

Stakeholder Comments Template

Subject: Regional Resource Adequacy Initiative

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the Revised Straw Proposal for the Regional Resource Adequacy initiative that was posted on April 13, 2016. Upon completion of this template please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on May 4, 2016.

Please provide feedback on the Regional RA Revised Straw Proposal topics:

1. Load Forecasting

CDWR does not agree that CAISO should infringe on the jurisdiction of the LRAs to establish how their LSEs should perform load forecasting, or to establish whether a particular load forecast is acceptable. With that ongoing objection noted, CDWR has a number of more specific concerns with the CAISO's proposed approach to load forecasting. Many of those concerns stem from the fact that CDWR does not fit into the model of a typical utility with retail customers. CDWR moves water, and its loads depend on the amount of water that needs to be moved, hydrology conditions, environmental restrictions and other factors that do not closely align with the weather-normalized model intended to forecast the use of heating, cooling and lighting by residential, commercial and industrial customers. It may be possible to resolve the concerns through specific exemptions, or by the recognition that CDWR forecasts will not fit into the model applied to others. CDWR notes specific concerns below:

CDWR is very concerned with the proposed "actual historical trend" based Load forecast and divergence limit. This approach would be problematic for CDWR because of the hydrology driven uncertainty that is a pronounced character of CDWR load. CDWR's current forecasts to CEC do not include an hourly load forecast because divergence would be so common that such a forecast would not be useful. However, the proposal suggests that:

“For example, the CEC would continue to determine the load forecasts for LSEs in the existing CAISO BAA, and entities outside of the current BAA would continue to develop their own load forecasts as they have done previously and submit the required data to the CAISO. The CAISO would then use the provided hourly load forecasting data to determine the overall system-wide peak, as well as each LSE-specific coincidence factor, which the CAISO will use to allocate the respective share of the system need to each LSE.”

CDWR would appreciate an additional clarification regarding CAISO’s expectations for CDWR load forecasting. In particular, how does the CAISO envision the hourly forecast will be generated for CDWR load?

CDWR believes that entities with unusual load profiles, such as CDWR, should be provided with an exemption from the requirement that the CAISO could consider adjusting the LSE’s forecast or “requesting LSEs to submit revised load forecasts, if an LSE forecast diverges unreasonably from the LSE’s weather normalized peak loads, but only in cases where the LSE cannot demonstrate that its forecast is reasonable.”

CDWR does not oppose the concept of tracking unreasonable variances; however, due to uncertainties associated with hydrology, water demand, environmental requirements, and various other operational constraints, CDWR’s future operation or forecast load may not necessarily converge with the historical weather normalized peak loads. For example, for the month of August during the period from 2006 and 2015, CDWR’s load ranged anywhere from 255 GWh to 967 GWh.

The proposal also states,

“The CAISO proposes to require all LSEs to provide the CAISO with mid-term (one year forward) hourly load forecasts. These hourly forecasts will allow the CAISO to determine the system peak and each LSE’s contribution at the system peak for each LSE. Load forecasts should include impacts from behind-the-meter or “load modifying” Demand Response (“DR”), Energy Efficiency (“EE”), and Distributed Generation (“DG”). The CAISO believes that entities conducting load forecast in an expanded BAA should retain the flexibility to treat adjustments to their load forecasts how they choose and accept what methods best represents the needs of their situation. In other words, LSEs conducting load forecasts may determine the assumptions utilized for their own load forecasts and decide how to incorporate impacts from DR, EE, DG, and other load forecast modifiers.”

Currently, CDWR does not produce hourly load forecasts one year in advance, and accuracy of such forecasts at hourly granularity would not be attainable, nor could it be guaranteed. As mentioned above, CDWR’s loads are highly dependent on hydrologic conditions, Sacramento-San Joaquin Delta water quality and

environmental requirements, water demand, Feather and Sacramento River environmental requirements, and can fluctuate widely on hourly, daily, and monthly basis. Therefore, CDWR is very concerned with the proposed hourly load forecast in advance requirement and the feasibility of such a requirement as applied to CDWR's operations.

Weather Normalized Peak and Load Forecast

The proposal states,

“The load forecast process is usually involved with developing a load forecast model and collecting model input data. The input data include historical loads, historical weather data, historical and future economic and demographic data, and calendar information.”

CDWR's load forecast estimates differ significantly from this input description in that CDWR's input includes a wide range of hydrology scenarios, water demand, environmental constraints, and planned pump outages. Given that CDWR's unique load profiles do not align well with the generalized load forecast approach reflected in the Revised Straw Proposal, CDWR believes that CAISO should consider CDWR's unique operational constraints and specifics of CDWR's forecasting abilities in developing regional RA requirements.

