SIERRA CLUB CALIFORNIA

December 17, 2017

California ISO
250 Outcropping Way
Folsom, CA 95630

Submitted via email to initiativecomments@caiso.com

Re: Sierra Club Comments on Regional Integration and EIM Greenhouse Gas Compliance Proposal

Sierra Club hereby submits these comments following the California Independent System Operator's ("CAISO") December 4, 2017 workshop on Regional Integration and EIM Greenhouse Gas Compliance.[1] Sierra Club appreciates the ongoing effort from CAISO and other interested parties as they work to align the energy imbalance market ("EIM") with California's greenhouse gas ("GHG") emission reduction goals.

The EIM offers many benefits for California and other participants. However, the inconsistent climate policies adopted by the various states with entities that participate in the market create potential market distortions that, if not addressed, could undermine California's environmental policies. In particular, the California Air Resource Board ("CARB") appropriately raised concerns about the potential for resource shuffling in the EIM market. The effect was at certain times causing CAISO's algorithm to deem low GHG gas emitting resources as being deliver into California, while not accounting for "secondary" dispatch of other resources backfilling to serve external demand.[2]

Mr. Hogan's whitepaper submitted to CAISO succinctly described the root of the problem: "The EIM must accommodate a market where the effective costs and prices for the same electricity have a different meaning and interpretation for different participants."[3] While he was critical of the CAISO's proposed two-pass solution, Sierra Club agrees with Mr. Hogan that this regulatory disconnect is a fundamental problem. However, rather than prioritizing a strictly

[1] Sierra Club was unable to attend the web conference held on December 4, 2017, and the presentation has not yet been posted online for review. These comments are therefore based on the presentations and materials that were posted prior to the December 4, 2017 meeting.

[2] *See* Thetheway, *Don, Discussion on EIM greenhouse gas attribution enhancements*, Sept. 8, 2017 at slie 2. Available at: http://www.caiso.com/Documents/Discussion_EIMGreenhouseGasAttributionEnhancements.pdf.

[3] Hogan, William W., *An Efficient Energy Imbalance Market with Conflicting Carbon Policies*, Sept. 28, 2017 at p.4. Available at: http://www.caiso.com/Documents/WhitePaper-AnEfficientWesternEIMwithConflictingCarbonPolicies-WilliamHogan-Sept27_2017.pdf

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least-cost economic solution to the problem, CAISO must resolve the issue in a manner that upholds California's environmental priorities. California continues to push the boundaries on responding to climate change, and its policies are providing examples to the entire world about what is achievable as we move to a cleaner and decarbonized electric sector. California should not – and cannot – sacrifice that progress by exporting its pollution to other states.

Sierra Club also agrees with Mr. Hogan's conclusion that, "There appears to be no perfect solution to this problem other than to extend the same carbon policy across the entire electricity grid."[4] However, the practical political constraints at issue in the EIM jurisdictions mean that such a uniform approach is impractical at this time. CAISO is therefore left with less-than-perfect alternatives that can attempt to mesh the EIM market with California environmental regulations. Among those options, the two-pass solution appears to be the best. However, CAISO must continue to monitor the GHG impacts that the EIM is having on the regional system, and to account for GHGs emissions throughout the region.

The November 17, 2017 presentation from the Brattle Group provides a useful summary of the issues.[5] That presentation noted the high disparity of renewable penetration in CAISO compared to other EIM participants. (*See* Brattle Presentation at slide 5.) PacifiCorp (PACE and PACW) in particular stands out for its incredibly high reliance on coal generation. Integrating PacifiCorp's coal generation into a single market is – and will remain – a challenge when complying with California climate policies.

Based on the modeling conducted by Brattle, the two-step solution in the EIM appears to at least improve upon the problems related to dispatching coal and other fossil resources in the EIM. Brattle concluded that the two-step approach to the EIM resulted in lower coal dispatch in non-CAISO entities.[6] This in turn resulted in a lower GHG impact in non-CAISO entities, which was offset by an increase of in-state GHG emissions due to higher dispatch of gas plants in California.

