

**Comments of the Western Power Trading Forum
to the California Air Resources Board
on Possible Cap and Trade Regulation Amendments
October 26, 2023**

Clare Breidenich
WPTF Carbon and Clean Energy Committee
cbreidenich@aciem.us

The Western Power Trading Forum¹ (WPTF) welcomes the opportunity to provide input to the California Air Resources Board (CARB) on issues raised during the October 5th workshop on possible changes to the cap-and-trade program.

WPTF's comments below address

- CARB's approach to adjusting program caps for the 2025-2030 period;
- Phase out of the Renewable Portfolio Standard (RPS) adjustment;
- The need to include provisions to enable restrictions on deeming of non-emitting energy in markets operated by the California Independent System Operator;
- Enabling unspecified imports in the CAISO markets;
- Accounting of emission associated with energy storage systems (ESS);
- Treatment of imports from unlinked jurisdictions with carbon pricing; and
- Update of the default emission factor for unspecified imports.

CARB must evaluate impacts on allowance prices of options to reduce program caps for the 2025-2030 period.

WPTF appreciates the information provided by CARB staff at the workshop regarding the range of possible total adjustments to the cumulative 2025-2030 program budget in line with the Scoping Plan targets, and options for achieving these adjustments through reduction of various allowance pools. WPTF supports an approach to adjusting allowance budget that ensures predictability of allowance supply and avoids allowance price shocks. To this end, CARB should adopt any changes in the post 2024 allowance budgets as soon as possible, and adopt a uniform rate of decline in the additional reductions for 2025 through 2030.

As to which pool of allowances to take cap reductions from, WPTF does not offer a position, but urges CARB to complete and publish analysis of the comparative allowance price impacts of the options. As part of this analysis, CARB should also evaluate whether an escalation in the price for the allowances in price containment reserve tiers and/or the price ceiling units would be appropriate given the reduction in program caps.

The RPS Adjustment can be phased out over an established timeline only if replaced with an offsetting emission reduction mechanism.

At the October 5th workshop, staff discussed plans to update the assessment of each electric utility's allowance allocation based on the Integrated Resource Plan emission targets (derived from the Scoping Plan sectoral target), the California's 60% Renewable Portfolio Standard (RPS) target and recent demand forecasts that better account for transportation electrification. Staff also signaled intent to phase out the RPS adjustment considering the state's aggressive greenhouse gas (GHG) targets and increasing requirements for RPS portfolio content category (PCC) 1 procurement.

¹ WPTF is a diverse organization comprising power marketers, generators, investment banks, public utilities and energy service providers, whose common interest is the development of competitive electricity markets in the West. WPTF has over 80 members participating in power markets within California and elsewhere across the United States.

WPTF considers that the RPS adjustment was created to address deficiencies in the allowance allocation to electric utilities. Specifically, the allocation methodology originally developed did not provide for allowance allocation to cover costs associated with delivery of energy for PCCCO or PCC2 procurement. The RPS adjustment mechanism was created to reduce cap and trade compliance costs for this procured energy.

WPTF believes that Renewable Energy Credits (RECs) should have no role in accounting for GHG emissions associated with imported electricity. Rather, the actual emissions (or emission rate) of the generating resource should convey with delivered electricity. The cap-and-trade program conforms to this general approach with the narrow exception of the RPS adjustment. The RPS adjustment was workable when California was the only state in the west with a cap-and-trade program. With the advent of the Washington program, as well as other state electric sector GHG Reduction programs, use of the RPS adjustment long-term complicates accounting of both emissions and renewable energy procurement. For this reason, WPTF supports eventual elimination of the RPS adjustment as a long-term policy direction intended to support the state's electricity sector decarbonization goals only if replaced with an offsetting allowance allocation to the importer of the incremental energy associated with PCCO and PCC2. Because CARB staff suggested that allowances could be allocated to imported energy from resources located in unlinked GHG pricing programs, such a direct allowance allocation to importers for energy associated with PCCO and PCC2 should be workable. Alternatively, CARB could establish an allowance set aside and retire allowances for emissions associated with PCCCO and PCC2 procurement.

WPTF believes a balance needs to be struck between amending existing policy to align with long-term priorities and not unduly disrupting existing markets or contracting in the near term, whether due to an immediate change in existing policy, complications associated with enacting the new policy, or uncertainty over when new policy will be implemented. Additionally, in recognition of the fact that the RPS Adjustment is a cost reduction mechanism, WPTF supports replacing it with an allowance allocation for incremental energy imports allocated to load-serving entities to compensate for carbon costs associated with PCCCO and PCC2 procurement.

WPTF therefore requests the CARB commit to maintain the current RPS adjustment paradigm and work with RPS obligated entities and counterparties through the immediate rulemaking to establish an appropriate timeline while concurrently implementing a mechanism to allocate allowances directly to the importer of the incremental energy.

