

**PG&E Comments on CAISO Straw Proposal for PDR
(March 5, 2009 version)**

Submitted by	Company	Date Submitted
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PG&E's comments are divided into two parts, one that will cover "General and Major Comments," and one that will cover specific comments on the "Conclusions and Summary" of the straw proposal.

General and Major Comments:

- The straw proposal is a very complete and well developed document. The team that put it together has done an excellent job. However, a lot of work and discussion is needed to finalize this document. It is important that the CAISO issue a detailed schedule for the deliverables and meetings to accomplish this work.
- Section 2, page 8 states that the CAISO will allow market participants to designate PDR in sub-LAPs and the CAISO will use standard distribution factors as an alternative to maintaining CLAPs. This seems like a good provision, but more details are needed. In simulations we are seeing issues with the load distribution factors. As more and more load gets "disaggregated and scheduled at CLAPS," we need to have a clear understanding how the CAISO will modify LDF, not only for the CLAPs where DR load is scheduled, but LDF used for remaining load which gets allocated down to sub-lap areas.
- Section 3.3 on page 12 mentions that "The PDR design does not support PDR submitting an availability bid into the RUC market." Why is this? DR resources that are callable in the day-of time frame might provide additional RUC supply.
- This document focuses on PDR, but on page 6-7 of the straw proposal it mentions DDR. DDR is also mentioned elsewhere in the document. This document is a PDR-only document and references to DDR should be eliminated or minimized, since DDR and direct participation is not the topic of this straw proposal and that aspect of DDR has not yet been vetted. PG&E is interested to see how the DDR design may be applicable for DR programs that include customers from multiple LSEs. This is one aspect of DDR that to our knowledge has not been discussed.

- On page 16 of the straw proposal it states, “It is important to remember that under the PDR model, where DR resources are uncoupled from load, it is possible for a PDR with its own specific Resource ID to come from more than one LSE service territory.” We suggest dropping the words “service territory” from the sentence, otherwise it can be read that a specific PDR Resource ID could include customers in both PG&E and SCE, which is not possible.
- On page 17 of the straw proposal it states, “The bid curve depicted in Diagram 6 represents the sum of multiple CLAPs that a CSP bids into the ISO’s markets.” How can a single PDR bid include multiple CLAPs? It would seem that each PDR bid will be from one Resource ID and thus have one CLAP associated with it.
- In a couple of places (pages 16 and 18) the straw proposal talks about PDR that “crosses over LSE boundaries.” What does this mean?
- In the Table 2 comment section on page 22 of the straw proposal it states, “CSP informs ISO regarding allocation of MW between LSEs.” It may make more sense for the CAISO to compute as part of the settlement process what the allocation of MW is for each LSE, based on the meter data for each customer. This issue should be discussed further. If the CAISO needs to compute what the allocation of MW is for each LSE, the CSP shall provide three baselines and meter reads to calculate the “Actual PDR” for each of the LSEs.
- On page 33, section 5.4.1, it states that “The format of bids for submission to the ISO market in MRTU Release 1 is documented in the MRTU Release 1 User Guide, and consists of bids for two separate resources: scheduling of load as a demand resource; and separate bidding of DR as a supply resource (similar to a generator). This is expected to have only limited change in structure for the DDR and PDR models.” This does not seem correct since a year from now, the DDR does not schedule load as a demand resource and have a separate ID to bid DR as a supply resource (similar to a generator). For a DDR proposal, the generator ID will no longer be used and the CAISO is proposing to have one load resource ID to bid in energy, DR response and ancillary services. Again, as mentioned above it may be best to leave out any description of DDR as it distracts from the clarity on PDR.
- Page 33, Section 5.4.3, provides a table on roles proposed by SCE. It is not clear if the CAISO fully agrees with the table. The CAISO should make clear what their straw proposal is versus the comments of other stakeholders.
- On page 34 it states, “At this time, the ISO believes that settlements will be the most transparent to market participants, and that settlements will function the most smoothly if the ISO takes on this responsibility.”

We agree with this statement. The CAISO shall be responsible for measuring and verifying load reductions because the CSP informs the CAISO regarding allocation of MW between LSEs (page 22). PG&E suggests that the CSP inform the LSE and CAISO simultaneously regarding the allocation of MW between LSEs. This will enable the LSE to validate these numbers when the CAISO posts them in the settlement process.

