



# Oregon

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**To:** Energy Facility Siting Council

**From:** Thomas Jackman, Rules Coordinator

**Date:** July 5, 2024

**Subject:** Agenda Item D (Action Item): Carbon Monetary Offset Rate Rulemaking Initiation Request for the July 19, 2024 EFSC Meeting

**Attachments:** Attachment 1: Draft Notice of Proposed Rulemaking

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## BACKGROUND

To issue a site certificate to a fossil-fueled power plant, or certain carbon dioxide emitting nongenerating facilities, the Council must determine that the preponderance of evidence on the record supports a conclusion that the proposed energy facility complies with any applicable carbon dioxide emissions standard.<sup>1</sup> To meet the standard, most proposed facilities must reduce a portion of the gross carbon dioxide emissions the facility is projected to produce over an assumed 30-year life span by avoiding, displacing, or sequestering a sufficient amount of carbon dioxide or certain other greenhouse gasses.

All applicants have elected to use the “monetary pathway” to comply with the standard. The monetary pathway uses an assumed monetary offset rate to determine the amount of funds that is sufficient to produce the equivalent of a one-ton reduction in carbon dioxide emissions.<sup>2</sup> When the legislature enacted the standard in 1997, it set the rate at 57 cents per short ton of carbon dioxide. The legislature authorized the Council to change the rate but limited the allowed increase or decrease to no more than fifty percent in any two-year period. The Council has increased the rate several times, most recently on July 25, 2022, when the Council set the current rate of \$4.27 per ton of carbon dioxide.

As of July 25, 2024, two years will have passed since the last change in the rate, so the Council may increase or decrease the monetary offset rate by up to fifty percent. Any change in the

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<sup>1</sup> In discussion of reductions in emissions throughout this document, “carbon dioxide emissions” should be understood to also include reductions in methane and nitrous oxide converted to carbon dioxide equivalent using the equivalency values associated with the applicable standard. Currently, all standards consider one ton of methane to be equivalent to 25 tons of carbon dioxide and one ton of nitrous oxide to be equivalent to 298 tons of carbon dioxide. See OAR 345-024-0550(2); 345-024-0590(2); and 345-024-0620(2).

<sup>2</sup> ORS 469.503(2)(c)

rate must be based on empirical evidence of the cost of offsets and the council's finding that the standard will be economically achievable with the modified rate for natural gas-fired power plants.<sup>3</sup>

#### Empirical Evidence of the Costs of Offsets

Based on the latest State of the Voluntary Carbon Markets report from Ecosystem Marketplace, the average price off offsets in the global voluntary market was \$6.53 per ton of CO<sub>2</sub>e in 2023. Average prices for offsets derived from projects specifically in the North American voluntary carbon market for 2023 was a very similar value of \$6.97.<sup>4</sup>

Carbon pricing in US states with a cap-and-trade program is much higher. Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont form the Regional Greenhouse Gas Initiative (RGGI)<sup>5</sup>, launched in 2009. This multi-state initiative caps CO<sub>2</sub> production and requires the purchases of allowances beyond the cap. These allowances are sold at auction, the most recent of which was in June, 2024, where CO<sub>2</sub> went for \$21.03 a ton.<sup>6</sup>

California has a similar cap-and-trade program, with CO<sub>2</sub> prices of \$41.76 per metric ton sold at auction earlier this year, generating \$1.31 billion for the state.<sup>7</sup>

Likewise, Washington state had their first CO<sub>2</sub> auction in February 2023, where carbon credits went for \$48.50 per metric ton.<sup>8</sup>

Based on this data, staff recommends that there is sufficient empirical evidence to support the recommended increase.

