

October 22, 2018

**Via Electronic Submission**

<http://www.arb.ca.gov/lispub/comm/bclist.php>

Clerk of the Board  
Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Re: Comments on Proposed Amendments to California Cap and Trade and Mandatory Greenhouse Gas Reporting Regulations**

Dear Clerk of the Board:

The California Independent System Operator Corporation (ISO) submits these comments on proposed amendments to California's cap and trade and mandatory greenhouse gas reporting regulations issued by the California Air Resource Board (ARB), which would establish a compliance obligation and accounting rules for Energy Imbalance Market (EIM) outstanding emissions.<sup>1</sup> The ISO does not support adoption of the proposed amendments. As an alternative, the ISO recommends ARB maintain its existing "bridge" mechanism for EIM outstanding emissions for the 2019 cap and trade compliance year. This approach will allow ARB and stakeholders to monitor planned enhancements to the EIM as well as develop a more accurate measure of the volume and emission intensity of EIM outstanding emissions.

**I. Introduction**

The ISO supports California's efforts to track and reduce greenhouse gas emissions in California's electricity sector and will continue to work collaboratively with state agencies and stakeholders to advance this objective. Among other efforts, the ISO's implementation of the western EIM has facilitated the integration of increasing amounts of renewable energy resources in the Western Interconnection that have helped reduce greenhouse gas emissions from the electricity sector. The EIM is an extension of the ISO's real-time market that helps balance supply and demand in the ISO balancing authority area as well as in EIM Entities' balancing authority areas. The use of the EIM permits other balancing authority areas to take advantage of the ISO's real-time market processes and facilitates transfers of power across the combined ISO and EIM footprint based on available transmission capability. Since its inception, the EIM has facilitated economic transfers of energy between the ISO and EIM Entities. These transfers have in part supported the operation of non-emitting clean resources. For example, in the second quarter of 2018, the EIM allowed the ISO to avoid the

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<sup>1</sup> ARB issued these proposed amendments for public comment on September 4, 2018.

curtailment of over 129,128 MWh of renewable output in the ISO balancing authority area that displaced an estimated 55,267 metric tons of carbon dioxide equivalents.<sup>2</sup> As the EIM footprint grows and more renewable energy resources develop in the West, the EIM will continue to facilitate these emission reductions. ARB's regulations do not account for these emission reductions, but ARB should acknowledge that the EIM creates significant emission reduction benefits across the region as ARB considers rule changes related to EIM outstanding emissions.

Under ARB's current cap and trade and mandatory greenhouse gas reporting regulations, ARB treats EIM transfers serving ISO demand in California as electricity imports. ARB relies on the ISO's market results as reported by EIM participating resource scheduling coordinators to identify resources that support those transfers and applies a specified source emission rate to those imports. ARB imposes reporting and compliance obligations on EIM participating resource scheduling coordinators representing these resources.

In response to stakeholder concerns that the ISO's least cost dispatch in the EIM may result in secondary or backfill dispatch<sup>3</sup> when EIM transfers serve California demand, ARB adopted regulatory changes to account for emissions associated with the potential for secondary dispatch. These changes established an interim "bridge" to account for what ARB identifies as EIM outstanding emissions. To account for EIM outstanding emissions, ARB currently calculates the difference between total EIM transfers at ARB's unspecified source emission rate less the total resource-specific emissions attributed to EIM participating resource scheduling coordinators as a result of the ISO market optimization. ARB retires allowances designated by ARB for auction that remain unsold in ARB's Auction Holding Account for more than 24 months in the amount of EIM outstanding emissions.

## **II. ARB should maintain its current "bridge" approach for the 2019 cap and trade compliance year.**

ARB has proposed to amend its regulations to recognize an EIM Purchaser as the compliance entity for EIM outstanding emissions. Under the proposed amendments, an EIM Purchaser would be defined as "an entity that purchases electricity through the EIM either to serve California load or to deliver or sell the purchased electricity to an entity, or on behalf of an entity, serving California load."<sup>4</sup>

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<sup>2</sup> Western EIM Benefits Report Second Quarter 2018 dated July 31, 2018 at 13, available at [https://www.westerneim.com/Documents/ISO-EIMBenefitsReportQ2\\_2018.pdf](https://www.westerneim.com/Documents/ISO-EIMBenefitsReportQ2_2018.pdf).

<sup>3</sup> The phenomenon known as secondary dispatch occurs because least cost dispatch has the effect of attributing EIM transfers to lower emitting participating resources based on their combined energy bid and greenhouse gas (GHG) bid adder. Other, potentially higher-emitting, resources may need to backfill this energy attribution in order to serve load outside of the ISO.

