Stakeholder Comments Template

Regional Resource Adequacy Initiative
Issue Paper

Submitted by	**Company**	**Date Submitted**
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This template has been created for submission of stakeholder comments on the issue paper for the Regional Resource Adequacy Initiative that was posted on December 9, 2015. The issue paper and other information related to this initiative may be found at: http://www.caiso.com/informed/Pages/StakeholderProcesses/RegionalResourceAdequacy.aspx.

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **January 7, 2016.**

If you are interested in providing written comments on the issue paper, please provide your comments below.

Introduction

PacifiCorp (the Company) appreciates the opportunity to provide these comments on the Regional Resource Adequacy Initiative Issue Paper (RA Issue Paper). The Company agrees that changes to the current tariff will be necessary to accommodate the ISO transforming into a regional organization. Most important in making these changes is the need for flexibility. Utilities outside of California interface with different markets, are influenced by different policies, and operate under different regulatory structures. These differences require different planning processes that are effectively being used by utilities to ensure there will be sufficient resources to cover customer demand. It is important that the 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. Likewise, it is important that local regulatory authorities (LRAs) of LSEs participating in an expanded regional organization maintain their role in establishing resource planning guidelines and planning processes.

In these comments, PacifiCorp first provides background information on its current resource planning process. The following sections then summarize the Company's comments on specific issues identified in the RA Issue Paper.

PacifiCorp Resource Planning Background

PacifiCorp is a multi-jurisdictional utility (MJU) serving customers in six states (California, Idaho, Oregon, Utah, Washington, and Wyoming). PacifiCorp files an Integrated Resource Plan (IRP) on a biennial basis with its state utility commissions (LRAs of PacifiCorp).[1] PacifiCorp's LRAs do not produce resource plans. Rather, PacifiCorp's LRAs have each developed their own unique set of IRP standards and guidelines, which influences the Company's IRP by establishing filing requirements, update frequency, public processes, planning horizon, and other fundamental elements of resource planning activities. PacifiCorp produces a single IRP for its multi-state system that satisfies the requirements of all LRAs. At the most basic level, PacifiCorp's IRP produces a preferred portfolio of resources over a twenty year planning horizon. This resource portfolio identifies the type, timing, and location of future resource needs over the planning period. The preferred portfolio is chosen from a range of different resource portfolio options based on cost, risk, uncertainty, and long-run public interest criteria. The IRP also produces an action plan that identifies the specific steps the Company will implement over the front two to four years of the planning horizon to deliver the resources identified in the preferred portfolio.

PacifiCorp develops its IRP through a collaborative public process that provides many opportunities for a diverse stakeholder group to comment on and influence key planning assumptions and analysis. Stakeholders that participate in this public process routinely include state regulatory commission staff, advocacy groups, customers, developers, and other interested parties. At the end of the public process, PacifiCorp files its IRP with each LRA. Once an IRP is filed with the LRAs, each state initiates its own review process. Most states adopt a process allowing parties and the Company to file written comments with the commission. These processes also often require that the Company appear before the commission in a public meeting to present the key findings of its IRP, where stakeholders, regulatory staff, and commissioners can comment and ask questions. Based upon this record, LRAs then determine whether the Company's IRP meets the state's IRP standards and guidelines before concluding the review process with an acknowledgement order or by stating whether it accepts the IRP for filing. When an LRA acknowledges the IRP or accepts it for filing, they are finding that the IRP has sufficiently met the IRP standards and guidelines established for that state.