The ISO specifically seeks stakeholders' feedback on the following questions:

Q: Would it be appropriate for the ISO to specify the type of criteria and processes that load forecasting entities should use to conduct their load forecasts?

CDWR response: CDWR believes that its existing forecasting methodology should remain intact. Given that it is not feasible to predict future hydrological conditions with sufficient accuracy, CDWR would be unable to produce accurate hourly forecasts a year in advance, as currently proposed in the Revised Straw Proposal.

Q: Alternatively, would it be appropriate for the ISO to allow flexibility for LSEs to conduct load forecasts in a manner that they determine and fits their individual needs?

CDWR response: The ISO should allow CDWR to forecast with the level of granularity based on its own criteria driven by what's attainable a year in advance.

The proposal states,

”The ISO could simply accept an LSE method for its load forecasts so long as the submitted forecasts utilized are reasonable. Alternatively, the ISO could require utilization of more specific methods for its load forecast submissions. The ISO would need to develop additional details on how load forecasts should be treated if it is preferable to require specific criteria and methods.”

As emphasized above, CDWR’s loads are highly dependent on natural hydrologic conditions, water demand, and environmental requirements. Due to the uncertainty in hydrology and water demand, CDWR cannot always guarantee the accuracy of its forecasts. Therefore, CDWR believes that it should be exempt from the forecasting accuracy benchmarking process.

Coincidence factor methodology options

The CAISO has not provided pros and cons of utilizing these two methodology options or sufficient details to allow CDWR to evaluate these methods. CDWR will provide comments when such details become available.

CAISO’s proposal to calculate coincident load factor for each LSE in the expanded BAA would likely yield undesirable results for CDWR because of high degree of divergence of forecast and actual load, as described in the load forecasting section above. As far as coincident load factor for CDWR is concerned, the current method adopted by CEC for CDWR should continue.

Reasonableness Review and ISO Adjustment Authority

The proposal states,

“Importantly, the ISO would adjust submitted forecasts only in cases where a LSE’s non-coincident peak forecast diverges unreasonably from average year-over-year weather normalized peak trends when comparing the LSE’s non-coincident peak forecast with the LSE’s weather normalized peak trend, and the LSE cannot demonstrate that its forecast is reasonable.”

CDWR again notes that its forecast of future load may not converge with historical pattern as CDWR’s pumping load demand is not weather normalized.

Load Forecasting Review Criteria

The proposal states,

“The ISO proposes to use a 4% divergence threshold in a LSE’s average year-over-year change in the previous 3 years of normalized peak load data. The ISO believes this is appropriate criteria to trigger an ISO performance review of the submitted load forecast. The ISO reviewed the Itron 2014 Forecasting Benchmark Survey which examines utility forecast accuracy and growth projections. The survey found that a majority of utility forecasting errors is within 3% for system forecast and 4% for peak forecast, the ISO feels this is a reasonable criteria for the proposed review ability. The figures below show the results of the Itron survey.”

As stated above, CDWR’s cannot guarantee that there will not be significant forecast divergence, and CDWR should not be required to adjust its forecast which depends greatly on hydrology conditions and water demand.

Plausibility Adjustment

Currently, CEC receives annual and monthly demand forecasts from CDWR and then submits those forecasts to CAISO without making adjustments. CDWR believes that any adjustment of CDWR’s forecasts by CEC would be inappropriate, as CDWR’s forecasting is based on hydrology conditions and water demand rather than the standard forecasting methods considered by CEC. Because of uniqueness of CDWR’s operation, the existing forecast reporting arrangement should continue.

2. Maximum Import Capability

CDWR requests that the ISO run a study for MIC allocations to LSEs with expanded BAA and provide results to LSEs to see the potential impact to LSEs due to integration.

CDWR supports ISO’s consideration of existing contractual rights (ETCs and TORs) and pre-existing commitments (Pre-RA Commitments) under the current MIC process to allow existing arrangements and practices to continue without negatively impacting potential new entrants.

3. Internal RA Transfer Capability Constraints

CAISO proposes a concept of zonal RA construct. With the new construct, LSEs may have to produce zonal demand forecasts rather than developing forecasts by TAC area.

