

## Stakeholder Comments Template

Submitted by	Company	Date Submitted
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SDG&E appreciates the opportunity to comment on the CAISO’s Issue Paper and Straw Proposal outlining proposed phase 1 enhancements to existing rules, products, and models to enable increased participation of Energy Storage and Distributed Energy Resources (ESDER). SDG&E believes that with clarification and targeted revisions, the CAISO’s existing rules, products, and models provide a solid foundation for DERs and energy storage to deliver a full suite of market services on equal footing with other market participants. SDG&E looks forward to working with the CAISO and stakeholders to quickly enable this end-state. SDG&E strongly believes that leveraging the CAISO’s existing framework to create a level playing field for all market resources, regardless of size or point of interconnection, obviates the need to create separate costly, complex, and ultimately duplicative energy service markets at the distribution level.

SDG&E largely supports the clarifications and limited enhancements described in the Issue Paper and Straw Proposal. SDG&E’s comments on those proposed clarifications and enhancements are discussed below.

### **Non-generator resources (NGR) enhancements**

1. Update documentation on NGR to capture material and clarifications compiled for April education forums.

By way of background, SDG&E does not currently have a resource that utilizes the CAISO’s NGR model, and therefore has limited exposure to or experience with this product. As a consequence, SDG&E supports this proposed enhancement to update and clarify documentation on the NGR model. This effort will facilitate SDG&E’s anticipated future interaction with the NGR model.

2. Clarify how ISO uses state of charge (SOC) in market optimization.

SDG&E generally supports the proposed SOC enhancements broadly described in the ESDER Issue Paper & Straw Proposal.

3. Evaluate initial SOC as a submitted parameter in the day-ahead market.

SDG&E supports the evaluation of SOC as a submitted parameter in the day-ahead market.

4. Evaluate option to not provide energy limits or have the ISO co-optimize an NGR based on state of charge.

SDG&E supports this evaluation measure. The straw proposal correctly acknowledges that there are instances where SOC co-optimization may not be beneficial. Using the Proxy Demand Resource (PDR) model to bid an aggregation of behind the meter storage assets, SDG&E is currently managing SOC and energy constraints through self-scheduling resource availability and use parameters. Allowing scheduling coordinators to elect a similar self-management option in the NGR would expand the model's viability to a greater variety of energy storage technologies and use cases.

#### *PDR/RDRR enhancements – alternative baseline methodologies*

1. Develop meter generator output (MGO) as a new ISO baseline methodology.

The CAISO's tariff currently provides two methodologies for evaluating the performance of demand response resources. The first uses historical interval meter data to calculate baseline performance. Specifically, the CAISO uses a "10-in-10 non-event day" methodology and examines up to 45 days prior to the trade day to find ten "like" days. The CAISO then calculates a simple hourly average of the collected meter data to create a typical load profile, or baseline. A customer's performance during an "event" or market participation interval is then measured from this baseline. If a PDR's baseline consumption in a given hour is 5 MW, and meter data indicates the load was reduced to 4 MW in that same hour during an "event" or market participation interval, the PDR is paid the locational marginal price for providing 1 MW in that hour. The second available methodology substantially mirrors the first, with the only exception being that the model uses statistical sampling to estimate usage when interval data is not available.

Citing recommendations of the Supply Integration Working Group (SWIG) – a working group formed in connection with the CPUC's most recent demand response rulemaking – the CAISO proposes in this initiative to add a third baseline measurement option: MGO approach.

This methodology directly meters generation on the customer’s premises, and uses that metered output to determine demand reduction.

The Issue Paper offers no details on the MGO approach, but states that the CAISO will explore this option through a stakeholder working group. SDG&E looks forward to participating in that working group. However, SDG&E notes at this early stage that the currently adopted performance evaluation metrics appear to adequately measure and compensate load reduction from DR resources. Conceptually, the currently approved methodology compensates a customer for altering behavior (consuming less) on the event day. The baseline represents what the customer normally would have done, and the customer is compensated for doing something different -- curtailing consumption in a given interval. Equally important, the existing baseline model does not compensate customers for doing what they normally would have done. For example, if the 10-in-10 non-event day lookback reveals that the customer’s baseline load was indistinguishable from its event day load, there is no compensation. This outcome is correctly premised on the fact the customer’s actions did nothing to impact pricing conditions at the wholesale level in the event hour.

