Stakeholder Comments Template

Subject: Reliability Services

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the Draft Straw Proposal for the Reliability Services initiative that was posted on June 5th, 2014. Upon completion of this template please submit it to RSA@caiso.com. Submissions are requested by close of business on **June 26th, 2014**.

1. Please provide feedback on Part 1: Minimum eligibility criteria and must-offer rules.
    a. Comments on proposal portion of section
        i. Eligibility criteria

        The CAISO notes that the aggregation of distributed energy resources is beyond the scope of the RSI process because such aggregations could include multiple resource types. Given the expected proliferation of distributed energy resources, however, the CAISO should begin to consider what modifications to the eligibility criteria need to be in place to allow distributed energy resource aggregations to provide CAISO services and RA capacity. The CAISO should adopt criteria that encourage the deployment of distributed energy resources. Additionally, the CAISO should take steps to ensure that the CAISO, the CEC and CPUC are all making consistent assumptions about the level to which distributed resources count towards meeting RA obligations.

        ii. Must-offer requirements

        To the greatest extent possible, the must-offer obligations that attach to resources providing the same service should be the same. If these obligations differ, there should be some explicit criteria that differentiate between resources (e.g., limitations on procuring lower-quality services, such as Category 2 and 3 flexible capacity).

b. Comments on phase 2 consideration items

i. Intertie resources

Determining the amount of flexibility a discrete internal generating resource can provide is a relatively straightforward task because the physical characteristics of the resource are known. However, because intertie resources may not be mapped to specific discrete physical generating units, the CAISO and market participants will have to develop a different way to determine how much of an LSE's flexible capacity obligation can be met through intertie resources. Unless intertie resources can be mapped to specific physical generating resources, any assumptions about the amount of flexibility those resources can provide will be difficult to verify, and the rules implemented to determine how much flexible capacity an intertie resource can provide should not overstate the amount of flexibility such resources can provide.

Additionally, the quality of flexibility provided by15-minute dispatchable intertie resources is also different than that provided by individual generating resources or dynamically-scheduled intertie resources. The latter resources are dispatchable on a five-minute basis, while interties are only dispatchable on a fifteen-minute basis. This quality difference should be accounted for in assigning flexible capacity values to intertie resources.

Whatever method the CAISO ultimately adopts to assess the flexible capacity that can be provided by intertie resources must account for these two factors.

ii. Block dispatchable pumping load

The CAISO's discussion regarding block dispatchable pumping load considers the question of the "deliverability" of such a service (i.e., do transmission constraints allow the pump load be increased so as to provide flexibility?). However, the question of flexibility deliverability applies to ***<u>all</u>*** *resources providing generic and flexible RA service, not just pumping load. The CAISO has adopted a simplifying assumption that flexibility is a "system" service (i.e., a resource's flexibility is fully deliverable regardless of where the resources is located). However, the CAISO has already encountered situations in which it could not access ramping capability because of where the units that would provide that service were located. As it considers the issue of "flexibility deliverability", the CAISO should expand its consideration to how local constraints affect the provision of flexibility service, both in the up and down directions.*

iii. ISO dependence on MCC buckets

NRG agrees that some approach, whether the MCC buckets or some other system, must be retained to prevent an over-reliance on energy-limited resources.

c. Other comments

2. <u>Please provide feedback on Part 2: Availability Incentive Mechanism.</u>

a. Comments on the general direction of the design

Ideally, markets should create positive incentives for resources to be available to the CAISO. A resource has incentive to remain available to the CAISO if and when there is an opportunity for it to earn satisfactory revenues by doing so. Availability incentive mechanisms that rely on stringent penalties to ensure availability introduce perverse incentives to not provide the desired products. As the CAISO moves forward with its current proposal or with any other availability incentive proposal, it should strive to create markets that, in and of themselves, encourage availability. If the CAISO markets do not create those incentives, the CAISO should ask why not. To the extent that penalty structures are needed to encourage availability, those structures should introduce risks that are comparable to the corresponding rewards than can be earned from subjecting a resource to the non-availability penalty structure.

b. Comments on design features

i. Bid-based assessment

The concept of assessing a resource's availability based on its compliance with the associated must-offer obligations is worth exploring. However, one aspect of this proposal that was not explored is the issue of how bids inserted by the CAISO if the SC for a generating unit fails to submit a bid will be treated in the availability calculation. Presumably, if the CAISO inserts a default bid for a resource that is providing RA capacity, such inserted default bid should act to count the resource as fully available.

