



1407 W. North Temple, Suite 330
Salt Lake City, UT 84116

December 29, 2023

VIA ELECTRONIC FILING

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Administrator

RE: **Docket No. 23-035-57**
Rocky Mountain Power's Utah Carbon Reduction Progress Report

In accordance with the Utah Energy Resource Procurement Act ("Act"), Title 54 Chapter 17 Section 604, Rocky Mountain Power ("Company" or "Rocky Mountain Power") respectfully submits its 2024 Carbon Reduction Progress Report to the Public Service Commission of Utah on the development and maintenance of a plan for meeting the targets set forth under Title 54 Chapter 17 Section 602.

The Company respectfully requests that all formal correspondence and requests for additional information regarding this filing be addressed to the following:

By E-mail (preferred): datarequest@pacificorp.com
jana.saba@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah St., Suite 2000
Portland, OR 97232

Informal inquiries may be directed to Jana Saba at (801) 220-2823.

Sincerely,

Joelle Steward
Senior Vice President, Regulation and Customer/Community Solutions

Enclosures

CC: Division of Public Utilities
Office of Consumer Services

CERTIFICATE OF SERVICE

Docket No. 23-035-57

I hereby certify that on December 29, 2023, a true and correct copy of the foregoing was served by electronic mail to the following:

Utah Office of Consumer Services

Michele Beck mbeck@utah.gov
ocs@utah.gov

Division of Public Utilities

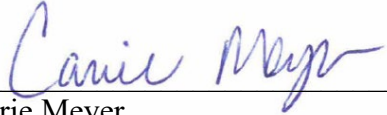
dpudatarequest@utah.gov

Assistant Attorney General

Patricia Schmid pschmid@agutah.gov
Robert Moore rmoore@agutah.gov
Patrick Grecu pgrecu@agutah.gov

Rocky Mountain Power

Data Request Response Center datarequest@pacificorp.com
Jana Saba jana.saba@pacificorp.com
utahdockets@pacificorp.com



Carrie Meyer
Adviser, Regulatory Operations

ROCKY MOUNTAIN POWER UTAH CARBON REDUCTION PROGRESS REPORT

DECEMBER 29, 2023



Let's turn the answers on.

Rocky Mountain Power
Utah Carbon Reduction Progress Report
December 29, 2023

Introduction

In accordance with the Utah Energy Resource Procurement Act (“Act”), Title 54 Chapter 17 Section 604, Rocky Mountain Power (“Company” or “Rocky Mountain Power”) respectfully submits its Carbon Reduction Progress Report (“Report”) to the Public Service Commission of Utah (“Commission”) on the development and maintenance of a plan for meeting the targets set forth under Title 54 Chapter 17 Section 602.

Under Section 604 of the Act, the Report is required to set forth:

- (a) The actual and projected amount of qualifying electricity through 2025;
- (b) The source of the qualifying electricity;
- (c) An analysis of cost-effectiveness of renewable energy sources;
- (d) A discussion of conditions impacting the renewable energy source and qualifying electricity markets;
- (e) Any recommendation for a suggested legislative or program change; and
- (f) Any other information requested by the Commission or considered relevant by the electrical corporation;

Summary

As demonstrated in this Report, Rocky Mountain Power is positioned to meet its 20 percent target requirement of an estimated 5,029,589 megawatt-hours of renewable energy in 2025 from existing Company-owned and contracted renewable energy resources. Exhibit A of this Report includes the actual and projected amount of qualifying electricity through 2025 and a list of associated renewable energy resources. Conditions impacting the Company’s renewable energy resource and qualifying electricity markets and deployment include applicable laws and the availability of tax incentives, wildlife habitat impacts, emerging environmental regulations, the Company’s participation in the Energy Imbalance Market (“EIM”), cost and performance implications, transmission and infrastructure costs, and state and local policy changes.

