Stakeholder Comments Template

Subject: Regional Resource Adequacy Initiative

Submitted by	Company	Date Submitted
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PacifiCorp hereby submits the following comments to the California Independent System Operator (ISO) on its Regional Resource Adequacy Initiative – Third Revised Straw Proposal. PacifiCorp appreciates the ISO's continued efforts to provide a flexible framework that considers multi-state utilities, Local Regulatory Authorities (LRA) and Load Serving Entities (LSE) in an expanded ISO.

PacifiCorp is concerned that the ISO's latest proposal for Resource Adequacy (RA) would raise costs for PacifiCorp's customers without an increase in reliability relative to current operations. PacifiCorp has provided comments to the ISO that describe how the ISO's policies associated with resource substitution and availability penalties would cause PacifiCorp, or any LSE not currently part of the ISO, to plan and procure for greater than 115% of its actual expected peak load for each month. In addition, PacifiCorp would need to make sure this level of resources was available for each hour of the month, including light load hours. This level of reliability is not consistent with PacifiCorp's current Integrated Resource Planning (IRP) process and would require PacifiCorp to modify how it procures resources in its IRP, at greater cost to PacifiCorp's customers than what is considered prudent and necessary today.

1. Substitution of internal Resource Adequacy resources with external resources

The ISO has stated that it is no longer pursuing adjustments to allow for external resources to substitute for internal resources due to "challenges and complexity associated with implementation of tracking changes to must offer obligations that would be necessary." PacifiCorp's multi-state service territory, number of interconnections and diverse customer mix is in itself challenging and complex to plan and operate in the most economic and reliable manner. Rather than defer an adjustment on this issue at this time, PacifiCorp believes that the ISO needs to make it a priority to better understand how these barrier issues are going to need to change to accommodate both the current LSEs and any potential new entrants. Making changes to the current RA construct with a "need to have" focus seems to be limiting the ISO from taking into consideration how current policies could cause harm or burden a potential entrant, thereby making it all the more difficult for that entrant to make a sufficient cost-benefit business case for joining a regional ISO.

PacifiCorp is an entity that serves its load utilizing long-haul transmission lines across six-states and through other multiple other Balancing Authority Areas ("BAA"), including the Bonneville Power Administration. Accordingly, imported power to PacifiCorp's loads from an "external" resource or market purchase can actually be closer or more deliverable to load versus an internal resource, or similarly, will use the same transmission to deliver to load as a "local" or internal resource. It is important for the ISO to further understand PacifiCorp's (and other entities') ability to deliver electricity across its transmission system utilizing multiple resources and its import capability into each of its load areas. The ISO's current approach for discerning internal versus external resources and local versus system resources may make sense for California but does not readily apply to PacifiCorp and how it currently utilizes resources and imports interchangeably without reliability implications due to the topology of its load and transmission system.

PacifiCorp is also concerned that the ISO's current requirement for LSEs to contract for 115% of its expected contribution to the system coincident peak as well as have additional resources be able to substitute in the case of a forced outage, results in an obligation that is effectively higher than 115%. For example, if PacifiCorp is required to offer 10,000 megawatts (MW) of capacity into the integrated forward market and it has 1,000 MW of capacity on forced outage, it will need to potentially face an availability penalty on the 1,000 MW priced at $3.79/kilowatt-month or it will need to procure an additional 1,000 MW of capacity to offer into the market.

The ISO's availability penalties coupled with its resource adequacy requirements would require an LSE to maintain available capacity on its system for each hour of every month at greater than 115% of its actual expected load. The 15% planning reserve margin is intended, among other things, to take into consideration forced outages that may occur on the peak day, but due to availability penalties across the month, PacifiCorp will need to procure for forced outages that may occur on each day of the month, which would significantly increase its planning reserve margin and would require it to carry greater than 115% of its expected peak load for the month in every hour of the month. In addition, requiring a LSE to contract or procure capacity that is greater than 115% of its expected peak load in every day of the year is an unreasonable reliability requirement and, more importantly, it would cause PacifiCorp's customers to pay for resources that will not be used or needed.

2. Requirements RA Imports

The ISO clarified in its Third Revised Straw Proposal that the tariff will require that all import resources shown for RA need to be secured in the month-ahead time frame. More specifically, the ISO has stated that intra-month energy purchases or other contractual arrangements that have not been executed prior to 45 days before the month are ineligible for purposes of meeting RA requirements.

PacifiCorp understands the ISOs point of view in clarifying this issue, however, in tandem with not changing any of its additional RA requirements, resource substitution requirements, availability penalties and ambiguous local requirements, the ISO has made the RA construct less flexible for potential new entrants. The ISO's clarification on this issue, without changing other

pieces of the RA construct, would potentially impose significant cost without fully investigating or understanding the reliability implications of its proposal.

