Oregon
Tina Kotek, Governor

OREGON DEPARTMENT OF ENERGY

550 Capitol St. NE
Salem, OR 97301
Phone: 503-378-4040
Toll Free: 1-800-221-8035
FAX: 503-373-7806
www.oregon.gov/energy

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Via Electronic Filing

Public Utility Commission of Oregon
Attention: Filing Center
P.O. Box 1088
Salem, OR 97308-1088

Re: Docket UM 2273, Oregon Department of Energy Interested Person Comments

Through docket UM 2273, the Oregon Public Utility Commission is exploring several issues related to the treatment of Renewable Energy Certificates (RECs) within the Commission's HB 2021 compliance framework, and the interplay between the OPUC's approach and the greenhouse gas (GHG) emissions reporting methodology administered by the Oregon Department of Environmental Quality. At the UM 2273 Workshop on Renewable Energy Certificates convened on June 29, the OPUC also requested input on the implications for how HB 2021 interacts with other programs. The Oregon Department of Energy is sharing background information and respectfully submits these comments as an interested party to provide additional context around the REC issues raised in UM 2273, with a focus on the interplay and potential conflicts between HB 2021 and Oregon's Renewable Portfolio Standards. We submit these comments for informational purposes only. Our comments are not intended to offer an interpretation of the legal authorities or obligations established by HB 2021.

Both HB 2021 and the RPS are designed to hasten a clean energy transition in Oregon by shifting how electricity consumed in the state is produced. While the policies have similar objectives, the mechanisms for advancing a clean energy transition differ between the programs. HB 2021 established clean energy standards that require electric utilities to reduce GHG emissions from their electricity mixes. The RPS is a renewable energy procurement mandate that requires utilities to serve a percentage of their loads with qualifying renewable electricity. The programs have different methods for measuring compliance: utilities will demonstrate compliance with HB 2021 through GHG emissions reports, and demonstrate compliance with the RPS by retiring RECs for qualifying renewable energy. These two compliance frameworks are largely compatible; compliance with the RPS will contribute to compliance with HB 2021, and utilities can achieve additional emissions reductions with a variety of resources and technologies that may not qualify for the RPS. However, if a utility procures a greater amount of RPS-qualifying generation to demonstrate compliance with HB 2021 than it needs to achieve compliance with its RPS, and the utility subsequently chooses to sell unbundled RECs to another entity, both the utility and the REC purchaser could claim the non-energy attributes of the electricity. While this scenario would not cause a direct conflict between the HB 2021 and RPS compliance frameworks, it could undermine the purpose and spirit of the RPS.

Oregon has established statutory and regulatory frameworks that govern the issuance and use of RECs for compliance with the RPS. In order to provide additional context to inform HB 2021 implementation, below we provide an overview of Oregon's existing RPS and REC policies and then describe some of the key differences between HB 2021 and the RPS and the implications these differences could present for compliance with either program.

I. Overview of Oregon's Renewable Portfolio Standards and Renewable Energy Certificate Requirements

Oregon's RPS requires electricity suppliers to procure a minimum amount of electricity from qualifying renewable resources. PGE and PacifiCorp are both subject to the state's large utility RPS, which requires at least 50 percent of the electricity sold by each utility to their retail customers to be generated from qualifying resources by 2040.[1] The utilities are also subject to interim RPS targets that scale up over time. Utilities demonstrate compliance with their RPS targets by retiring RECs or making alternative compliance payments.[2] Once a REC has been used for compliance with the RPS, the utility retains ownership over the REC, but the REC may not be sold, traded, or used for RPS compliance in any other state.

The primary purpose of Oregon's RPS is to increase the development and use of renewable energy sources for electricity generation. Renewable resources eligible for the Oregon RPS include solar, wind, marine hydrokinetic, geothermal, qualifying biomass, some hydropower, municipal solid waste combustion (up to nine average megawatts per year), and hydrogen gas produced using qualifying electricity.[3] The goal of the Oregon RPS legislation was to promote "research and development of new renewable energy sources in Oregon."[4] For this reason, aside from a few exceptions, only facilities that became operational on or after January 1, 1995, are eligible for participation in the RPS. The facility age requirement serves to incentivize the development of new renewable electricity sources, which is one reason why much of the existing hydropower in the region is not eligible for the RPS. The Oregon Department of Energy is responsible for certifying renewable energy facilities that are eligible to generate RECs under Oregon's RPS.

