



# California ISO

## **Washington State Western Energy Imbalance Market Greenhouse Gas Enhancements**

### **Issue Paper / Straw Proposal**

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## 1. Executive Summary

In this Issue Paper / Straw Proposal the CAISO proposes minor enhancements to the Western EIM (WEIM) to support Washington State WEIM Entity greenhouse gas (GHG) reporting for emissions year 2023 and beyond. These enhancements include:

- Modeling the Washington border and demand forecast to determine what should be reported for Washington;
- Updating GHG reference levels used in bid mitigation; and
- Developing reports to support the WEIM Entities.

## 2. Introduction and Background

Pursuant to Washington's recently revised Clean Air Act and beginning in 2023, Washington will require reporting of emissions associated with WEIM transactions in emissions year 2022 and each subsequent year.<sup>1</sup> This initiative provides a recommendation for reporting WEIM transactions for emissions year 2022 and explores enhancements the CAISO will need to make to support emissions year 2023 reporting and beyond.<sup>2</sup> As reporting rules continue to develop we will collaborate with Washington State and stakeholders to evolve our market design to accommodate those changes.

Washington Administrative Code (WAC) Chapter 173-441 sets forth the requirements for reporting by Washington WEIM entities starting with emissions year 2022, reported in 2023. The regulations specify that energy from the WEIM is considered imported electricity. Specifically, WAC 173-441-124(2)(g) defines "imported electricity" to include "electricity from an organized market, such as the energy imbalance market." The CAISO interprets this to mean that all transactions within the CAISO's WEIM, including real-time market imbalance energy from resources located within the state of Washington, will constitute imported energy for purposes of Washington's reporting regulations.

Washington's cap-and-invest program, which sets a limit on overall carbon emissions in Washington and requires emitters to obtain allowances equal to their covered GHG emissions, similarly begins in 2023.<sup>3</sup> However, the CAISO is limiting the scope of the enhancements proposed in this Issue Paper / Straw Proposal to supporting the Washington reporting requirements only. The Washington cap-and-invest proposed rules do not yet contain sufficient

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<sup>1</sup> Revised Code of Washington (RCW) Chapter 70A.15.2200, under the Washington Clean Air Act. See also Washington Administrative Code (WAC) Chapter 173-441-030(3)(a).

<sup>2</sup> The Washington rules for reporting were adopted February 9, 2022 and thus too late for the CAISO to implement changes to support emissions year 2022 reporting. In recognition of this late adoption, the Washington rules phase enforcement for some reporting elements. See WAC Chapter 173-441-090(3).

<sup>3</sup> Washington's Climate Commitment Act, RCW Chapter 70A.65. Note the Climate Commitment Act directs the Department of Ecology, in consultation with other Washington regulators, to adopt a rule by October 1, 2026 containing a methodology for addressing imported electricity associated with a centralized electricity market. See RCW Chapter 70A.65.080(1)(c).

details for the CAISO to immediately implement market changes to facilitate compliance by entities participating in a centralized market.<sup>4</sup>

Lastly, the CAISO emphasizes that the scope of these enhancements is limited to the WEIM real-time market to support reporting for emissions year 2023 and beyond. The CAISO is separately engaging in an Extended Day Ahead Market (EDAM) initiative in order to allow WEIM participants to participate in the day-ahead market. However, EDAM is a separate stakeholder initiative and is out of scope for this initiative.

### 3. WA WEIM GHG Enhancements Straw Proposal

#### 3.1 Modeling Washington Borders and the Demand Forecast

The CAISO plans to update its approach to modeling for purposes of GHG reporting. Today, the CAISO uses balancing authority area (BAA) boundaries rather than state level boundaries. In recognition that Washington's state reporting policies do not align with BAA boundaries, the CAISO proposes to define a Washington state boundary. This will allow CAISO to reflect Washington transactions for reporting purposes. From an implementation perspective, the CAISO will reflect boundary areas in the Master File with a new Washington state field and associated nodes (Pnodes, Apnodes, and scheduling points) and resources.

To differentiate load inside versus outside of Washington for reporting purposes, the CAISO proposes to forecast demand based on WEIM load aggregation points (ELAPs), which are at the BAA level. The CAISO will then distribute the demand to custom load aggregation points (CLAPs) with those BAAs inside and outside the state of Washington, using load distribution factors. Under this approach, the CAISO will continue to enforce a power balance constraint at the BAA level but will be able to identify within its market optimization WEIM Entities' demand within the state of Washington.

