



California ISO

Extended Day Ahead Market
Working Group 3 Weekly Report

Week 9 Report
2/28/22 – 3/4/22

Progress Tracker

General Accounting: GHG Compliance Area(s)

Boundaries (State, GHG Compliance Areas, BAA, LSE, International?)	<i>Completed (RS) – 2/24 Completed (U/Z) – 3/1</i>
Implications for BAA spanning multiple states	<i>Completed (RS) – 2/24 In Progress (U/Z) – 1/26</i>
Impacts to EIM	<i>Completed (RS) - 3/1</i>
Rules that need to be established for renewable resource dispatch in/out of a GHG zone	<i>Completed (RS) – 2/24 In Progress (U/Z) – 1/26</i>

General Accounting: Availability

Rules for availability to serve load in GHG compliance area	<i>Completed - 1/13/2022</i>
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General Accounting: Costs being optimized

Are we optimizing Carbon prices? RPS/CES?	<i>Completed - 1/11/2022</i>
Types of pricing: carbon pricing, clean energy/renewable	<i>Completed - 1/11/2022</i>
Transactions: GHG zone (Gen in GHG zone, Imports into GHG zone) vs Non-GHG zone (Gen in non-GHG zone, Exports into GHG zone)	<i>Completed (RS) – 2/24 In Progress (U/Z) – 1/26, 3/1</i>

General Accounting: Emissions attribution

Resource specific, Unspecified	<i>Completed (RS) – 2/24 Completed (U/Z) – 3/1</i>
Determining emissions rate attribution with different participation options	<i>Completed (RS) – 2/24 Completed (U/Z) – 3/1</i>

General Accounting: Multiple GHG Zones

Can the model accommodate multiple GHG zones? If so, how?	<i>Completed (RS) – 2/24 In Progress (U/Z) – 1/26, 3/1</i>
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Approach-specific Issues: Baseline for evaluation of attribution

(Resource-specific approach only) What should the baseline for evaluating GHG attribution?	<i>In Progress (RS) – 2/24</i>
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Approach-specific Issues: Hurdle rate calculation

(Unspecified/zonal approach only) How would the hurdle rate calculation work?	<i>In Progress 1/26/2022</i>
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Approach-specific Issues: Alternate pathways to serve GHG zones

(Unspecified/zonal approach only) What alternative pathways would exist for a resource in a non-GHG zone to serve a GHG zone?	<i>In Progress 1/26/2022</i>
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Secondary Dispatch and Other Consequences: Leakage minimization

What mechanisms exist to limit leakage and secondary dispatch?	<i>Completed (RS) – 2/24 Completed (U/Z) – 3/1</i>
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Secondary Dispatch and Other Consequences: Other consequences of approach

Are there other unintended consequences of the model and how does the approach deal with these?	<i>Completed (RS) – 2/24</i> <i>Completed (U/Z) – 3/1</i>
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Reporting and Settlements: Market Results

What type of information and at what granularity will GHG information be reported to support state reporting requirements?	<i>Completed (RS) – 2/24</i> <i>In Progress (U/Z) – 1/26</i>
Should we consider policy that is in effect/will be in effect by Jan 2024 or try to accommodate hypothetical reporting systems?	Completed – 2/14/2022
What data needs to be tracked for compliance and harmonization with clean energy policy purposes (including other instruments that attribute generation to load)?	<i>Completed (RS) – 2/24</i> <i>In Progress (U/Z) – 1/26</i>
How would energy be identified/tracked or tagged under a specified approach?	<i>Completed (RS) – 2/24</i> <i>In Progress (U/Z) – 1/26</i>

Reporting and Settlements: Settlements

Will entities bearing GHG compliance obligations be made whole for purchasing credits? If so, how?	<i>Completed (RS) – 2/24</i> <i>In Progress (U/Z) – 1/26</i>
In the unspecified approach, how will the hurdle rate revenue be distributed to the suppliers?	<i>In progress (U/Z) – 3/1</i>

Miscellaneous: Bidding of GHG costs

Should GHG costs be reflected in bids? If so, how?	<i>Completed (RS) – 2/24</i> <i>Completed (U/Z) – 3/1</i>
How do cost reference level (DEBs and proxy costs) reflect GHG costs?	<i>Completed (RS) – 2/24</i> <i>In Progress (U/Z) – 1/26</i>

Miscellaneous: EIM (roll over to real Time)

Do we need to make updates to the RTM EIM GHG model to align it with EDAM?	<i>Completed (RS) – 3/3</i> <i>In Progress (U/Z) – 1/26</i>
What are the associated settlement impacts to any variation allowed?	<i>In Progress (RS) – 2/24</i> <i>In Progress (U/Z) – 1/26</i>

Key:

Completed (RS): Scope area has been completed for the resource-specific approach

Completed (U/Z): Scope area has been completed for the unspecified/zonal approach

In progress (RS): Scope area has been discussed but not completed for the resource-specific approach

In progress (U/Z): Scope area has been discussed but not completed for the unspecified/zonal approach

Weekly Discussion

March 1, 2022

Scope Items Discussed: Un-Specified (Zonal) Market Approach

Presenters: Jeff Spires (Powerex) and Mary Wiencke (Public Generating Pool)

Exploring a Potential Zonal Approach for EDAM GHG

Following last weeks "2.0" review of the Resource Specific approach, this week's discussion is focused on a 2.0 review of the un-specified, or zonal approach. Jeff Spires and Mary Wiencke walked through the presentation and fielded questions along the way.

