

Stakeholder Comments Template

Subject: Regional Resource Adequacy Initiative

Upon completion of this template, please submit it to initiativecomments@caiso.com.

Submissions are requested by close of business on **June 15, 2016**.

Submitted by	Company	Date Submitted
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Background

Bonneville Power Administration (Bonneville) appreciates the opportunity to be a stakeholder in the Regional Resource Adequacy (RA) process, and to provide comments on the second revised Straw Proposal.

Bonneville is a federal power marketing agency within the United States of America, Department of Energy, which markets electric power from 31 federal hydroelectric projects and some non-federal projects in the Pacific Northwest. Whenever requested, Bonneville is required by statute to sell wholesale power to meet the firm power requirements of certain utility and federal agency customers in the Pacific Northwest. 16 U.S.C. § 832c (2014); 16 U.S.C. § 839c(b) (2014). Bonneville is governed by and must operate according to various federal statutes, including the Bonneville Project Act, 16 U.S.C. §§ 832-832l (2014), the Pacific Northwest Consumer Power Preference Act, 16 U.S.C. §§ 837-837h (2014), the Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. §§ 839-839h (2014), and the Federal Columbia River Transmission System Act of 1974, 16 U.S.C. §§ 838-838k (2014), among others.

Several of the Public Utilities Bonneville serves as a Federal wholesale power marketing agency are located in PacifiCorp's East and West Balancing Authority Areas. Bonneville customer loads in the PacifiCorp East and West balancing areas amount to about 650 MW of annual average load. At the estimated time of PacifiCorp's transition to a PTO, Bonneville will serve these loads either with transmission over PacifiCorp's system secured by Network Integration Transmission Service Agreements with PacifiCorp for Network Transmission, or by Legacy Transmission Agreements. As such, the outcome of the Regional RA process is of direct importance to Bonneville and the public utility customers it is representing here.

Comments

1. Resource Adequacy Unit Outage Substitution Rules for Internal and External Resources

Bonneville supports the ISO allowing external resources to be substituted for internal resources during outages. As an entity external to the ISO BAA, with loads inside PacifiCorp's BAA, most of the resources Bonneville will be using to serve its load are located outside of the ISO BAA. Therefore, Bonneville supports allowances for external resources to be utilized to meet ISO requirements, including substitution when an internal resource experiences an outage.

Bonneville has concerns about, and questions the need for, the ISO's proposal for a "like for like" RA resource substitution requirement. The proposed "like for like" requirement is a more rigorous standard than the current RA requirement, and the ISO has not shown that this more rigorous RA resource substitution requirement is necessary for reliability. For instance, if a local run-of-river hydro resource has an unplanned outage, must it be replaced with an external run-of-river resource to be eligible for an RA substitution? The "like for like" substitution does not appear to increase reliability, and would result in additional costs to LSEs. Furthermore, "like for like" replacement in the PacifiCorp subregion would be very difficult, if not impossible, to achieve because most of the generation in the subregion is owned by PacifiCorp and is used to serve existing load. RA substitutions should only be required to meet the existing minimum requirement for a RA resource on the qualified capacity list.

2. Discussion of Import Resources that Qualify for RA Purposes

Bonneville believes it is important that resources imported into the CAISO BAA are allowed to meet RA requirements. Specifically, CAISO asked for comment on whether spot market purchases should be permitted to qualify as RA resources. Bonneville believes that while meeting all RA requirements with spot purchases would be both unreasonable and unreliable, a certain portion of RA requirements (calculated by an appropriate metric) should be able to be met by market purchases. This would be consistent with current utility industry standards in long-term planning.

3. Load Forecasting

Overall, Bonneville believes the proposed load forecasting process is acceptable for general planning purposes, although it is not clear that the proposal is superior to the existing load forecasting methodology because the accuracy of hourly forecasts a year in advance is often poor. Bonneville would oppose any suggestion that LSEs should be charged or penalized when actual hourly schedules stray from the hourly forecast provided a year prior.

The ISO has requested feedback on the situations that could merit monthly forecast adjustment. Bonneville believes it is appropriate to adjust the forecast in two circumstances: 1) to reflect a known single event of significant magnitude such as a plant shut down or major plant expansion, and 2) when there is a persistent difference between forecast and actual load. For example, if a forecast is consistently below actual values by approximately the same magnitude for four months, a forecast change may be warranted. Bonneville maintains that the difference needs to be fairly consistent in magnitude and in the same direction to warrant an adjustment.