Oregon's RPS policy uses a renewable energy certificate (REC) trading system to track compliance with RPS targets and to reduce the cost to comply with the RPS.[5] A REC is a tradeable certificate that represents the ownership property rights to the renewable attributes of one-megawatt hour of qualifying renewable electricity delivered to the grid. The renewable attributes represented by a REC include the "environmental, economic, and social benefits associated with generation of electricity from renewable energy sources." [6] To be used for compliance with Oregon's RPS, a REC must be issued by the Western Renewable Energy Generation Information System (WREGIS) for electricity produced by an eligible renewable resource located within the geographic boundaries of the Western Electricity

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[1] ORS 469A.052(1).

[2] ORS 469A.070. The OPUC is required to establish alternative compliance rates in dollars per megawatt-hour for each electric company and electricity service supplier subject to the RPS. ORS 469A.180 directs the OPUC to set alternative compliance rates that provide adequate incentives for utilities and electricity service suppliers to achieve compliance by procuring qualifying renewable energy.

[3] ORS 469A.020, 469A.025. The statute includes additional qualifying criteria for certain types of resources. Biomass electricity generated from wood that has been treated with chemical preservatives is not eligible for the RPS. Electricity from hydropower is only eligible for the RPS if it is attributable to efficiency upgrades made after January 1, 1995, or if the facility is certified as low-impact hydropower (up to 50 MW per year for utility-owned facilities). Up to nine average megawatts of electricity from municipal solid waste combustion generated by facilities located in Oregon that became operational after 1994 may be used to comply with the RPS. Electricity generated from hydrogen gas qualifies for the RPS if the electricity used to produce the hydrogen is derived from an RPS-qualifying resource and the output from the original energy source is not also used to comply with the RPS.

[4] Oregon Laws 2007, Chapter 301 (Senate Bill 838 (2007) (emphasis added).

[5] The legislature directed the Oregon Department of Energy, in consultation with the Oregon Public Utility Commission, to establish a system of RECs that may be used to comply with Oregon's RPS. ODOE's rules establishing a REC system for the Oregon RPS are located in OAR Chapter 330, Division 160. The Oregon Public Utility Commission is responsible for verifying compliance with the RPS. The OPUC's RPS administrative rules are located in OAR Chapter 860, Division 83.

[6] OAR 330-160-0015(17).

Coordinating Council (WECC).[7] Thermal energy generated at a facility that also generates electricity using RPS-eligible biomass sources is also eligible to generate thermal RECs.

A REC can be "bundled," meaning it was issued for qualifying renewable electricity that was delivered to an end user. A REC can also be "unbundled," meaning it was sold separately from the associated electricity, called an "unbundled REC," in which case the buyer of the REC can make a claim of consuming renewable electricity while the buyer of the physical electricity cannot. Oregon's large investor-owned utilities and electricity service suppliers may use unbundled RECs to meet up to 20 percent of their RPS compliance obligations.[8] (This limitation does not apply to unbundled RECs issued for electricity generated in Oregon by a net metering facility or a qualifying facility under PURPA.) Utilities may trade, sell, or transfer RECs, and may bank RECs for a certain period of time, depending on when the REC was issued.[9] RECs issued prior to March 9, 2016 may be banked indefinitely, and RECs issued for electricity produced by a facility that became operational after December 31, 2022 may only be banked for five years.[10]

II. Interplay Between the RPS and HB 2021's Clean Energy Standards

The 100 percent clean electricity standard established by HB 2021 differs from Oregon's RPS in several key ways. One difference in the programs' designs involves how compliance is measured and achieved under the two policy frameworks. The following sections describe some of the primary differences between the RPS and HB 2021 and explain how strategies to comply with one program could impact compliance with the other.