Overall, the decrease in regional coal dispatch and overall regional GHG emissions is a positive outcome from the model. Sierra Club remains concerned that gas resources within California may respond by increasing dispatch. CAISO should continue to investigate this outcome, including an update to the estimated environmental justice impacts that may result from a full regionalization proposal. CAISO should also consider whether advancements in cleaner options like storage in California would alleviate this effect, both in the EIM and a regional market.

Finally, Sierra Club notes that while the efforts to address GHG emissions in the EIM are promising, the entire exercise emphasizes the complexity involved in the multi-state market.

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[4] Hogan at p.4.

[5] Chang, Judy et al. *Modeling the 1-Step and 2-Step Dispatch Approaches to Account for GHG Emissions from EIM Transfers to Serve CAISO Load*, Nov. 17, 2017. Available at: http://www.caiso.com/Documents/BattleGroupPresentation-ModelingDispatchApproachesAccounting-GHGEmissions-EIMTransfers-ServeISOLoad.pdf.

[6] Brattle at slide 6.

Sierra Club cautions that the implementation of the EIM and the proposed two-step solution for GHG emissions should not be assumed to be appropriate or sufficient to address concerns related to a fully integrated day-ahead market. Simply establishing a regional market is not, by itself, sufficient to ensure that California's climate goals are met. California must ensure that coal and other fossil fuel resources in the region will not receive a windfall from the establishment of such a market.

Sierra Club's concern is not purely hypothetical. A recent report completed by Sierra Club looked at the impact that vertically integrated coal plants have on the functioning of the day ahead market in the Southwest Power Pool ("SPP"). (See Attachment A.)[7] That report concluded that the ability of rate based coal plants to self-schedule in SPP is distorting the market and increasing dispatch of coal above the optimal level. Regulated utilities are able to take advantage of complex rate design, rate cases, and market rules to hide the true costs of operating and dispatching coal units. Traditional rate making for these coal plants means that utility customers are essentially subsidizing those coal plants so that they are able to dispatch at times that are below the units' true marginal cost.[8]

These concerns are not new. In a 2015 report conducted for NRG on MISO's resource adequacy policies, the Brattle Group addressed the risks that can occur when utilities make rate based investments for plants that bid into market: "if regulated utilities do not test their investment decisions against market alternatives, they may undertake costly investments in retrofits or new generation even when lower-cost alternatives are available from [independent power producers] or neighboring utilities, thereby raising costs to customers."[9] While Brattle's concern was focused on merchant plants in MISO, the same concerns are applicable to lower cost renewables that must compete against artificially subsidized coal facilities.

The non-California participants in the EIM are primarily vertically integrated utilities that rely on self-owned, rate based plants for a large portion of their generation needs. Among EIM participants, coal plants in particular are almost all self-owned plants that rely on traditional utility ratemaking to determine the level of forward capital expenditures that are put into these plants. Unlike California, which largely stopped the practice of continuing to invest in high GHG emitting resources like coal after the passage of the emissions performance standard in 2006 (SB 1368), many of the regulated EIM participants have continued to spend lavishly on coal plants, even when changing economic conditions did not support such spending. Under traditional utility ratemaking, it can be difficult, if not impossible, for regulatory bodies to properly police and control such spending. It is therefore vital that CAISO continues to develop policy solutions to uphold California's environmental goals while it refines the EIM and looks forward to a potential regional market.

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[7] Daniel, Joe, *Backdoor Subsidies for Coal in the Southwest Power Pool*, Dec. 2017. Available at: https://www.sierraclub.org/sites/www.sierraclub.org/files/Backdoor-Coal-Subsidies.pdf.

[8] Id. at 5.

[9] Spees, Kathleen, et al., *"Enhancing the Efficiency of Resource Adequacy Planning and Procurements in the Midcontinent ISO Footprint,"* Nov. 2015 at p.1.

In summary, Sierra Club supports the efforts of CAISO to address the concerns in the GHG impacts that are occurring in the due to resource shuffling. However, the proposed solution is not the end of the issue. CAISO must continue to investigate these issues and refine its policy solutions as the market continues to evolve.

Sincerely,

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