Additionally, forecasted outcomes in this Report are contingent on factors such as changes in customer demand for electricity; the availability of cost-effective resources; capacity increases; regulatory changes; market, policy and technology development; interest rates; and other market and industry conditions. As such, representations in this Report regarding implementation plans

and future events or conditions are forward-looking statements and may differ from actual future results.

Information provided in this Report and exhibits are supported by the Company's integrated resource planning ("IRP") process, which provides a framework for the Company's future actions to continue providing Utah customers with reliable, least-cost, least-risk service.

Utah Code § 54-17-604(3)(a) Actual and projected amount of qualifying electricity through 2025 and (b) the source of qualifying electricity.

The amount and sources of qualifying electricity through 2025 are provided in Exhibit A of this Report.

Utah Code § 54-16-604(3)(c)(i) An analysis of the cost-effectiveness of renewable energy sources for other than a cooperative association; or (ii) an estimate of the cost of achieving the target for an electrical corporation that is a cooperative association.

The Company performs its long-term resource planning activities through its IRP, which is filed with the Commission on a biennial basis. The IRP provides a framework for future actions that will be taken to provide reliable, least cost, least risk to the Company's customers. The IRP is developed with participation from numerous groups via regularly scheduled IRP Public Input Meetings and the solicitation of input via stakeholder feedback forms from various groups, including regulatory staff, advocacy groups, and other interested parties.

Through its IRP, the Company performs a load and resource balance to determine resource needs over a 20-year planning horizon. The Company then develops several different resource portfolio alternatives that could be pursued to meet its projected resource needs and evaluates comparative cost and risk metrics among these resource portfolio alternatives. In developing resource portfolio alternatives, the Company ensures that state resource acquisition mandates and policies, including Utah's renewable energy target, are met. In selecting its preferred portfolio, the Company considers measures of risk-adjusted portfolio costs, potential future carbon dioxide costs, and supply diversity. The selected preferred portfolio is anticipated to be the most cost-effective mix of resources to meet future customer needs, while balancing diverse stakeholder interests and meeting energy resource policies. This comprehensive planning process provides analysis addressing the cost-effectiveness of renewable energy sources in the Company's long-term resource plan.

In its 2023 IRP, filed with the Commission in May 2023, the Company reported significant investments in renewable energy coupled with federal and state tax incentives that allow the

Company to deliver hundreds of millions of dollars in savings to its customers. Federal and state tax credits and improved technology performance have put wind and solar “in the money for emissions reduction” in areas of high potential. As such, wind and solar will dominate U.S. capacity additions for the next decade. Future natural gas prices, the role of gas-fired generation and the falling costs and increasing efficiencies of renewables are some of the critical factors affecting the selection of the portfolio that best achieves least-cost, least-risk planning objectives.

As the 2023 IRP preferred portfolio illustrates, the Company plans to meet its customers’ needs over the next 10 years largely through the acquisition or development of new renewable resources and transmission infrastructure. PacifiCorp will meet the Utah 2025 state target to supply 20 percent of adjusted retail sales with qualifying electricity. The Company has and will continue to assess the cost-effectiveness of renewable energy sources in its IRP process to ensure its long-term planning efforts are aligned with the most current market and policy developments.

Utah Code § 54-17604(3)(d) A discussion of conditions impacting the renewable energy source and qualifying electricity markets.

The following conditions may impact the renewable energy source and qualifying electricity markets:

Federal Tax Credits: A technology neutral Production Tax Credit (“PTC”) and Investment Tax Credit (“ITC”) are available for qualified facilities that generate electricity and have a greenhouse gas emissions rate not greater than zero from the Inflation Reduction Act. The amounts of the credits vary dependent on meeting certain prevailing wage and apprenticeship requirements, certain domestic content requirements, and the physical location of the qualified facility. Other notable federal income tax credits include an ITC for energy storage technologies and a credit carbon dioxide sequestration.

Wildlife Habitat Impacts: Federal and state management and regulation of wildlife and natural habitats can impact renewable resources. The Endangered Species Act, Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and agency regulations, guidelines and permitting requirements associated with these and other laws, can affect the timing, compliance, and other costs associated with new or existing renewable resources.