In addition to analyzing new resource needs, PacifiCorp uses its IRP to identify significant transmission upgrades needed to integrate new resources into the PacifiCorp balancing authority area. PacifiCorp is required to meet mandatory FERC, North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) reliability standards and planning requirements. PacifiCorp also responds to requests issued by Peak Reliability as the NERC Reliability Coordinator. The Company conducts annual system assessments to confirm minimum levels of system performance during a wide range of operating conditions, from serving loads with all system elements in service to extreme conditions where parts of the system are out of service. Factored into these

[1] PacifiCorp does not have an obligation to file an IRP in California due to its MJU status. However, the Company files its IRP with the California Public Utility Commission in support of its On-Year and Off-Year renewable portfolio standard procurement plan reports, so long as the IRP complies with requirements specified in Pub. Util. Code § 399.17(d).

assessments are load growth forecasts, operating history, seasonal performance, resource additions or removals, new transmission asset additions, and the largest transmission and generation contingencies. Based on these analyses, the Company identifies any potential system deficiencies and determines the infrastructure improvements needed to reliably meet customer loads.

Transmission system improvements identified by the transmission planning assessments are used as an input to the IRP process, as such, future resources may potentially use those planned transmission facilities. However, PacifiCorp does not currently perform transmission planning studies using the local capacity requirement methodology that has been adopted by the ISO to identify areas where additional generation resources would provide system reliability benefits. Moreover, PacifiCorp has not historically proposed resources through its IRP process for the purpose of resolving transmission system deficiencies. New resource interconnection requests are studied through a queued generation interconnection request process and transmission system improvements specific to the requested interconnection are identified in generation interconnection system impact studies.

PacifiCorp believes that the IRP in its current form provides a framework to establish a resource adequacy (RA) program. The IRP identifies resources needed to reliably meet customer demand and identifies specific actions that will be implemented to procure resources in the near term. The IRP is reviewed and acknowledged or accepted for filing by LRAs. As such, PacifiCorp suggests that any changes to the tariff needed to accommodate the ISO transforming into a regional organization allow planning processes of LSEs to serve as the foundation for an RA program.

6.1. Making the Tariff More Generic

PacifiCorp agrees that there is a need to make the ISO tariff more generic to accommodate movement toward a regional organization. The current structure with recognition of the California Public Utility Commission (CPUC) jurisdictional entities and non-CPUC jurisdictional entities will need to change to accommodate additional entities that will have a role in a regional ISO. PacifiCorp assumes that over the course of this stakeholder initiative the ISO will recommend specific changes in tariff language intended to make it more generic as required for a regional organization and that additional comments will be provided at that time.

6.2. Updating ISO Default Tariff Provisions

PacifiCorp supports updating default tariff provisions that would be applicable when specific requirements have not been acknowledged by an LRA of an LSE in a broader regional organization. PacifiCorp further supports updating antiquated default tariff provisions to better align with conventions currently in use and to accommodate additional resource technologies (i.e., energy storage). PacifiCorp assumes that over the course of this stakeholder initiative, the ISO will provide specific recommendations for these sections of the tariff thereby providing opportunity to further comment on proposed changes at that time. In advance of commenting on specific default tariff language, PacifiCorp suggests that default tariff provisions be based on industry best practices that consider both reliability and cost.

The RA Issue Paper identifies two principles to guide any effort to update default tariff provisions. The first is to avoid changes to the ISO's rules that could fall out of sync with CPUC and other

California LRA RA programs. The second is to accommodate different LRA procurement programs, such as the CPUC LTPP and IRP approach used by other regulatory commissions. On the surface, these two principles are reasonable; however, as it relates to default tariff provisions for things like qualifying capacity and planning reserve margins, it may be difficult to meet both objectives. While the default provisions would, presumably, only apply in circumstances when there is no RA program approved or acknowledged by an LRA, it is not clear what it means for an LSE or an LRA to submit an RA program to the ISO. The importance of default tariff provisions for new entrants will depend greatly on whether and how default tariff provisions will apply to an LSE in a regional ISO.

PacifiCorp recommends that the ISO and other stakeholders participating in this initiative define what it means to "submit an RA program to the ISO." As discussed earlier in these comments, PacifiCorp produces its resource plan through an IRP process, and with input from stakeholders, key assumptions driving those plans (i.e., planning reserve margins, and the equivalent of "qualifying capacity", timing of procurement). LRAs either acknowledge or accept these plans for filing based on whether the plan is consistent with planning standards and guidelines adopted by each state. It is important that any tariff revisions accommodate this resource planning paradigm. To understand how this might work under a regional ISO, it will be important to identify, with more specificity, what must be included in an RA program and whether that program must be submitted by an LRA, or whether an LSE can submit an RA program acknowledged or approved for filing by an LRA. Moreover, there should be flexibility in the tariff to accommodate updates to an RA program considering IRP planning cycles, which for PacifiCorp, is updated every two years.