In addition, the CAISO should consider screening criteria to identify specific forecasts for a more detailed review. Bonneville believes that the 4% variation threshold on year over year

change is generally reasonable, but Bonneville requests clarification on how the variation threshold is applied. It is unclear whether the CAISO is referring to the annual average MW of the forecast, or a particular peak, or a series of monthly peaks. Bonneville supports using the average MW of the entire year's hourly series. In addition, the CAISO should add a monthly peak deviation amount criterion, such as any particular monthly peak value cannot deviate more than 10% from the prior historical values, for either the historical max or the average. The CAISO should also consider adding criteria for situations in which energy use is not temperature-dependent.

4. Maximum Import Capability

Historically, LSEs within WECC (but outside of CAISO) have used transmission from remote generation to serve load reliably. However, the proposed MIC methodology will not recognize an LSE's existing OATT transmission rights. As currently proposed, existing OATT transmission right-holders in PAC's BAA will not be granted Existing Transmission Contract (ETC) rights under the MIC methodology as replacement for their OATT transmission contract rights when PAC becomes a PTO. As far as Bonneville is aware, this would constitute the first time OATT Contracts will not be converted into ETC's under the CAISO Tariff. This treatment reduces the value of an LSE's transmission portfolio and generation available to serve load. Is the CAISO planning on honoring OATT contract rights in order to allocate MIC under a new PTO or is there another proposed method in which LSEs can be assured that they will have enough MIC to serve their loads?

In addition, under the current proposal, LSEs will be prevented from meeting their Planning Reserve Margin (PRM) using external resources. This is due to the fact that the MIC is limited to scheduled energy amounts and does not allow for an additional percentage above schedules in order to provide PRM from external resources. Full recognition of each LSE's existing OATT rights, including all rollover rights, is essential to maintain an LSE's historical access to markets and loads. The MIC process for new PTOs that operated under OATT must include accessibility to the resources used as Designated Network Resources under OATT service as well as the assurance that an LSE will continue to have MIC over the established path(s) as long as their service to that load continues.

Bonneville is also concerned about the definition of the peak load for establishing MIC. Bonneville's loads in PACE peak at over 400 MW in winter, but the energy schedules during the summer months that CAISO proposes to use for MIC allocation are typically less than 200 MW. Under the CAISO's current proposal Bonneville may not receive a sufficient MIC allocation to meet the winter loads. The CAISO's proposal will force LSEs to build or purchase additional generation that meets the CAISO's specifications and using a Resource Adequacy standard that does not align with the actual needs to reliably serve load.

Finally, Bonneville is concerned that the existing MIC methodology only allocates import capability based on energy schedules and does not recognize all existing transmission rights and planning reserves provided by generation using such rights. The MIC allocation in the expanded footprint should be modified to allocate additional import capability to LSEs that use existing transmission rights to provide planning reserves, ensuring reliable load service. Bonneville uses

its existing transmission rights to provide planning reserves to serve public utility loads in the PacifiCorp BAAs that have a right under federal statute to receive service from Bonneville. If these existing transmission rights are not recognized, Bonneville has concerns that the current RA proposal will conflict with Bonneville's statutory requirements.

5. Monitoring Locational Resource Adequacy Needs and Procurement Levels

Bonneville supports the ISO's removal of the zonal RA requirement in the revised straw proposal. In addition, Bonneville is concerned with implementation of local and flexible RA requirements and believes those requirements as currently contemplated may require Bonneville to purchase more resources than required to serve its load, or require Bonneville to purchase specific resources in specific locations, in conflict with Bonneville's statutory authorities and requirements. Bonneville understands that some of the RA requirements, such as the flexible RA requirements, are being discussed in separate stakeholder processes; however it is difficult to understand whether the RA requirements overall will be workable for Bonneville, given its federal statutory parameters, without discussing all of the RA requirements as a whole. As currently drafted, the second revised straw proposal precludes recognition of flexible capacity on the Federal Columbia River Power System for meeting a flexible RA requirement.

