

## Stakeholder Comments Template

### Subject: Regional Resource Adequacy Initiative

Submitted by	Company	Date Submitted
PacifiCorp 825 NE Multnomah, Suite 1800 Portland, OR 97232 Carolyn Barbash (775) 834-5677 Carolyn.Barbash@PacifiCorp.com	PacifiCorp	May 5, 2016

PacifiCorp continues to believe it is important that the California Independent System Operator's (ISO) tariff be structured to enable load serving entities (LSEs) that participate in an expanded regional organization to continue their use of existing resource planning practices with minimal disruption and that the local regulatory authorities (LRAs) of LSEs maintain their role in establishing resource planning guidelines and processes. The following comments are provided on the six items in the Regional Resource Adequacy (RA) Revised Straw Proposal:

#### 1. Load Forecasting

The ISO proposes that the coincident system load forecast for an expanded balancing authority area (BAA) would be created each year by the ISO based on load forecast data created and submitted by LSEs. The ISO has proposed that it would utilize the forecast provided by each LSE, calculate a coincidence factor and determine the allocation of the coincident load to each LSE in the BAA. To determine the system coincident peak and identify each LSE's specific contribution, the ISO will calculate each LSE's specific coincidence factor for each LSE in the BAA. The ISO has identified two potential coincident factor methodologies:

1. CEC method – Median of 5 peak hours in the month using 1-3 years of history
2. Power System Coincidence Factor Method – ratio of the simultaneous maximum demand to the sum of individual maximum demand within the same period.

Lastly, the ISO has proposed to establish criteria that would trigger a review of individual LSE forecasts and potentially direct the LSE to adjust the load forecast if, after review and discussion with the LSE, the load forecast is found to be unrealistic or unreasonable.

PacifiCorp continues to support the ISO's general framework on this item, but believes that the coincidence factor for determination of the coincident load to each LSE needs to be reviewed more thoroughly using longer historical time periods. It may be that the 1-3 year history the ISO is proposing to use is reasonable, but that decision should be based on testing that theory not simply adopting a method without supporting analysis. The methodology ultimately adopted by

the ISO would directly influence coincident peak load benefits for LSEs in the expanded BAA. PacifiCorp will be considering these benefits when developing a risk adjusted business case for participation in a regional ISO. Also, with the increases in solar penetration, both utility scale and distributed generation, peak load times have the potential to rapidly shift to different hours within the day. Historical data can be important, but the ISO will also need to consider how increasing penetration of solar resources will impact the coincidence factor on a forecast basis.

PacifiCorp supports the ISO's proposal to instruct the LSE to adjust its load forecast if it believes that it is unreasonable based on actual peak data and after a thorough review with the LSE. The ISO's direction to the LSE to adjust the load forecast would only be done if the LSE cannot demonstrate that its forecast variances are reasonable. Due to the complexity of the load forecast submitted by each LSE, which is developed utilizing weather, economic, and class level load data, PacifiCorp believes that the LSE should be responsible for implementing a proposed adjustment to its load forecast.

## **2. Maximum Import Capability Methodology**

The ISO proposes to revise the existing methodology used to calculate the Maximum Import Capability (MIC) megawatt (MW) values to reflect different peak time periods in which non-coincident peaking areas without commonly known simultaneous import constraints experience their own maximum simultaneous imports.

PacifiCorp supports the ISO's proposal to allocate MIC based on different peak time periods. PacifiCorp continues to assess the ISO's current MIC calculation methodology and the impacts it would have on PacifiCorp's ability to meet its RA obligations using wholesale firm market purchases. In particular, PacifiCorp is evaluating the implications of the proposed zonal resource adequacy proposal and how that may impact MIC calculations.

An additional element of the MIC the ISO needs to address is the potential use of MIC to import external resources that are pseudo-tied to the expanded regional ISO BAA. PacifiCorp uses third-party transmission to pseudo-tie several of its thermal, wind and hydro resources into its BAAs. Under the current tariff, these PacifiCorp-owned resources would be counted as external resources by the ISO and would require the use of allocated MIC to qualify for RA purposes. These external resources could not be substituted for internal resources if an internal resource went on forced outage during any given RA month. Similarly, PacifiCorp would also not be able to use bilateral transactions to meet its RA obligations for internal resource outages.