Another question raised in the RA Issue Paper is the potential need for a standardized approach for establishing requirements and counting resources under a regional ISO. While the Company is willing to discuss such an approach through this stakeholder initiative, it does not seem practical to move to a more standardized approach at this point. As discussed above, potential new entrants have diverse regulatory requirements when compared to California participants. Any standardization would need to take into account these historical differences. It is likely that any construct limiting the authority of the LRA's would not be viewed favorably by the state regulatory bodies of the new entrants.

6.3. Establishing the RA Requirement

6.3.1 System Capacity Requirements

PacifiCorp agrees with the ISO that the load forecast is a key element in determining an RA system requirement. Currently, LSEs within the ISO's balancing authority area (BAA) submit load forecasts to the CEC, including assumptions for load modifying demand response and energy efficiency utilizing a "1-in-2 year" calculation. PacifiCorp currently produces a load forecast that is consistent with the California LSE's approach, including a "1-in-2 year" calculation, demand response and energy efficiency assumptions that are consistent with the standards and guidelines of PacifiCorp's six state jurisdictions.

For purposes of determining a new coincident system peak for a regional ISO, it is not likely feasible for a specific state agency, such as the CEC, to perform this calculation for all LSEs. With the ISO intending to become a regional organization, which would likely encompass a large geographic territory across multiple states, it seems more logical that the ISO or other third party take on the role of calculating an allocation of each LSE's contribution to peak load in the regional ISO footprint. PacifiCorp supports the overall approach of utilizing an LSE's load forecast as an input to determining the total RA system requirement, that is then allocated to LSEs, pro rata, based on their respective contribution to the total system coincident peak load.

In addition to meeting the coincident system peak there is a reserve requirement that varies between 15-17% in all months of a year for CPUC jurisdiction utilities. The Company does not believe that the reserve requirements should be standardized, but rather, tariff revisions should recognize planning reserve margins developed by LSEs and acknowledged or approved for filing by LRAs. As discussed above, a standardized approach may not be well received by existing LRAs.

Should the ISO consider developing a standardized planning reserve margin, the Company recommends that a process be established that identifies an appropriate planning reserve margin study for the regional ISO footprint that considers both reliability (loss of load probability) and cost. This process should accommodate routine updates to ensure the target planning reserve margin level remains valid as the mix of resources within the regional ISO footprint changes and to accommodate any changes to the regional ISO footprint itself. This approach would align with PacifiCorp's current planning practice in which the planning reserve margin is analyzed in each IRP.

6.3.2 Local Capacity Requirement

The BAA of a Regional ISO may not be as contiguous in nature as the existing California ISO BAA and may need to rely on transmission paths crossing BAA boundaries and located within foreign BAAs to allow importing of resources to local areas. For instance, the transmission system in the Pacific Northwest is highly interconnected between multiple LSEs with the existing resources often remote from load pockets and reliant on the transmission system for import into load pockets. As a result, the RA local capacity requirement basis and methodology may need to be revised to meet the needs and existing operability of the more diverse transmission topology of the potential regional ISO.

6.3.3 Flexible Capacity Requirement

PacifiCorp recognizes the need for flexible capacity to operate the system reliably and that this need can vary over time and within specific hours of a day. The Company further believes that any allocation of flexible capacity to LSEs should be done proportionate with the LSEs contribution to a net load ramp coincident with the system net load ramp. However, the process of assigning the flexible capacity need as determined by the ISO to LRAs, which in turn allocate the flexible capacity need to LSEs, should be revised to accommodate transformation toward a regional ISO. An alternative approach that assigns flexible capacity requirements directly to the LSE, at least for new entrants to a regional ISO, is likely required.

