



## Stakeholder Comments Template

### Hybrid Resources Initiative: Straw Proposal

| Submitted by   | Organization | Date Submitted |
|--|--------------|----------------|
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SCE generally supports the Straw Proposal and finds it to be a substantial improvement over the prior iteration. SCE's comments, below, are intended for detailed fine-tuning of certain components of the proposal.

#### 1. Hybrid Resource Definition

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

SCE agrees with the CAISO's definition and supports the CAISO's intent to explore exceptions to the rule. SCE also supports the CAISO's proposed sizing requirement to conform to its tariff. Further, SCE also supports the CAISO exploring needs of co-located resources (CLR) as differentiated from Hybrid Resources (HR). While the resource-ID-specific distinction clearly distinguishes between the two types of resources, it is appropriate for the CAISO to address needs arising from CLR participation within the scope of this initiative. Through the course of this initiative it may be realized that ultimately there are no significant differences in optionality of participation between HRs and CLRs. Thus, CLRs are appropriately within scope.

#### 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.

SCE agrees with the CAISO's non-exhaustive list of identified areas of impact and their associated opportunities from HR participation. In one observation, the CAISO notes the decline of the ITC from 2022 onward. The interplay of this decline with HR participation preference may lead to HR storage components relying on grid charging, in an increasing number of hours, rather than charging from the paired HR resource.

While the original intention of interconnection may not have been so, an evolving market may not necessarily support the same participation preferences. Thus, the CAISO should recognize that current assumptions made in this initiative may change and allow for a more robust market design.

### 3. Forecasting

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

SCE assumes that the CAISO's focus on detailed forecasting data on the VER component of HRs is based on the belief that the storage component may be used to firm and shape the VER component output during non-peak load hours. While that is one of the business drivers identified by the CAISO, it is not the only one. In fact, in its Straw Proposal, the very next case after the VER-firming case is one in which the storage component is used to shift energy production. In such a scenario, excessive focus on the forecasting of the VER component will not provide any meaningful baseline for the storage component participation. In fact, with the aggravation of the duck curve and the prevalence of price spikes, it is more likely that shifting energy production is the predominant behavior of HRs.

Additionally, relying on forecasts prone to larger error, will not enhance the accuracy of information being fed to the CAISO. The CAISO recognizes the need for accuracy with its presented analysis of HASP forecasts having twice the error magnitude of RT forecasts. SCE urges the CAISO to include consideration of making system changes to allow updating schedules closer to RT. This is a necessary prerequisite to prevent the diminishing of gains from accurate forecasting.

### 4. Markets and Systems

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

SCE agrees with the CAISO's proposal of developing an interconnection rights constraint that ensures CLR outputs are limited up to the maximum interconnection injection rights. SCE also believes grouping of constraints and extension of MSG functionality may result in a suboptimal solution. SCE requests that the CAISO provide further details on the proposed constraint, including detailed functional form. While the interim solution may result in stranded capacity, SCE agrees with the CAISO's approach to provide a holistic constraint that accounts for both energy and ancillary services.

Further, SCE supports the CAISO in not proceeding with the alternative to allow the true Pmax to be input in the master file. SCE is concerned that allowing a value that

the resource may not be allowed to realize is not a robust solution and risks violating the CAISO's CCE3 policy.

Finally, SCE supports the CAISO not including in the LMP, any congestion that may be created from this proposal. As the CAISO stated, any such congestion would be an artifact of the interconnection constraint and not representative of reality.

## 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)

SCE supports the proposal to require plant potential and state of charge telemetry. The plant potential data is necessary for feasible awards. The state of charge data allows the CAISO to better manage NGRs, as SCE has maintained in ESDER.

## 6. Metering and Telemetry

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

SCE has no comments.

## 7. Resource Adequacy

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

SCE supports the CAISO's proposal to use additive QC. The CPUC should develop the QCs for HRs. Based on the CPUC provided data the CAISO should then determine NQCs, subject to interconnection constraints.

## Additional comments

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

SCE requests clarification on HR participation envisioned by the CAISO. During the stakeholder call, the CAISO had indicated that it expected HRs to participate based on net energy output, incorporating together the output of all components. SCE requests additional clarification on this part. Specifically, there are also two other cases that need elaboration by the CAISO. The first is when the net energy output of the facility is zero. Thus, the facility's storage is utilizing exactly the amount produced by the supply component. The second is when the net energy output of the facility is negative. Thus,

the facility's storage is utilizing all of the amount produced by the supply component, as well as charging off the grid. In both these cases, the net energy output is non-positive. Will the CAISO consider the net zero and net negative outputs as schedules?