



Date: February 19, 2025
To: Board of Directors
From: Woody Rickerson, Senior Vice President and Chief Operating Officer
Chad V. Seely, Senior Vice President, Regulatory Policy, General Counsel, Chief Compliance Officer and Corporate Secretary
Subject: ERCOT Staff Recommendation Regarding ERCOT Board Approval of CPS Energy Braunig Units 1 and 2 Reliability Must-Run (RMR) Agreement or Alternative Solution of Life Cycle Power Mobile Generation

Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: February 25, 2025

Item No.: 4

Issue: Whether the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) should accept the recommendation of ERCOT staff to contract for the operation of mobile generators owned by Prime Power Solutions, LLC d/b/a Life Cycle Power (LCP) as an alternative to committing Braunig Units 1 and 2 through Reliability Must-Run (RMR) Agreements. Furthermore, whether the ERCOT Board should authorize ERCOT to enter into RMR Agreements for Braunig Units 1 and 2 as an alternative solution in the event ERCOT is unable to contract with LCP for any reason or the cost-effectiveness of the LCP solution materially changes.

Background/History:

On March 13, 2024, CPS Energy provided ERCOT Notifications of Suspension of Operations (NSOs) of CPS Energy’s V.H. Braunig Units 1, 2, and 3 (hereinafter collectively referred to as the “Braunig units” or “Braunig Resources.”) CPS Energy initially proposed suspension dates of March 31, 2025 for all three units, but later revised the suspension date of Unit 3 to March 3, 2025 to allow the outage to commence earlier. CPS Energy has represented to ERCOT that each of the Braunig units must be inspected and repaired before it may operate after its proposed suspension date. Each unit must be inspected and repaired consecutively, rather than simultaneously, due to space restrictions and common personnel and equipment. CPS Energy has provided best-case estimates of 60 days for each of the three inspection and repair outages.

CPS Energy’s NSO submissions regarding the Braunig units prompted an initial ERCOT reliability analysis under Public Utility Commission of Texas (PUCT) Substantive Rule, 16 Texas Administrative Code (T.A.C.) § 25.502(e), and ERCOT Protocols § 3.14.1.2. As required under the Protocols, the reliability analysis considered only transmission-system impacts of the retirements, not Resource adequacy impacts. The reliability analysis was completed on April 22, 2024. ERCOT’s analysis identified ERCOT System performance deficiencies that are materially impacted by the retirement of the Braunig Resources. In summary, without the Braunig Resources, there were:

- Transmission Facilities loaded above their Normal Rating under pre-contingency conditions for which the Braunig Resources had an unloading Shift Factor of more than 2% and an unloading impact of more than 5%;
- Transmission Facilities that were above 110% emergency loading for which the Braunig Resources had an unloading Shift Factor of more than 2% and an unloading impact of more than 5%; and
- Cascading under studied conditions identified in paragraph (3)(c)(ii) of ERCOT Protocols § 3.14.1.2.

Based on these findings, ERCOT concluded that the Braunig Resources are needed to support ERCOT System reliability. ERCOT posted this reliability analysis to ERCOT's Market Information System (MIS) Secure Area on April 22, 2024.

The Braunig units are particularly impactful on certain 345-kV transmission lines that are subject to the South Texas Export Interconnection Reliability Operating Limits (IROLs). The Braunig units have an approximate Shift Factor of negative 7% to negative 8.5% on the transmission lines subject to the South Texas Export IROLs, which means that any generation from the units results in a reduction of loading on those transmission lines. Under NERC Reliability Standards, ERCOT must develop a plan to avoid the exceedance of IROLs. ERCOT's plan includes Load shedding, if necessary.

When performance deficiencies are found in a reliability analysis conducted under ERCOT Protocols § 3.14.1.2, ERCOT must begin negotiations for potential Reliability Must-Run (RMR) Service. ERCOT has conducted such negotiations.