Such treatment could be extended to use-limited resources, as the CAISO is exploring the use of bid adders for use-limited resources, which would presumably lead to the CAISO inserting bids (with the appropriate bid adders) for use-limited resources.

While NRG understands the CAISO's intent to create strong incentives to offer the resource to the CAISO's markets consistent with its obligations, it seems harsh that the inadvertent failure by an SC to submit a bid would be treated the same as the mechanical unavailability of a generating unit.

ii. Fixed availability percentage band

The idea of using an annual fixed availability target is worth exploring. However, the CAISO has not sufficiently explained or supported the proposed reduction in the "deadband" from five to four percent. Reducing the "deadband" around that target from five percent to four percent would subject generators to penalties even if they achieved higher levels of availability than currently required. While it would also make generators eligible for availability incentive payments at lower levels of availability than those currently used, the risk/reward is not likely to be symmetrical, even with the proposal to remove caps on availability penalties, because of the self-funding aspect of the proposed AIM. NRG would like to see some analysis around how the CAISO's proposal would affect the current levels of penalties and incentive payments (acknowledging that the historical analysis may not be indicative of future performance).

iii. Single assessment for flexible and generic overlapping capacity

NRG appreciates the CAISO posting the spreadsheet examples that allow a market participant to calculate the "aggregate" availability of a resource that is providing both generic and flexible RA and is submitting both economic bids and self-schedules. NRG finds that the spreadsheet produces intuitive results, but that the straw proposal, which provides only a single example of this calculation on page 37, does not adequately describe how the aggregate availability is calculated. NRG requests the CAISO publish the formula for how the aggregate availability is determined from the variables (NQC, Pmin, Flex RA provided, Generic RA provided, Economic bid submitted and total bid submitted).

iv. Other features

1. *Measuring availability on a daily basis.*

While NRG does not recall it being publicly discussed, NRG understands from the RSP that the CAISO is proposing to assess availability on a daily basis. From pages 29 and 30 of the Straw Proposal (emphasis added):

"The ISO will use the availability assessment in a resource's average **daily availability calculation**, in both the day-ahead and real-time markets. This would mean that, in any individual hour, a resource could be above or below the standard percentage without incurring a charge or payment. Only if the daily MW-weighted average percentage fell above or below the standard percentage would a charge or payment be incurred. The ISO will then use the minimum of the day-ahead and real-time market availability assessment **in the daily availability assessment percentage calculation**.

"The **daily assessment methodology** is illustrated in a separate spreadsheet, *Incentive Calculation Model*."

NRG did not pick up on the fact that the CAISO was planning to move from monthly availability assessment to a daily availability assessment during the June 12 stakeholder meeting. Given that this is a major departure from current practice, NRG would have expected that the CAISO would have provided an express opportunity to comment on this change in the comment template.

NRG opposes this change. The CAISO has not explained why it believes it is necessary to move from monthly to daily availability assessment. Nor has the CAISO explained, or even tried to quantify, what the impact of this would be on the incentive payment mechanism.

Should the CAISO believe it is necessary to move from assessing availability from a monthly basis to a daily basis, it must provide sufficient explanation for this proposed change and discuss this proposed change in a stakeholder meeting.