Environmental Regulations: The EPA has finalized other environmental regulations that impact fossil fuel-fired electric generating units. Some of the regulations include Mercury Air Toxic Standards, Regional Haze Rules, Coal Combustion Residuals Rule “Coal Ash Rule”, Effluent Limitation Guidelines, Cooling Water Intakes Rule, National Ambient Air Quality Standards under the Clean Air Act and Ozone Transport Rule.

Energy Imbalance Market (“EIM”): PacifiCorp and the California Independent System Operator (“CAISO”) launched the EIM November 1, 2014. The EIM is a voluntary market and the first western energy market outside of California. The EIM covers eleven states in the United States of America and one province in Canada - British Columbia, California, Nevada, Arizona, Colorado, Texas, Montana, Idaho, Oregon, Utah, Washington, and Wyoming - and uses CAISO advanced market systems to dispatch least-cost resources every five minutes. Since its inception, twenty-two participants have joined the EIM altogether representing nearly 80 percent of the West’s total electricity demand. In 2022, PacifiCorp announced to join CAISO’s Extended Day-Ahead Market (“EDAM”) which will build upon the existing EIM structure to realize economic, reliability, and environmental benefits.

Cost and Performance Implications: Reduced manufacturing costs for some technologies and improved efficiencies and capacity values have increased the cost-effectiveness of renewable resources relative to the wholesale electricity market. Although the integration of intermittent and variable renewable energy resources presents a complex needs for acquiring and deploying capacity, PacifiCorp’s 2023 IRP preferred portfolio through 2025 includes 3,600 MW of new renewables facilitated by incremental transmission investments, demand-side management (“DSM”) resources, and significant battery storage resources. The preferred portfolio also includes over 950 MW of battery storage capacity (all collocated with new solar resources), and over 860 MW of incremental energy efficiency and new direct load control resources.

Transmission: In many instances renewable resources are located in areas away from load centers, necessitating the construction of new transmission lines. The additional cost associated with new transmission, along with the constraints of existing transmission congestion pose challenges for renewable energy development. Further, the siting and permitting of new transmission lines across the western United States have proven to be difficult and lengthy.

Other State and Local Policies: State and local policies can have an impact on the development of renewable resources. The state and local policies the Company are subject to range from state renewable portfolio standards, carbon emissions standards, clean energy planning standards, and state tax incentives to local property and sales taxes. As a multi-jurisdictional utility operating across six states, the Company complies with varying state and local policies, while providing safe, reliable, and cost-effective electricity to its customers.

The Community Renewable Energy Act, Utah Code § 54-17-9, gives authority to the Public Service Commission of Utah to approve community renewable energy programs to source net-100 percent of electric energy from renewable resources by 2030. Additionally, this legislation includes provisions for collaboration between participating Utah communities and Rocky Mountain Power to accomplish these objectives. Rocky Mountain Power and 18 eligible

communities have been actively collaborating on a community renewable energy program under the Act since 2020.

Utah Code § 54-17-604(3)(e) Any recommendations for suggested legislative or program change.

The Company has identified the following outstanding issues that should be addressed prior to July 1, 2026, when the Company files its final progress report.¹ These topics may require legislative or program changes.

Tracking and Verification of Renewable Energy Credits or Certificates (“RECs”):

The 2008 Energy Resource and Carbon Emission Reduction Initiative tasked the Commission with establishing a process for the issuance, monitoring, accounting, transfer, recognition, and use of a REC, including in electronic form, for purposes of compliance with the statutory target.² As of the date of this Report, the Commission has not initiated a rulemaking to codify such a process.³ The Company requests the Commission establish a process to establish a method to support claims of qualifying electricity that also addresses the following outstanding issues:

- The Company tracks its RECs in Western Renewable Energy Generation Information System (“WREGIS”), which is an independent, renewable energy generation tracking system for the Western Interconnection. WREGIS tracks the renewable and environmental attributes associated with renewable energy and has been tracking generation in the Western Interconnection and creating certificates since June 25, 2007. One WREGIS certificate is created for each megawatt-hour or determined equivalent one megawatt-hour of renewable energy produced, and each WREGIS certificate is assigned a unique serial number. WREGIS does not create retroactive certificates prior to June 25, 2007. With the vintage limitations of WREGIS, a process needs to be determined for “issuance or recognition” of renewable energy certificates associated with generation beginning January 1, 1995, until the first certification issuance in WREGIS beginning June 25, 2007.
- Additionally, the Company seeks guidance with regards to Utah Code § 54-17-603(6), which states photovoltaic and solar thermal energy shall be credited for 2.4 kilowatt-hours of qualifying electricity for each 1.0 kilowatt-hour generated. Since only one WREGIS certificate is created per megawatt-hour, the Company seeks clarification on how credit

¹ Utah Code § 54-17-604(5).

² Utah Code § 54-17-603(1), (2).

³ See *Rules, All Electric Dockets*, State of Utah Public Service Commission, <https://psc.utah.gov/all-electric-dockets>.

will be applied towards the target for 2.4 multiplier for the amount for photovoltaic and solar energy.

Statutory Requirement for Beyond 2025: The Company seeks clarification whether the 20 percent target applies annually for 2025 and beyond, or just to calendar year 2025. The statute is seemingly inconsistent on this issue. Utah Code § 54-17-604 only requires that electrical corporations submit compliance progress reports and plans up until 2026,⁴ and under that same section, the Commission may only recommend a penalty for failure to meet the 20 percent target for year 2025.⁵ But Utah Code § 54-17-602(1) indicates that the 20 percent target applies annually beginning in 2025 and every year thereafter. Specifically, Utah Code § 54-17-602(1) explicitly refers to “annual retail electric sales” “beginning in 2025.” Subsection (1)(c) further specifies that “*the annual target from one year to the next*” may not exceed the greater of: (i) 17,500 megawatt-hours (MWh); or (ii) 20 percent of the prior year’s amount under subsections (1)(a) and (b).⁶ The available legislative history does not resolve this inconsistency, although nothing in it suggests that the law is designed to sunset after 2025. Accordingly, a plain reading of the statute suggests that the 20 percent target is an annual requirement, but noncompliance is only reported and penalized for calendar year 2025. The Company seeks clarification on this issue.

Retirement of RECs for Utah Voluntary Renewable Energy Programs: The Company has several voluntary renewable programs where the Company retires RECs on behalf of customers in various capacities. The Company seeks clarification for renewable credits associated with both existing and potential future voluntary programs and if the associated megawatt-hours may be taken as a reduction from and/or applied to the target. Electrical corporations may use bundled and unbundled RECs, including banked RECs, to satisfy the 20 percent target in Utah Code § 54-17-602(1), provided that unbundled RECs (including unbundled banked RECs) may not make up more than 20 percent of the annual target.⁷ A REC issued pursuant to Utah Code § 54-17-603 does not expire and may be banked.⁸ For purposes of compliance with Utah Code § 54-17-602(1), the Commission may recognize a REC that is issued, monitored, accounted for, or transferred by or through another state or a regional system or trading program, such as WREGIS, if the REC is for qualifying electricity.⁹ A REC may not be used more than once to satisfy Utah Code § 54-17-602(1), and may not be used if it has already been used to satisfy any other state’s renewable

⁴ Utah Code § 54-17-604(2)(a), (5).

⁵ Utah Code § 54-17-604(8)(c) (“The commission shall provide an opportunity for public comment and take evidence before recommending any action to be taken with respect to an electrical corporation that does not satisfy Subsection 54-17-602(1) for 2025.”).

⁶ Utah Code § 54-17-602(1)(c) (emphasis added).

⁷ Utah Code § 54-17-602(4), (5).

⁸ Utah Code § 54-17-603(7).