The finding of performance deficiencies also triggered a required Request for Proposal (RFP) seeking lower-cost alternatives (Must-Run Alternatives, *i.e.* MRAs) in lieu of RMR Service. ERCOT issued the original MRA RFP on July 25, 2024, followed by a revised MRA RFP on August 21, 2024, with proposals due by October 7, 2024. Public outreach included multiple PUC filings, Market Notices, and an ERCOT workshop. No qualified MRA proposals were received.

On December 3, 2024, based on ERCOT's recommendation, the Board approved RMR Service for Braunig Unit 3. At that time, ERCOT had recommended deferring a decision on Braunig Units 1 and 2 to allow time to explore an alternative solution involving the use of LCP's mobile generation.

On December 20, 2024, ERCOT issued another RFP seeking more cost-effective alternatives to contracting with LCP or committing Braunig Units 1 and 2.

ERCOT received three offers. Two of them were invalid, and one was valid but deemed not to be cost-effective relative to the anticipated cost of either the LCP or Braunig RMR solutions.

Key Factors Influencing Issue:

Details of Life Cycle Power's Solution

Under the Life Cycle Power (LCP) solution, LCP would agree to provide 15 mobile generating units, each providing approximately 30MW. These units, currently under lease to CenterPoint Energy, would be moved from the Houston area to the San Antonio area. CenterPoint Energy has provided ERCOT a letter indicating that it will allow LCP to make these 15 mobile generating units available to ERCOT from April 2025 through the earlier of March 31, 2027 or the date of an appropriate exit solution (see **Attachment A**).

Current time estimates based on discussions with CPS Energy suggest that units could be interconnected in batches starting in June 2025 and ending in August 2025 to provide emergency transmission relief for the South Texas Export IROL.

The mobile generating units will be registered as Generation Resources and deployed using Reliability Unit Commitment (RUC) Verbal Dispatch Instructions (VDI), just as with RMR Resources. As with RMR agreements, LCP units would be deployed by ERCOT only during actual or anticipated transmission emergencies, including pre- or post-contingency exceedances of the South Texas Export IROL, or system capacity emergencies (Energy Emergency Alerts [EEA]). The LCP units would operate using diesel fuel stored on-site and could reach full output within 10 minutes. Units could be remotely started and would be subject to deployment 24 hours a day, 7 days a week, 365 days a year.

Any agreement between ERCOT and Life Cycle Power would not be a traditional RMR or MRA agreement, as it would be adopted under ERCOT's general reliability authority in PURA § 39.151(a)(2). The current draft agreement borrows elements from both RMR and MRA frameworks to achieve a feasible, reliable, and cost-effective alternative solution. For example, like an RMR agreement, ERCOT currently anticipates that compensation would generally be based on LCP's actual costs of making the units available to ERCOT at the required locations. These costs would include LCP's incremental costs of moving, interconnecting, and operating the units. Documentation of all expenses would be required and would be subject to reasonableness review. As with RMR, payments would be based on a specified budget of projected costs incurred according to an agreed schedule, and these costs would be subject to true-up with actual costs over time. As with traditional settlement, ERCOT would settle all payments and charges with LCP's Qualified Scheduling Entity (QSE), which is currently anticipated to be CPS Energy. Also, like RMR, LCP would receive a 10% adder on certain cost categories to serve as a limited incentive for undertaking this agreement. However, like an MRA agreement, ERCOT would impose a penalty for unavailability that is based on the tested capacity of the unit and the application of a monthly availability reduction factor that is based on the

availability of the unit each month relative to an agreed target availability factor. ERCOT continues to work with LCP and CPS Energy on the details.

