
- Common Name: Reid CT Unit 2

Source/Identification of Generation Interconnection Service [name of agreement, parties, date, date filed and docket number, and any other information to identify an agreement] N/A - Unit started commercial operation in 1976.

MISO
FERC Electric Tariff
ATTACHMENTS

ATTACHMENT Y
Notification of Resource/SCU/Pseudo-tied Out Generator Chang
34.0.0

Before me, the undersigned authority, this day appeared Don Gulley, known by me to be the person whose name is subscribed to the foregoing instrument, who, after first being sworn by me deposed and said:

"I am an officer of Big Rivers Electric Corp., I am authorized to execute and submit the foregoing notification on behalf of Big Rivers Electric Corp., and the statements contained in such application are true and correct."

SWORN TO AND SUBSCRIBED TO BEFORE ME, the undersigned authority on this the 22 day of JANUARY, 2025.

Ralph Lynn Jones KYNP43026

Notary Public, State of KENTUCKY

My Commission expires 1-14-26



EPIC Submission
Reid CT, 2025
Exhibit C

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station





Andrew Witmeier
Director, Resource Utilization
317-249-5585
awitmeier@misoenergy.org

VIA TWO-DAY-AIR DELIVERY

January 30, 2025

Don Gulley
President & CEO
Big Rivers Electric Corporation
710 W 2nd St
Owensboro, KY 42301

Subject: **Response to Attachment Y Suspension Notice for Reid CT Unit 2**

Dear Mr. Gulley:

On January 29, 2025, Big Rivers Electric Corporation submitted an Attachment Y Notice to MISO for the suspension of Reid CT Unit 2, effective March 1, 2025 as a result of a forced outage. Tariff Section 38.2.7.a.i provides for such notice but states that the System Support Resource ("SSR") provisions of the MISO Tariff pertain to operational generation resources and specifically excludes generators that are forced out of service. Section 38.2.7.a.i. states:

A Generation Resource or SCU that is inoperable due to Forced Outage or a Pseudo-tied out Generator shall not be designated as an SSR Unit.

This letter acknowledges that Big Rivers Electric Corporation will suspend Reid CT Unit 2, effective March 1, 2025. MISO will continue to preserve the confidentiality of the Attachment Y Notice.

Please do not hesitate to contact me if you have any questions regarding this matter.

Respectfully,

A handwritten signature in black ink, appearing to read "AWitmeier".

Andrew Witmeier
Director, Resource Utilization



EPIC Submission
Reid CT, 2025
Exhibit D

Meter Data and Commitment Reasons Data
Provided Separately as a Microsoft Excel File

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station





EPIC Submission
Reid CT, 2025
Exhibit E

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station



Big Rivers Electric Corporation
EPIC Submission – Reid CT
Exhibit E

MISO Maximum Generation Emergency Declarations (EEAs)

1. **07/21/2016 13:00 — 16:00 EST:** MISO declared Maximum Generation Emergency Event 1B/C and Energy Emergency Alert Level 1 (EEA 1) due to forced generation outages, above normal temperatures, and higher than forecasted loads
2. **09/22/2017 14:30 — 18:15 EST:** MISO declared a Maximum Generation Event Step 1 b/c – NERC EEA 1 due to generation outages, above normal temperatures, seasonally high load, and heavy congestion
3. **01/30/2019 08:00 — 22:00 EST:** MISO declared a Maximum Generation Event Step 2 a/b – NERC EEA 2 for the following entities: Central Region area(s) of: ALT, ALTE, AMIL, AMMO, AMRN, ATC, BREC, CIN, CONS, CWLD, CWLP, DECO, HE, IPL, ITC, MECS, METC, MGE, MIUP, NIPS, PION, SIGE, SIPC, UPPC, WEC, WPS and North Region area(s) of: ALTW, DPC, GRE, ITCM, MDU, MEC, MP, MPW, NSP, OTP, SMP due to forced generation outages and high load
4. **01/31/2019 07:00 — 11:00 EST:** MISO declared a Maximum Generation Event Step I b/c – NERC EEA 1 for the following entities: Central Region area(s) of: ALT, ALTE, AMIL, AMMO, AMRN, ATC, BREC, CIN, CONS, CWLD, CWLP, DECO, HE, IPL, ITC, MECS, METC, MGE, MIUP, NIPS, PION, SIGE, SIPC, UPPC, WEC, WPS and North Region area(s) of: ALTW, DPC, GRE, ITCM, MDU, MEC, MP, MPW, NSP, OTP, SMP due to extreme low temperatures and high loads
5. **02/16/2021 07:30 — 14:00 EST:** MISO declared a Maximum Generation Emergency Event Step Ib – NERC EEA 1 for the following entities: Central Region area(s) of: ALT, ALTE, AMIL, AMMO, AMRN, ATC, BREC, CIN, CONS, CWLD, CWLP, DECO, GLH, HE, HMPL, IPL, ITC, MECS, METC, MGE, MIUP, NIPS, PION, RTX, SIGE, SIPC, UPPC, WEC, WPS and North Region area(s) of: ALTW, DPC, GRE, ITCM, MDU, MEC, MP, MPW, NSP, OTP, SMP due to forced generation outages and transmission constraints
6. **06/10/2021 14:00 — 18:00 EST:** MISO declared a Maximum Generation Emergency Event Step 2a – NERC EEA 2 for the following entities: Central Region area(s) of: ALT, ALTE, AMIL, AMMO, AMRN, ATC, BREC, CIN, CONS, CWLD, CWLP, DECO, GLH, HE, HMPL, IPL, ITC, MECS, METC, MGE, MIUP, NIPS, PION, RTX, SIGE, SIPC, UPPC, WEC, WPS and North Region area(s) of: ALTW, DPC, GRE, ITCM, MDU, MEC, MP, MPW, NSP, OTP, SMP due to forced generation outages, above normal temperatures, higher than forecasted load
7. **12/23/2022 17:30 — 18:00 EST:** MISO declared a Maximum Generation Emergency Event Step Ib – NERC EEA1 for the following entities: MISO

Balancing Authority Area due to forced generation outages, higher than forecasted load