⁹ Utah Code § 54-17-603(8).

energy requirement.¹⁰ For these reasons, the Company seeks clarification of how renewable energy and REC retirements for voluntary renewable programs should be treated for purposes of the renewable energy target.

Utah Code § 54-17-604(3)(f) For other than a cooperative association, any other information requested by the commission or considered relevant by the electrical corporation.

The 2023 IRP was filed with the Commission on May 31, 2023.¹¹ This filing is relevant to the 2023 Utah Carbon Reduction Report because, among other reasons, it incorporated RPS requirements from across the Company's six-state service territory, in an effort to determine the Company's overall need for incremental renewable resources.

Utah Code § 54-17-604(4) The plan and progress report required by Subsections (1) and (2) may include procedures that will be used by the electrical corporation to identify and select any renewable energy resource and qualifying electricity that satisfy the criteria of Subsection 54-17-201 (2)(c)(ii).

As shown in Exhibit A, the Company is positioned to meet its 20 percent target requirement of an estimated 5,029,589 megawatt-hours of renewable energy in 2025 from existing Company-owned and contracted renewable energy resources.

The Company will continue to evaluate the need for resources through its IRP process, which is used to perform comparative cost and risk analysis of resource alternatives over a 20-year planning horizon. The Company routinely updates its long-term resource plan, capturing changes in market and policy developments that might influence near-term resource acquisition plans. Once the IRP identifies the need for renewable resources, the Company implements an action plan to procure cost effective resources from the market, consistent with applicable competitive procurement guidelines and/or statutes. Cost-effective renewable resources to be applied to the target renewable energy goal can be acquired via issuance of RFPs, bilateral acquisition of assets or development rights, bilateral acquisition of power purchase agreements, qualified facilities where the Company holds the rights to the renewable energy credits, and the purchase of renewable energy credits associated with other renewable resources. Consistent with Utah Code § 54-17-502, the Company will notify the Commission when it intends to issue an RFP. The IRP Action Plan is the road map to the renewable resource acquisition strategy that will be implemented through these various acquisition methods.

¹⁰ Utah Code § 54-17-603(9)(a), (c); *see also* Utah Code § 54-17-603(5) (“The person requesting a [REC] shall affirm that the renewable energy attributes of the electricity have not been traded, sold, transferred, or otherwise used to satisfy another state’s renewable energy requirements.”)).

¹¹ Available here: <https://www.pacificorp.com/energy/integrated-resource-plan.html>.

2024 Utah Carbon Reduction Progress Report
Exhibit A

As defined in Utah Code § 54-17-601, Rocky Mountain Power submits the following summary of the retail sales, adjusted retail sales, target renewable energy goal in 2025, and the estimated eligible qualifying electricity in 2025.

	MWh	Comment
Retail Sales	26,109,777	CY 2022 Actual Retail Sales.
Adjusted Retail Sales	25,147,945	CY 2022 Retail Sales reduced by energy efficiency and generation from qualifying zero emissions generation and qualifying renewables not used to satisfy Section 54-17-602(1).
Target	5,029,589	20% of Adjusted Retail Sales.
Total Qualifying Resources	38,106,779	Estimated amount of qualifying electricity from 1995-2025, inclusive of both actual and projected banked renewable electricity from eligible renewable energy sources, factoring in the application of the 2.4 solar multiplier. ^{12 13}
<ul style="list-style-type: none"> Estimated Qualifying Electricity – WREGIS Certificates 	14,419,184	Estimated amount of WREGIS certificates ¹⁴ Utah Banked RECS 2007-2022.
<ul style="list-style-type: none"> Estimated Qualifying Solar Electricity 	4,772,574	Estimated amount of eligible solar electricity from 2007-2025, prior to the application of the 2.4 multiplier.

¹² As of the date of this report, 14,419,184 MWh have WREGIS certificates. This is subject to change.

¹³ There are 4,772,574 MWh that qualify per Utah Code § 54-17-603(6).