Discussion:

Questions and discussion topics included:

- There was some discussion on how E-Tags could be used to ensure the source specific pathway for imported energy into a GHG zone. This discussion was brief and high level; no details of how E-Tags could be utilized for the DA market timeline.
- Discussion on the comparison of WEIM "deeming" approach to the zonal approach related to the EDAM design objective to support developing regional policies; it was proposed that the more explicit nature of the zonal approach attribution (and resource participation controls) would better support harmonization between GHG zone policies.
- Regarding the source-specific paths and verification measures, it was asked if these options should apply to non-emitting as well as emitting resources; yes.
- Regarding the description of Path 1 and Path 2 source-specific pathways;
 - What is the difference of these paths in terms of RECs, Mary responded that these do not support reconciliation of RECs between 2 or more GHG zones
 - Does Path 2 include the self-scheduling of a resource? Mary responded that this approach provides a framework for that scenario.
- Regarding Path 1: why is it significant to verify a contractual arrangement for the source-specific resource, does this not impose an unnecessary constraint in the market design? Jeff responded that the combination of the two options provides for both the scenario; (1) a long term agreement between a resource and a GHG zone LSE, and (2) a shorter term option for a resource to bid to supply the GHG zone. No formal determination was made on which path should be used or whether a combination might be more appropriate.
- There was a lengthy discussion on the various scenarios and implications of how a hurdle rate would be applied, based on the presentation slide #16 scenario.
- A brief conversation was held on the compliance & reporting and the settlement of hurdle rate revenue topic but it was acknowledged that further conversation is needed.

Conclusion:

The version 2.0 review of the unspecified (zonal) approach was concluded in this session.

March 3, 2022

Scope Items Discussed: Resource-Specific Approach

Presenters: Kevin Head, California ISO

An allocation was made in this WG session to discuss a few “TBD” items from the previous WG session review of the Scope Items document annotated with the Resource Specific approach design notes.

1. Regarding Category 2; Approach-Specific Issues, Item “D”; the resource sufficiency solution approach remains the proposed approach for the baseline determination. On March 15 WPTF will present on an alternative approach for baseline determination.
2. Regarding Category 5; Miscellaneous, “bidding of GHG costs”; in the proposal from CAISO it was assumed that the price component of the GHG bid from the DA market that was awarded in DA would not be able to be changed for the EIM market; the correction/clarification here is that this topic remains under discussion, and is not a closed design element.
3. Also regarding Miscellaneous category, topic “Effects of WEIM”;
 - One change to WEIM would be the alignment of GHG Area, where the current WEIM GHG area is defined by BAA, for alignment EDAM, the WEIM (and EDAM) would define the GHG area by regulation area.
 - Another change to the WEIM would be to limit the GHG attribution to the WEIM BAA net export transfer schedule.

Discussion:

It was proposed that a quantitative (model based) analysis would be useful to compare the impacts between the Resource Specific and Unspecified (zonal) approaches. Kevin Head responded that this is a good idea, but perhaps the established timeline of the WG sessions might not allow for this approach.

Conclusion:

This completes the review of the Resource Specific design elements overlaid on the WG3 Scope Items document.

Scope Items Discussed: Resource-Specific Approach

Presenters: Kevin Head, California ISO

Kevin proposed that the WG allocate the remainder of this WG session to revisit the WG-3 Design Objectives document, and for each item: (1) review/discuss the stated evaluate criteria, and amend as necessary, and (2) conduct a poll from the WG participants on the current level of alignment (low,

medium, high) between the Resource Specific approach elements discussed so far and the Design Objectives.

Discussion:

On this approach in general, the following were raised:

- Request to add a 6th response option “not enough information”. Kevin asked the Webex Operator if it is possible to add a survey response 6th option on-the-fly.
- How will these results be used? Will these results be used to take any options/approaches off the table? Response: this survey is intended and will only be used to “get a feel from the room” how close the current level of design discussion is to the stated objectives.

On each Design Objective, discussion / Q&A topics included:

Design Objective #1: No inappropriate or unacceptable GHG impact in non-GHG zone

- Some participants expressed that the accuracy of the baseline (for GHG attribution) is a key driver for this objective. Base schedules cannot be attributed to another GHG zone. This design element is also related to Design Objective #4 Do not inadvertently undermine RPS and CES policies
- EIA/EPA reporting may be impacted by accuracy of the GHG deeming.

Results of poll: fairly even distribution from Low to High alignment, slightly weighted to the high side.

Design Objective #2: Leakage should be minimized

- Discussion focused on the EDAM elements that might influence the extent of leakage relative to the numbers reported by CAISO as potential secondary dispatch for the WEIM (45%-50%)
- The extent to which market participants would have control of deeming outcome, and thus control of compliance with RPS obligations, through bidding/schedule options
- There was uncertainty/concern expressed on what the effect will be on leakage as EDAM GHG zones increase to become a greater percentage of overall market footprint.

Results of poll: fairly even distribution from Low to High alignment, slightly weighted to the low side

Design Objective #3: Enable similarly situated/similar technology resources in non-GHG zone to compete on a level playing field with resources inside GHG zone and vice versa

- One concern was raised on the potential use or misuse of the GHG bid adder, and the impact it will have on market outcomes.
- A general concern for leakage

Results of poll: fairly even distribution from Low to High alignment, not weighted to either the low or high side.

Design Objective #4: Do not inadvertently undermine RPS and CES policies

- RPS/CES are independent of the market optimization design

Results of poll: fairly even distribution from Low to High alignment, no overweight to either the low or high side.

Design Objective #5: Allow for market efficiency by accurately reflecting relevant including GHG compliance costs.

Results of poll: fairly even distribution from Low to High alignment, slight overweight to the medium/high side.

Conclusion:

5 of the 7 Design Objectives were reviewed and polled. Discussion items included many of the concerns/questions raised in the various WG sessions regarding the specific design elements. Then remaining 2 Design Objectives will be covered in the next WG session.