8. **12/23/2022 18:00 — 21:00 EST:** MISO declared a Maximum Generation Emergency Event Step 2a – EEA2 for the MISO Balancing Authority Area due to forced generation outages, higher than forecasted load
9. **08/24/2023 12:00 — 19:30 EST:** MISO escalated to a Maximum Generation Emergency Event Step 2a – NERC EEA2 for the MISO Balancing Authority Area due to forced generation outages, above normal temperatures, higher than forecasted load



Big Rivers Electric Corporation
710 West 2nd Street
Owensboro, KY 42301
www.bigrivers.com

June 18, 2025

EPIC REPORT - APPENDIX B

*Via Electronic Mail Delivery to rodney.andrews@uky.edu
and USPS Priority Mail Express*

Rodney Andrews
University of Kentucky CAER
2540 Research Park Drive
Lexington, Kentucky 40511

RE: Supplemental to Big Rivers' Notice of Intent to Retire the Robert A.
Reid Combustion Turbine Submitted March 18, 2025

Dear Mr. Andrews:

The purpose of this letter is to supplement Big Rivers' notice of intent to retire the Reid CT, specifically to provide further information related to Big Rivers' notification to MISO and MISO subsequent response.

Before the owner of a MISO Generation Resource can suspend or retire the resource, the owner must submit an Attachment Y Notice to MISO. On January 22, 2025, Big Rivers submitted an Attachment Y Notice to MISO to suspend the Reid CT. A copy of that notice is attached. Also attached is MISO's response where it acknowledges that Big Rivers will suspend the Reid CT effective March 1, 2025. Big Rivers has had other communications with MISO and the Independent Market Monitor (IMM) about the suspension/retirement process and timing, potential replacement options for the Reid CT, and how to address the loss of the Reid CT capacity for purposes of Big Rivers' market obligations, but because the Reid CT suffered a catastrophic failure, there were no other communications related to whether any impact to reliability would prevent the suspension/retirement of the Reid CT. Some examples of those communications are attached.

If the Reid CT were being suspended for a reason other than being on Forced Outage, MISO would have performed a study to determine whether there were any reliability concerns associated with the decision to suspend the unit, and if so, whether to require the resource to be operated as a System Support Resource ("SSR"). If the resource is designated an SSR, MISO would require the owner to enter into an SSR agreement that would provide the terms under which the owner

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station



MISSION ZERO
EACH MOMENT EVERY DAY

EPIC Executive Director

June 18, 2025

Page 2 of 2

would be compensated to continue to operate the resource for reliability. However, because the Reid CT experienced a catastrophic Forced Outage, the MISO Tariff's SSR provisions do not apply to the Reid CT. As MISO's response letter explained, *"Tariff Section 38.2.7.a.i...states that the [SSR] provisions of the MISO Tariff pertain to operational generation resources and specifically excludes generators that are forced out of service."*

Big Rivers is currently evaluating its options to replace the Reid CT. Any replacement option will require Big Rivers to file an Attachment X Notice with MISO once the replacement is approved by the Kentucky Public Service Commission.

Please feel free to contact me if you have any questions related to this supplemental submission.

Sincerely,

/s/ Tyson Kamuf

Tyson Kamuf

General Counsel

Phone: 270-844-6185

E-Mail: tyson.kamuf@bigrivers.com

Enclosures (3): Attachment Y
 MISO's January 30, 2025, Response
 Related Emails



EPIC Submission
Reid CT
June 2025 Supplement
Attachment 1 of 3

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station



MISO
FERC Electric Tariff
ATTACHMENTS

ATTACHMENT Y
Notification of Resource/SCU/Pseudo-tied Out Generator Change
34.0.0

ATTACHMENT Y

Notification of Generation Resource/SCU/Pseudo-tied Out Generator

Change of Status,

Including Notification of Rescission

This is a notification of change of status of a Generation Resource, Synchronous Condenser Unit (“SCU”), or Pseudo-tied out Generator in accordance with Section 38.2.7.a of the Tariff. An electronic copy of the completed form will be accepted by the Transmission Provider, however, a form will not be considered complete until the original form containing an original signature, including all attachments, is received by the Transmission Provider at the following address: MISO, Attention: Director Resource Utilization; 720 City Center Drive, Carmel, IN 46032.

The Transmission Provider may request additional information as reasonably necessary to support operations under the Tariff.

Owner of the Generation Resource, SCU or Pseudo-tied out Generator:

Big Rivers Electric Corporation (BRPS)

Name of Market Participant: Big Rivers Electric Corporation (BRPS)

Owner’s state of organization or incorporation Kentucky

Generation Resource/SCU/Pseudo-tied Out Generator [plant and unit number(s)] BREC.REIDCT

- Common Name: Reid CT Unit 2

Source/Identification of Generation Interconnection Service [name of agreement, parties, date, date filed and docket number, and any other information to identify an agreement] N/A - Unit started commercial operation in 1976.

Effective On: December 16, 2023

**MISO
FERC Electric Tariff
ATTACHMENTS**

ATTACHMENT Y
Notification of Resource/SCU/Pseudo-tied Out Generator Change
34.0.0

Pursuant to the terms of the MISO Tariff, Owner hereby certifies that it will

- ☒ Suspend for economic reasons operation of all or a portion of the Generation Resource/SCU/Pseudo-tied out Generator commencing on 1st [day] of March [month] of 2025 [year]
- ☐ Rescind the current notice to SuspendThe facility is further described as follows:

Location: Robards, KY

Unit Name	CPNode (if applicable)	Nameplate Capacity(MW)	Change in Capacity(MW)
Reid CT - Unit 2	BREC.REIDCT	65 MW	65 MW - All capacity is being suspended

Note: This unit is currently in forced outage.

Owner understands and agrees that this notification is provided in accordance with Section 38.2.7 of the Transmission Provider's Tariff and will not be made public by the Transmission Provider except as provided for under Section 38.2.7 of the Tariff.

The undersigned certifies that he or she is an officer of the owner of the Generation Resource/SCU/Pseudo-tied out Generator, that he or she is authorized to execute and submit this notification, and that the statements contained herein are true and correct.

