COMMENTS OF NV ENERGY
ON COMMITMENT COST ENHANCEMENTS
PHASE 3

CAISO STAKEHOLDER PROCESS

MARCH 3, 2016

In its Commitment Cost Enhancements Phase 3 Draft Final Proposal, the CAISO purports to seek a way to enhance the Market Operator's market optimization function by (1) applying an opportunity cost adder to certain defined generation use limitations, and (2) permitting all generation with limiting characteristics – whether allowed opportunity costs or not – to reflect those limtiations in its master data file. NV Energy supports the idea of opportunity costs for use-limited resources, as long as those costs are carefully designed and controlled and appropriately applied. It agrees that non-dispatchable resources should not be eligible for this commitment cost adder. Furthermore, it understands that the opportunity cost adder will enable a scheduling coordinator with a use limited resource to contribute to a more efficient and well-functioning market such that it may trust that the Market Operator's optimization will dispatch based on market-wide optimal economics rather than the scheduling coordinator's prediction of same through its bidding strategies. NV Energy believes the Market Operator is better able to determine how and when to optimize limited use resources than a scheduling coordinator, who is applying more limited and indirect optimization indicators (i.e., market fundamentals) when deciding when to bid these resources to the market. Consequently, units with restrictions are enabled by the use limitation designation to be more freely and comprehensively offered into the market without fear of transgressing those limits, thus increasing unit availability and resource diversity for the Market Operator's optimization runs.

NV Energy objects to the proposal to the extent it unduly narrows and restricts application of the opportunity cost adder. While NV Energy supports the idea of a secondary master data file that reflects operational preferences for generation units, it objects that the proposal as framed will not accomplish its stated purpose of promoting the Market Operator's market optimization.

A. NV Energy Favors Allowing Dispatchable Generation That Has Commitment Limitations to Receive Opportunity Costs

NV Energy does not understand why the CAISO wants to take the useful concept of "use-limited" and inappropriately restrict its application. For example, the CAISO analogizes its "use-limited" concept to the concept of "opportunity cost eligible resources" in SPP's and PJM's tariffs; yet, it does not appear to adopt the inclusion of limitations by "OEM recommendation or bulletin and/or insurance carrier restrictions" as eligible for opportunity costs. Instead, the

proposal appears to interpret SPP's definition too narrowly as excluding any negotiated limits and including only regulatory (e.g., environmental) or "design" features of the generation resources, such as limited fuel storage. The proposal disallows operating limits in maintenance agreements, representing trade-offs between use and wear and tear, as an example of "economic limits" that are not eligible for opportunity costs.

FERC found in its September 2015 order that "CAISO has failed to discuss in sufficient detail the interaction of contractual limitations with economic and non-economic limitations . . . ." Nowhere in this proposal does the CAISO explain why certain operational judgments, which it concedes are both engineering and economic, should not be valid bases for limits in dispatching and thus eligible for opportunity costs. Run times and start and transition limitations reflect more than purely economic trade-offs, and are not so simple as the owner commiting to lower maintenance costs based on more restrictive limits. When one understands that operational and maintenance judgments are more than purely economic trade-offs, the CAISO's reference to the fact that it has always excluded economic limits from opportunity cost eligibility becomes irrelevant.

Furthermore, while the proposal dismisses the CAISO's earlier reliance on reliability concerns as a justification for excluding operational and maintenance limitations, it substitutes a theory of market power abuse that NV Energy rejects as unsubstantiated. The proposal offers the "new" explanation that the generator owner will purposely contract for, as an example, reducing generator start-ups within a defined period because doing so will inflate the value of the opportunity cost adder for the unit. Because the opportunity cost adder is in addition to and not within the commitment cost cap, the proposal suggests that the scheme will be successful because it circumvents the cap, which is the means for mitigating behavior seeking to manipulate the price.