CARB must include provisions in its program rules to enable restrictions on deeming of non-emitting energy in the CAISO markets.

WPTF appreciates the afternoon presentation on emissions leakage and the CAISO's approach to GHG accounting in the Energy Imbalance Market (EIM) and the Extended Day Ahead Market (EDAM). We are concerned, however, with CARB's apparent intention to tacitly approve the approach developed by the CAISO without discussion with stakeholders and without revisions to the program rule.

CAISO's approach to addressing emissions leakage in EIM and EDAM is to limit the supply of non-emitting energy that can be deemed delivered to California to electricity that is either contracted to California load or that is 'surplus'. Within the EIM, surplus is implicitly defined as the volume of energy in excess of a resource's base schedule; with the EDAM it is energy that is generated in excess of the to

load needs of the *entire market outside of California*.² WPTF shares CARB's concerns regarding emissions leakage and supports restrictions on the deeming of non or low-emitting electricity by EDAM and EIM to minimize leakage. However, we are extremely concerned that CAISO's approach has no legal basis in the program rules. Specifically, both the current program regulation and the Mandatory Reporting Regulation provide only that the importer for electricity deemed delivered by the EIM (and presumably by EDAM) is the resource scheduling coordinator, and that all imports are resource specific. The current program rules do not establish any eligibility conditions, other than the requirement that the importer be a generation providing entity or have a specified contract to the generator, that would allow the CAISO to limit which electricity can be deemed delivered. The Federal Energy Regulatory Commission (FERC) has made clear in both its approval of the CAISO and EIM tariffs, and its April 2021 policy statement concerning "Carbon Pricing in Organized Wholesale Electricity Markets"³, that imposition by market operator of mechanisms to enable GHG accounting and attribution of electricity under state programs are acceptable in response to state regulations. Without provisions in the program rules establishing the conditions for when electricity can or cannot be deemed delivered to California, CAISO's approach to address emissions leakage could be perceived as discriminatory. Essentially, the CAISO could be accused of independently and arbitrarily imposing conditions on deeming of electricity to California that are not supported by program requirements.

For this reason, CARB must include provisions in its program rule to give effect to the CAISO's approach. Specifically, CARB should establish two additional conditions for specified electricity imports:

- the electricity must be contracted to load in California (this provision enables the CAISO to exclude this energy from its counterfactual run), or
- the electricity must be surplus (this provision enables CAISO to restrict the deemable quantity of electricity above the counterfactual).

WPTF also requests CARB to hold a stakeholder workshop on the appropriate definition of electricity surplus. As noted above, the approach taken by CAISO essentially considers electricity to be surplus only if that electricity would not be dispatched to serve load outside California. This approach has the effect of giving load in other states priority access to low-cost, low emitting generation, such that only electricity from resources that are higher up the dispatch stack in terms of offer prices is available to serve California load. As more and more states establish GHG reduction programs for the electric sector, there will be growing demand for clean energy. California should be able to compete with other states for this clean energy. Instead of adopting the CAISO's defacto definition of surplus, CARB should consider defining surplus in relation to the load, contractual obligations and/or renewable or clear energy procurement mandates. CARB should also consider whether the definition of surplus differs depending on whether energy is transacted bilaterally or via an organized market, as inconsistent rules could alter incentives for participation in organized markets. A stakeholder workshop would be useful to explore these options.

CARB should allow unspecified imports through the CAISO markets.

If the approach to restricting the attribution of non-emitting resources to California within EDAM and EIM is effective in addressing emission leakage, there will likely be periods where the market either runs

² CAISO's approach does not distinguish between emitting and non-emitting resources, but would have the effect of limiting deeming of non or extremely low emitting electricity when this generation is offered at a lower cost relative to emitting generation.

³ <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=020CC9B6-66E2-5005-8110-C31FAFC91712>

out of energy eligible to be imported as specified, or the eligible energy is uneconomic compared to other available generating capacity. Under these conditions, the market would be forced to either violate the import constraint, or dispatch California resources that are higher cost than the available capacity outside California. This would raise costs for California consumers relative to an approach that allows for unspecified imports, and could actually increase emissions through dispatch of less-efficient in-state generators. For these reasons, WPTF believes that enabling unspecified imports to occur through the CAISO markets, in addition to specified imports, would have significant advantages over an approach that requires all imports to be specified.

If CARB were to allow unspecified imports into California via EIM and EDAM, these imports could not be assigned to any specific resources, because the energy from those resources would either be ineligible to be imported as specified energy, or because the resource operator was not willing to allow that energy to be attributed to California load. WPTF recommends instead that the compliance obligation for emissions associated with these unspecified imports be assigned to California load-serving entities in proportion to their net purchases from the market, similar to how CARB assigns the obligation for EIM outstanding emissions.

