

**WYOMING PUBLIC SERVICE COMMISSION
RELIABLE AND DISPATCHABLE LOW-CARBON ENERGY STANDARDS
(CARBON CAPTURE UTILIZATION AND STORAGE)
REPORT TO THE LEGISLATURE
Wyoming Statute § 37-18-102(e)
Revised July 3, 2025**

In 2020, HB 200¹ created Wyoming Statute §§ 37-18-101 and 102, requiring the Wyoming Public Service Commission to establish Reliable and Dispatchable Low-Carbon (RDLC) Energy Standards for regulated electric utilities operating coal-fired generation plants in Wyoming². The Commission adopted rules to implement the statutes on January 3, 2022.³

These statutes and rules established a framework for the exploration of economically and technically feasible opportunities for electric utilities operating coal-fired generation plants in Wyoming to continue providing reliable and dispatchable generation at significantly reduced CO₂ exhaust output levels using Carbon Capture, Utilization and Storage (CCUS) technology. CO₂ captured from generation plant operations could be stored or used in a variety of chemical and industrial processes.

On March 15, 2024, SF0042 (Laws Chapter 75, 2024) amended the RDLC Energy Standards statutes. The amendments:

- Limited the application of the RDLC Energy Standards to public utilities serving more than ten thousand (10,000) Wyoming customers.
- Conformed the definition of “low-carbon” to the standard stated in 26 U.S.C. § 45Q(e)(2), which provides federal tax credits.
- Extended the deadline for utilities to comply with the RDLC Energy Standards from 2030 to 2033.
- Required each affected public utility to file an annual report with the Commission outlining the steps the utility is taking to determine the market for carbon dioxide from electricity generation and to achieve the RDLC Energy Standard.
- Prohibited rate recovery under 37-18-102(v)(iii) after recovery through base rates or another mechanism has been authorized by the Commission.

¹ Laws Chapter 144, 2020.

² The requirements of Wyoming Statute §§ 37-18-101 and 102 have at times been referred to by various parties, including the Commission, as a “Low-Carbon Energy Standard” or “Low-Carbon Energy Portfolio Standard” and similar phrases. In this report, the term “Reliable Dispatchable Low-Carbon (RDLC) Energy Standard” has been used to conform to the statutes and accurately reflect the nature of the generation standard created by HB0200 in 2020.

³ Wyoming Public Service Commission Rules, Chapter 3, Section 38.

Related legislation, SF0022, (Laws Chapter 58, 2024) amended Wyoming Statute § 37-18102(a)(v) to require the Commission to, no later than December 15, 2024, establish baseline standards for electric reliability to ensure adequate, reliable and dispatchable power in Wyoming.⁴

Since Wyoming adopted RDLC Energy Standards requirements, Rocky Mountain Power (RMP), Cheyenne Light, Fuel and Power (CLFP), and, until it became exempt as an electric utility with fewer than 10,000 Wyoming customers due to the amendments described above, Black Hills Power, (BHP) have filed RDLC Energy Standards applications and updates. While no non-zero RDLC Energy Portfolio Standards have been established, RMP and CLFP continue to study the feasibility of installing CCUS technology on existing coal-fired generation units and have filed applications describing their plans in furtherance of the goal of establishing and meeting economically and technically achievable RDLC Energy Portfolio Standards.

Rocky Mountain Power

RDLC Energy Standards Customer Surcharge Collections and Compliance Expenditures

RMP has collected approximately \$3.9 million dollars and incurred expenses of \$556,000.

RMP's current RDLC customer surcharge of 0.12% has been in effect on an interim basis since January 1, 2025. From February 1, 2023 to December 31, 2024, the surcharge was 0.30%.

The Commission recently approved RMP's incurred expenses, finding they were prudently incurred incremental compliance costs, and authorized an RDLC Energy Portfolio Standard of 0.00%. A written order is pending.

History

On March 31, 2022, RMP applied to establish intermediate RDLC Energy Standards and requirements. The Company provided its initial analysis for Dave Johnston Units 1-4, Jim Bridger Units 1-4, Naughton Units 1-2 and Wyodak Unit 1. The Commission approved the application, set an intermediate portfolio standard of 0.00%, and required:

1. A progress report regarding Requests for Proposals (RFP) by February 1, 2023;
2. An RFP process allowing proposals using other than post-combustions amine-based technologies;
3. Another "interim" application by March 31, 2023, to explore issues and provide additional analysis as suggested by the Office of Consumer Advocate;
4. The "interim" application to include RFP processes and timelines.

