Submitted By	Company	Date Submitted
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NRG offers these general comments on the CCE3 initiative:

NRG remains skeptical, *at best*, about the proposition that the CAISO is the right entity to calculate an, if not *the*, opportunity cost for a use-limited resource. The CAISO:

- is not financially liable for the operation of any unit;
- is not financially or legally liable for any penalties that may be assessed to the resource's owner for violating use limits;
- may have a totally different view of forward market conditions that the resource owner's view; and
- may have a totally different risk profile with regards to the condition and operation of any particular generating unit.

For all these reasons, NRG does not support a process in which the CAISO's determination of a resource's opportunity cost is the rebuttable presumption of that cost, and the resource's owner bears the entire burden of challenging that CAISO-calculated opportunity cost.

The CAISO has invested a lot of time and effort into acquiring the capability to calculate opportunity costs. As such, it may be reasonable for the CAISO to have a role in setting the opportunity cost for a use-limited resource. NRG would be willing to consider a paradigm in which the CAISO-calculated opportunity cost was an input to a collaborative process through which the CAISO (or the independent entity) and resource owner could mutually agree upon an opportunity cost. However, NRG continues to object to a process in which the CAISO-determined opportunity cost becomes the *de facto* opportunity cost that can be challenged only under narrow conditions. Further, in light of the CAISO's proposal in the Reliability Services Initiative Phase 2 stakeholder process – to assess non-availability penalties after a resource's annual use limits have been reached – NRG remains adamant that the resource owner must have the primary role in establishing a resource's opportunity cost.

NRG also requests that the CAISO discuss how out-of-market dispatch will be factored into this process. Calculating opportunity costs based on expected market conditions does not factor in how a resource may be dispatched outside of the market. Even if market conditions turned out to be exactly as forecast, the level of the market price-based opportunity cost may have no bearing on the CAISO's exceptional dispatch of use-limited resources. The CAISO should indicate how it will ensure that out-of-market dispatch is both included in updates to the resource's opportunity cost and how the CAISO will ensure that out-of-market dispatch is considered when ensuring that a resource does not exceed its use limits.

NRG comments on the following changes reflected in the November 3, 2015 Revised Straw Proposal ("RSP").

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- Use a of "reserve margin" to set the opportunity cost. NRG supports the CAISO's position to include a 10% "reserve margin" in the use limit constraint used to set the level of the opportunity cost. Including a reserve margin in the opportunity cost calculation is a prudent step that should help prevent running a resource beyond its constraint limit.
- Process for resolving disputes regarding the calculated opportunity cost.
 - Requesting negotiations. In the RSP, the CAISO proposed that, in the situation in which a scheduling coordinator (SC) does not agree with the CAISO's calculated opportunity cost, the SC may request the CAISO to consider "a significant factor not accounted for in the model that cannot be reasonably modeled, and significantly impacts the opportunity cost", and for the CAISO and SC to then negotiate a new opportunity cost. (RSP, page 30). While the CAISO has clarified the process that an SC may use to challenge a CAISO-calculated opportunity cost, the CAISO has failed to include a factor in the opportunity cost model that cannot be modeled.
 - Consider two situations in which an SC may disagree with a CAISO-calculated opportunity cost.
 - Situation 1 is where the SC's view of forward gas and the corresponding electric market prices differs significantly from the CAISO's views of those forward prices. NRG's read of the CAISO's proposal is that because prices can be modeled, the difference in view with regards to forward prices would not be a basis for negotiating a new opportunity cost.
 - Situation 2 is where the SC's view of the condition of its unit leads it to conclude that the unit should not be operated in the same manner that the CAISO's opportunity cost model has caused the unit to operate for example, due to the age or operating condition of the unit, the unit operator believes it is not in the unit's best interest to be started up as often as the unit's air permit would allow it to be started up. NRG's read of this situation is that the SC/owner's informed engineering judgment with regards to the true capabilities of its unit *would* constitute a "un-model-able factor" that would lead to negotiations between the SC/owner and the CAISO to develop an opportunity cost different than what the CASIO had calculated.

NRG requests the CAISO confirm its understanding of these two situations. But, in any case, the CAISO's condition that an SC can dispute its CAISO-calculated opportunity cost

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and request negotiations with the CAISO to set a mutually agreeable opportunity cost **only** when there is some factor cannot be modeled in the opportunity cost factor is not reasonable. Such a limitation means that the CAISO's view of forward market conditions is the only reasonable view. Instead, the CAISO must allow an SC to request and engage in negotiations regarding the CAISO-calculated opportunity cost if the SC disagrees with that CAISO-calculated cost *in all situations*, not just in situations when the SC can demonstrate that the CAISO has failed to include a factor that cannot be modeled.

 Requesting negotiations. The CAISO has proposed that, in the event the CAISO and SC/Owner cannot agree to an opportunity cost, the CAISO may impose a temporary opportunity cost value that the CAISO finds reasonable. If the SC/Owner accepts that temporary value, it will be used while the negotiations continue. If the SC/Owner rejects that proposed cost, the CAISO will use no opportunity cost while until a negotiation is reached.

The CAISO's proposal amounts to using the CAISO's temporary value, because putting no opportunity cost in place while the negotiations continue is irrational. It could cause the unit to prematurely use up its limits, to the detriment of both the CAISO and the SC/Owner.

Given that, NRG would be more comfortable with this process if an independent entity (such as Potomac Economics), rather than the CAISO, would set the value of the temporary opportunity cost following an opportunity to consult with the SC/Owner regarding the level of that cost.

- Use of the use-limit-reached outage card. NRG supports the CAISO's proposal to continue to continue to use the use-limit-reached outage card as a safety net following the implementation of the opportunity cost methodology.
- Nexus with Reliability Services Initiative Phase 2. In the RSI-2 stakeholder initiative, the CAISO is proposing that, when a resource hits a *monthly* use limit, it will be exempt from CAISO Resource Adequacy Availability Incentive Mechanism (RAAIM) non-availability penalties for the balance of the month. In contrast, the CAISO proposes that when a resource hits an *annual* use limit, it will *not* be exempt from CAISO Resource Adequacy Availability Incentive Adequacy Availability Incentive Mechanism (RAAIM) non-availability penalties. For the balance of the year.

The CAISO's proposal to subject resources that have reached their annual use limits to RAAIM penalties makes two things even more important:

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- 1. That the resource's opportunity cost be determined and updated in a way to prevent a resource from reaching its annual use limit.
- 2. That the SC/Owner has a meaningful way to set or influence the level of the opportunity cost in all situations, not just if the SC/Owner can demonstrate that there is some factor affecting the opportunity cost that cannot be modeled.

NRG looks forward to further dialog from the CAISO as to how this important overlap issue in these two initiatives will be addressed.