#### Economic Achievability

In addition to finding that a proposed change in the monetary offset rate is supported by empirical evidence, the Council must find that the rate is attainable and economically achievable with the modified monetary carbon standard. In the 2022 Carbon Offset Rulemaking, we estimated a Combined Cycle - Single Shaft natural gas plant in Oregon produces annual excess emissions of 281,485 tons of CO<sub>2</sub> a year, which works out to an increased cost of compliance of \$601,371 if this rulemaking is made permanent. The average retail price of electricity in the United States in April, 2024 was approximately \$170 per megawatt hour.<sup>9</sup> The retail value of electricity produced by a 418.3 MW power plant with a capacity factor of 0.87 in

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<sup>3</sup> ORS 469.503(2)(c)(C)

<sup>4</sup> Ecosystem Marketplace (2024) State of the Voluntary Carbon Markets 2024. All prices converted from price per metric ton to price per short ton using a factor of 1.10231

<sup>5</sup> Virginia is also a member, but they have announced that they are leaving the RGGI by the end of the year.

<sup>6</sup> See the Regional Greenhouse Gas Initiative Auction Allowance Price list, accessed at:

<https://www.rggi.org/auctions/auction-results/prices-volumes>

<sup>7</sup> <https://www.eenews.net/articles/californias-cap-and-trade-auction-sees-record-prices-once-again/>

<sup>8</sup> See <https://www.seattletimes.com/seattle-news/environment/was-carbon-pricing-auctions-collect-nearly-1-5-billion-as-allowances-reach-record-price/>

<sup>9</sup> US Energy Information Agency. Electricity Monthly Update with Data for April 2024. Accessed from:

<https://www.eia.gov/electricity/monthly/update/>

Oregon is thus \$541,892,200. This means the increased cost of compliance represents just 0.111% of the retail value of the energy produced at a typical Oregon natural gas plant. We note that due to the enactment of HB 2021, which limits the production of new emissions producing power generation in the state of Oregon, these costs are unlikely to be realized.

While we are unable to quantify the impacts on nongenerating facilities that emit carbon dioxide, we assume that these impacts will be of similar magnitude.

The exact quantification of pricing feasibility for carbon offsets is project specific and can be characterized or calculated in more than one way, but considering that the cap-and-trade pricing for CO2 at auction in other US states is three to seven times higher than what is being proposed here, as discussed above, this fact alone suggests that the amount being proposed here is economically viable.

Due to the low level of expected potential increased costs, and the low likelihood that they will be realized, we recommend that the proposed offset rate is attainable and economically achievable for various types of power plants.

**RULE CHANGE OVERVIEW**

Staff proposes increasing the monetary carbon offset rate found in OAR 345-024-0580 by 50%, from \$4.27 to \$6.40.

**NEXT STEPS AND PROJECTED RULEMAKING TIMELINE**

If the Council is satisfied that the draft proposed rules meet the statutory requirements, staff requests authorization to issue a Notice of Proposed Rulemaking and initiate formal proceedings to adopt the proposed amendment. Staff also recommends that the Council hold a rulemaking hearing as part of the formal public comment period. The table below presents the procedural history and projected timeline for the remainder of this project based on these recommendations.

**Procedural History and Projected Rulemaking Timeline**

Council approves Carbon Offset rulemaking as part of 2024 schedule.	January 26, 2024
Council approves proposed rules and authorizes Notice of Proposed Rulemaking	July 19, 2024
Issue Notice of Proposed Rulemaking	July 22, 2024
Rulemaking hearing	August 23, 2024
Public comment deadline	August 23, 2024
Council adoption of permanent rules	September 20, 2024

**STAFF RECOMMENDATION**

Staff requests Council authorization to issue a Notice of Proposed Rulemaking and initiate formal proceedings to adopt the proposed amendments to the carbon monetary offset rules as shown in Attachment 1. Note that draft rules are not included in the council packet as the change is literally just the number in OAR 345-024-0580 changing from \$4.27 to \$6.40. Once

approved by Council, the final version of the Notice of Proposed Rulemaking generated by the Secretary of State will be in redline (track changes) format.