While SDG&E is open to exploring alternative performance metrics that more accurately represent the customer’s response on the event day – in short, metrics that supplement the baseline methodology – SDG&E strenuously opposes a model that circumvents or replaces the baseline construct, and instead compensates the customer at the wholesale level for doing what he or she normally would have done. For example, suppose a behind the meter storage resource discharges 1 MWh each hour from 3-5 p.m. every day to manage that customer’s peak load conditions, and to minimize exposure to retail demand charges. Under the current rules, if this resource is bid into the market from 3-5 p.m., the 10-in-10 non-event day lookback would reveal that the customer’s baseline load was indistinguishable from its event day load, and there would be no compensation. On the other hand, an MGO approach that directly meters generation on the customer’s premises, and uses that metered output to determine demand reduction, appears to contemplate compensating that resource for providing 2 MWh of load reduction. This outcome incorrectly compensates DR resources at wholesale for taking actions in response to retail rate realities. Moreover, this outcome is discriminatory in that it provides varying approaches to compensation for DR resources based on presence or absence of on-site generation or storage.

SDG&E looks forward to exploring these issues further in the working group context.

2. Develop additional detail regarding the “ISO Type 2” baseline methodology (i.e., provision of statistically derived meter data) and document that in the appropriate BPMs.

As stated above in connection to clarifying the NGR process in the appropriate BPMs, SDG&E supports the CAISO's efforts to clearly document procedures and business requirements.

### Non-resource adequacy multiple use applications

1. Type 1: Resource provides services to the distribution system and participates in the ISO market. Question 1 – How do we manage conflicting real-time needs or dispatches by the distribution utility and the ISO? Question 2 – If distribution system and ISO needs are aligned, and the resource's actions meet the needs of both, is there a concern about the resource being paid twice for the same performance? Under what situations is double payment a concern? How should we address this concern? Question 3 – Should any restrictions be on a DER aggregation or the sub-resources of a DER aggregation providing distribution-level services? Would the distribution utility ever call upon a multi-pricing node DER aggregation to address a local distribution problem?

SDG&E appreciates the CAISO's perspectives on front of the meter, multi-use resources providing services to the distribution system and participating in the CAISO's markets. SDG&E agrees with the CAISO's approach to issues regarding conflicting priorities. For example, if resource as bid into and obliged to the CAISO's markets in a given interval, but is instead dispatched by the distribution system operator in response to needs at the distribution level, the "failure" to respond to the CAISO dispatch is adequately addressed by the CAISO's existing market settlements structure. There is no need to create new rules to address this possible scenario.

The CAISO's second question – whether when distribution system and CAISO needs are aligned, and the resource's actions meet the needs of both, there are concerns about the resource being paid twice for the same performance –is interesting, but perhaps a red herring. This situation appears analogous to a merchant generating resource who typically receives a capacity payment from a load serving entity, and corresponding energy payments from the CAISO. The resource owner is paid by two entities, but no one characterizes these transactions as a double payment. SDG&E does not believe there are double payment concerns, but looks forward to hearing and discussing other stakeholders' views on this issue.

Finally, with regards to whether there should be any restrictions be on a DER aggregation or the sub-resources of a DER aggregation providing distribution-level services, SDG&E take no position at this time. SDG&E will evaluate the CAISO's specific limitations and justifications for those limitations once they are proposed in the forthcoming revised straw proposal.

2. Type 2: Resource provides services to end-use customers and participates in the ISO market. The ISO has identified the following three sub-types (are there others?): (a) DER installed behind the customer meter, such that flow across the customer meter is always net load; (b) DER installed behind customer meter, such that flow across the customer meter can be net load or net injection at different time; and (c) DER installed on the utility side of the meter, may provide service to end-use customers and participate in wholesale market.

SDG&E believes the existing PDR model adequately addresses participation of behind the meter resources that don't export to the CAISO grid.