



California ISO

Washington State Western Energy Imbalance Market Greenhouse Gas Enhancements

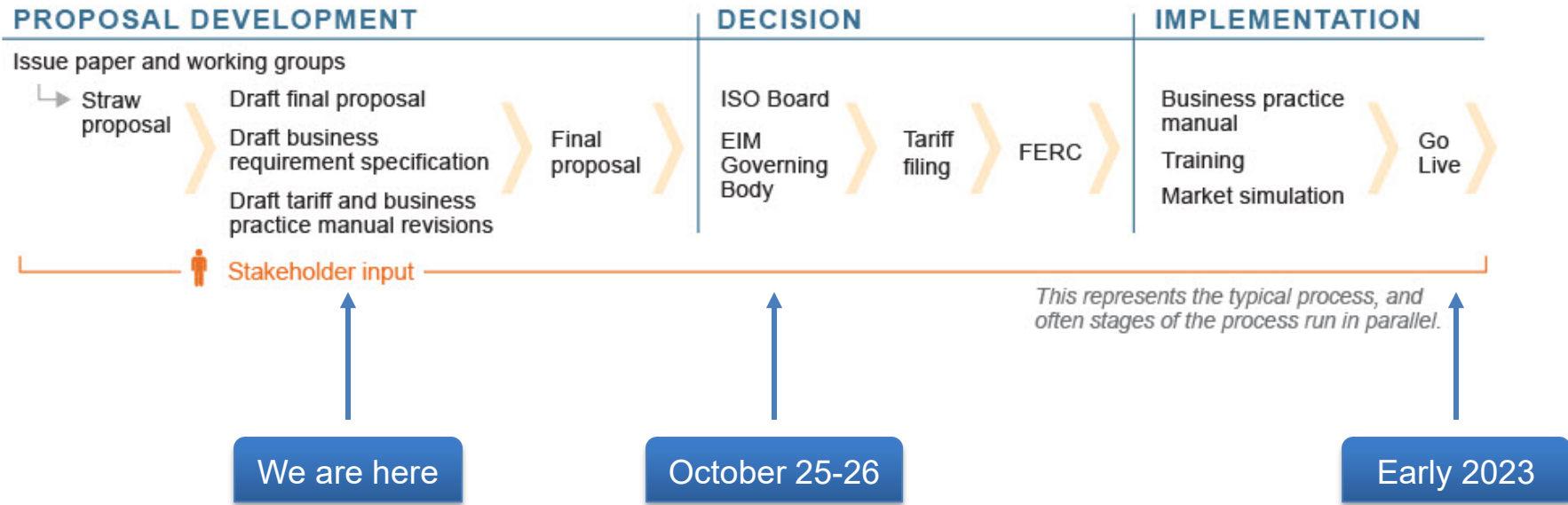
Anja Gilbert
Policy Development

September 29, 2022

Agenda

Time	Topic	Presenter
8:00-8:05 AM	Welcome	Isabella Nicosia
8:15-8:45 AM	Washington State Western Energy Imbalance Market (WEIM) Greenhouse Gas (GHG) Enhancements	Anja Gilbert
8:45-8:55 AM	Additional Q&A	Anja Gilbert
8:55-9:00 AM	Next Steps	Isabella Nicosia

CAISO Policy Initiative Stakeholder Process



Purpose

- The purpose of the initiative is to support Washington WEIM Entities with their required reporting of emissions pursuant to Washington Administrative Code Chapter 173-441, starting with emissions year 2022
- As the Washington cap-and-invest program and reporting rules evolve, the CAISO will engage with stakeholders to reflect these changes in its market