⁴ SF0022 also specified that the Commission may disallow recovery of a return on investment associated with non-dispatchable generation resources that fail to perform as projected and authorized the imposition of civil penalties for failure to maintain established baseline standards for electric reliability.

5. Evaluation of the percentage of reliable power that would be generated under a CCUS scenario;
6. Consideration and full evaluation of joint venture and third-party options to the extent permitted by statute;
7. An analysis of available tax credits;
8. Full consideration of options under Wyoming Statute § 31-18-102(c); and
9. A “final” application on or before March 31, 2024.

On March 31, 2023, RMP filed its first update to its initial plan. The update did not materially change the CCUS suitability analyses and concluded that further economic and technological analysis was necessary. The Commission approved the update.

The Company’s 2023 Integrated Resource Plan (IRP), filed on April 3, 2023, and an Amended IRP filed on May 31, 2023, did not include CCUS in the preferred portfolio.

On November 3, 2023, RMP applied for approval of baseline standards for electric reliability pursuant to Wyoming Statute § 37-18-102. The Commission established baseline standards for electric reliability, including:

- System Average Interruption Duration Index (SAIDI) standard of 175 minutes;
- System Average Interruption Frequency Index (SAIFI) standard of 1.8 events;
- Momentary Average Interruption Frequency Index (MAIFI) standard of 1.73 events; and
- Transmission voltage, voltage balance, voltage fluctuation and flicker, and voltage frequency within ranges specified in RMP’s Engineering Handbook.

RMP’s 2023 IRP Update was filed on April 1, 2024. It included CCUS in the preferred portfolio. RMP stated that because the IRP relied on proxy CCUS costs and the Company received no qualifying bids from its CCUS RFP process it could not determine if CCUS would remain economically feasible or be included in the preferred portfolio once site-specific cost estimates were modeled through completion of a front-end engineering design (FEED) study.⁵

RMP filed its final RDLC Energy Standards plan on March 29, 2024, requesting the Commission approve its proposal to:

⁵ A FEED study provides an in-depth analysis, detailed design, and cost estimate for implementing a particular technology on a specific facility.

- Conduct additional technical and economic analyses for an Allam Fetveldt Cycle (AFC) project at either the Dave Johnston or Wyodak facilities by conducting a pre-FEED study in partnership with third parties (SK and 8 Rivers);
- Perform additional technical and economic analyses by conducting a FEED study at the Jim Bridger facility; and
- Defer determination of a portfolio standard because CCUS requires continued evaluation for technical and economic feasibility.

The Commission approved the final plan September 19, 2024, subject to several additional reporting requirements.

Pending Matters

On October 1, 2024, RMP applied for authority to reduce Tariff Schedule 198, Carbon Capture Compliance Charge.⁶ The Company proposed to reduce the surcharge from 0.30% to 0.12%, including on an interim basis beginning January 1, 2025. RMP also requested the Commission find CCUS costs incurred from 2022 through August 2024 incremental costs prudently incurred to comply with the RDLC Energy Standard. The Commission approved the 0.12% interim surcharge on December 17, 2025, held a public hearing the Application on May 1, 2025, and approved the Application at public deliberations held June 17, 2025. A written order is pending.

On March 31, 2025, RMP filed its Annual Update Application its final plan to establish RDLC Energy Portfolio Standards. The Company states it believes Jim Bridger Units 3 and 4 remain potentially suitable candidates for CCUS, and that the proposed AFC project in partnership with SK and 8 Rivers is potentially suitable for the Dave Johnston location. Further, the Company will continue to advance the Jim Bridger FEED study and AFC project, stay apprised of technological developments and funding opportunities in the CCUS field, and provide an annual update by March 31, 2026. No public comments of petitions for intervention were received by the June 5, 2025 deadline. Commission action is pending.

Cheyenne Light Fuel and Power Co.

RDLC Energy Standards Customer Surcharges Collections and Compliance Expenditures

CLFP has collected approximately \$883,312 and incurred expenses of \$967,404 through June, 2025.

The RDLC Energy Standards Customer Surcharge (CCUS surcharge) of 0.5% was set to 0.00% on January 1, 2025.