This framework could cause barriers for regional expansion for entities like PacifiCorp, which operates a system that is non-contiguous and is interconnected to multiple third-party transmission systems and external markets. From a reliability perspective, it is unclear why a pseudo-tied resource, or a bilateral transaction, would not qualify as a substitute for an internal resource under the RA program. It would be helpful for PacifiCorp to better understand the ISO policies on internal versus external resources and the reliability implications of using a pseudo-tied resource or bilateral transaction as a substitute for an internal resource. Absent these considerations, PacifiCorp is concerned that incremental costs may be incurred to meet future RA obligations.

### 3. Internal RA Transfer Capability Constraints

The ISO's proposal related to internal RA transfer capability constraints changed from its original proposal. The ISO originally proposed to use a similar methodology as applied to the Path 26 transfer capability constraint, but has found that this method is not a good proxy for an expanded BAA. Instead, the ISO has recommended a Zonal Resource Adequacy Proposal that would:

1. Establish defined RA zones,
2. Establish Zonal PRM targets for each defined RA zone,
3. Establish MIC into the specified zone,
4. Calculate a zonal RA requirement by multiplying a zonal load forecast times a zonal PRM requirement,
5. Allocate the zonal RA requirement,
6. Establish LSE "netting" credit, and;
7. Establish final zonal capacity requirement after netting.

The ISO would establish four zones in its zonal process that are not expected to change once established: North path 26, South path 26, PACW and PACE. The ISO notes that additional RA zones may be added if other entities join in the future.

The ISO is seeking feedback on the proposed RA zones, guidelines, criteria or other consideration that should be used in establishing the proposed RA zones. However, without understanding how the zonal process would work, it is difficult for PacifiCorp to provide meaningful feedback to the ISO on how it would go about establishing the zones. The proposed RA zones and associated Zonal Import Limits would effectively establish separate MIC allocations for each of the two current PacifiCorp BAAs. PacifiCorp will need to further evaluate the potential impacts of this new approach and the limitations it would impose on using a resource in one zone to meet RA requirements in the other zone in which PacifiCorp operates.

As noted, PacifiCorp is interconnected with multiple third party transmission owners, which has implications on how PacifiCorp's resources are counted towards RA. Additionally, if entities adjacent to or interconnected with PacifiCorp join the ISO, the PACW and PACE zones may no longer be appropriate delineations. Instead of creating additional RA zones, a reevaluation and redefinition of existing zones may be required.

The current RA process at the ISO is a complex process. Adding a "zonal" layer to the requirement that has implications on the load forecast, planning reserve margin calculations, local capacity requirements, MIC allocations, etc. will add additional complexity and it is unclear what the reliability improvement would be relative to the current process. Understanding the reliability implications, either improvement or lack of improvement, in its zonal RA proposal is needed. For example, the ISO has proposed a netting process, but has stated that this would be a "voluntary participation" in the zonal netting process. At this time, it is unclear what value proposition might lead an LSE to volunteer for the netting process? Further clarification is needed from the ISO on its Zonal RA process.

### 4. Allocation of RA Requirements to LRAs/LSEs

The ISO tariff currently requires the ISO to allocate local and flexible capacity requirements to LRAs. The ISO proposes to modify its tariff so that the ISO will directly submit to LRAs their allocation of local and flexible capacity requirements so that they can allocate such requirements to their jurisdictional LSEs. If an LRA does not want to receive the allocations, the ISO would allocate the requirements directly to the LSEs.

PacifiCorp supported this recommendation in its comments on the ISO Straw Proposal, but also raised the issue of how the ISO would allocate its requirements with multi-state utilities. The ISO agreed that a multi-jurisdictional utility would be problematic for them, since they cannot identify the local, flexible and now zonal requirements on a jurisdictional basis, however, it did not change its initial proposal. PacifiCorp would like additional clarification from the ISO on how a “multi-jurisdictional LSE” will be treated differently than a single state LSE, either inside or outside the state of California.

### **5. Updating ISO Tariff Language to be More Generic**

The ISO proposes to make the ISO tariff language more generic to accommodate additional entities by using more universal language than the terms currently in use.

PacifiCorp continues to support this recommendation, as it is important for any ISO tariff revisions to accommodate participating entities that operate in states in addition to California and necessarily outside of the exclusive jurisdiction of the CPUC.