<sup>4</sup> ARB's *Staff Report: Initial Statement of Reasons*, supporting proposed amendments to the cap and on GHG emission, Appendix A – proposed regulation order at p. 4, available at <https://www.arb.ca.gov/regact/2018/capandtrade18/ct18pro.pdf>, and ARB's *Proposed Regulation Order* to the proposed

According to ARB's initial statements of reasons, this entity could include scheduling coordinators for load serving entities or generators within the California ISO or another California balancing authority area participating in the EIM.<sup>5</sup> ARB has proposed to calculate the obligation as an EIM Purchaser's share of EIM outstanding emissions. ARB's proposed amendments to the mandatory reporting regulation state:

[E]ach EIM Purchaser must calculate, report, and cause to be verified, energy consumption, expressed in MWs, resolved by imbalance energy procured in the CAISO market used to serve California load, or to deliver or sell the purchased electricity to an entity, or on behalf of an entity, serving California load.

ARB proposes that this calculation occur for every 5-minute real-time dispatch interval based on imbalance energy procured in the ISO market. ARB states that it intends to coordinate with the ISO and EIM Purchasers to design a reporting workbook based on the proposed regulatory requirements that can be easily utilized to report the data required by EIM Purchasers. Starting in 2020, entities would report 2019 data from April 1, 2019 through December 31, 2019, and receive a compliance obligation for 2020, and annually thereafter.

The proposed amendments to ARB's cap and trade and mandatory reporting regulations would (1) create a complicated accounting and compliance regime that may not accurately reflect the cause of any emissions from the potential for secondary dispatch; (2) extend compliance requirements to new entities that may not have a means to recover the costs of compliance and that are not a direct source of emissions; (3) may cause adverse electricity market outcomes; and (4) would over-count secondary dispatch volumes and over-state EIM outstanding emissions. The ISO encourages ARB not to adopt the proposed amendments and instead continue to utilize its bridge solution. As ARB is aware, the ISO has proposed changes to its EIM design that will reduce the potential for secondary dispatch.<sup>6</sup> The ISO is targeting an implementation date for these changes on November 1, 2018. In addition, other states are exploring GHG emission programs which could have the effect of reducing secondary dispatch of resources as a result of EIM transfers to serve California demand. ARB should maintain its current bridge through at least the 2019 reporting

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amendments to the mandatory reporting regulation at p. 1, available at <https://www.arb.ca.gov/regact/2018/ghg2018/proregorder.pdf>.

<sup>5</sup> ARB's *Staff Report: Initial Statement of Reasons*, supporting the proposed amendments to the cap on GHG emissions at pp. 69-73, available at <https://www.arb.ca.gov/regact/2018/capandtrade18/ct18pro.pdf>; see also ARB's *Staff Report: Initial Statement of Reasons*, supporting the proposed amendments to the mandatory reporting regulation at pp. 6-8, available at <https://www.arb.ca.gov/regact/2018/ghg2018/isor.pdf>.

<sup>6</sup> See, ISO tariff amendment regarding Energy Imbalance Market Bid Adder in Federal Energy Regulatory Commission docket ER18-2341 dated August 29, 2018, available at <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15011459>.

year to assess the magnitude of secondary dispatch emissions that may occur as a result of EIM transfers to serve California demand. ARB should use the information we learn from 2019 EIM operations to inform the any going forward regulation changes to account for EIM outstanding emissions.

**A. The proposed amendment would create a complicated accounting and compliance regime that may not accurately reflect the cause of any emissions from the potential for secondary dispatch.**

EIM transfers to serve California demand can occur for a number of reasons: *e.g.*, economic displacement of a more expensive resource within the ISO, a change in the demand forecast, or congestion of the transmission system. The proposed amendments would attempt to correlate 5-minute transfers that occur through the EIM to serve California demand to scheduling coordinators representing load serving entities and resources that have real-time imbalances. This proposal will require covered entities to gather and ARB to validate a voluminous amount of data for reporting and compliance purposes. The amendments do not recognize that an imbalance from a day-ahead position can occur for a variety of reasons and there is no way to allocate with precision whether an EIM transfer that served California demand addressed that imbalance or whether another resource addressed that imbalance.