2. *Removing the cap on incentive payments.*

NRG supports the CAISO's proposal to remove the cap on incentive payments. While the amount of penalty money available to pay out as incentive payments is uncertain, removing the cap should increase the incentive to be available to the CAISO.

c. Comments on price

The penalty price used in the AIM should not be so much higher than the prices that can be obtained from selling RA capacity that the AIM creates a disincentive to sell RA capacity. While there is simplicity in using the CPM price as the AIM penalty price, there is no inherent relationship between those two prices. The CPM price should provide adequate compensation for the longer-term fixed costs that must be recovered in order to provide capacity for a short duration of time. The AIM penalty price can and should be a totally separate price, the goal of which is encourage the unit to remain available to the CAISO. Again if the AIM price is too high, it will discourage suppliers from selling RA capacity because doing so introduces the risk of incurring high non-availability penalties.

d. Comments on capacity and resource exemptions

Ideally, all resources providing the same product (RA or flex capacity) should be subject to the same eligibility criteria and incentive/penalty structures. However, California's decision to rely on bilateral contracting for RA makes this all but impossible. The CAISO's incentive mechanism should not conflict with or be *additive to those incentive mechanisms that already are in place through bilateral contracts.*

e. Other Comments

3. <u>Please provide feedback on Part 3: Replacement and Substitution.</u>

a. Comments on scope

b. Comments on replacement and substitution issues

i. Complexity

NRG agrees that the rules and process for providing replacement and substitution are very complex. NRG is not yet persuaded that there is some simplification – such as making the supplier or the buyer solely liable for the replacement risk – that would ameliorate all of the complexity inherent in substitution and replacement yet retain a reasonable semblance of benefits and burdens for all the parties.

There are two things – not simplifications, but added precision and flexibility – that would greatly improve the substitution and replacement processes:

1. *The implementation of automated many-to-many substitution. NRG is greatly dismayed that the CAISO is delaying the implementation of this badly-needed feature until Spring 2015. While NRG appreciates that the CAISO has implemented the manual "one-to-two" substitution rule proposed in ER14-1220, this limited substitution was intended to be a short-lived workaround.*

2. *Greater structure and clarity around what allows or does not allow one resource to be substituted for another. Allowing substitution only where the resources have identical electrical network impact and operating characteristics essentially provides the CAISO with the highest quality of service – unit-specific RA – which is inconsistent with the level of granularity of procurement constraints that are enforced in the RA program (large local area constraints).*

ii. CPM designation risk

This problem seems to one of definition. A resource that is under RA contract but not shown on an RA plan should not be considered a "non-RA" resource eligible to receive a CPM designation. Additionally, the fact that parties are dissuaded from showing resources on their RA plans *signals more fundamental dysfunction with the RA rules (i.e., a draconian non-availability penalty rate).*

iii. Resource leaning

No comment.

iv. Other issues

c. Comments on flexible replacement proposal

First, NRG agrees that the requirement to replace flexible resources should be deferred until 2016 to allow the CAISO and market participants to further consider this issue.

Understanding that the flexibility paradigm being imposed is a simplified one in which the flexibility targets are based on three-hour ramps, NRG still does not agree that ramp rate should be a basis for considering substitution. If a resource provides the same amount of flexible capacity, it should be allowed to substitute for another resource, even if it has a lower ramp rate. Additionally, because flexible capacity requirements are only enforced system-wide, a resource's location should not be used to prevent it from providing replacement or substitution. If the CAISO wants to use location as a basis for discriminating among resources, it must develop and enforce local area requirements for flexibility.

NRG does not object to requiring replacement substitution within an equal or higher category (i.e., a Category 1 resource could substitute for a Category 2 resource, but not vice versa).

d. Comments on flexible substitution proposal

See comments above. NRG opposes imposing restrictions on substitution that are more stringent that the procurement constraints (e.g., requiring similar ramp rates for substitute resources instead of looking only at the amount of eligible flexible capacity, or taking location into consideration when allowing for substitution of a "system" characteristic such as flexibility).