Initiative Scope

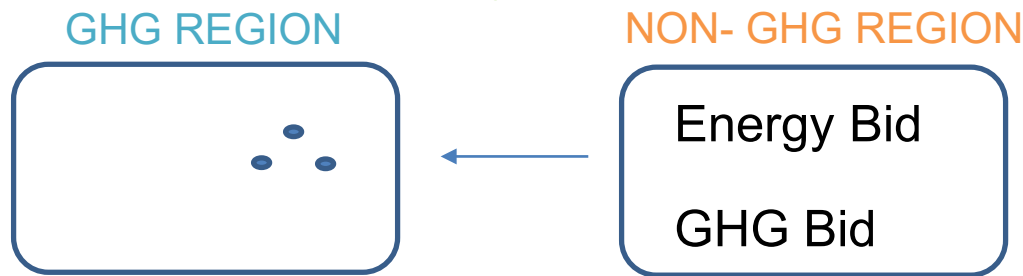
Draft Final Proposal

- 1. Removes the enhancement to associate generation and load for reporting purposes for emissions year 2023**
 - Recognizes this update may move ahead of the Department of Ecology's regulations
- 2. Maintains updating Washington GHG reference levels and now includes an interim approach for use ahead of an allowance auction**
 - Revises the calculations of cost-based reference levels for the WEIM generating resources inside Washington
 - Proposes an interim approach, ahead of an allowance auction
- 3. Supports reporting**
 - Support reporting by Washington WEIM Entities to the Washington Department of Ecology

Out of Scope: The GHG enhancements do not allow outside entities to reflect their cost of carbon as a specific compliance entity has not been identified

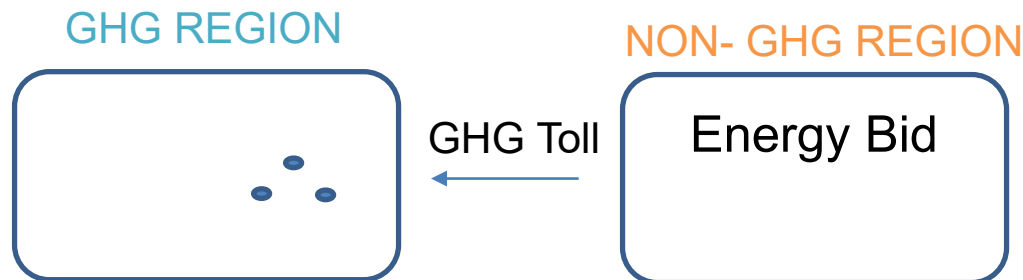
Below are examples of how the compliance entity could result in very different market designs.

EX 1: Compliance Entity as the WEIM Participating Resource SC



- ✓ Attributed resources in a non-GHG region receive GHG payment
- ✓ Attributed resources in a non-GHG region have a GHG reporting and compliance obligation

EX 2: Compliance Entity as Load

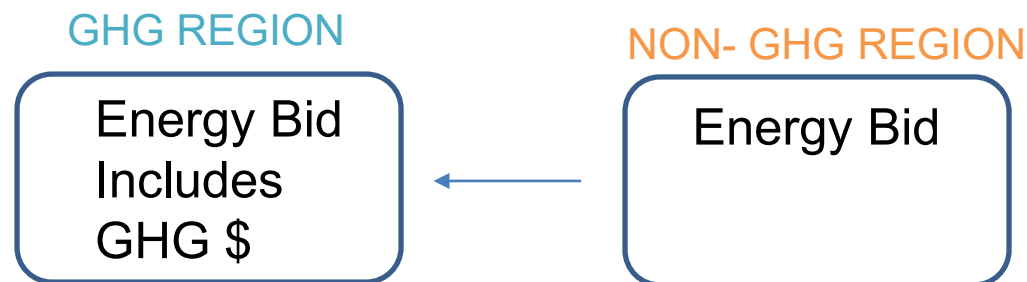


- ✓ Load in the GHG region pays GHG toll
- ✓ Load in the GHG region has the reporting and compliance obligation

Asymmetric treatment of resources will occur without a compliance entity identified

Resources in a GHG region, with a GHG compliance cost, will be comparatively more expensive than a similarly situated resource outside of the GHG region

	GHG Region	Non-GHG Region
Energy Bid of a Natural Gas Unit	\$40	\$40
GHG Bid	\$10	N/A
Total Bid	\$50	\$40



1. Modeling generation and load inside Washington State

- The proposal had suggested associating generation and demand with Washington to support more accurate reporting to the Washington Department of Ecology.
- Stakeholders raised use cases that render this enhancement less accurate and may require additional clarification in the Washington Department of Ecology's rulemaking.
- As a result of stakeholder feedback, the initiative no longer includes this enhancement as to not move ahead of the Washington Department of Ecology's rulemaking.