Details of Braunig RMR Solution

Braunig Units 1 and 2 are nearly 60 years old. CPS Energy has informed ERCOT that these units will need lengthy outages and expensive inspections and repairs to ensure they can be safely operated for any period of time beyond their planned retirement dates of March 31, 2025. Braunig Units 1 and 2 will need to be inspected and repaired consecutively; the work cannot overlap or be done in parallel. Braunig Unit 1 would be on outage starting April 1, 2025 with a best-case scenario estimate of returning to service on July 2, 2025. Braunig Unit 2 would be on outage starting April 1, 2025 with a best-case scenario estimate of returning to service on September 1, 2025.

Under an RMR Agreement, ERCOT would reimburse CPS Energy for the cost of inspecting, repairing, and operating Braunig Units 1 and 2. ERCOT would pay CPS Energy for its actual costs plus a 10% incentive factor. ERCOT would have the right to terminate the RMR Agreement with 90 days' notice.

Details of ERCOT's Financial and Risk Analysis

To form a recommendation for the ERCOT Board, ERCOT staff considered the costs, benefits, and risks of contracting for RMR Service for Braunig Units 1 and 2 and the costs, benefits, and risks of the LCP solution.

Braunig RMR Solution:

The total estimated budget with expected fuel costs and incentive factor or adders for RMR Service for Braunig Units 1 and 2 is \$59 million.

Committing Braunig Units 1 and 2 through RMR Agreements carries significant cost and operational risk due to the advanced age and the technology of the units.

Additional risk considerations regarding Braunig Units 1 and 2 include:

- Additional unforeseen costs associated with repairing Braunig Units 1 and 2 could be significant.
- CPS Energy's budgets for each unit are based on anticipated work needed to ensure safe operations.
- CPS Energy's budget for Braunig Unit 3 has increased 33% since November 26, 2024 as CPS Energy has begun to prepare for the outage and inspection.
- Budgets for Braunig Units 1 and 2 have already increased 8% since November 26, 2024 and no decision has yet been made to commit those units.
- Additional necessary repair work will likely be discovered once the inspections of Units 1 and 2 are underway.

- Discovery of additional needed repairs could extend the duration of the outages.
 - Any extension of the outage of Unit 1 could remove the unit from operation during summer peak conditions.
 - Parts availability could be hampered by supply chain problems, which could extend outage durations.
- Given the age of the Braunig units, these Resources may have higher than normal Forced Outage rates.
- Given the age and technology of the Braunig units, ERCOT would need to commit these Resources many hours in advance due to the long lead times required to start and have the units ready to operate at full output, compared with ten-minute notice for LCP mobile generators.
- Longer lead-times could result in some deployments that would ultimately end up not being necessary under real-time conditions.
- Longer lead-times would also mean these units would not be able to help with fast-developing emergencies.
- Braunig units have long minimum up times and minimum down times, resulting in greater cost of operation in the event of deployment.
- Each Braunig unit represents a much larger single point of failure compared with the smaller LCP mobile generators.
- The Braunig units have a slightly smaller helping shift factor relative to the South Texas Export IROL constraint.

Life Cycle Power Solution:

The total cost of the LCP solution is projected to be about \$54 million. This includes costs estimated by LCP as the Generation Resource owner and CPS Energy as the QSE.

The current total estimated cost from LCP for a two-year contract term is \$29 million, not including fuel beyond the initial fuel delivery. The major LCP costs fall into the following areas:

- Labor: ~\$19.5 million
- Transfer of Mobile Generation to and from San Antonio: ~\$4 million
- Fuel Storage & Infrastructure: ~\$1.4 million
- Remote Operations Center: ~\$1.6 million
- Initial Fuel Fill: ~\$800,000

The total anticipated fuel cost based on ERCOT's projected dispatch is \$2.1 million.