Bonneville has concerns regarding RA enforcement and procurement in a subregion with multiple LSEs because the current CAISO proposal may impose backstop procurement costs on an LSE when the LSE's shortfall does not cause a reliability risk. The CAISO has stated a principle that the Capacity Procurement Mechanism (CPM) will not be triggered unless there is real risk to reliability. On page 39 of the Second Revised Straw Proposal, the ISO maintains it is "permitted to engage in backstop procurement pursuant to its Capacity Procurement Mechanism ("CPM") only in a limited number of defined circumstances to maintain reliability. Importantly, backstop procurement is not automatic or mandatory under the CAISO tariff. Rather, the CAISO has discretion whether to procure backstop capacity if there is a capacity deficiency or potential reliability event." The CAISO set out four categories of CPM designation to recognize a potential shortage that would jeopardize reliability. See Second Revised Straw Proposal, p. 39. The second category listed creates a right for the CAISO to procure capacity if an LSE has a local RA deficiency even when the overall local requirement for the subregion was met by the local RA provided by the remaining LSEs. This proposal is contrary to the CAISO principle of preventing risk to reliability (mentioned above) and contrary to the FERC policy that reliability costs should be allocated pro rata to all loads in a subregion that can relieve the reliability issue. Therefore, Bonneville believes category 2, "deficiency in local capacity area resources in a LSE's annual or monthly RA plan" should be removed from the CPM list. The CAISO proposal would use a reliability tool to prevent financial leaning by an LSE when the CPM should only be used to resolve reliability concerns.

6. Allocation of RA Requirements to LRAs/LSEs

Bonneville has no comments at this time.

7. Reliability Assessment

a. Planning Reserve Margin for Reliability Assessment

b. Resource Counting Methodologies for Reliability Assessment

The ISO proposes to substitute the current deterministic peak load Planning Reserve Margin for Reliability Assessment with a 1-in10 LOLE methodology. The 1 day in 10 years standard is typically translated into no more than 2.4 hours per year (24 hours / 10 years). The Northwest Power and Conservation Council's draft Pacific Northwest Regional Resource Adequacy Assessment for 2021 is 2.4 hours per year. The Bonneville system for 2021 (published in the 2015 White Book) is 138 hours per year. This is because Bonneville has an energy limited system due to the limited storage capability of Columbia River Basin dams. As a result, during simulated multi-year drought periods energy is rationed over long periods of time, which leads to a high number of loss of load hours. Bonneville is opposed to the 1-in10- LOLE methodology because this methodology does not align correctly with the annual variability of a hydro generation fleet. The Northwest Power and Conservation Council and PNW LSEs spent many years developing the current capacity requirement methodology. LSEs in the PNW have reliably served loads for decades using the tried and true methodology developed through a collaborative regional planning process. CAISO's proposed alternative may not be feasible for PNW LSEs with significant hydro generation.

The metrics outlined in the proposal are for capacity constrained systems and establish maximum capacity values on peak load hours. Bonneville and the Pacific Northwest region have historically been energy constrained (and capacity surplus) and hence using historical streamflow sequences to conduct critical period (energy) planning has been standard utility practice. As the region has been adding thermal capacity it is transitioning to capacity critical. In its latest Needs Assessment, Bonneville is still energy constrained (10th percentile HLH metric). Therefore, the exclusive use of capacity metrics is problematic for Bonneville as it has an energy constrained system.

Bonneville has concerns about the CAISO's proposed approach for determining a RA Resource's Pmax. Testing Pmax for many of Bonneville's hydropower projects would be much more difficult than running tests for thermal units. This is because many Bonneville hydropower projects never or rarely run at their maximum capacities due to energy and substantial non-power constraints for navigation, flood control, irrigation, the Biological Opinion, and recreation. Thermal units often run at their maximum capacities as they do not have the same limitations. For example, non-power constraints for fish and irrigation, upstream hydro project water releases (cascading hydro), and allocating limited energy to meet loads across each day and week all limit the capacity capability of Bonneville's system.

Using just three years of historical data may not accurately represent the typical capability of Bonneville's run-of-river hydropower projects. For example, all three years could potentially be above average water years, resulting in capacity estimates that are significantly higher than average. The converse could also occur where all three years are below average water years that result in significantly lower capacity values. This is why the Pacific Northwest region has developed an 80 year streamflow record (that is updated every 10 years) for use in critical period planning. The current critical periods (4 year – 1929 to 1932; 2 year – 1944 to 1945, and less than 1 year – 1936 to 1937) are all outside of the past three years.

Pacific Northwest peak loads typically occur on winter mornings. The exceedance values of peak hours CAISO proposes are based on peak afternoon peak load. The expanded footprint will need to have an alternative approach because exporting the seasonal and hourly RA requirements used for California will not align with the peak load in the PNW.

8. Other

Bonneville believes RA is one of the most important parts of the ISO framework, and has concerns that the RA structure is being developed before the new governing body for the expanded ISO is created. Bonneville understands that this issue was discussed in the Second Revised Straw Proposal, but would like to reiterate that the future governance of the region-wide ISO (including elements of this Regional RA framework) should be determined in and through the regional discussions occurring before the California Energy Commission and the related stakeholder processes.