A. Greenhouse Gas Emissions Reduction Targets vs. Renewable Energy Procurement Mandates

HB 2021 established an emissions-based standard that requires electric utilities to reduce their reported GHG emissions by specified percentages.[11] To comply with HB 2021, utilities must decrease retail sales of electricity generated from fossil fuels and demonstrate the associated emissions reductions through their GHG emissions reports filed with DEQ. In contrast, the RPS is a renewable energy procurement standard. To comply with the RPS, utilities must increase the amount of qualifying renewable electricity they generate or purchase and must demonstrate this procurement by retiring RECs. Utilities can meet a portion of their RPS compliance obligations by purchasing unbundled RECs, but this strategy would not help a utility achieve its clean energy targets under HB 2021 because a REC does not represent actual reductions in GHG emissions from fossil fuel generation.

While an RPS can be a key policy in supporting climate change mitigation and economic goals, the primary purpose of an RPS is to increase generation from renewable energy resources. As a result, RECs are not expressly designed to capture the emissions attributes of the underlying electricity source, and do not represent the delivery of zero-emissions electricity onto the grid. For purposes of compliance with Oregon's RPS, a bundled REC for wind or solar power (which has zero emissions) is identical to a bundled REC for electricity produced from municipal solid waste combustion (which does not have zero emissions). For these reasons, RECs are an imperfect tool for tracking GHG emissions and GHG emissions reductions.

B. Eligible Technologies

Oregon's RPS limits the types of renewable resources that are eligible for RECs, while HB 2021 allows utilities to achieve compliance with any generating resources that reduce reported GHG emissions. Because the primary goal of HB 2021 is to reduce GHG emissions from the electricity sector, the

[7] ORS 469A.135. "Bundled" RECs may only be issued for electricity produced by eligible facilities in the United States.
[8] ORS 469A.145(1), (4).
[9] ORS 469A.140.
[10] ORS 469A.140(3).
[11] ORS 469A.410.

standard is technology-neutral, while the RPS is not. Under HB 2021, utilities can meet their clean targets with zero-emissions resources that are ineligible for RECs, including legacy hydropower and nuclear energy, and other technologies that reduce emissions, such as energy efficiency upgrades. This means that certain resources may contribute to compliance with HB 2021 without being eligible for RECs under Oregon's RPS. Similarly, some RPS-qualifying resources, such as municipal solid waste combustion, may not provide sufficient emissions reductions to be used in compliance with HB 2021.

C. Market-Based Elements

The RPS includes a market-based compliance mechanism, while HB 2021 does not. Like many state RPS programs, Oregon aimed to reduce compliance costs by allowing participants to buy and sell RECs through a market-based trading system. Oregon's RPS statute grants electric utilities a legal right to trade, sell, transfer, and bank RECs that have been issued for qualifying renewable electricity.[12] In contrast, HB 2021 did not establish a market-based compliance framework or allow for emissions trading; compliance will be determined from each utility's reported emissions in 2030, 2035, and 2040.

Under the RPS, when an electric utility acquires an Oregon-eligible REC, it has a legal right to bank the REC for at least five years, whereas utilities do not have the option of "banking" emissions reductions to comply with HB 2021. If RECs were used to track compliance for HB 2021 goals, statutory changes would be necessary to prohibit or restrict REC trading or banking activities that are currently authorized under Oregon's RPS laws. The tradeable characteristics of RECs—the ability to buy and sell RECs through market transactions—also create additional value for electricity produced by RPS-qualified renewable resources, making them more cost-effective to develop. REC trading limitations could reduce the value of qualifying renewable energy and impact the economics of new projects.

D. Tracking Non-Energy Attributes of Renewable Electricity

HB 2021 and the RPS employ different approaches for tracking the non-energy attributes of electricity that has been unbundled from a REC. Under the RPS, a utility may only claim electricity as "renewable" if it retains ownership of a bundled REC. If a utility sells a REC without the associated electricity, the REC becomes an unbundled REC. The purchaser of the REC may now claim the renewable attributes of the underlying electricity, even though it did not purchase the electricity itself, and may use that REC for compliance with its RPS. The seller utility may sell the unbundled electricity, but it may not then claim the electricity is "renewable." Electricity stripped of its associated REC becomes "null power" and may not be used for compliance with the RPS. Under HB 2021's compliance framework, however, the utility would still be able to effectively claim the unbundled electricity—the "null power"—as zero-emissions. This is because HB 2021 compliance is measured according to DEQ's GHG emissions rules, which are designed to calculate the actual annual GHG emissions from electricity consumed in Oregon. To avoid over-counting actual electricity-sector emissions, the GHG reporting rules do not require utilities to report emissions associated with null power.