At this time, PacifiCorp has not yet fully analyzed how the ISO tariff language related to flexible capacity requirements compares to its own planning and operational processes. While a more geographically diverse regional ISO footprint is likely to lower flexible capacity requirements and reduce system operating costs, the Company has not yet determined if the current tariff language is structured to deliver these benefits to PacifiCorp customers. The Company will continue to evaluate this issue through this stakeholder initiative.

6.3.4 Load Following Metered Subsystem

PacifiCorp does not have any comments on load following metered subsystems (MSS) at this time. It appears load following MSS will not be applicable to the PacifiCorp system if it were part of a regional ISO.

<u>6.4. Counting Resources to Meet Requirements</u>

6.4.1 Qualified Capacity

Under a regional organization the ISO will need to incorporate different approaches to determine the amount of qualifying capacity (QC) provided by specific RA resources. In its IRP process, PacifiCorp determines capacity contribution values at the time of coincident system peak load for both supply side and demand side resources and contracts, both for current and future resources. These capacity contribution values are analogous to the concept of QC as described within the ISO tariff and business processes. Similar to the ISO tariff, the capacity contribution values assigned to resources by PacifiCorp in its IRP vary by resource and resource type. For example, the capacity contribution value for dispatchable thermal resources is generally assumed to equal the maximum output of each resource. The capacity contribution values for intermittent resources are based upon a capacity contribution study, performed by PacifiCorp, that relies on system hourly loss of load probability data, as opposed to the exceedance method used by the CPUC. Considering that LRAs may prefer different methods for establishing QC, it is important that any tariff revisions maintain flexibility that allows LSEs to use QC assumptions and methods that are consistent with those acknowledged or approved by the LRA of new entrants into a regional ISO.

A standardized approach for developing resource counting criteria would allow for consistency within a regional ISO. A standardized approach would need to take into consideration established resource planning principles of new entrants. For instance, in its IRP, PacifiCorp considers the capacity contribution from proxy short-term firm market purchases at market hubs. A standardized approach would also need to be based on industry best practices while considering that LRAs of new entrants may support or require different 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.

6.4.2 Establishing Deliverability

The methodologies for assessing deliverability of resources within a regional ISO BAA and assessing deliverability of imports will need to be reevaluated to meet the needs of a regional ISO. The maximum import capability (MIC) methodology presently used by the California ISO allocates capacity on an intertie to any ISO LSE that wishes to use that intertie to procure RA capacity from one or more resources external to the BAA. PacifiCorp uses both owned and legacy purchased transmission rights to deliver resources that are located external to load areas. The Regional RA program will need to allow continued use of these legacy transmission rights such that new entrants can continue to use imports in their RA programs in perpetuity.

The deliverability for distributed generation section of the ISO tariff may also need to be revised to accommodate the formation of a regional ISO. The Company has not yet performed an exhaustive review of the current tariff language and ISO business practices related to deliverability of distributed generation, but the following sentence in the issue paper raises a potential concern:

> "It is intended to relieve the interconnection customer for a distributed generation facility from the requirements to request and achieve interconnection to the distribution system through the applicable interconnection procedures."

Any processes that allow distributed generators to bypass LSE interconnection requirements would be problematic. The Company will need further clarity on this issue.

6.4.3 Zonal Transfer Constraints

PacifiCorp agrees that the formal adoption into tariff of zonal transfer constraints may be necessary to ensure an RA program in a regional ISO sufficiently accounts for paths with limited transmission transfer capability. Further studies on the transmission transfer capability limitations in an expanded regional ISO footprint are likely to be required to help identify these zonal transfer constraints and inform the RA counting constraint methodology. As with the MIC methodology revisions discussed above, the zonal transfer constraints methodology will need to honor any legacy transmission rights on those limited transfer capability paths.

6.4.4 Net Qualifying Capacity

As discussed above, any method assessing qualifying capacity will need to account for differing methodologies acknowledged or accepted by LRAs in a regional ISO. This same concern would apply to the resulting net qualifying capacity.

