COMMENTS OF NV ENERGY CAISO STUDY RESULTS AND WHITE PAPER OF EIM GREENHOUSE GAS ATTRIBUTION ENHANCEMENTS DATED SEPTEMBER 7TH AND NOVEMBER 17TH, 2017 CAISO STAKEHOLDER PROCESS

December 18, 2017

NV Energy appreciates the opportunity to comment on the CAISO GHG study and Hogan white paper. Additionally, NV Energy appreciates CAISO's effort to analyze the proposed two pass optimization solution prior to seeking board approval for the proposed market enhancements.

I. NV Energy's Position

a. CAISO Study Results

The CAISO engaged the Brattle Group to study the 1-step and 2-step approaches to account for GHG emissions in the entire EIM footprint including California. The analysis illustrated that the secondary dispatch or "resource shuffling" issue identified by the California Air Resources Board (CARB) are reduced in the second pass of the optimization. The study did not analyze any financial impact to the EIM. The financial impacts were stated to be "minimal," however, a minimal impact to the entire EIM footprint could result in a large impact for a specific EIM Entity. Prior to proceeding with any determination on potential modifications to the existing GHG approach in the EIM, NV Energy recommends that the CAISO perform another study emphasizing focus on the financial and dispatch impacts to the EIM Entities located outside the state of California.

b. Two Pass Optimization Option

In prior comments NV Energy along with other EIM Entities expressed interest in pursuing the 2-step approach as an improvement over imposition of a hurdle rate. Since that time NV Energy has had an opportunity to review other stakeholder feedback most notably that of Dr. William Hogan and the Department of Market Monitoring (DMM). As a result, NV Energy does not support the two pass optimization based on the issues identified by both Dr. William Hogan and the DMM. Currently, there are no incentives to bid in any resource type above its costs for production. Dr. Hogan illustrates an example where renewable resource owners would be incentivized by the two pass optimization to bid above their cost for production to be awarded in the second pass solution to obtain additional revenue in the form of a GHG award. This incentive could impact prices or LMPs in the EIM, which could impact market benefits for customers. The DMM commented that the two pass solution may result in a final dispatch that does not minimize overall costs which would limit the potential benefits in the EIM.¹ Secondly, this 2-step approach does not solve the issue stated by CARB because "resource shuffling or resource backfilling" may still occur. The proposed solution creates a bias in the optimization model for carbon accounting that does not completely resolve the concern or issue. Finally, the solution may become increasingly complex, creating dispatch inefficiencies and inaccurate market awards, if other states develop conflicting carbon policies.



c. Hurdle Rate Optimization Option

NV Energy strongly objects to the resurrected option of imposing a hurdle rate. This approach is unjust, unreasonable, and unduly discriminatory and will likely not survive scrutiny by FERC. As discussed in the Joint Comments of the EIM Entities on the Regional Greenhouse Gas Initiative Technical Workshop, dated October 27, 2016:

[A hurdle rate] would likely change the treatment of clean and low emitting resources in the EIM, making them artificially more expensive and, therefore, less likely to be dispatched into California. It would likely shift the mix of resources to more heavily favor those resources located in California due to the application of a price adder to external resources that is not applied to California resources. As a result, it could also favor the dispatch of higher emitting California resources over clean resources from outside the state, unnecessarily increasing emissions and reducing the carbon reduction benefits of the current EIM. In addition, this reduction in the dispatch of external resources could create a disincentive for external entities to participate in the EIM. We also note that Option 3 would appear to run counter to the prohibition in the Federal Power Act against undue discrimination and potentially result in violations of the dormant commerce clause under the U.S. Constitution.

A hurdle rate clearly runs afoul of the non-discriminatory provisions of the Federal Power Act. California cannot benefit the competitive position of its own resources by placing any form of an adder on those located in other states participating in the EIM.

d. Determine GHG Impact Out of the Market

To address the GHG issues, NV Energy favors an out-of-market solution or after the fact carbon accounting that would eliminate the possibility that "like" resources in different regions could be discriminated against. Moreover, an out-of-market solution would eliminate any risks associated with bidding incentives discussed in the Hogan white paper. Dr. Hogan proposes to make no changes to the current optimization design, but to impose an import fee to account for import leakage. The result would be a single-stage EIM as now, but with the addition of an added incremental charge on deemed imports that would be scaled according to the analysis of the approximate scale of import leakage.² NV Energy recommends that the CAISO and stakeholders take additional time to consider an out-of-market solution. The DMM also recommended an out-of-market solution for CAISO to consider using assumed rates for estimated leakage and either allocating those costs to California load or finding some other mechanism.¹ Above all, NV Energy is interested in an out-of-market proposal that ensures an outside entity delivering energy to a carbon policy state recovers its costs to procure the necessary carbon credits to comply with the carbon policy without an additional expense to its customers.

²Hogan, William W. Harvard University. An Efficient Western Energy Imbalance Market with Conflicting Carbon Policies.
Cambridge, MA. (2017. September 28) 10. <u>http://www.caiso.com/Documents/WhitePaper-AnEfficientWesternElMwithConflictingCarbonPolicies-WilliamHogan-Sept27_2017.pdf</u>



²Hogan, William W. Harvard University. An Efficient Western Energy Imbalance Market with Conflicting Carbon Policies. Cambridge, MA. (2017. September 28) 10. <u>http://www.caiso.com/Documents/WhitePaper-AnEfficientWesternElMwithConflictingCarbonPolicies-WilliamHogan-Sept27_2017.pdf</u>