Under DEQ's rules, utilities are required to report the total GHG emissions from all electricity they generated or purchased and sold to customers in Oregon.[13] "Unspecified" market purchases (wholesale purchases of electricity where the underlying generating resource is unknown) are given a default emissions factor.[14] Because DEQ calculates emissions based on electricity consumption in Oregon, it tracks emissions from electricity generated out of state and sold to Oregon customers (electricity imports), but does not track emissions from electricity generated in state and sold to consumers outside of Oregon (electricity exports). DEQ also tracks actual GHG emissions based on generation source or

[12] ORS 469A.140.

[13] Oregon Greenhouse Gas Reporting Program rules are located in OAR ch. 340, div. 215.

[14] DEQ uses a single Unspecified Power Default Emission Factor of 0.428 MTCO2/MWh, which is equivalent to the emissions factor of a natural gas power plant ramping up, and aligns with California's default emissions factor.

resource type. DEQ does not treat null power as unspecified power, because doing so would over-estimate actual GHG emissions in Oregon.[15]

The differing treatment of null power under the RPS and HB 2021 could create a potential opening to create what some might consider "double-counting" the environmental attributes of renewable electricity that contributes to compliance with the state's clean energy standards. This double-counting could occur if a utility sells unbundled RECs from electricity that is treated as zero-emissions under the GHG reporting rules and used to demonstrate compliance with HB 2021. Another utility could then purchase the unbundled REC and use it to demonstrate compliance with the RPS, effectively double-counting the electricity's non-energy attributes (the zero-emissions attributes under HB 2021, and the renewable attributes under the RPS).

In its annual electricity resource mix reporting, ODOE calculates and reports Oregon's annual electricity resource mix by type of resource. This information is reported on the Department's website and is used to develop individual utility power content labels. ODOE calculates the total megawatt-hours of electricity generated by each resource type and the percentage of in-state electricity load each resource serves. The resource mix calculations incorporate the non-energy attributes of electricity consumed in Oregon. Once a megawatt-hour of electricity from a renewable resource is stripped of its non-energy attributes through the transfer or sale of a REC, ODOE no longer considers the electricity to originate from a renewable resource for labeling purposes. Instead, ODOE categorizes null power—electricity from a renewable resource that has been stripped of its non-energy attributes—as an unspecified market purchase.

These diverging considerations for null power reflect the different purposes of DEQ's and ODOE's programs. The purpose of DEQ's program is to calculate and report economy-wide GHG emissions, while the purpose of ODOE's program is to calculate and report the electricity resource mix for electric utilities serving Oregon customers. Treating null power as an unspecified market purchase under the GHG reporting rules would over-count actual emissions by assigning an emissions factor to electricity generated by a zero-emissions resource. In contrast, treating null power as renewable in Oregon's electricity resource mix would not take into account the fact that the REC or non-energy attributes were transferred or sold. ODOE's treatment of null power in the energy resource mix does not alleviate the potential for double-counting emissions attributes under the RPS and HB 2021, it does help to ensure that any double-counting that may occur will be tracked and reported through ODOE's electricity resource mix.

III. Conclusion

HB 2021 and the RPS both aim to advance a clean energy transition in Oregon but rely on different mechanisms to track and achieve this underlying objective. Any efforts to incorporate RECs into the HB 2021 compliance framework should be carefully designed to minimize potential conflicts with the RPS and the methodology for reporting Oregon's electricity resource mix.

Respectfully submitted on July 24, 2023,

Amy Schlusser
Senior Clean Energy Policy Analyst
Oregon Department of Energy

[15] Rules revised through DEQ 14-2020, effective 5/7/20.