Donald D Gilling

Signature

Name: Don Gulley Contact Information

Title: President & CEO **Email:** Don.Gulley@bigrivers.com

Date: 01/22/2025 Phone: 270-844-6101

STATE OF Kentucky

COUNTY OF Daviess

Effective On: December 16, 2023

MISO
FERC Electric Tariff
ATTACHMENTS

ATTACHMENT Y
Notification of Resource/SCU/Pseudo-tied Out Generator Chang
34.0.0

Before me, the undersigned authority, this day appeared Don Gulley, known by me to be the person whose name is subscribed to the foregoing instrument, who, after first being sworn by me deposed and said:

"I am an officer of Big Rivers Electric Corp., I am authorized to execute and submit the foregoing notification on behalf of Big Rivers Electric Corp., and the statements contained in such application are true and correct."

SWORN TO AND SUBSCRIBED TO BEFORE ME, the undersigned authority on this the 22 day of JANUARY, 2025.

Ralph Lynn Jones KYNP43026

Notary Public, State of KENTUCKY

My Commission expires 1-14-26



EPIC Submission
Reid CT
June 2025 Supplement
Attachment 2 of 3

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station





Andrew Witmeier
Director, Resource Utilization
317-249-5585
awitmeier@misoenergy.org

VIA TWO-DAY-AIR DELIVERY

January 30, 2025

Don Gulley
President & CEO
Big Rivers Electric Corporation
710 W 2nd St
Owensboro, KY 42301

Subject: **Response to Attachment Y Suspension Notice for Reid CT Unit 2**

Dear Mr. Gulley:

On January 29, 2025, Big Rivers Electric Corporation submitted an Attachment Y Notice to MISO for the suspension of Reid CT Unit 2, effective March 1, 2025 as a result of a forced outage. Tariff Section 38.2.7.a.i provides for such notice but states that the System Support Resource ("SSR") provisions of the MISO Tariff pertain to operational generation resources and specifically excludes generators that are forced out of service. Section 38.2.7.a.i. states:

A Generation Resource or SCU that is inoperable due to Forced Outage or a Pseudo-tied out Generator shall not be designated as an SSR Unit.

This letter acknowledges that Big Rivers Electric Corporation will suspend Reid CT Unit 2, effective March 1, 2025. MISO will continue to preserve the confidentiality of the Attachment Y Notice.

Please do not hesitate to contact me if you have any questions regarding this matter.

Respectfully,

A handwritten signature in black ink, appearing to read "AWitmeier", is written over a light blue horizontal line.

Andrew Witmeier
Director, Resource Utilization



EPIC Submission
Reid CT
June 2025 Supplement
Attachment 3 of 3

Our Generating Stations & Office Locations: Headquarters • Energy Transmission & Substation • Sebree Station • Wilson Station



From: Wright, Terry
Sent: Thursday, February 27, 2025 4:39 PM
To: Gulley, Don; Mathews, Talina; Mizell, Mike; Zeringue, Manny; Bradley, Chris; Miller, Derrick; Kamuf, Tyson; Burden, Jason; Todd, Heather
Cc: Wilhelmus, Ryan; Ross Coons; Kristina Swetz; Curtis, Kyle; Kreig Voreis; James Ringer; Connor Geary; Wright, Terry
Subject: RE: Reid CT Retirement
Attachments: Exclusion Status Change for BREC.REIDCT; Exclusion Status Change for BREC.REIDCT; Exclusion Status Change for BREC.REIDCT; Exclusion Status Change for BREC.REIDCT

Just a FYI. We were granted the exclusion request from the IMM for all 4 seasons, so we do not have to offer Reid into the PY25-26 Capacity Auction.

Thanks,
Terry

From: Wright, Terry <Terry.Wright@bigrivers.com>
Sent: Thursday, January 23, 2025 8:45 AM
To: Gulley, Don <Don.Gulley@bigrivers.com>; Mathews, Talina <Talina.Mathews@bigrivers.com>; Mizell, Mike <Michael.Mizell@bigrivers.com>; Zeringue, Manny <Manny.Zeringue@bigrivers.com>; Bradley, Chris <Chris.Bradley@bigrivers.com>; Miller, Derrick <Derrick.Miller@bigrivers.com>; Kamuf, Tyson <Tyson.Kamuf@bigrivers.com>; Burden, Jason <Jason.Burden@bigrivers.com>; Todd, Heather <Heather.Todd@bigrivers.com>
Cc: Wright, Terry <Terry.Wright@bigrivers.com>; Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>; Ross Coons <rcoons@acespower.com>; Kristina Swetz <kristinas@acespower.com>; Curtis, Kyle <Kyle.Curtis@bigrivers.com>; Kreig Voreis <kvoreis@acespower.com>
Subject: RE: Reid CT Retirement

Just a FYI – we have submitted the Attachment Y to MISO to suspend Reid CT. The two main items that still need to be completed on our side are (1) buying the Replacement Capacity (very close) and doing the Resource Substitution and (2) filing the Exclusion Request with the MISO IMM to not offer into the PY25-26 Capacity Auction.