#### 3.2 Updating GHG Reference Costs

The CAISO proposes to revise the calculations of cost-based reference levels for the WEIM generating resources inside Washington's GHG regulation area. The revised calculation will use Washington-specific GHG allowance prices when calculating a GHG-emitting generating resources' default energy Bid (DEB) and default commitment costs (collectively referred to as reference levels). Additionally, the CAISO proposes to modify its tariff to specify for which states the CAISO obtains GHG allowance prices and authorize the CAISO's use of updated GHG allowance prices in Washington generating resources' reference levels. Depending on the

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<sup>4</sup> The Washington Department of Ecology is proposing a new rule, WAC Chapter 173-446, to implement the new cap-and-invest program. More information is available at <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-446>. The CAISO's comments on proposed rule language in this rulemaking are available at: <https://aq.ecology.commentinput.com/comment/extra?id=6Nx2J>

availability of the GHG allowance pricing data, this may also result in the CAISO purchasing this data from vendors that produce these prices.

As background, DEBs are used in the local market power mitigation process and default commitment costs limit the bids that scheduling coordinators can submit. The DEB mitigation system seeks to mirror competitive outcomes in those situations where participants might have the ability to exercise local market power. In such cases, the CAISO may adjust a resource's submitted energy bid downward to the resource's DEB or the competitive locational marginal price, whichever is higher. Default commitment costs serve a similar purpose but function differently in practice. Instead of applying only when the potential for the exercise of market power exists, default commitment costs always serve as the cap of the values that scheduling coordinators may submit for minimum load cost bids, start-up cost bids, and transition cost bids. These bids are then used by the CAISO's market processes in its determination of whether to commit the resource.

The CAISO's tariff (Section 29.7) outlines various DEB options but, through this initiative, the CAISO only proposes to modify the Variable Cost option<sup>5</sup> which estimates a generating resource's costs based on Master File parameters and other more dynamic inputs such as natural gas price indices. The CAISO's tariff (Section 30.4.4) also outlines two methodologies for the calculation of default commitment costs: the Proxy Cost and Registered Cost methodologies. The CAISO proposes to update the calculation of default commitment costs under both methodologies.

Specifically, the proposed updates will apply to generating resources registered with Washington Department of Ecology as having a GHG compliance obligation. The proposed calculations will be consistent with the Variable Cost DEB and default commitment cost calculations for resources subject to the California Air Resources Board's (CARB) cap-and-trade program, with the primary exception that the GHG allowance price will differ. For the changes to the Variable Cost DEB, the CAISO proposes to calculate a GHG cost adder as the product of the resource's incremental heat rate, the GHG emissions rate authorized by the Washington Department of Ecology, and the applicable GHG allowance price.<sup>6</sup> This adder will then be added to the other components of the DEB (e.g. fuel costs, variable operations and maintenance costs) to arrive at the final DEB value. The default commitment cost calculations will include a similar GHG cost adder.

Currently, the GHG allowance price used in CAISO's market reflects the cost of allowances for CARB's cap-and-trade program. The CAISO will need to adjust this allowance price to include the cost of allowances for Washington's GHG compliance program for resources subject to that program. The price of CARB allowances is estimated as the average of two index prices from the following vendors: the Intercontinental Exchange and ARGUS. Depending on the availability of pricing data from vendors, the CAISO expects to use a similar approach to calculate the cost

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<sup>5</sup> The Negotiated DEB option also remains available to scheduling coordinators but, due to the resource-specific nature of the negotiations, there is no set formula to modify through a stakeholder process.

of allowances for Washington's GHG compliance program. It is, however, possible that pricing data will not be available from external vendors with sufficient lead time to be implemented by January 2023. One of the reasons for this situation is that the first auctions of Washington GHG allowances is expected to occur in 2023, i.e. after the proposed implementation date of this initiative. As such, the CAISO will explore alternative proxy prices to serve as a bridge until the more dynamic external vendor prices are available. The CAISO may also consider whether a proxy price is even necessary or appropriate if no allowances have been issued.

### 3.3 WEIM GHG Reporting

The CAISO proposes two different reporting approaches for emissions year 2022 and emissions year 2023 and beyond.

#### **Emissions Year 2022:**

The CAISO proposes that WEIM Entities' could use their settlement statements to meet the reporting requirements for emissions year 2022. The CAISO recognizes that under its reporting rules, the Department of Ecology will treat all transactions in the WEIM used to serve load within Washington as imported energy.