### **6. Reliability Assessment**

To ensure reliable operation of the BAA, each month the ISO will conduct a reliability assessment for the upcoming month using the information submitted by LSEs in RA showings and generators in supply plans.

#### **a. Planning Reserve Margin for Reliability Assessment**

To ensure reliable operation of the BAA, each month the ISO will conduct a reliability assessment for the upcoming month using the information submitted by LSEs in RA showings and generators in supply plans. The assessment will consider system, local and flexible RA requirements and the RA capacity that has been provided to the ISO by LSEs for each RA requirement. To do the reliability assessment, the ISO proposes to use a system Planning Reserve Margin (PRM) that would be established through a study conducted under a stakeholder process, with the study updated when significant changes occur to the ISO’s BAA. The ISO has proposed to use either a probabilistic approach (stochastic) or a deterministic approach (building block) and is seeking comment on the type of PRM methodology it should use for its zonal PRMs.

The PRM, measured as a percentage of coincident system peak load, is used in resource planning to ensure there are adequate resources to meet forecast load over time. PacifiCorp currently establishes its PRM within its Integrated Resource Planning (IRP) process by studying the relationship between cost and reliability measures among ten different PRM levels, ranging from 11 percent to 20 percent.

PacifiCorp understands the need to establish a minimum PRM for an expanded BAA as a means to ensure reliable operation. PacifiCorp further supports developing a minimum PRM through a

transparent stakeholder process; however, PacifiCorp recommends the ISO consider adopting some basic principles that will define the scope of this effort. One of these principles should be a commitment to establish a PRM that considers the incremental cost of achieving incremental improvements in reliability. A cost criterion was not proposed in the ISO's revised Straw Proposal. In developing this analysis, the ISO should identify the types of reliability measures it will report and use to inform selection of a PRM level (i.e., expected unserved energy, loss of load hours, loss of load events, etc.), the types of uncertainties the method will consider (i.e., unforced outages, load, generation from variable energy resources, hydro generation levels, etc.), and how it will develop resource portfolios for different PRM levels. Further, it is not clear whether minimum PRM levels will be established for each month, or whether a single PRM level will be calculated for a given year and applied to all months. In addition, it will be important to understand how costs associated with a PRM may disproportionately affect each LSE within the ISO BAA depending on the contribution to coincident system peak and further, the "zonal PRM" may have additional cost implications.

If the ISO establishes a planning reserve margin that creates a "shortfall" for an LSE that is inconsistent with the direction that it has received from its LRA, the LSE could be placed in the position of having to procure additional capacity that may not receive positive regulatory treatment for cost recovery.

#### **b. Resource Counting Methodologies for Reliability Assessment**

The ISO proposes to develop consistent counting methodologies for the amount of capacity that each type of resource can contribute toward meeting RA requirements. The resulting level of capacity would be used in the reliability assessment to assess how the resources used for RA meet reliability needs established by the ISO.

A consistent counting methodology would need to take into consideration established resource planning principles of new entrants. For instance, in its IRP, PacifiCorp considers the capacity contribution from short-term firm market purchases procured at market hubs outside of the BAA. A standardized approach would also need to be based on industry best practices while considering that LRAs have jurisdiction over LSEs and that the LRAs may require specific approaches for establishing resource counting criteria, particularly for intermittent resources. LRAs across PacifiCorp's jurisdictions have and continue to explore preferred methods for establishing capacity contribution values for intermittent renewable resources. A regional organization must be flexible and allow LSEs to incorporate any changes acknowledged or approved by an LRA in the RA plans for new entrants. Moreover, it is critical that any counting methodology adopted by the ISO be consistent with the capacity contribution values used to develop a minimum PRM.

#### **c. ISO Backstop Procurement Authority for Reliability Assessment**

If the ISO identifies any shortfalls after considering all of the RA capacity provided, the ISO will provide LSEs an opportunity to cure the shortfall. If a shortfall still remains after the opportunity to cure has passed, the ISO would have the ability to procure backstop capacity if needed and allocate costs to LSEs that are short.

Please refer to above comments regarding concerns that backstop procurement implemented based on the ISO's PRM or resource counting methodology may be inconsistent with the PRM or resource counting methodology of the LSE as determined in its resource planning process.