- On page 35, section 5.5.3, it states “Thus, the ISO agrees that LSEs should be informed of DR enrollments and schedule changes. Similarly, the CSP needs to be aware of the amount of demand that is being scheduled by the LSE, when the CSP is using the DDR model, since AS awards will be subject to no-pay provisions if AS awards exceed the scheduled demand for the CLAP. Knowledge that the LSE had not scheduled sufficient demand to support the AS award to the CSP would allow the CSP to enter outage data informing the ISO that the AS capacity is unavailable.” This raises a number of concerns such as LSE bid confidentiality, and the fact that LSEs would not normally be forecasting load for individual customers or DR aggregations of customers. This area will require significant discussion.
- On page 36, section 5.6, it states that, “PLs and their Scheduling Coordinators must provide revenue quality metering data to the ISO. PLs and their SCs must ensure that revenue Meter Data is made available to the ISO in accordance with the ISO tariff and Metering Protocol.” On page 38 it states that, “Therefore, the ISO suggests as a Straw Proposal for stakeholder discussion to allow the CSP to provide either telemetry-based data or revenue quality meter-based data to support settlements of DR response, and invites comments on the advantages and disadvantages of this concept.” In addition, on page 38, in footnote 24, it states that, “In the event that the CSP provides telemetry data for settlement, it must provide the ISO with access to real-time telemetry, which may be aggregated as described in the User Guide.” This whole section needs clarification. Earlier in the straw proposal, it states that the LSE would schedule load as usual and the CSP would schedule the DR. How can a PL submit revenue meter data that reads the same meter load that the LSE would be submitting? It would seem that only the LSE will have the settlement quality meter data. In addition, the use of telemetry data to settle does not seem right as it can lower the quality of the data used for settlement. This is not how it is done with the generators. However, it seems that this is also a DDR-related issue which we recommend be addressed in a separate document.

Specific Comments on Strawproposals Conclusion and Summary (Section 6):

Listed below is Section 6 from the CAISO PDR straw proposal along with the PG&E responses in *Italics*.

6.1. Qualification

- The ISO does not find it necessary to either broaden its role beyond that of market operator, or to change either the existing requirements for market resources to be represented by Scheduling Coordinators. The ISO does not see needs for extensive revisions to the tariff provisions governing Scheduling Coordinators.

PG&E Comment: *Agree, based on our current understanding.*

- When seeking to qualify a DR resource, the CSP must certify to the ISO that participation by its resource is not precluded by the Local Regulatory Authority, e.g., the CPUC. The eligibility of the DR resources themselves does not seem to be

affected by whether they are operated by a CSP that is the same entity as the LSE, or by an independent CSP through Direct Participation.

PG&E Comment: *This is a good start but additional actions should be required. The CAISO should request that the Local Regulatory Authority (at least the CPUC) explicitly describe its position on the ability of customers within its jurisdiction to directly participate in the CAISO markets other than through its own LSE. Our reading of the CPUC comments on the NOPR is that they had “serious concerns” about allowing this until they had established “an appropriate regulatory framework.” PG&E has requested the CPUC confirm this in its decision on our 2009-2011 DR programs (A.08-06-003).*

- It is the CSP’s role, not the ISO’s, to create demand resource aggregations.

PG&E Comment: *Agree. And more specifically as stated on page 28 the CAISO “is not an operator of (a) specific DR programs that directly enroll end-use retail customers, or (b) operate other market resources that would compete with market participants’ resources.”*

- The ISO’s market recognizes market resources’ operational constraints as part of bid submissions using DDR and PDR, but the ISO does not determine the resources’ operational constraints.

PG&E Comment: *Agree.*

- The utilities’ retail programs include emergency response programs such as interruptible tariffs, but the ISO’s markets do not have emergency response products. The ISO tariff already limits the participation of the same end-use customers in emergency response programs and PL resources, and the ISO does not see the addition of CSPs to the market as changing the existing tariff provisions.

PG&E Comment: *We do have customers in more than one DR program at this time. However, this could lead to gaming if a customer could be in two different CSP portfolios. As a result, this requires more discussion.*

- The ISO does not currently operate and is not currently developing a market for resource adequacy capacity, and instead works with Local Regulatory Agencies (such as the CPUC) to develop RA requirements that market participants must meet. The LRAs define which resources qualify as RA capacity.

PG&E Comment: *Agree.*

- Only a single CSP will be allowed initially to represent the same end-use customer. This provision can be reconsidered after the market has experience with Direct Participation.

PG&E Comment: *Agree, based on our current understanding.*

- The CSP should be subject to the same, existing credit requirements as other Supply resources.