**B. The proposed amendments could extend compliance requirements to new entities that may not have a means to recover the costs of compliance and that are not a direct source of emissions.**

If adopted, the proposed amendments could extend the application of ARB's cap and trade and mandatory reporting regulations to a number of new entities. Many of these entities may not have been allocated allowances under ARB's cap and trade program and therefore may not have a mechanism to cover their costs of compliance. These entities could include scheduling coordinators only serving load (*i.e.* that are not currently first deliverers under ARB's regulation) and who do not currently receive allowances as utility distribution companies. These entities could also include scheduling coordinators representing distributed and non-emitting resources located in California that are already helping to reduce emissions in California's electricity sector. Entities such as renewable resource owners have likely not planned for the costs of complying with ARB's program through their power purchase agreements. This may result inequitable outcomes that are outside of these entities' control.

**C. The proposed amendments could create adverse electricity market outcomes relating to resources response to dispatch instructions and submissions of day ahead schedules.**

In establishing a compliance obligation tied to imbalances, ARB may create an incentive for resources to deviate from dispatch instructions. A resource that has a negative deviation from its day-ahead schedule will face a charge for imbalance energy

in the ISO's market, even if that deviation results from an ISO instruction. However, if a resource also faces the risk of a compliance obligation under ARB's regulations, it may not respond to an economic dispatch instruction to reduce its output relative to its day-ahead position. ARB should not create such an incentive through its regulations. The proposed amendments could also discourage variable energy resources from submitting day-ahead schedules and real-time bids, thus exacerbating and complicating management of oversupply conditions. The proposed amendments would create an incentive for these resources to always have a positive deviation from a day-ahead schedule so as to avoid a compliance obligation as an EIM Purchaser. By not submitting day-ahead schedules or not submitting real-time bids, a variable energy resource would always avoid being an EIM Purchaser. This incentive directly conflicts with the need for the CAISO to have greater participation in the day-ahead market by variable energy resources. This participation helps ensure efficient unit commitment and price formation.

**D. The proposed amendments would over-count secondary dispatch volumes and over-state secondary dispatch emissions.**

ARB's proposed amendments would calculate a compliance obligation for every 5-minute EIM transfer at the unspecified source emission rate to reflect the assumption that a secondary dispatch is occurring in connection with each 5 minute EIM transfer to serve California demand. This assumption is not correct and over-counts both the volume of secondary dispatch as well as the GHG intensity. The proposed amendments over-counts the volumes because they apply to the full MW of an EIM transfer to serve California demand rather than the actual MW associated with the secondary dispatch. For example, if during an interval there are EIM transfers to serve California demand and the EIM participating resources are all dispatched above their base schedule, then no secondary dispatch will occur. Under this scenario, the resource-specific emissions accurately reflect the emissions intensity of the EIM transfer serving California demand even if the attributed resources are non-emitting. The proposed regulations, however, would apply the unspecified source emission rate to the full transfer quantity.

**III. ARB should work with the ISO and stakeholders to develop a more accurate measure of the volume and emission intensity of EIM outstanding emissions.**

The ISO acknowledges that ARB's interim bridge relies on an approach that also overstates the volumes of emission intensity of secondary dispatches that may occur in connection with EIM transfers to serve California demand. However, this assumption should not be made for a permanent solution in ARB's regulations. Secondary dispatches will not occur in all intervals. The ISO completed a re-run of market results from several trading days in October 2017 to assess the impact of its new design on secondary dispatches. For this time period, the ISO observed a 40 percent decrease in secondary emissions using its pending market enhancement. The ISO believes ARB

needs to work with stakeholders to assess how to identify a more accurate assessment of secondary dispatch volumes that may give rise to EIM outstanding emissions.

The proposed amendments would also create a compliance obligation that overstates the emission intensity of secondary dispatches that do occur. Based on the re-run of market results from October 2017 using the ISO's pending market enhancement, the average emission rate of EIM participating resources that moved from their base schedules to address the need for secondary dispatches was four times less than the unspecified source emission rate used by ARB. The ISO believes ARB needs to work with stakeholders to assess how to identify a more accurate emission rate for EIM outstanding emissions.

The ISO recommends that ARB not undertake a rulemaking to adopt changes to its bridge solution until stakeholders have a year of operation using the ISO's pending market enhancement for attributing to EIM participating resources EIM transfers serving California demand. This approach will allow time to assess the effects of the new design. ARB could then use such information to guide what, if any, regulatory changes are necessary to address any remaining secondary dispatch effects. This information could also help ARB develop a more accurate residual emission rate as it assesses whether to establish a new compliance requirement and to which entities it should apply.

Respectfully submitted,

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