The current total estimated cost from CPS Energy is \$23 million. The major CPS Energy costs fall into the following areas:

- Construction of Generator Interconnection Facilities: ~\$9 million
- Removal of Interconnection Facilities: ~\$2.4 million

- Metering/Telemetry: ~\$4.3 million
- Wholesale Distribution Service charges: ~\$5.4 million

The LCP mobile generation solution also presents some risks, but these appear to be less concerning than the risks associated with the Braunig RMR solution. Additional risk considerations regarding the LCP mobile generation solution include:

- Actual cost could end up being higher than estimated.
 - ERCOT’s value analysis is based on LCP-provided cost estimates, but ERCOT will ultimately pay based on actual cost for most categories of LCP costs (ERCOT and LCP are negotiating a possible “fired-hour charge” that would cover maintenance associated with operations beyond a defined number of hours; this amount would not be subject to documentation of actual cost.)
- The price of fuel oil per MMBtu used by the mobile generators is nearly six times the price of natural gas used by the Braunig units, and so if the units were dispatched far in excess of what ERCOT projects, the cost of the LCP solution would eventually exceed the cost of the Braunig units due to fuel cost.
- Since LCP would be a new Market Participant, this could increase the risk of performance failure due to a lack of experience with ERCOT rules, but this may be mitigated by coordination in commissioning and testing.
- Emissions restrictions might impact operation of these units under certain scenarios.

LCP solution – Emissions Permitting Issues

One outstanding issue with the proposed LCP solution is that the emissions permitting framework remains unclear. The LCP generators currently operate under a “permit-by-rule” in the CenterPoint Energy/Houston service area due to use as emergency backup generation islanded from the ERCOT grid. Under ERCOT’s proposal, the LCP generators are synchronously connected and would provide power to the ERCOT grid during emergencies and so would not qualify for the same type of permit. Rather, the LCP generators would need to meet the conditions for a “standard” air permit, which require the generator to meet certain NOx emissions restrictions, among other requirements. However, based on initial discussions, it does not appear that LCP could feasibly comply with the NOx limitations under the rules for the standard permit.

ERCOT has been working with LCP and the Texas Commission on Environmental Quality (TCEQ) to identify a path forward, including feasibility and possibility of special enforcement discretion policy. However, if ERCOT is not able to identify an appropriate solution under the current regulatory framework, it may need to seek an order from the Secretary of Energy under section 202(c) of the Federal Power Act (FPA). Section 202(c) authorizes Secretary of Energy to direct “temporary connections” of generating facilities and the “generation . . . of electric energy” when

needed to address “a shortage of electric energy or of facilities for the generation or transmission of electric energy.” An order issued under FPA section 202(c) would supersede any federal, state, or local environmental laws or regulations that conflict with the order.

Key Considerations and Risk Comparison

Both the Braunig RMR solution and the LCP solution provide a cost-effective means of reducing the projected IROL violations, but ERCOT’s analysis suggests that the LCP solution is more cost-effective than the Braunig RMR solution at reducing the risk of load-shedding due to IROL violations, even while neither solution entirely eliminates that risk.

Specifically, ERCOT calculations indicate that the benefit-cost ratio of the LCP solution is approximately 15% greater than the RMR commitment of Braunig Units 1 and 2 based on the anticipated number of deployments to address the projected IROL violations. Additionally, the benefit-cost ratio of the LCP solution would continue to exceed the benefit-cost ratio of the RMR even for a much larger number of deployments than projected, although at some point, the Braunig solution would eventually be considered more economical due to lower incremental cost of operation.

Required Stipulation

While ERCOT’s primary recommendation below is that the ERCOT Board should authorize ERCOT to finalize an agreement with LCP to contract for the operation of LCP’s mobile generators instead of committing Braunig Units 1 and 2 through RMR Agreements, ERCOT is also recommending that the ERCOT Board authorize ERCOT to alternatively pursue RMR Agreements with CPS Energy for Braunig Units 1 and 2 if for any reason ERCOT is unable to contract with LCP, including if the cost-effectiveness of the LCP solution materially changes.