PG&E Comment: *Agree, based on our current understanding.*

6.2. Registration

- The following principles appear to be appropriate requirements for Direct Participation:
 - A DR resource can only be registered to one CSP / LSE at a time
 - The DR resource is registered to the correct CSP / LSE
 - All registered DR resources are aware that they are registered with a specific CSP /LSE
 - Confirmation of any change of CSP / LSE is communicated to the DR resource, and the DR Resource affirmatively confirms that change
 - A DR resource who wishes to leave the DR resource pool confirms that it has been removed
 - The CSP / LSE's report to the ISO of DR capability is accurate and reflects the registered DR resource capacities.
 - Load schedules and DR bids are submitted using consistent load aggregations by the LSE and CSP, to the extent that a DR program requires such consistency.

PG&E Comment: *By "DR resources" we take it to mean what would be a service agreement for PG&E. We probably need to dig down to get the specifics of what this is and what it will be for the CAISO registration purposes. The above points are a good starting point for that discussion. Some limitations on "switching" by customers will need to be developed.*

- The ISO's existing processes for registering DR resources are documented in the MRTU Release 1 Participating Load User Guide, and provide a flexible structure for managing DR resources, and for providing the ISO with the information it needs to manage its markets without excessive needs for the ISO to track individual end-use customers.

PG&E Comment: *No comment.*

- Each CSP is responsible for managing its DR resources and will see the financial impacts of any mismanagement in its final settlements. There appears to be no need for the ISO to develop complex systems for tracking individual end-use customers to actively manage the registration and confirmation process. Instead, market participants should be responsible for managing end-use customer registrations, pursuant to rules and processes that the ISO and CPUC will establish.

PG&E Comment: *This needs more discussion as the CAISO may need the individual end-use customer meter data to properly allocate the PDR to the various LSEs in a PDR product.*

- LSEs as well as CSPs need to be aware of DR enrollments and schedule changes. The ISO's tariff will establish the principles for this data exchange, followed by development of implementation details in the Business Practice Manuals and

Participating Load Users Guide. In actual operations, the CSP's enrollment of DR resources will require that the CSP identify the LSE to the ISO so that the LSE can be notified of the DR schedule changes.

PG&E Comment: *The CAISO should notify the LSE that the CSP has enrolled its customer in its DR program. This notification should take place well before the DR from that customer is bid into the CAISO markets. The CSP should be required to notify the CAISO as to the specific LSE. This should be explored further in the working groups. As the CAISO notes on page 32 of the straw proposal "the ISO agrees with SCE and PG&E that LSEs should be informed of DR enrollments and schedule changes."*

6.3. Scheduling

- Except for the presence of both the LSE and CSP as market participants, the basic functions of scheduling are not changed by the addition of the CSP as a market participant that is separate from the LSE.

PG&E Comment: *Agree as to PDR.*

- When the LSE and CSP are separate entities, scheduling functions that would be performed to schedule demand that if it were not participating in DR would remain with the LSE, but functions that exist because of participation in a DR program would be the CSP's responsibility.

PG&E Comment: *Agree as to PDR.*

6.4. Notifications

- Other than new needs to communicate MW quantities of demand schedules and dispatches to both the CSP and LSE, the ISO has identified no needs to change the existing notification mechanisms for communicating schedules in the DA market and dispatches in the RT market, and will continue to use the existing mechanisms as documented in the User Guide.

PG&E Comment: *As we wrote in our comments, on page 34, section 5.4.3, and in section 6.5 below, the CSP shall inform the CAISO of the allocation of MW between LSEs, and revenue quality meter-based data for "Actual PDR" (baseline-meter reads) calculations to support those allocations.*

- LSEs as well as CSPs need to be aware of DR enrollments and schedule changes. The CSP needs to be aware of the amount of demand that is being scheduled by the LSE, when the CSP is using the DDR model. The ISO's tariff will establish the principles for this data exchange, followed by implementation details in the Business Practice Manuals and Participating Load Users Guide.

PG&E Comment: *The comments on DDR should be removed from this document because DDR needs to be examined from the perspective of direct participation.*

PG&E would not agree that the CSP would need to be aware of the LSEs schedule. LSEs should be notified in a timely manner by the CAISO about any CSP dispatch and schedule changes so that the LSE's load forecasts can be adjusted accordingly.

6.5. Metering and Telemetry

- The ISO has already established requirements for metering and telemetry, which are documented in the MRTU Release 1 Participating Load User Guide and will continue to apply after Release 1. Interval metering is required for settlement of interval energy usage, but telemetry is required only for providers of ancillary services. If a DR resource participates only in hourly energy markets, only hourly interval metering is required.