First, the CAISO has absolutely no pattern of behavior to support the idea that this behavior will occur. Nor is this behavior likely even on a theoretical basis. The scenario requires the intent of the unit owner/operator and/or scheduling coordinator to inflate the opportunity cost adder on top of any intent to safely and reliably operate the unit; the comfort level of those parties to commit fraud; the collusion of the maintenance service provider; and enough predictability about market conditions going forward to make the calculation that the effort will pay. None of this is likely, and the mere theoretical feasibility of bad behavior, alone, is not sufficient to assume it will occur. Second, the hypothetical also relies on incentives that are not present. A unit owner/operator has to balance the cost of maintenance and outages with its ability to recoup its investment in the unit through actual use. It is hard to believe that the opportunity cost adder would make the unit enough money to compensate beyond the value of using or selling its MWs, or that the scheduling coordinator would have enough information to estimate the opportunity cost adder and make that calculation. Third, the hypothetical makes no

sense because efforts to inflate the opportunity cost adder will affect the competitiveness of the unit when bid into the market, and it may be dispatched less.

In any event, the concern about gaming the contracts to increase the opportunity cost adder has a much simpler and direct solution: manage the opportunity cost adder through its own cap or other controls. Other measures could be to require additional indicia from the unit owner/operator substantiating that the negotiated maintenance contracts and related premiums are reasonably tied to intended use and life of the unit, or developing some set of standardized opportunity cost ranges tied to a prescribed number of contracted starts or run hours limitations by equipment or fuel type.

The CAISO's proposed restrictive approach towards the concept of units eligible for opportunity costs will result in the scheduling coordinator deciding when to make the unit available through bids and when not to – the result that this initiative seeks to reduce or eliminate.

B. Imposing Rules on "Acceptable" Operational Preferences in Master Data Files Is Inappropriate in the EIM

While NV Energy supports the idea of a master data file that incorporates operational preferences, which the proposal labels "market" characteristics, it objects to the proposal's rejection of certain operational use limitations – in particular, the disallowance of a limitation of one start per day. Again, the CAISO points to concerns over gaming that is unsubstantiated and in any event would not occur in EIM.

The proposal expresses the concern that a unit's scheduling coordinator will use the one start/day limitation as an excuse to limit resource availability or, alternatively, as a reason to base schedule or manually dispatch the unit to keep it running all day in contravention to the Market Operator's optimal dispatch. But in the event that a unit's master data file must reflect more starts per day than the unit owner/operator believes is sound for the unit, the scheduling coordinator will manage the potential number of starts through its bidding strategy. Again, this "optimization" by the scheduling coordinator – as opposed to the Market Operator – is the behavior that the proposed changes to the master data file fields was meant to curb.

Required minimums for units that have legitimate, different operational restrictions imposes a "must-offer" requirement on EIM participating resources when the EIM has no such requirement. Nor should it have – it's a market for imbalance energy only. The resource sufficiency concerns are satisfied by the rigorous balancing efforts performed by the EIM Entity in advance of every operating hour of the day.

NV Energy further notes that the proposal provides little information about the difference between the "design" and "market" master data file characteristics. NV Energy has many questions about what may be included in these master data files. For example, will the master data files incorporate minimum on and off times for units? If not, units that may be capable of intra-hour cycling cannot be managed through the bidding strategies as the proposal seems to recommend. NV Energy is nonetheless intrigued by a master data file for EIM participating resources that incorporates operational preferences and would like to discuss it more.

NV Energy appreciates the opportunity to continue working with the CAISO to come to an understanding of how to permit operational preferences a role in the Market Operator's optimization, through opportunity cost adders and other features. Perhaps the initiative needs to spend more time on understanding the feasible optimization horizons and the accepted uses of bidding strategies resources not subject to a must-offer requirement. The stakeholder process might also discuss further how to provide a basis to validate the legitimacy of maintenance and other operational contracts so that they are not exploited as a cover for pure and quantifiable economic trade-offs.