NRG does not object to requiring substitution within a higher category (i.e., a Category 1 resource could substitute for a Category 2 resource, but not vice versa).

e. Other comments

NRG requests the CAISO clarify this statement in the straw proposal: "Local resource adequacy resources are accommodated under the existing rule and may *take maintenance outages without having to provide local resources as replacements. This is in part because the local requirement is annual and therefore there is often little or no excess local resources to provide replacement in the event of an outage." (Page 46) The fact that the local obligations are defined under high load stressed conditions but enforced on an annual basis should lead to having excess local capacity under some low-load conditions – excess that would allow taking outages of units providing local capacity without the need to provide replacement capacity. NRG agrees with the conclusion of the first sentence, but the second sentence does not support that conclusion.*

4. Please provide feedback on Part 4: Capacity Procurement Mechanism.

    a. Comments on index price

    An index price derived from a subset of RA contracts may or may not, over the short 30- or 60-day CPM designation period, provide compensation adequate to cover the costs of making that non-RA capacity available (for which fixed costs must be incurred over a period longer than just the 30- or 60-day period). An index price is more likely to be compensatory if it selected from the upper tail of a representative price distribution.

    b. Comments on competitive solicitation process

    NRG sees little value in pursuing a competitive solicitation process as a way of setting a CPM price. The only situation in which a competitive solicitation could yield a meaningful price for CPM capacity is the situation in which there is a shortfall in system RA procurement. This is not the likely scenario for a CPM designation. The vast majority of CPM designations have been given to specific resources in local areas because that resource is the only one, or one of a small subset of resources, that can meet the particular need. Because those resources would be deemed to have local market power, they would not be paid as bid and their CPM compensation would be set at some administratively-determined price. NRG does not believe it would be an efficient use of the CAISO's and stakeholders' time to work through the contentious and myriad details necessary to develop an auction mechanism when the CPM price that is ultimately paid would most likely be an administratively-determined price.

    That said, administrative prices have their own shortcomings. While NRG is dubious that CPM prices could be determined through competitive auctions (because there usually is little or no competition for CPM designations), NRG supports investigating the development of CPM prices through other processes, such as the application of a sloping demand curve. The development of sloping demand curves for separate local capacity areas is not a trivial task, but properly constructed demand curves could introduce some market fundamentals into the development of what would otherwise be a purely administrative exercise. NRG notes that even if the CAISO develops the CPM price through a sloping demand *curve, it may be necessary to apply an administrative price floor to that demand curve to prevent the price from going to zero in areas with surplus capacity.*

c. Comments on other changes potentially needed to CPM

NRG hoped that the CPM settlement filed with FERC in December 2011 would provide market participants with greater clarity with regards to identifying how much non-RA capacity the CAISO was relying on (e.g., in an Exceptional Dispatch situation) and is therefore eligible for a CPM designation. This transparency is critical where units are providing RA capacity from a portion, but not all of, their total nameplate capacity. However, NRG experienced situations in early 2013 in which it appeared that the CAISO was relying on capacity above the Pmin of one of NRG's units (which was providing RA capacity equivalent to the unit's Pmin) but for which NRG did not receive a CPM designation. The CAISO has still not provided a full explanation as to why that unit did not receive a CPM designation despite NRG's repeated requests.

As part of the effort to replace the CPM before it expires in February 2016, the CAISO and market participants must develop a framework that clearly identifies when the CAISO is relying on non-RA capacity so that capacity can be properly provided with a CPM designation.

d. Comments on CPM price

NRG supports a CPM price that is higher than the prices generally paid for RA capacity. CPM designations are short-term (30- or 60-day) designations, while generating unit owners must incur ongoing fixed costs for their units to even be eligible for a CPM designation. However, as noted above, using this CPM price as the penalty price for the AIM creates a disincentive for generating unit owners to sell RA at low prices. While using the CPM price as the AIM penalty price is simple, the two prices have two different purposes and should be decoupled.

e. Comments on supply-side market power mitigation measures

NRG understands that where CPM designations are provided to specific units, the potential to exercise local market power exists and should be mitigated. NRG believes the current administratively-determined CPM price serves as appropriate local market power mitigation.

f. Comments on demand-side market power mitigation measures

NRG supports a CPM price that is higher than the prices generally paid for RA capacity as an incentive to help ensure load-serving entities contract with capacity to meet their system, local and flexible RA obligations.

g. Other comments