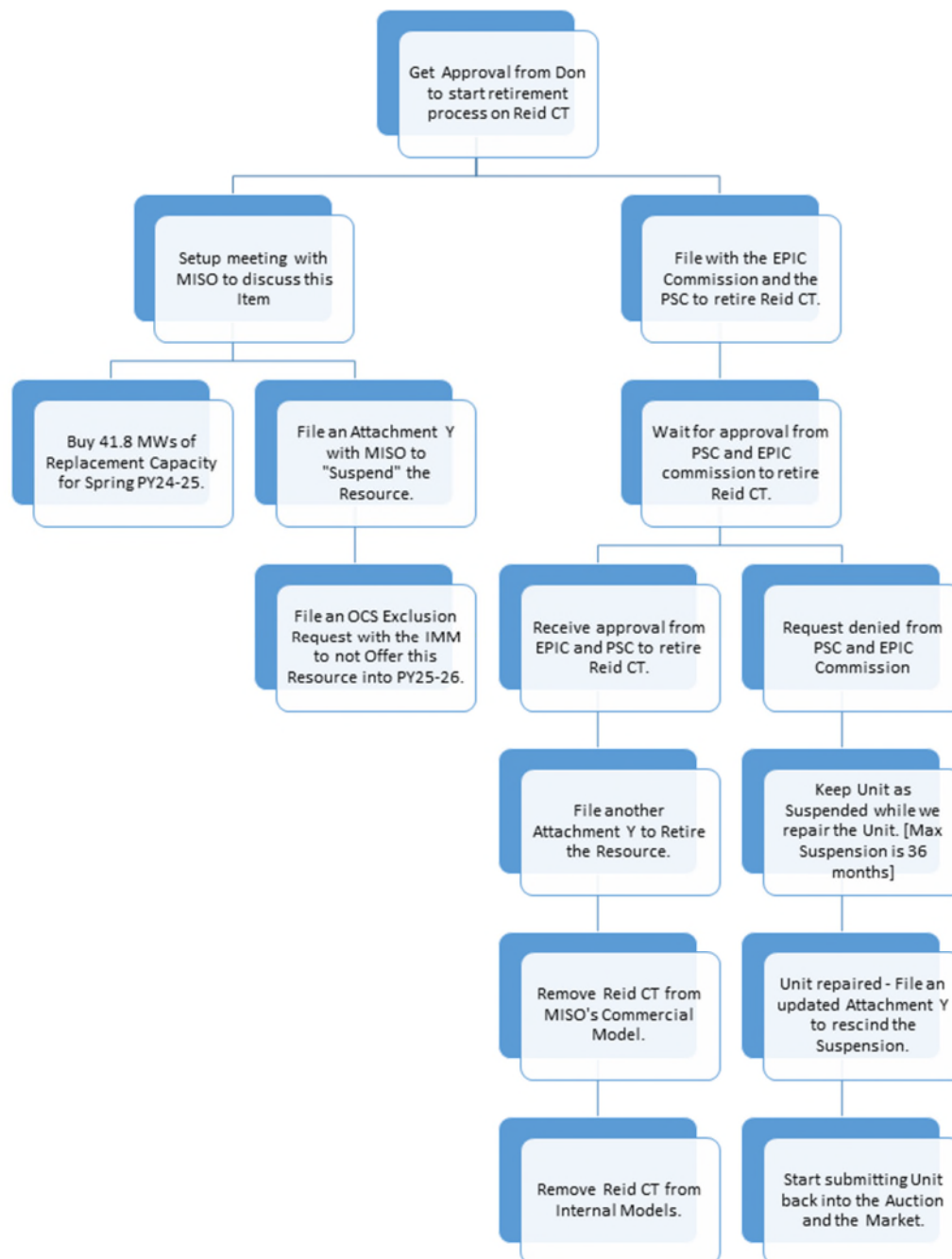
From: Wright, Terry <Terry.Wright@bigrivers.com>
Sent: Thursday, December 12, 2024 11:03 AM
To: Kreig Voreis <kvoreis@acespower.com>
Cc: Wright, Terry <Terry.Wright@bigrivers.com>; Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>; Ross Coons <rcoons@acespower.com>; Kristina Swetz <kristinas@acespower.com>; Zeringue, Manny <Manny.Zeringue@bigrivers.com>; Gulley, Don <Don.Gulley@bigrivers.com>; Kamuf, Tyson <Tyson.Kamuf@bigrivers.com>; Mathews, Talina <Talina.Mathews@bigrivers.com>; Mizell, Mike <Michael.Mizell@bigrivers.com>; Burden, Jason <Jason.Burden@bigrivers.com>; Todd, Heather <Heather.Todd@bigrivers.com>; Bradley, Chris <Chris.Bradley@bigrivers.com>; Curtis, Kyle <Kyle.Curtis@bigrivers.com>
Subject: Reid CT Retirement

Thanks Kreig! We appreciate you helping out on this item. We have also had some informal conversations with SPP and the IMM on this item just to make sure we understand everything correctly.

Project List:

- ~~1. Get approval from Don to proceed with suspension/retirement of Reid CT.~~
- ~~2. Setup Meeting with MISO and discuss this item.~~
 - ~~a. I have had unofficial discussions with Kimberly Woods, our customer rep, and let her know that we would like to setup a meeting to discuss this item. We had our monthly meeting with her yesterday and I brought up this item. Feel free to coordinate with her and whoever else you need at MISO for this meeting. I think I am starting to get my head around the process a little better, so it would be good to confirm this is all correct.~~
- ~~3. We cleared 41.8 MWs of Capacity for Reid CT in Spring 2025, so we would need to replace 41.8 MWs of Capacity for this time frame.~~
 - ~~a. I just checked the Zonal Replacement Calculator and every zone passes for 41 MWs except for Zone 5, which is not surprising as this is the zone that bound in the Auction.~~
- ~~4. Fill out and file an Attachment Y to Suspend the Reid CT Unit. [PRA Deadline: 3/1/2024]~~
- ~~5. File an Operational Cost Survey (OCS) Exclusion Request with the MISO Market Monitor to not Offer in Reid CT for PY25-26. [PRA Deadline: 3/14/2025]~~
 - ~~a. We will need documentation establishing repair times, repair costs, and major work that would need to be performed to make this unit Operational again.~~
 - ~~b. There is a chance they could make us Offer the Unit into the MISO Capacity Auction for PY25-26.~~
6. File with the public service commission and the Energy Planning and Inventory Commission (EPIC; part of SB349) to retire the Reid CT Unit.
7. Once we receive commission approval, we would need to file another Attachment Y to retire the Reid CT Unit. Might want to keep unit in Suspension for 3 years to keep Generation Interconnection Rights at that location.
8. Remove Reid CT from MISO's Commercial Model.
 - a. Does MISO do this item or will we have to do this item? I know that MISO has pushed a lot of the Commercial Model changes on the MP, so this may fall on our plate.
9. Remove Reid CT from all of our Models.

Here is a process Diagram:



Do we need to do anything with RUS to retire Reid CT? Are there any Environmental Items that will need to be completed? is there anything that I missed in the Project List?

We will want to get moving on these items as quickly as possible in order to try to get an Attachment Y and an Exclusion Request filed before the start of the Auction.

Once we meet with MISO, it would likely be good to get a stand-alone bi-weekly meeting setup on this topic to make sure we are meeting all of our deliverables (at least through Step 5). We can work on this once we get a meeting setup with MISO.