Currently, WEIM Entities receive settlement statements which include real-time negative imbalance energy received through the WEIM. Real-time negative imbalance energy reflects WEIM transactions used to serve electricity demand. At least initially, the settlement statements provided to WEIM Entities can support data requirements of Washington's reporting rules. WEIM Entities operating in the state of Washington with BAAs that extend to other states would need to calculate a load ratio to estimate the volumes of real-time negative imbalance energy that served their Washington demand. This approach will only provide a rough estimate of WEIM transactions used to serve load with the state of Washington.

#### **Emissions Year 2023 and beyond:**

It is the CAISO's understanding that Washington Department of Ecology will develop an Excel based tool to support GHG reporting, in line with WAC 173-441-124.<sup>7</sup>

When reporting WEIM transactions, Washington rules specify the electric power entity must report for each first point of receipt the following information. Below the CAISO summarizes these requirements and data the CAISO anticipates providing WEIM entities:

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<sup>7</sup> <https://app.leg.wa.gov/WAC/default.aspx?cite=173-441-124&pdf=true>

WA Reporting Requirement 2023	CAISO Interpretation and Proposed Data Provided
Whether the first point of receipt is located in a linked jurisdiction published on the ecology website;	N/A; There are no linked jurisdictions at this time
The amount of electricity from unspecified sources as measured at the first point of delivery in Washington state;	The CAISO will provide data on net transfers to WA
The amount of electricity imports of unspecified electricity that are netted by exports of unspecified electricity to any jurisdiction not covered by a linked program by the same entity within the same hour.	The CAISO will not be able to provide total wheel-throughs, as imports and exports are not identified separately.
The net amount of imported unspecified electricity after taking into account the requirements in (a)(iii)(C) of this subsection.	The CAISO will provide net imports to WA
GHG emissions, including those associated with transmission losses, as required in this section	N/A; handled by WA DOE
When the unspecified power was obtained from the energy imbalance market.	Correction: should read “if” not “when”  The CAISO will only provide WEIM data

#### 4. WEIM Governing Body Role

The CAISO staff believes that the WEIM Governing Body has joint authority with the Board of Governors over all of the proposed changes. This initiative proposes to:

1. Model the Washington border;
2. Model the demand forecast in Washington;
3. Update GHG reference levels used in bid mitigation; and
4. Develop reports to support the WEIM Entities.

The role of the WEIM Governing Body with respect to policy initiatives changed on September 23, 2021, when the Board of Governors adopted revisions to the corporate bylaws and the Charter for EIM Governance to implement the Governance Review Committee’s Part Two Proposal. Under the new rules, the Board and the WEIM Governing Body have joint authority over any proposal to change or establish any CAISO tariff rule(s) applicable to the WEIM Entity balancing authority areas, WEIM Entities, or other market participants within the WEIM Entity balancing authority areas, in their capacity as participants in EIM. This scope excludes from joint

authority, without limitation, any proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid. Charter for EIM Governance § 2.2.1.

The proposed tariff changes to implement elements (1) through (4) will be “applicable to EIM Entity balancing authority areas, EIM Entities, or other market participants within EIM Entity balancing authority areas, in their capacity as participants in EIM.” They would not be applicable “only to the CAISO balancing authority area or to the CAISO-controlled grid.” Accordingly, these proposed changes to implement elements (1) through (4) would fall within the scope of joint authority.

This proposed classification reflects the current state of this initiative and could change as the stakeholder process moves ahead. Stakeholders are encouraged to submit a response in their written comments to the proposed classification of as described above, particularly if they have concerns or questions.

## 5. Stakeholder Engagement Plan

Date	Milestone
August 17, 2022	Publish Issue Paper / Straw Proposal
August 22, 2022	Stakeholder Meeting
September 6, 2022	Stakeholder Comments Due
September 21, 2022	Publish Revised Straw Proposal / Draft Final Proposal
September 28, 2022	Stakeholder Meeting
October 11, 2022	Stakeholder Comments Due
October 25-26 2022	Joint CAISO and WEIM Board of Governors Meeting and WEIM Board of Governors Meeting
Early 2023	Implementation

## 6. Next Steps

In this Issue Paper / Straw Proposal, the CAISO has attempted to capture and describe reporting WEIM transactions by WEIM Entities to the Washington Department of Ecology. The CAISO will hold a stakeholder call on August 22, 2022 to review this Issue Paper / Straw Proposal to seek clarity on the issues or enhancements that stakeholders believe were not fully addressed or captured. The CAISO encourages all stakeholders to submit comments on the Issue Paper / Straw Proposal and any additional items that should be considered as a part of this initiative by September 6, 2022.