In the event ERCOT were to pursue RMR Agreements with CPS Energy for the operation of Braunig Units 1 and 2, ERCOT provides the following stipulations required by Section 3.14.1.3:

- (a) The Resource Entity, CPS Energy, provided a complete and timely NSO including a sworn attestation supporting its claim of pending Generation Resource closure;
- (b) ERCOT received all of the data necessary to evaluate the need for and provisions of the RMR Agreement, and that information was posted on the MIS Secure Area by ERCOT as it became available to ERCOT;

- (c) If and when executed, the signed RMR Agreement will comply with the ERCOT Protocols and be posted on the MIS Secure Area;
- (d) ERCOT evaluated:
 - (i) The reasonable alternatives to a specific RMR Agreement as set forth in Section 3.14.1, Reliability Must Run, and compared the alternatives against the feasibility, cost and reliability impacts of the signed RMR Agreement;
 - (ii) The timeframe in which ERCOT expects each unit to be needed for reliability; and
 - (iii) The specific type and scope of reliability concerns identified for each RMR Unit.

Conclusion/Recommendation:

From a cost, risk, and reliability perspective, the LCP solution is preferable to committing Braunig Units 1 and 2 through RMR Agreements. ERCOT staff therefore recommends that the ERCOT Board authorize ERCOT to contract for the operation of LCP's mobile generators instead of committing Braunig Units 1 and 2 through RMR Agreements.

ERCOT staff further recommends that the ERCOT Board authorize ERCOT to enter into RMR Agreements for Braunig Units 1 and 2 as an alternative solution in the event ERCOT is unable to contract with LCP for any reason, including material changes in the cost-effectiveness of the LCP solution.



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February 18, 2025

Chad V. Seely
Senior Vice President, Regulatory Policy, General Counsel, Chief Compliance Officer and
Corporate Secretary
Electric Reliability Council of Texas, Inc.
8000 Metropolis Drive (Building E), Suite 100
Austin, Texas 78744

RE: February 25, 2025 Special Board of Directors Meeting; Agenda Item 4: ERCOT Staff
recommendation of Life Cycle Power Mobile Generation

Dear Mr. Seely:

The purpose of this letter is to memorialize discussions we have had over the past few months regarding the 15 large emergency generators, which range from 27.5MW to 32.6MW capacity each, that we have under lease from a third-party vendor, Life Cycle Power (LCP), through mid-2029.

As part of our commitment to help meet the state's immediate energy needs, CenterPoint will allow LCP to make available to ERCOT the company's leased 15 large emergency generators for a period beginning on or around April 1, 2025 through the earlier of March 31, 2027, or the date of an appropriate exit solution, to assist with mitigating overloads on transmission lines that import power into the San Antonio area. Each of these units can power approximately 30,000 homes.

CenterPoint will receive no compensation from ERCOT in exchange for the use of the company's leased 15 large emergency generators for the up to two-year period described above, and will not be a party to the agreement between ERCOT and LCP. Moreover, CenterPoint has no ownership interest in LCP.

CenterPoint will also ensure that its customers do not bear the cost of the 15 large emergency generators attributable to the up to two-year period described above by filing a proposed rate reduction next month with the Public Utility Commission of Texas to remove that cost from rates.

This proposal is subject to negotiation of mutually acceptable definitive agreements amongst all the parties involved, which as you know is underway.

I will be available at the February 25 ERCOT Board meeting if I can answer any questions about our proposal.

Regards,

A handwritten signature in black ink that reads "Jason M. Ryan".
Jason M. Ryan



ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
BOARD OF DIRECTORS RESOLUTION

WHEREAS, on March 13, 2024, CPS Energy provided ERCOT notice of the proposed indefinite suspension (NSO) of CPS Energy's V.H. Braunig Units 1, 2, and 3 after March 31, 2025;

WHEREAS, ERCOT conducted a reliability analysis required under Public Utility Commission of Texas (PUCT) Substantive Rule, 16 Texas Administrative Code § 25.502(e) and Protocols § 3.14.1.2 that showed ERCOT System performance deficiencies affected by the suspension of Braunig Units 1, 2, and 3;