PG&E Comment: Agree.

- Although there are alternatives for the ISO's direct settlement of the energy resulting from DR directly with the LSE and CSP, bilateral arrangements between the CSP and LSE are an alternative for reallocation of the energy settlements between these entities. Regardless of the mechanism for energy settlement, the ISO's settlements for ancillary service and RUC capacity products are anticipated to be to the CSP. Settlement of ancillary service and RUC capacity relies on a "baseline" calculation that estimates of energy usage in the absence of the dispatched DR, which has some amount of error. Because there inherently is error in the baseline calculation, the ISO anticipates allowing the CSP to provide either telemetry-based data or revenue quality meter-based data to support settlements of AS and RUC capacity.

PG&E Comment: Needs further discussion. The CSP should provide revenue quality meter-based data to the CAISO and LSE for "Actual PDR" (baseline –meter reads) calculation.

- Ultimately, metering, meter data management, and telemetry issues will require significant stakeholder discussions, which will continue as implementation issues after policy issues concerning ISO markets are resolved.

PG&E Comment: Agree.

- As a Straw Proposal for further discussion, a PL that connects to the ISO Controlled Grid without other loads being served from the same grid takeout point would be a ISO Metered Entity, and otherwise PLs would be SC Metered Entities.

PG&E Comment: Agree.

6.6. Settlement Issues

- Because "baseline" methodologies for calculating energy usage in the absence of the dispatched DR are used in allocating financial payments among the ISO's market participants, but will take considerable time to develop and implement, the initial implementation of market enhancements needs to use a set of initial requirements

for use of baseline calculations, and then examine potential refinements over time. Settling the energy for DR dispatches at different locations, with different LMPs, than the underlying schedules requires greater precision in the baseline calculation for determining the amount of response, compared to direct settlement of DR as simply a capacity resource. Similarly, having the ISO responsible for allocation of savings between market participants requires greater precision in the baseline calculation than if the ISO settles all energy usage with the LSE and relies on the CSP and LSE to separately negotiate the allocation of savings. As the ISO and its market participants gain experience with baseline calculations, the ISO can re-examine its initial design of baseline calculations and financial settlements.

PG&E Comment: Agree. The resolution of the baseline approach and the gaming issues is really only beginning. The current straw proposal is just a starting framework in these areas. The proper resolution of the baseline is critical.

- The ISO recognizes that the PDR model's simplification of the DDR model's data requirements for CLAPs does not need to prevent PDR resources from earning their locational prices, if their operation does not raise the "gaming" concerns. The gaming concern involves DR participation that occurs in a significant number of hours, but programs that aggregate numerous customers are more likely to involve infrequent operations, and strategic modifications of baseline calculations appears to be less likely when an aggregation involves numerous customers. Therefore, the ISO is continuing to explore with market participants what conditions can allow demand to be scheduled under the PDR model at the Default LAP while DR dispatches are settled using CLAPs, such as limited hours of operation (e.g., less than 200 hours per year) and establishment of predetermined bid prices that would not be expected to be exceeded in more than the limited number of hours, or robust baseline calculations.

PG&E Comment: Agree. The resolution of the baseline approach and the gaming issues is really only beginning. The current straw proposal is just a starting framework in these areas. The proper resolution of the baseline is critical.

- Allocation of savings between market participants involves complex trade-offs among multiple alternatives. The ISO will continue to work with the CPUC and stakeholders to develop sufficiently mature baseline methodologies to support ISO settlements. Based on adoption of a standard methodology, after receiving input from Local Regulatory Authorities, the ISO would proceed with settlements that allocate the DR savings to the CSP or divide the savings between the CSP and LSE, for example by reimbursing the LSE for its DA schedule that is curtailed by the CSP, and crediting the CSP with the balance. The ISO anticipates directly settling AS and RUC capacity payments with the CSP. This does not mean that revenues received by the CSP are limited to the capacity payments, because the CSP and LSE may negotiate a sharing of the energy revenues that are initially paid by the ISO.

PG&E Comment: It not clear what this means. More discussion is needed.

6.7. Performance Management

- Given the explicit UDP exemption to all loads that is already in the ISO tariff, and the FERC requirement to implement Convergence Bidding 12 months after MRTU Go-Live, the ISO does not see needs for additional non-compliance penalties for price-responsive energy dispatched from DR resources, beyond the existing provisions that apply to AS, RUC, and RA capacity resources. However, the ISO will enforce the existing provisions for DR resources just as it does for other market resources.

PG&E Comment: Agree.