CLFP is currently proposing a surcharge of 1.4% over 12 months beginning January 2026 to collect an additional \$4.5 million to provide assurance that funding is available for the required

⁶ Schedule 198 is the tariff for RMP's RDLC Energy Standards customer surcharge.

1:1 match for an Energy Matching Funds (EMF) grant for a carbon dioxide sequestration test well from the Wyoming Energy Authority (WEA).

History

On March 31, 2022, CLFP applied jointly with BHP to establish intermediate RDLC Energy Portfolio Standards and requirements. The Application analyzed amine-based carbon capture technology for Neil Simpson II and Wygen II. After a public hearing, the Commission requested an interim report from the Companies regarding an RFP process for amine-based carbon capture on those units on or before February 1, 2023.

The February 1, 2023, Interim Report indicated there were no bids received from the eight amine-based technology companies solicited. These declined bidder companies generally explained that they could not provide a Firm Bid–Turnkey proposal in the absence of a FEED study.

On March 31, 2023, CLFP applied for approval of its Second Interim Report, which proposed to complete a Pre-FEED study to further analyze the costs and implementation of amine-based carbon capture technology. The Commission approved the Application and set an intermediate RDLC Portfolio Standard of 0.00%.

On November 27, 2023, CLFP applied for approval of its baseline standards for electric reliability pursuant to Wyoming Statute § 37-18-101 *et seq.* The Commission established baseline standards for electric reliability including:

- SAIDI standard of 46.11 minutes;
- SAIFI standard of 0.88 events;
- MAIFI standard of 1.40 events on an interim standard subject to change based on data through 2029; and
- Steady state voltage, voltage imbalance, voltage sags and swells, total harmonic distortion, and light flicker measured within the ranges set forth in IEEE 1159-2019, IEEE 519-2014, IEEE 1453.1-2012, TPL-001-WECC-CRT-3.2, and ANSI C84.1 and industry standards.

On March 28, 2024, CLFP applied for approval of its Third Interim Report. The report summarized the findings of the Pre-FEED study, showing a 65% decrease in net plant output for Wygen II when adding amine-based carbon capture equipment without a backpressure turbine, and a 38% decrease in net plant output for Wygen II when adding amine-based carbon capture equipment with a backpressure turbine. The estimated capital cost to add amine-based carbon capture equipment to Wygen II was approximately \$500 million, potentially increasing customer bills by up to 43%. Based on the results of the Pre-FEED study, CLFP did not recommend moving forward with amine-based technology due to its high cost and impact on customer rates. In compliance with the Commission's order issued January 30, 2025, CLFP applied to establish final RDLC Energy Portfolio Standards on March 31, 2025.

Pending Matters

On March 31, 2025, CLFP applied to establish final RDLC Energy Portfolio Standards and requirements. The Application again states that amine-based technology is not economically feasible for the Wygen II facility. The Company indicates that if a WEA EMF grant is received, it intends to collaborate with Carbon GeoCapture (CGC), a Laramie Wyoming based company, to develop a demonstration storage well. This demonstration well is a component of a larger project that, if deemed economically and technically feasible, would operate with a coal-to-hydrogen facility supplying generation facilities to produce RDLC energy. CLFP also requests a final RDLC Energy Portfolio Standard of 0.00%.

On April 28, 2025, CLFP applied to increase its RDLC Energy Standard surcharge rate of from 0.00% to 1.43%, effective January 1, 2026. The Company seeks approval of the surcharge to demonstrate the availability of matching funds to support an application for an EMF grant from the Wyoming Energy Authority. CLFP will submit a compliance filing on the status of the EMF grant application by December 1, 2025. If the WEA does not award a grant for utilizing CGC technology, the matching funds will not be required and the Company will request to reset the surcharge accordingly.

Black Hills Power

(d/b/a Black Hills Energy)

As of December 31, 2022, Black Hills Power (BHP) had 2,640 Wyoming customers, exempting it from Wyoming Statute § 37-18-102. Any remaining surcharge balance as of December 31, 2024, were either credited to or collected from customers in BHP's Energy Cost Adjustment commodity balancing account.

Conclusion

The Commission recommends continuing the efforts to establish and implement RDLC Energy Portfolio Standards based on the progress accomplished to date, the anticipated need for reliable and dispatchable generation resources to serve growing demand, and the high probability of continued uncertainty surrounding state, regional and federal energy policy developments.