



## Stakeholder Comments Template

### Hybrid Resources Initiative: Straw Proposal

This template has been created for submission of stakeholder comments on the **Hybrid Resources Initiative, Straw Proposal** that was held on October 3, 2019. The meeting material and other information related to this initiative may be found on the initiative webpage at:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/HybridResources.aspx>

Upon completion of this template, please submit it to [initiativecomments@caiso.com](mailto:initiativecomments@caiso.com).

Submissions are requested by close of business on October 21, 2019.

Submitted by	Organization	Date Submitted
<i>Habibou Maiga Nuo Tang</i>	<i>SDG&amp;E</i>	<i>October 21, 2019</i>

**Please provide your organization’s comments on the following topics and indicate your organization’s position on the topics below (Support, Support with caveats, Oppose, or Oppose with caveats). Please provide examples and support for your positions in your responses as applicable.**

#### 1. Hybrid Resource Definition

Please provide your organization’s feedback on the Hybrid Resource Definition as described in the straw proposal.

SDG&E supports CAISO definition of hybrid resource as a combination of multiple generation technologies that are physically and electronically controlled by a single owner/operator and Scheduling Coordinator and behind a single point of interconnection (“POI”) that participates in the CAISO markets as a single resource with a single market resource ID. SDG&E agrees that co-located resources with two or more resource IDs should continue to be treated as separate resources and should be excluded from the hybrid resource definition. However, SDG&E would like the CAISO to clearly note that resources such as multi-stage generators would not be expected to be categorized as a hybrid resource.

#### 2. Hybrid Resources Business Drivers and Use Cases

Please provide your organization’s feedback on the Hybrid Resources Business Drivers and Use Cases described in the straw proposal.

SDG&E has no comments at this time.

#### 3. Forecasting

Please provide your organization's feedback on the forecasting topic as described in the straw proposal.

While SDG&E generally agrees with the requirement for scheduling coordinators of hybrid resources to provide their own forecasts, it may be beneficial for the CAISO to invest in designing a model to forecast the output of hybrid resources based on the state of charge of the energy storage device and the potential output of the variable energy resource.

#### 4. Markets and Systems

Please provide your organization's feedback on the markets and systems topic as described in the straw proposal.

SDG&E has no comments at this time.

#### 5. Ancillary Services

Please provide your organization's feedback on the ancillary services topic as described in the straw proposal. (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

SDG&E has no comments at this time.

#### 6. Metering and Telemetry

Please provide your organization's feedback on the metering and telemetry topic as described in the straw proposal.

SDG&E has no comments at this time.

#### 7. Resource Adequacy

Please provide your organization's position on the Resource Adequacy topic as described in the straw proposal.

SDG&E agrees with the CAISO that RA counting rules should provide fair and accurate capacity valuations. SDG&E also agrees with the CAISO that there is currently a gap because there is not an established QC counting rule for hybrid resources under single resource ID configurations. SDG&E understands that under the hybrid resource proposal, the CAISO is proposing to adopt a default QC methodology for each of the underlying resources of the hybrid resource and then combines each resource's QC values together to establish the QC value for the hybrid resource. For Solar resources, the CAISO is proposing to use the CPUC's Effective Load Carrying Capability (ELCC) methodology. SDG&E questions whether this means that the CAISO will be changing the current default exceedence methodology as specified in Tariff Section 40.8.1.6 to the ELCC methodology or if the ELCC methodology would only be applied for the hybrid resource?

In SDG&E's opinion, the default QC methodology for hybrid resources should be ELCC based. However, SDG&E understands that the CAISO is not equipped to perform such analysis annually and therefore a simpler approach may be appropriate. SDG&E supports the CAISO's proposal but the QC methodology should only be limited to hybrid resources without any operational limitations (such as the ITC requirement), the hybrid resource QC should be the ELCC value of the renewable resource plus the QC of the storage project.

For Hybrid resources that have operational limitations, SDG&E recommend to use: the larger of (i) the ELCC-based QC of the intermittent resource or the QC of the dispatchable resource, whichever applies, and (ii) the QC of the storage device. This option has the advantage of certainty: the grid operator (the CAISO) has certainty that the hybrid resource can deliver *at least* the amount of QC.

SDG&E notes that the NQC values for all resources are capped at their interconnection rights and are subject to deliverability studies performed the by CAISO as well.

**Additional comments**

Please offer any other feedback your organization would like to provide on the Hybrid Resources Initiative.