WHEREAS, the operation of Braunig Units 1 and 2 reduce loading on certain 345-kV transmission lines that are subject to the South Texas Export Interconnection Reliability Operating Limits (IROLs);

WHEREAS, under federal reliability requirements, ERCOT must develop a plan to avoid the exceedance of IROLs, and ERCOT's plan to avoid the exceedance of the South Texas Export IROL includes load-shedding, if necessary;

WHEREAS, ERCOT conducted a Request for Proposal (RFP) process seeking lower-cost Must-Run Alternatives to RMR Service, and no qualified Must-Run Alternatives were identified by ERCOT;

WHEREAS, the ERCOT Board of Directors (Board) voted on December 3, 2024 to approve RMR Service for Braunig Unit 3 but to defer a decision on Braunig Units 1 and 2 to allow ERCOT to explore an alternative solution involving the use of generation owned by Prime Power Solutions, LLC d/b/a Life Cycle Power (LCP);

WHEREAS, on December 20, 2024, ERCOT issued another RFP seeking more cost-effective alternatives to contracting with LCP or committing Braunig Units 1 and 2 but did not receive any valid offers that were more cost-effective than either the LCP or Braunig options;

WHEREAS, ERCOT has continued discussions with LCP and with CPS Energy, which would provide interconnection and Qualified Scheduling Entity (QSE) services to LCP, to determine the details and estimated costs of the arrangement;

WHEREAS, ERCOT's analysis of the projected costs and benefits based on a simulated dispatch over the next two years indicates that both the Braunig RMR solution and the LCP solution would be cost-effective relative to the value of load-shed reduction due to anticipated violations of the South Texas Export IROL;

WHEREAS, ERCOT's analysis of the projected costs and benefits also indicates that the LCP solution is projected to have a 15% higher benefit-cost-ratio than the Braunig RMR



solution would have with respect to the value of load-shed reduction due to anticipated violations of the South Texas Export IROL;

WHEREAS, ERCOT’s assessment of the risks has concluded that committing the Braunig Units 1 and 2 through RMR Agreements would entail greater risk of cost increase and greater operational risk due to the age and technology of those units compared with the LCP solution;

WHEREAS, ERCOT would recommend proceeding with RMR Agreements with CPS Energy for Braunig Units 1 and 2 only if ERCOT is unable to contract with LCP for any reason, including material changes in cost-effectiveness to the LCP solution;

WHEREAS, ERCOT recommends that the Board authorize ERCOT management to (1) enter into an agreement with LCP for the operation of its mobile generation as an alternative to entering into RMR Agreements with CPS Energy for Braunig Units 1 and 2, assuming the cost-effectiveness of the LCP solution does not materially change and (2) to enter RMR Agreements for Braunig Units 1 and 2 for April 1, 2025 through March 31, 2027 as an alternative in the event ERCOT is unable to contract with LCP for any reason, including material changes in cost-effectiveness of the LCP solution.

WHEREAS, ERCOT stipulates that the requirements under paragraph (1) of Protocols Section 3.14.1.3 and the requirements under Protocols Section 3.14.1.5 have been satisfied; and

THEREFORE, BE IT RESOLVED, that ERCOT management is hereby authorized and approved to (1) enter into an agreement with LCP for the operation of its mobile generation as an alternative to entering into RMR Agreements with CPS Energy for Braunig Units 1 and 2, assuming the cost-effectiveness of the LCP solution does not materially change and (2) to enter RMR Agreements for Braunig Units 1 and 2 for April 1, 2025 through March 31, 2027 as an alternative in the event ERCOT is unable to contract with LCP for any reason, including material changes in cost-effectiveness of the LCP solution.

CORPORATE SECRETARY’S CERTIFICATE

I, Brandon Gleason, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its _____ meeting, the Board passed a motion approving the above Resolution by _____

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of _____, 2025.

Brandon Gleason
Assistant Corporate Secretary