Thanks,
Terry

From: Kreig Voreis <kvoreis@acespower.com>
Sent: Thursday, December 12, 2024 9:52 AM
To: Wright, Terry <Terry.Wright@bigrivers.com>
Cc: Ross Coons <rcoons@acespower.com>; Kristina Swetz <kristinas@acespower.com>; Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>; Wright, Terry <Terry.Wright@bigrivers.com>; Zeringue, Manny <Manny.Zeringue@bigrivers.com>; Gulley, Don <Don.Gulley@bigrivers.com>; Kamuf, Tyson <Tyson.Kamuf@bigrivers.com>; Anita Collier <anitac@acespower.com>
Subject: RE: Attachment Y Information

Hi Terry,

Anita helped track a couple things down.

Replacement Capacity Spring 25:

- Based on the attached section of the tariff on resource suspension, it looks like we will have to replace the Spring 25 capacity obligation on Reid CT.
- “If a Planning Resource for which a Market Participant converts Seasonal Accredited Capacity into ZRCs is Retired or Suspended prior to the end of the Season during the Planning Year in which the ZRCs cleared, such Market Participant must replace the cleared ZRCs with uncleared ZRCs. If a Market Participant does not replace such ZRCs associated with a Retired or Suspended Planning Resource, a Capacity Replacement Non-Compliance Charge will be assessed as determined below in this Section.”
 - o When we meet with MISO we can ask if catastrophic outages that cause suspension void the requirement of purchasing replacement, but the above language seems to be pretty clear and I imagine it trumps the catastrophic outage language.

Future Auctions:

- “A Generation Resource that has the status of Suspend pursuant to Section 38.2.7 will continue to qualify as a Planning Resource in accordance with the BPM for Resource Adequacy.”
 - o I assumes this means we probably still need IMM approval not to offer in the capacity market.

MISO Meeting:

- In order to be more efficient with MISO, let me know when Big Rivers is ready to let MISO know it plans to suspend and then retire Reid CT. Then ACES can request a meeting to ensure everything is submitted properly.

Thanks,

Kreig

Kreig Voreis | Manager of Portfolio Strategy

ACES® | 4140 West 99th Street | Carmel, IN 46032

o: 317.344.7022 | m: [REDACTED] | kvoreis@acespower.com

ACES records and monitors telephone conversations. ACES records all calls to/from our Front Office Personnel which includes but is not limited to traders, operations managers, portfolio directors. Please forward this message or post this notice for the benefit of others within your organization. For questions on this practice, please contact: ACES Legal Department 317.344.7000

Did I meet your needs today? [Click here](#) to provide feedback.



From: Wright, Terry <Terry.Wright@bigrivers.com>

Sent: Monday, December 9, 2024 4:56 PM

To: Kreig Voreis <kvoreis@acespower.com>

Cc: Ross Coons <rcoons@acespower.com>; Kristina Swetz <kristinas@acespower.com>; Ryan Wilhelmus (BREC) <Ryan.Wilhelmus@bigrivers.com>; Terry Wright (BREC) <Terry.Wright@bigrivers.com>; Zeringue, Manny <Manny.Zeringue@bigrivers.com>; Gulley, Don <Don.Gulley@bigrivers.com>; Kamuf, Tyson <Tyson.Kamuf@bigrivers.com>

Subject: RE: Attachment Y Information

Kreig,

I just talked to Manny and they are no longer looking at second opinions, so we are heading down the path of retirement on Reid. There were so many underlying issues that they just decided that it was not worth repairing, so let's go ahead and start exploring the process.

Project List:

1. We cannot officially retire the Unit due to KY SB349 (<https://apps.legislature.ky.gov/record/24rs/sb349.html>), so we would have to start off putting the Unit in a Suspend Status. This can be found in Attachment Y of the MISO Tariff.
2. We would need to consult with the IMM to determine what our Offer requirements are in the Capacity Auction on a Suspend Status. I would assume that we would not have to offer it into the PRA, if it is suspended, but we would need to Confirm.
3. We would have to get PSC Approval to retire the unit per KY Senate Bill 349. Once we get retirement approval, we could start the steps to retiring the Unit.
4. Convert the Attachment Y from a Suspension to a Retirement and officially retire the Unit.

If you want to go ahead and setup the call with us and MISO, we can start proceeding on this item. For now, let's start off just exploring the process until I get final approval by Don to start the Suspend/Retire Process.

Thanks,
Terry

From: Kreig Voreis <kvoreis@acespower.com>

Sent: Monday, December 9, 2024 3:16 PM

To: Wright, Terry <Terry.Wright@bigrivers.com>

Cc: Ross Coons <rcoons@acespower.com>; Kristina Swetz <kristinas@acespower.com>

Subject: RE: Attachment Y Information

Hi Terry,

I will circle back to you on this after talking around internally at ACES. At a high level I think once Big Rivers determines retirement is the best path forward, Big Rivers and ACES needs to setup a meeting with MISO to review what all needs to be completed. If you think it will take a while for Manny to track down second opinions, it may be worth doing an exploratory call with MISO to outline all deadlines for the 25/26 planning year.

Best,

Kreig

Kreig Voreis | Manager of Portfolio Strategy

ACES® | 4140 West 99th Street | Carmel, IN 46032

o: 317.344.7022 | m: [REDACTED] | kvoreis@acespower.com

ACES records and monitors telephone conversations. ACES records all calls to/from our Front Office Personnel which includes but is not limited to traders, operations managers, portfolio directors. Please forward this message or post this notice for the benefit of others within your organization. For questions on this practice, please contact: ACES Legal Department 317.344.7000

Did I meet your needs today? [Click here](#) to provide feedback.



From: Wright, Terry <Terry.Wright@bigrivers.com>

Sent: Monday, December 9, 2024 9:16 AM

To: Kreig Voreis <kvoreis@acespower.com>; Ross Coons <rcoons@acespower.com>; Kristina Swetz <kristinas@acespower.com>

Cc: Terry Wright (BREC) <Terry.Wright@bigrivers.com>; Ryan Wilhelmus (BREC) <Ryan.Wilhelmus@bigrivers.com>; Zeringue, Manny <Manny.Zeringue@bigrivers.com>

Subject: FW: Attachment Y Information

-EXTERNAL*-

Think before clicking links or attachments.

