Stakeholder Comments Template

Energy storage and distributed energy resources phase 2

September 20th

Submitted by	Company	Date Submitted
Nuo Tang - 858.654.1818 Greg Anderson – 858-654-1717	San Diego Gas & Electric	9/20/2016

San Diego Gas & Electric (SDG&E) respectfully submits the following comments in response to the California Independent System Operator (CAISO) request for stakeholder input on its Energy storage and distributed energy resources phase 2.

Comments:

There is a disconnect between the must offer obligation (MOO) hours, a use-limited resource's (ULR) availability hours and the Resource Adequacy Availability Incentive Mechanism (RAAIM) assessment hours. SDG&E requests further discussion and clarification for this issue that is not explained within the BPM or Tariff.

During the call, the ISO noted that the MOO hours of all resources were established during the Reliability Services 1A initiative. However, the BPM for reliability requirements for RSI 1A does not list any MOO hours for generic RA. SDG&E believes this has created much confusion for new resources integrating with the ISO. SDG&E requests the ISO to include the MOO hours for all resource types within the BPM.

The ISO also noted that the ULR data template will no longer allow resources to list hours of availability but rather dispatch limitations. As such, SDG&E requests the ISO to revise the BPM to clarify how ULRs must comply with the MOO.

It is unclear how the MOO hours of a use-limited resource overlap with the RAAIM assessment hours. SDG&E requests the ISO to clarify in the BPM the interaction of the two terms. SDG&E believes that if the ULR's availability hours that set the MOO hours do not overlap with the assessment hours, then the resource should be penalized for RAAIM. The ISO however, stated that if the ULR's program availability hours do not meet the RAAIM assessment hours, then the resource does not qualify for any RA NQC. SDG&E believes this is a new requirement that is not listed in the Tariff or BPM and requires further discussion. SDG&E

believes that if the RAAIM assessment hours change and resources stop qualifying for RA, LSEs will be left with stranded costs of long term contracts.

SDG&E requests the CAISO to include a process that addresses the unique limitations inherent in battery resources. Most battery resources that the IOUs contract for are obtained through a competitive solicitation process like an RFO approved by the CPUC. A counterparty offering a battery resource could bid in multiple deep discharge cycles per day for 10 years, but the "least cost best fit" evaluation criteria would rule out such an expensive offer because of the high battery replacement costs included. Most offers are designed to meet the minimum requirements to count for RA so they have high availability but may have limited usage. The offer price may include one or two cycles a day maximum trying to best match reliability needs at the time.

The resulting resource will contain cycling restrictions that could include some or all of the following; Daily, Monthly, Annual or life of the contract. The longer timeframe limitations are needed to gain additional flexibility in the shorter timeframes. For example, a flexible category 2 battery resource may allow more than one start a day as long as the annual cycles does not exceed the number the bid was based on (perhaps 400).

These design limitations were clearly known before the RFO is run; the winning battery will fill that need. However, to require every battery resource to perform at the theoretical maximum cycle frequency of the battery every day in the CAISO market, disregards costs to ratepayers. Requiring maximum cycle frequency in the RFO when it is not needed or justified is detrimental to ratepayers

The CASIO must develop a method that honors the cycling restrictions contained in battery contracts.