The ISO's current RA requirements include both a bidding requirement, either through self-schedule or economic bid, in the integrated forward market (IFM) and an availability penalty if the resource or contract is unavailable or not made available in the IFM. If an LSE does not submit a bid for its RA resource, including a non-dynamic non-specific system resource, the ISO will submit a bid on its behalf. The ISO's current RA penalty incents the LSE to meets its RA requirements due to the risks of imposed penalties or procurement costs that are higher than the bid submitted by the ISO. It is unduly burdensome on the LSE to have both a 45 day showing requirement, a must-offer obligation with a penalty construct, availability penalty and an inability to substitute resources that were shown 45 days prior to the month. This approach, for a risk-averse utility, will require an LSE to procure significant amounts of capacity that is well above its projected peak load inclusive of a planning reserve margin without providing meaningful improvements in reliability.

PacifiCorp is able to achieve an economic trade-off by utilizing bilateral energy purchases that can be more cost effective than utilizing its own resources for resource adequacy purposes. PacifiCorp encourages the ISO to better understand the nature of load characteristics outside California and take into consideration flexible transmission systems and access to liquid market hubs in the western interconnection and modify its requirements accordingly.

3. Maximum Import Capability

The ISO proposes to revise the existing methodology used to calculate the MIC 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. In addition, the ISO proposes to limit the initial allocations of MIC capability to those sub-regions of the ISO that are defined by the regional Transmission Access Charge (TAC) sub-regions.

PacifiCorp supports the ISO's proposal to allocate MIC based on different peak time periods and align the MIC calculation by sub-region consistent with the TAC proposal. However, PacifiCorp is concerned with the lack of clarity on the potential for internal transfer constraints that have been identified by the ISO. PacifiCorp believes that it is appropriate for the ISO to ensure that any constraints that may potentially limit the transfers of RA resources between major internal areas of an expanded BAA need to be identified and respected in the RA process.

The ISO states that its proposed MIC allocation process will provide an LSE the flexibility to utilize system RA imports brought into the system across all interties in an expanded balancing area. However, the ISO fails to recognize or analyze the constraints that currently exist across the expanded BAA that may pose risks of procurement associated with a system or even local RA resource. California LSEs are currently required to work with the California Public Utility Commission on resource procurement that accounts for the North to South transmission constraint. With the limited transmission capability between the ISO and PacifiCorp's West BAA, as well as limited transmission between PacifiCorp's West BAA and PacifiCorp's East BAA, PacifiCorp is concerned that the ISOs proposal won't reveal issues with RA capacity until

after an LSE has already procured the capacity or entered into a contract. From a planning perspective, the ISO's proposal to monitor and not identify deliverability issues until after the initial showing by each LSE may introduce additional costs and risk to the LSE in its procurement process.

4. 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

The ISO proposes to use a system Planning Reserve Margin (PRM) that would be established through a study conducted pursuant to a stakeholder process, with the study updated when significant changes occur to the ISO's BAA. The ISO has provided additional detail on its proposal to use a probabilistic loss of load study approach.

PacifiCorp is supportive of and 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 continues to recommend that the ISO consider adopting 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 has not yet been proposed or discussed in the ISO's discussion of a PRM methodology. PacifiCorp would like further clarification from the ISO on how it will take into consideration the cost aspect of reliability in its PRM methodology.

PacifiCorp believes it is 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. PacifiCorp continues to have a concern that if the ISO establishes a PRM 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. The ISO's previous response to this concern did not take into consideration the fact that costs imposed by the ISO to PacifiCorp are not automatically recoverable and must be approved by each of its state regulatory authorities.

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 ISO 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.

Lastly, as stated above, backstop procurement, based on the ISO's PRM or resource counting methodology, may be inconsistent with the PRM or resource counting methodology of LSEs as determined in a resource planning process.

5. Load Forecast

The ISOs recent proposal for the coincident system load forecast would require each LSE, or representing agency, to annually create its expected contribution to the coincident system load forecast. The ISO has committed to provide historical hourly load data to better assist each LSE to provide this to the ISO on an annual basis. While the ISO believes that this approach allows for "maximum flexibility" it could lead to less accurate prediction of the expected coincident peak.

PacifiCorp has the unique experience of currently forecasting a multi-state system peak that requires it to predict non-coincident peaks by state and, from that, calculate a coincident peak for its system. PacifiCorp's unique situation is analogous to the ISOs challenge of forecasting a coincident peak that involves a large geographic region. The information PacifiCorp utilizes to create the coincident peak forecast takes into consideration energy efficiency programs, codes and standards changes and class level growth patterns and their unique contribution to the peak hour. Due to the nature of the changes in the underlying assumptions, the coincident peak time may change from year-to-year and alter the contribution of each state to the coincident peak. For example, in PacifiCorp's Western BAA the winter peak time is typically around 8:00 am (Pacific Standard Time), whereas PacifiCorp's Eastern BAA peak time is around 7:00 pm (Mountain Standard Time). Due to the differences in appliance saturation and changes in codes and standards and energy efficiency programs, the time of the coincident peak can "switch" between the two BAA's given the different forecast assumptions. These types of peak time changes will alter the contribution of each LSE to the coincident peak hour. By prescribing the peak hour for each month, prior to the forecast being submitted, the ISO is eliminating any changes that may occur within each LSE that may cause a change in the predicted peak timing.

PacifiCorp is concerned with the new direction that the ISO has proposed in its coincident load forecast approach for the combined BAA, for the reasons stated above. PacifiCorp believes that the ISO should develop the expertise to be able to provide a coincidence factor for determination of the coincident load to each LSE.