FYI. We are investigating what needs to occur before we can put Reid CT in a Suspension status and ultimately a Retirement Status.

We know for sure that we need to fill out an Attachment Y to put it in a Suspend Status. Are there any other steps that need to be completed from a MISO Perspective? We just want to make sure we get this unit pulled before the MISO Capacity Auction process starts.

*We are not ready to put it in a Suspend Status just yet, but things are currently looking that direction. I know that Manny, our new VP of Generation, is getting some second opinions on this unit before making a final decision.

Thanks,
Terry

From: Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>
Sent: Monday, November 4, 2024 4:51 PM
To: Wright, Terry <Terry.Wright@bigrivers.com>
Subject: Attachment Y Information

Terry – Attached is the section of the MISO tariff that discusses Attachment Y, suspensions, and retirements. I've highlighted some important sections on pages 1, 25, and 26. In a nutshell, since our unit is in a forced outage we only have to give MISO 30 days notice before putting the unit in suspension. If this weren't the case we would have to give over 1 years notice (4 full quarterly study periods). I don't see specific language calling this out but in the past you could retire a unit that was in forced outage on 30 days notice as well. We just have to submit a letter with the Attachment Y that states we waive our right to rescind and modify the Attachment Y. A resource can stay in suspension for 36 months but must return to service at the end of that period. If it does not, interconnection service is terminated.

Another thing we will need to think through is how we handle things with the MISO PRA if the unit isn't retired by that time. We can discuss but I'm thinking we would need to try to get an exemption from the IMM to withhold the unit from the PRA if we are waiting on PSC approval and don't think the unit will return to service. Otherwise the unit could clear the auction and then if we retire mid-year I think we would have to replace the capacity. I had a situation similar to this in the past and the IMM wouldn't give an exemption but did give us an adjusted reference price (not sure on this terminology) but it allowed us to offer the units at an elevated price that would have covered CRNCC had the units cleared the auction. Just something else to consider.

Thanks,

Ryan

Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and may have been automatically archived by Mimecast, a leader in email security and cyber resilience. Mimecast integrates email defenses with brand protection, security awareness training, web security, compliance and other essential capabilities. Mimecast helps protect large and small organizations from malicious activity, human error and technology failure; and to lead the movement toward building a more resilient world. To find out more, visit our website.

Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and may have been automatically archived by Mimecast, a leader in email security and cyber resilience. Mimecast integrates email defenses with brand protection, security awareness training, web security, compliance and other essential capabilities. Mimecast helps protect large and small organizations from malicious activity, human error and technology failure; and to lead the movement toward building a more resilient world. To find out more, visit our website.

From: Potomac Economics <mail@potomaceconomics.com>
Sent: Thursday, February 27, 2025 1:10 PM
To: Wright, Terry; MISO PRA
Subject: Exclusion Status Change for BREC.REIDCT

This is a notification from the IMM. The approved Exclusion for **BREC.REIDCT** in the Summer season of the 2025-26 Planning Resource Auction (PRA) was updated on February 27, 2025. Please review the approved information at <https://ocs.potomaceconomics.com/ocs>.

Prior to the opening of the auction window, approved values for FSRLs and Exclusions will be posted on the MECT. However, since changes in data associated with things like supporting documentation or transmission service can cause these values to change up through the close of the auction window, it is recommended that they be checked again prior to that time.

From: Potomac Economics <mail@potomaceconomics.com>
Sent: Thursday, February 27, 2025 1:11 PM
To: Wright, Terry; MISO PRA
Subject: Exclusion Status Change for BREC.REIDCT

This is a notification from the IMM. The approved Exclusion for **BREC.REIDCT** in the Fall season of the 2025-26 Planning Resource Auction (PRA) was updated on February 27, 2025. Please review the approved information at <https://ocs.potomaceconomics.com/ocs>.

Prior to the opening of the auction window, approved values for FSRLs and Exclusions will be posted on the MECT. However, since changes in data associated with things like supporting documentation or transmission service can cause these values to change up through the close of the auction window, it is recommended that they be checked again prior to that time.

From: Potomac Economics <mail@potomaceconomics.com>
Sent: Thursday, February 27, 2025 1:11 PM
To: Wright, Terry; MISO PRA
Subject: Exclusion Status Change for BREC.REIDCT

This is a notification from the IMM. The approved Exclusion for **BREC.REIDCT** in the Winter season of the 2025-26 Planning Resource Auction (PRA) was updated on February 27, 2025. Please review the approved information at <https://ocs.potomaceconomics.com/ocs>.

Prior to the opening of the auction window, approved values for FSRLs and Exclusions will be posted on the MECT. However, since changes in data associated with things like supporting documentation or transmission service can cause these values to change up through the close of the auction window, it is recommended that they be checked again prior to that time.

From: Potomac Economics <mail@potomaceconomics.com>
Sent: Thursday, February 27, 2025 1:11 PM
To: Wright, Terry; MISO PRA
Subject: Exclusion Status Change for BREC.REIDCT

This is a notification from the IMM. The approved Exclusion for **BREC.REIDCT** in the Spring season of the 2025-26 Planning Resource Auction (PRA) was updated on February 27, 2025. Please review the approved information at <https://ocs.potomaceconomics.com/ocs>.

Prior to the opening of the auction window, approved values for FSRLs and Exclusions will be posted on the MECT. However, since changes in data associated with things like supporting documentation or transmission service can cause these values to change up through the close of the auction window, it is recommended that they be checked again prior to that time.

From: Wright, Terry
Sent: Thursday, April 17, 2025 5:44 PM
To: Gulley, Don; Zeringue, Manny; Mathews, Talina; Mizell, Mike; Kamuf, Tyson
Subject: FW: [EXT]RE: [EXT]Reid CT Retire and Replace

FYI

From: Eric Augustus <EAugustus@misoenergy.org>
Sent: Thursday, April 17, 2025 3:33 PM
To: Wright, Terry <Terry.Wright@bigrivers.com>
Cc: Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>; Wright, Terry <Terry.Wright@bigrivers.com>
Subject: RE: [EXT]RE: [EXT]Reid CT Retire and Replace

Terry,

I'm quickly backtracking on this haha. My apologies. I had further conversations with legal and there is a chance we would support, but we would need to review your waiver request first and decide if we would. Support would come in the form of allowing you to put something in the waiver to the effect of, "MISO supports out waiver request". No additional comments.