6.4.5 Effective Flexible Capacity

As discussed earlier in its comments, PacifiCorp has not yet fully analyzed how the ISO tariff language related to flexible capacity requirements compares to its own planning and operational processes. The Company will continue to evaluate this issue through this stakeholder initiative.

<u>6.5. Resource Showings and Compliance</u>

The current process for resource showing and compliance may need to be adjusted to reflect different regulatory structures outside of the current ISO footprint as well as bilateral markets outside of the ISO footprint and non-contiguous service territories. PacifiCorp believes its IRP process is a vehicle for showing that PacifiCorp is able to meet its load with the required resources, especially as it pertains to the year-ahead demonstration. PacifiCorp's LRAs acknowledge or accept an IRP, which in essence, acknowledges the utility's planned procurement of resources meets the resource planning standards and guidelines adopted by a given LRA. Note the LRA does not mandate procurement, so some tariff changes will likely be necessary.

As described earlier, PacifiCorp's IRP action plan outlines specific actions the Company will take to meet its resource needs, which includes actions to acquire short-term firm market purchases (described as front office transactions, or FOTs, in the IRP) in order to meet its peak load obligations. To manage cost and risk, PacifiCorp procures these resources on varying forward time intervals, which includes balance of month, day-ahead and hour-ahead. PacifiCorp does not have a procurement mandate from its LRA's that requires these market purchases at specific time intervals and in specific volumes. PacifiCorp manages the timing and volumes for these purchases as system and market conditions change up to the time of delivery. As such, the ISO's tariff will need revisions to accommodate different procurement policies and practices of new entrants in a regional ISO.

For instance, as discussed in the December 16, 2015 RA Stakeholder Initiative meeting, the ISO described RA programs requiring both annual and monthly procurement. LSEs in a regional ISO are likely to have different procurement practices and timelines as part of an acknowledged or accepted RA program by its LRA that differ from those currently implemented by the ISO. In particular, procurement of short-term firm market purchases, used to supply system energy and capacity, made in advance of monthly showings could introduce incremental costs for the customers of new entrants. To mitigate these costs, the ISO should consider alternative treatment of these types of resources when developing tariff revisions that accommodate transformation to a regional ISO.

6.6. Bidding and Scheduling Requirements

At this time, PacifiCorp is not able to know how it might meet the bidding and scheduling requirements as outlined in the current tariff. Additional analysis will be required to validate how a yet-to-be defined RA program translates into bidding and scheduling requirements. PacifiCorp will need to have a better understanding of its RA system requirements and flexible requirements to be able to provide more informed comments on whether there might need to be revisions to the tariff for bidding and scheduling requirements.

6.7. Resource Performance Incentives

PacifiCorp will need to have a better understanding of its RA system requirements and flexible requirements to be able to provide more informed comments on resource performance incentives.

6.8. Substitution Rules for RA Resources on Outage

PacifiCorp supports in principle the ability to allow substitute capacity to meet RA requirements in the event of planned and unplanned outages.

6.9. Backstop Provisions

In a broader regional ISO, PacifiCorp recommends that the ISO fully evaluate alternatives to its capacity procurement mechanisms in remedying resource adequacy deficiencies to account for potential unique differences in sub-regions or local capacity areas.

Conclusion

The comments above are intended to begin the discussion on changes necessary to the ISO tariff to accommodate transformation to a regional organization. These comments are not exhaustive and do not address all areas that may require potential changes in support of this effort. Any tariff changes need to reflect the planning processes as currently practiced by new entrants that are effectively being used by utilities to ensure there will be sufficient resources to cover customer demand. It is important that the ISO tariff be structured to enable LSEs that participate in an expanded regional organization to continue their use of existing resource planning practices with minimal disruption. Likewise, it is important that LRAs of LSEs participating in an expanded regional organization maintain their role in establishing resource planning guidelines and planning processes. PacifiCorp looks forward to working with the ISO and other stakeholders in this process going forward.