The ISO proposes the following calculation formula for Zonal Import Limit:

Maximum Import Capability (total MIC for all interties into specified zone) + internal transfer limits (total of any internal transfer limits into specified zone) = Zonal Import Limit (ZIL). CDWR has the following questions/comments with respect to the proposed ZIL formula:

- Would an internal transfer from one zone to another zone be considered an import under the proposed formula? CDWR is uncertain whether an internal transfer is supposed to be the same as an import.
- Will the Zonal RA Requirement (ZRA) be based on zonal coincident peak load or BAA coincident peak load for an LSE? If based on zonal coincident peak, then will the ISO calculate coincident, peak factors for each zone for each LSE? If a single LSE has loads in various zones, will it be required to file separate requirements for each zone?

Further, the ISO proposes to allocate ZRA to LSEs on a load share ratio basis: $(ZRA / \text{LSE Load Share Ratio}) = \text{LSE specific Baseline Zonal Capacity Requirement (BZCR)}$. CDWR has the following questions/comments with respect to the proposed formula:

- How is the Load share ratio calculated? Please provide details of calculation.
- Who will create the zonal load forecast and how will such forecast be derived?

Step 6 describes the process to establish LSE specific Netting Zonal Credit (NZC). The netting concept should include a scenario in which the same LSE may have load and resources in all zones (for example, CDWR has loads and resources in both north and south of path 26). A numerical example on how the values are calculated would be helpful in understanding the concept.

4. Allocating RA Requirements to LRAs/LSEs

The ISO proposes to create a new mechanism for LRAs and state agencies to defer allocation of RA requirements to the ISO so the ISO can directly allocate RA requirements to LSEs. CDWR believes that this is a reasonable approach.

5. Updating ISO Tariff Language to be More Generic

No comments at this time.

6. Reliability Assessment

CDWR continues to oppose CAISO's proposal to establish generic PRMs and Resource Counting Criteria rather than deferring to those established by the LRAs. The current system has worked well for ten years. With that objection noted, CDWR has the following specific concerns about the CAISO's proposals:

a. Planning Reserve Margin

An LSE may use demand response resources such as participating load for RA. The demand that is acting as a supply resource and that is bid into the CAISO market for RA compliance should not be subject to PRM. For example, an LSE uses 20 MW demand as participating load to provide RA out of its total demand of 100MW. Assuming PRM of 115%, the LSE's RA obligation should be, $(100-20) \times 1.15$ plus 20 MW supply from participating load = $(100-20) \times 1.15 + 20 = 112$ MW supply RA showing. In this case the LSE's effective PRM will be 112% instead of 115%. In this example, the LSE did not exclude 20 MW demand from total of 100 MW in RA demand forecast. Validation of LSE's RA plan in this case would have to be made against the effective PRM of 112% for that month. No reserve should be required for a resource providing reserve.

The ISO offers two options to calculate planning reserve margin (PRM). It is not clear to CDWR that a new methodology for calculating PRM is a necessary element of a Regional RA plan, which is supposed to include "musts" for regional expansion. However, if CAISO wishes to continue to explore the comparative effects of a Loss of Load Expectation (LOLE) based probabilistic method and a simple deterministic method, CDWR believes that the ISO should run some studies comparing both methods, if possible, to see results prior to making a decision on adopting a particular option.

b. Uniform Counting Methodologies

The Revised Straw Proposal now requires the use of uniform counting criteria, rather than the LRA specific criteria for RA showings as well as for ISO's reliability assessment - a major shift from the straw proposal and the current program embodied in the CAISO Tariff. This means that LRA's criteria would be ineffective in RA showings for LRAs if the LRA's criteria do not match CAISO's uniform counting criteria. It is not clear what the continued value of LRA counting criteria would be.

With regard to participating load counting criteria as proposed, CDWR believes any historical trend based approach will not fit CDWR's participating load resources. Currently, CDWR's Participating Load Agreement (PLA) with CAISO allows using these resources for RA by providing non-spin ancillary service capacity in the day-ahead market and offering an energy bid to curtail load in real-time for a day-ahead non-spin award with a contingency flag. The most feasible capacity valuation method would be to use the criteria in which CAISO certifies non-spin capability for a participating load resource and may perform tests on certification. Currently, CDWR uses non-spin certified capacity for RA, and CDWR believes that such criteria should be adopted as the default criteria. Further, to the extent the ISO develops a real time load bidding mechanism for a participating load, and if the load curtailment can be made higher than the non-spin capacity, then criteria should be the higher of the curtailment capability or the non-spin certified capacity. This method could be used for the registered capacity option under the counting criteria.

c. Backstop Procurement Authority

No comments at this time.

7. **Other**

CDWR may submit additional comments as they emerge at any stage of this stakeholder process. As always, CDWR appreciates CAISO's outreach and continuing efforts to resolve CDWR's concerns.