If you get to the point where you're thinking about the waiver request, let me know and we can work on this. I'd have you supply your waiver request to us for review and our legal team would determine if we could support or not.

Again, sorry for the misinformation.

Eric Augustus
Principal Customer Management Advisor – External Affairs

 (mobile) | eaugustus@misoenergy.org
720 City Center Drive, Carmel, IN 46032 | www.misoenergy.org

MISO'S VISION: To be the most reliable, value-creating RTO

From: Eric Augustus
Sent: Thursday, April 17, 2025 4:05 PM
To: Wright, Terry <Terry.Wright@bigrivers.com>
Cc: Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>; Terry Wright <terry.wright@bigrivers.com>
Subject: RE: [EXT]RE: [EXT]Reid CT Retire and Replace

Terry,

I was able to get confirmation that MISO wouldn't support or oppose a FERC waiver request if you sought an extension of COD.

Eric Augustus

Principal Customer Management Advisor – External Affairs



(mobile) | eaugustus@misoenergy.org
720 City Center Drive, Carmel, IN 46032 | www.misoenergy.org

MISO'S VISION: To be the most reliable, value-creating RTO

From: Wright, Terry <Terry.Wright@bigrivers.com>

Sent: Wednesday, March 26, 2025 5:27 PM

To: Eric Augustus <EAugustus@misoenergy.org>

Cc: Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>; Terry Wright <terry.wright@bigrivers.com>

Subject: [EXT]RE: [EXT]Reid CT Retire and Replace

Warning! This email originated from outside the organization and caution should be used when clicking on links/attachments. If you suspect this email is malicious, use the 'Phish Alert' button.

Eric,

Ryan is out on vacation tomorrow and Friday, so could you do Monday? We are free from 10 AM to Noon Central and from 2 PM to 5 PM Central.

We appreciate you taking time to chat with us on this item!

Thanks,
Terry

From: Eric Augustus <EAugustus@misoenergy.org>

Sent: Wednesday, March 26, 2025 2:36 PM

To: Wright, Terry <Terry.Wright@bigrivers.com>

Cc: Wright, Terry <Terry.Wright@bigrivers.com>; Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>

Subject: RE: [EXT]Reid CT Retire and Replace

Terry,

Do you and Ryan have time to chat Friday morning? I'm open until 12 eastern. I want to talk through this after I have more conversations with generation interconnection.

Eric Augustus

Principal Customer Management Advisor – External Affairs



(mobile) | eaugustus@misoenergy.org
720 City Center Drive, Carmel, IN 46032 | www.misoenergy.org

MISO'S VISION: To be the most reliable, value-creating RTO

From: Wright, Terry <Terry.Wright@bigrivers.com>

Sent: Tuesday, March 25, 2025 2:53 PM

To: Eric Augustus <EAugustus@misoenergy.org>; Bob Kuzman <bkuzman@misoenergy.org>

Cc: Terry Wright <terry.wright@bigrivers.com>; Wilhelmus, Ryan <Ryan.Wilhelmus@bigrivers.com>

Subject: [EXT]Reid CT Retire and Replace

Warning! This email originated from outside the organization and caution should be used when clicking on links/attachments. If you suspect this email is malicious, use the 'Phish Alert' button.

Eric,

We wanted to reach out to you on an item and get your thoughts and opinions on this topic. As you are aware, we filed an Attachment Y on Reid CT to suspend the unit, effective March 1st, 2025. The unit ran for the last time on August 25th, 2024. We spent most of the time from August 25th to March 1st going through all our options: (1) trying to fix it ourself, (2) hiring Contractors to look at it, (3) hiring Contractors to pull the Turbine, and (4) trying to figure out if it made financial sense to replace the unit. After finding no good solutions, we filed for Attachment Y to suspend the Resource while we go through EPIC and the Kentucky PSC to get approval to retire Reid CT.

The problem is we do not want to give up our Interconnection Rights at that location as the Queue is getting extremely expensive. Our Combined Cycle Project had \$400M in upgrade charges associated with it, which will likely end up killing that project. That has not been 100% confirmed, but it is looking more and more likely each day. As a result, we are now looking to see if we can use our existing interconnection rights to build a new Resource that is more efficient, will run more often, and get higher Capacity Accreditation. We would really like to use the Interconnection Rights from Reid CT and replace it with some RICE Units or an AeroDerivative as it helps us avoid the prohibitive costs of the Queue. The problem we battle is we have to take everything through the Kentucky PSC, which is about a year to a year and a half process. If we started today, we would be hard pressed to have a response back by middle of next year (Aug 2026).

According to MISO's Tariff:

The expected Commercial Operation Date of a Replacement Generating Facility shall be no more than three (3) years from the date of cessation of operation of the Existing Generating Facility. For Existing Generating Facilities that have not yet reached Commercial Operation, the specified Commercial Operation Date in the GIA of a Replacement Generating Facility shall be no later than the specified Commercial Operation Date in the GIA of the Existing Generating Facility

We have been trading emails back and forth with Resource Utilization at MISO on this topic to make sure we understand the rules. According to him, the date of cessation of operation means the date the unit went on Forced Outage, which means that we would have to file our GIA by August 25th, 2026 and have our Replacement GIA in place by August 25th, 2027. We would be hard pressed to get something through the commission in this type of time frame. We would just like to verify that all of MISO agrees with this interpretation that date of cessation is the date of Forced Outage and not the date of Suspension as filed via Attachment Y. More than anything, we are wanting to verify that we have to file for Retire and Replace by August 25th, 2026 or do we really have until March 1st, 2027 (Attachment Y Date).

*I have went ahead and attached my email exchanges on this topic.

**Sumit was really nice, so don't view this email as a complaint. More than anything, we just want to verify that interpretation is consistent across groups in MISO and with MISO Legal or see if there is any wiggle room on this item.

Don is trying to figure out the best approach of how to handle this situation, so I wanted to reach out to both of you on this item.

We appreciate any help you can provide on this topic!