¹⁴ WREGIS tracks the renewable and environmental attributes associated with renewable energy and has been tracking generation in the Western Interconnection and creates certificates for each megawatt-hour since June 25, 2007.

2024 Utah Carbon Reduction Progress Report
Exhibit A – Key Assumptions

Retail Sales

Actual retail sales for the purposes of calculating the target are based on results of operations for the 12 months ending December 2022.

Adjusted Retail Sales

The adjusted retail sales is based on the retail sales, reduced by the:

- (a) estimated amount of kilowatt-hours attributable to energy efficiency and electricity generated or purchased in a given calendar year from qualifying zero carbon emissions generation; and
- (b) estimated amount of kilowatt-hours from electricity generated or purchased from generation located within the geographic boundary of the Western Electricity Coordinating Council that derives its energy from one or more of the eligible resource types defined in Section 54-17-601(1) (b) of the Act but does not satisfy the definition of a renewable energy source or that otherwise has not been used to satisfy Subsection 54-17-602(1).

Qualifying and zero emissions resources and non-qualifying renewable energy are included in determining the adjusted retail sales for the target year: ¹⁵

Ashton	East Side	Lemolo 2	Slide Creek
Bend	Fall Creek	Olmstead	Soda
Big Fork	Fish Creek	Oneida	Soda Springs
Clearwater 1	Grace	Paris	Swift
Clearwater 2	Iron Gate	Prospect 1	Toketee
Copco 1	JC Boyle	Prospect 2	Viva Naughton
Copco 2	Last Chance	Prospect 3	Wallowa Falls
Eagle Point	Lemolo 1	Prospect 4	Yale

¹⁵ All identified zero emissions and non-qualifying and generation is from hydroelectric resources. Not all resources listed are forecast to generate in the 2023-2025 window. Some portion of these resources – efficiency upgrades and certified low impact hydro - may also be counted as qualifying renewable energy.

Energy Efficiency

The 2022 Class 2 DSM¹⁶ kilowatt-hours are based on actual achievements and the estimated kilowatt-hours attributable to reductions from DSM are based on the Class 2 DSM projections for Utah as reported in the 2023 IRP in Table D.4 of Appendix D.

Renewable Energy Source

The following resources are included in the analysis for determining the amount of eligible renewable energy to satisfy Subsections 54-17-602(1).

Resource Name	Type	Resource Name	Type
2023 IRP Solar	Solar	Oregon Solar Land Holdings	Solar
2023 IRP Wind	Wind	Pavant II	Solar
Anticline Wind	Wind	Pioneer Wind Park	Wind
Blundell 1	Geothermal	Rock River	Wind
Blundell 2	Geothermal	Rolling Hills	Wind
Campbell Hill - Three Buttes	Wind	Sage Solar I	Solar
Cedar Springs Wind, LLC	Wind	Sage Solar II	Solar
Cedar Springs Wind III, LLC	Wind	Sage Solar III	Solar
Cedar Springs Transmission, LLC	Wind	Seven Mile Hill	Wind
Chevron Wyoming Wind Farm	Wind	Seven Mile Hill II	Wind
Chiloquin Solar	Solar	Sweetwater Solar	Solar
Combine Hills	Wind	TB Flats Wind I	Wind
Dunlap Ranch	Wind	TB Flats Wind II	Wind
Ekola Flats Wind	Wind	Top of the World	Wind
Ewauna Solar/Klamath Falls Solar 2)	Solar	Tumbleweed Solar	Solar
Foote Creek	Wind	Wolverine Creek	Wind
Foote Creek II	Wind	Woodline Solar	Solar
Foote Creek III	Wind	American Fork	Hydro - Utah
Foote Creek IV	Wind	Cutler	Hydro - Utah
Glenrock	Wind	Draper Irrigation Company	Hydro - Utah
Glenrock III	Wind	Fountain Green	Hydro - Utah
Goodnoe Hills	Wind	Granite	Hydro - Utah
Green River Solar	Solar	Gunlock	Hydro - Utah

¹⁶ Class 2 DSM refers to resources from non-dispatchable, firm energy and capacity product offerings/programs. These programs are those for which sustainable energy and related capacity savings are achieved through facilitation of technological advancements in equipment, appliances, lighting and structures, or repeatable and predictable voluntary actions on a customer's part to manage the energy use at their facility or home. These programs generally provide financial and/or service incentives to customers to improve the efficiency of existing or new customer-owned facilities through the installation of more efficient equipment.