CARB should enable more granular GHG accounting for ESS.

WPTF appreciates staff's proposal to address energy storage systems (ESS) in the rulemaking and supports inclusion of a provision to clarify that electricity discharged from an ESS can qualify as a specified source import. The point of regulation for these imports should be the same as for other specified import, namely the Purchasing-Selling entity on the e-tag on the physical leg of the path that crosses the state border, or the resource scheduling coordinator in the organized markets. Electricity discharged by an ESS that is located outside the state, but which is directly interconnected to the CAISO and is therefore charged by CAISO electricity should not be considered an import, as any emissions associated with charging will be accounted at the generation level, or as imports to the CAISO.

With respect to the staff's proposed approach to calculating a specified emission factor, WPTF is concerned that the approach is not workable for all ESS business models and could undermine incentives for investment in storage. Staff's proposed approach would allow for variations in the emission factor associated with charging of an ESS by a specific generating resource or by grid electricity, but it would average these emission factors based on charged energy across a year, such that all imports from the ESS would be assigned the same emission factor. We recognize that CARB's current approach to specified emission factors results in a single value for each resource, but we do not consider this to be the appropriate approach for ESS for two reasons. First, electricity discharged by an ESS may be contracted to more than one counterparty. Depending on the needs of those counterparties, the imported discharged energy may correspond to different charging emission factors. If those counterparties are load-serving entities or commercial buyers that need to account for GHG emissions associated with their load, the counterparties may need the emission factor for the discharged energy to accurately reflect the charging energy rather than an annualized average.

Second, the staff proposal seems to assume that a default unspecified emission factor will be used for all hours that an ESS is charged by market energy, as opposed to a co-located resource. Although CARB currently does not have access to accurate hourly data on the grid electricity in the CAISO market, there is absolutely no reason why that data cannot and should not be developed. Use of a single fixed

emission factor for market energy would force a resource scheduling coordinator to submit a GHG adder that reflects that emission factor in all energy offers to ensure that the ESS recoups costs for any compliance emissions. By not allowing the resource scheduling coordinator to submit GHG adders that reflect the actual emission rate of the energy used to charge the ESS for the discharged energy, assignment of a fixed EF would thus undermine the incentive for an ESS to charge when the market emission factor is low and discharge when the market emission factor is high.

Instead, we encourage CARB to work with CAISO and electricity sector stakeholders to explore the development of residual grid emission factors that would accurately reflect the emission factors of resources supporting the market purchases in each hour, and to consider method needed to support reporting and verification of charging and discharging of ESS. Development of hourly residual emission factors would provide for more accurate accounting of emissions than use of a default emission factor and enable ESS dispatched in the CAISO markets to submit GHG adders that reflect the emission factor of energy actually used to charge the resource.

If CAISO develops hourly emission factors, CARB should allow electricity importers that are able to document charging of ESS with energy with different associated emission factors, CARB should allow use those emission factors for reporting of discharged imported electricity.

CARB should adjust covered emission for electricity imports from unlinked GHG pricing programs.

WPTF greatly appreciates CARB's intention to eliminate the double imposition of carbon costs that would occur if electricity from a gas generator in Washington were imported into California. Staff propose two options. The first would be the approach adopted by Quebec whereby the importing jurisdiction allocates allowances to imported electricity equal to the imported emission multiplied by the ratio of the average allowance price in the host jurisdiction to the allowance price in the importing jurisdiction. Under the second approach, the host jurisdiction would reduce the generator's compliance obligation by the emissions associated with electricity exported and imported to the other jurisdiction.

Both the California and Washington cap and trade programs are fundamentally source-based programs that regulate imports. Thus, for electricity that is transacted between the two jurisdictions, the compliance obligation should be borne by the generator in the host state. This also aligns with how emissions associated with import from the other jurisdiction will be treated if and when the two programs are linked. The second approach should be rejected.

WPTF would support a variant of the Quebec option. In light of CARB plans to reduce the overall allowance supply post 2024, and the fact that allowance prices under the Washington program are already extremely high, we do not support allocating allowances to offset compliance costs for emissions associated with imports from the other jurisdiction. Instead, the importing jurisdiction should simply reduce the covered emissions of the imported electricity by the amount that results from multiplying the emissions by the ratio of the average allowance price in the host jurisdiction to the allowance price in the importing jurisdiction. If the average allowance price in the host jurisdiction is higher than the allowance price in the importing jurisdiction, the covered emissions associated with the imported electricity should be reduced to zero.

CARB should revise the default emission factor for unspecified imports.

Lastly, WPTF requests that CARB update the default emission factor for unspecified imports. The current

emission factor was first adopted by the WCI and is now over 15 years old. It does not reflect the significant changes in the mix of generating resources on the grid that have occurred during this time.