Thanks,
Terry



The information contained in this transmission is intended only for the person or entity to which it is directly addressed or copied. It may contain material of confidential and/or private nature. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is not allowed. If you receive this message and the information contained therein by error, please contact the sender and delete the material from your/any storage medium.

EPIC REPORT - APPEDIX C

Analysis of Big Rivers Electric Corporation's Proposed Retirement of the Robet A. Reid Combustion Turbine

University of Kentucky

Center for Business and Economic Research

Michael Clark, Ph.D., Director

Katie Scott, Senior Economist

June 30, 2025

State and Local Economic Impacts

The retirement of Reid CT will likely have a negligible impact on the state and local economies. Big Rivers reported the real time meter data per year for the unit from 2016 through 2024, which is summarized below. Use of the generating unit varied considerably during this period, ranging from a low of 576 MWhs in 2022 to a high of 19,165 MWhs in 2024. On average, the unit produced 4,663 MWh per year of the reported period. According to the US Energy Information Administration, the average retail price of electricity in Kentucky was 9.96 cents per KWh in 2023. To estimate the value of electricity generated by this unit, the average retail price per KWh was applied to the average annual amount of electricity this unit generated during this period. Given this, the market value of this unit's average annual output when it was operational - was approximately \$464,388 a year.

Estimated Value of Annual Output

Scenario	MWhs/Year	Average Retail Price (Cents/KWh)*	Value of Annual Output
Low	575.95	9.96	\$57,365
Average	4,662.53	9.96	\$464,388
High	19,164.84	9.96	\$1,908,818

*Source: United States. Energy Information Administration. State Electricity Profiles. Oct 23, 2024. <https://www.eia.gov/electricity/state/>.

If the unit is retired rather than repaired and is not replaced with another source, the retirement would mean the value of electricity output would decrease by approximately \$464,388 in a typical year. A reduction in output could potentially reduce economic activity associated with maintaining and operating the unit. The amount of potentially lost economic activity was analyzed using IMPLAN. IMPLAN is an economic model commonly used for estimating economic activity of various changes in the economy. The analysis suggests that a loss of \$464,388 in fossil fuel generated electric output from Webster County may result in a loss of 0.88 jobs and \$73,400 in annual labor income for Kentucky. Of this, 0.61 jobs and \$51,100 would occur in Webster County.

These estimates should be interpreted as the economic activity that was supported by the unit's operations in the past. In the unit's absence, this activity would not be supported, at least not by the unit's operations.

Using the high output 19,165 MWh produced by Reid CT in 2024, the retirement would be estimated to result in a loss of 3.65 supported jobs and \$303,000 in annual labor income in Kentucky. Of this amount, 2.51 jobs and \$210,200 would occur in Webster County. This level of output, however, was an outlier from Reid CT's output during the past 10 years.

Estimated State and Local Economic Impacts

	Webster County		Kentucky	
Scenario	Employment	Labor Income	Employment	Labor Income
Low	0.08	\$6,300	0.10	\$8,738
Average	0.61	\$51,100	0.88	\$73,400
High	2.51	\$210,200	3.65	\$303,200

The estimates of employment and labor income that could potentially be lost include direct, indirect, and induced effects. The direct effects are losses that might occur at Big Rivers Electric Corporation (Big Rivers). Indirect effects refer to the losses that occur if Big Rivers reduces its purchases of supplies and services that it would have needed to maintain and operate this unit. Induced effects refer to losses that might occur at business that provide goods and services to employees of Big Rivers and its suppliers.

Overall, these results suggest that the economic impact to the state and to the local economy of retiring Reid CT is likely minimal. These impacts might be further mitigated by the fact that Big Rivers indicates that it does not expect to reduce its employment levels due to the retirement. In this case, the direct, indirect, and induced effects might be less than IMPLAN's estimates suggest.

State and Local Tax Revenue Impacts

Given the economic impacts of retiring the Reid CT unit are likely to be negligible, the impact of its retirement on state and local government revenues is likely minimal. To the extent that retiring the unit reduces employment and earnings, it could potentially reduce the state and local tax revenues generated by income, sales, or occupational license taxes. To illustrate the potential impact, an effective income tax rate of 3% and an effective sales tax rate of 3.8% were assumed. Applying these rates to the estimated average annual labor income lost suggests that the state could see a reduction in income and sales tax revenues of approximately \$4,200 per year. This estimate only reflects the potential revenue lost from retiring Reid CT. It does not reflect any tax revenues from shifting to other sources of generation. Webster County does not have a local

occupational license tax, and would therefore, not see a reduction in tax revenues due to any lost employment and earnings.

Retiring the unit could also potentially affect state and local tangible property taxes. Kentucky has a tax rate of 45 cents per \$100 of tangible property value. Webster County levies a rate of 38.82 cents and Webster County School District levies a rate of 56.5 cents. Retiring the unit would reduce the total taxable value of existing tangible property. This could reduce tangible property tax revenues for these districts, or it could potentially affect future tax rates. Ultimately, how this affects property taxes in these districts depends on choices made by these taxing districts regarding future tax rates. *(NOTE: EPIC does not currently have data on the taxable value, or the tax bills associated with Reid CT. This should be requested from Big Rivers.)*

Energy Supply and Economic Development Implications

The impact of retiring Reid CT on the electricity available in the region and any potential impacts on future economic development is uncertain, but likely minimal. Data provided by Big Rivers suggests that the unit has generated an average of 4,663 MWhs per year. This represents 0.01% of Kentucky's total retail electric sales in 2023 (US. EIA). With a name plate capacity of 65 MW, Reid CT accounts for approximately 0.4% of Kentucky's net summer capacity. In addition, Big Rivers has indicated that it retained replacement capacity for the Spring of 2025 through the MISO capacity auction and plans to participate in the annual MISO auctions to address potential shortages. As Reid CT accounts for a relatively small share of Kentucky's overall electrical generation capacity, the retirement of Reid CT in isolation is unlikely to constrain future economic development in Kentucky.

(Note: We haven't had time to develop an appropriate model for evaluating the impacts of a retirement on economic development. The loss of one 65 mw unit seems unlikely to have a major impact, in part because this could potentially be offset by purchases from the wholesale market. For future evaluations, we need to develop a formal framework for how this analysis would be conducted.)