Resource Name	Type	Resource Name	Type
High Plains	Wind	Olmstead	Hydro - Utah
Hill Air Force Base	Biogas	Pioneer	Hydro - Utah
Latigo	Wind	Sand Cove	Hydro - Utah
Leaning Juniper	Wind	Snake Creek	Hydro - Utah
Marengo	Wind	Stairs	Hydro - Utah
Marengo II	Wind	Upper Beaver	Hydro - Utah
McFadden Ridge I	Wind	Veyo	Hydro - Utah
Meadow Creek - Five Pine	Wind	Weber	Hydro - Utah
Meadow Creek - North Point	Wind	Big Fork	Hydro - Upgrade
Merrill Solar/Cypress Creek Renewables	Solar	Condit	Hydro - Upgrade
Mountain Wind I	Wind	Copco	Hydro - Upgrade
Mountain Wind II	Wind	Cutler	Hydro - Upgrade
Norwest Energy 9	Solar	J.C. Boyle	Hydro - Upgrade
Old Mill Solar	Solar	Lemolo 1	Hydro - Upgrade
OR Solar 2 (Agate Bay)	Solar	Lemolo 2	Hydro - Upgrade
OR Solar 3 (Turkey Hill)	Solar	Oneida	Hydro - Upgrade
OR Solar 5 (Merrill)	Solar	Prospect	Hydro - Upgrade
OR Solar 6 (Lakeview)	Solar	Stairs	Hydro - Upgrade
OR Solar 8 (Dairy)	Solar	Yale	Hydro - Upgrade
Orchard Wind Farm 1	Wind		
Orchard Wind Farm 2	Wind		
Orchard Wind Farm 3	Wind		
Orchard Wind Farm 4	Wind		

Per Utah Code § 54-17-603(6), photovoltaic and solar thermal energy shall be credited for 2.4 kilowatt-hours of qualifying electricity for each 1.0 kilowatt-hour generated. Resources listed as “Solar” on the above table have a 2.4 credit applied to each kilowatt-hour.

Low Impact Hydro

In its report, the company utilizes up to the fifty average megawatt allowance that is certified by the Low Impact Hydro Institute used as qualifying renewable resources.¹⁷ The following Company resources currently are certified as low impact hydroelectric generation resources:

Ashton	Lemolo 2
Clearwater 1	Oneida
Clearwater 2	Prospect 3
Cutler	Slide Creek
Fish Creek	Soda
Grace	Soda Springs
Lemolo 1	Toketee

The generation from existing resources is as reported in the Company's FERC Form 1 for the time period 1995 through 2022. Generation estimates from 2023 through 2025 are forecast.

Allocation

The allocation of resource generation for Utah is based on the 2020 Protocol. The amounts are estimated based on historical allocation factors. For years 2001-2005, fiscal year end factors are used; in other years, including forecast years, calendar year end factors are applied.

Renewable Energy Credit Transactions

For the timeframe covered in the analysis, the Company reduced the generation output by the amount of RECs that were or are forecast to be monetized. For the historical period through 2022, REC sales allocated to Utah are estimated based on the actual total company REC sales for each given year. In years 2023 through 2025, the analysis includes a forecast amount of RECs that may be sold, and estimated the Utah allocated amount. The Company also reduced the generation output in years 2023-2025 by the amount of forward REC retirement commitments on behalf of its customers.

¹⁷ Utah Code § 54-17-601(10)(b)(i) permits entities to use up to fifty average megawatts from a certified low-impact hydro facility.