2. Update Washington GHG Reference Levels

The initiative proposes to use Washington-specific GHG allowance prices when calculating reference levels:

- **Default energy bids** are used in the local market power mitigation process
 - In situations where participants might have the ability to exercise local market power, the CAISO may adjust a resource's submitted energy bid downward to the higher of either: 1.) the resource's default energy bid, or 2.) the competitive locational marginal price
 - Calculations would apply to the Variable Cost Option default energy bid
- **Default commitment costs** limit the bids that scheduling coordinators can submit for minimum load cost bids, start-up cost bids, and transition cost bids
 - The CAISO's market processes use these bids to determine whether to commit the resource
 - Calculations would apply to default commitment costs for both the Proxy Cost and Registered Cost methodologies

2. Update Washington GHG Reference Levels

The GHG cost will would follow the existing approach used in California:

- For generating resources registered with the Washington Department of Ecology as having a GHG compliance obligation, the CAISO will estimate the price of Washington allowances and calculate a resource-specific cost adder using registered Master File parameters (e.g. GHG emission rate)
- To estimate the allowance price, the CAISO expects to use index prices created from external vendors. However, as the first auction does not occur until after the start of 2023, the CAISO plans to start with a fixed estimate of the allowance cost.

2. Update Washington GHG Reference Levels

The proposed phasing of GHG reference levels used will be dependent on information available and implementation timelines

Phasing of Reference Levels	Cost	Rationale
Static Vivid Estimate	\$41 per MT CO ₂ e	Vivid Economics* estimate is reasonable approximation of the wider market's expectations about the cost of compliance
Static Washington Allowance Auction Price	Allowance auction price	A more accurate reflection of allowance prices
Index Prices	Indexed prices from external vendors	A more dynamic reflection of allowance prices

**Vivid Economics for the Washington Department of Ecology: "Summary of market modeling and analysis of the proposed Cap and Invest Program." Accessible at: <https://ecology.wa.gov/DOE/files/4a/4ab74e30-d365-40f5-9e8f-528caa8610dc.pdf>*

2. Update Washington GHG Reference Levels

The GHG cost adder would then apply to both the variable cost option default energy bid and the default commitment cost calculations

- For the Variable Cost default energy bid, the calculation would be 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
 - This adder will then be added to the other components of the default energy bid (e.g. fuel costs, variable operations and maintenance costs) to arrive at the final value
- The default commitment cost calculations will include a similar GHG cost adder

3. Support Reporting: Emissions Year 2022 and Beyond

Background:

- Under its reporting rules, the Washington Department of Ecology will treat all transactions in the WEIM used to serve load within Washington as imported energy subject to a default emissions rate

Proposal:

- The CAISO plans to calculate the market dispatches, based on instructed imbalance energy, on an annual basis for WEIM Entities to meet the reporting requirements to the Washington Department of Ecology.
- Real-time instructed imbalance energy reflects WEIM transactions used to serve electricity demand.

WEIM Governing Body will have joint authority on Washington State WEIM GHG Enhancements

- This initiative proposes to: 1.) update Washington reference levels to reflect Washington GHG compliance costs 2.) develop reports for Washington WEIM Entities to support their reporting to the Washington Department of Ecology
- Some WEIM balancing authority areas are subject to these enhancements
- Stakeholders are encouraged to submit a response to the WEIM classification of this initiative in their written comments

ADDITIONAL Q&A

Next Steps

Date	Milestone
September 22, 2022	Publish Revised Straw Proposal / Draft Final Proposal
September 29, 2022	Stakeholder Meeting
October 7, 2022	Stakeholder Comments Due
Week of October 11, 2022	Draft Tariff Posted
October 25-26 2022	Joint CAISO and WEIM Board of Governors Meeting
Early 2023	Implementation

Comments

- Stakeholders are asked to submit written comments by October 7, 2022 through the commenting tool
- A comment template will be posted on the CAISO's initiative webpage:
<https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/Washington-WEIM-greenhouse-gas-enhancements>