

## Regional Resource Adequacy Revised Straw Proposal

**Stakeholder Comments and ISO Responses Matrix** 

**April 13, 2016** 

## Stakeholder Comments and ISO Responses Matrix

This document contains written stakeholder comments that were received on March 16, 2016 on the Regional Resource Adequacy ("RA") Straw Proposal that was posted on February 24, 2016, and on which was the subject of a stakeholder meeting on March 2, 2016. The matrix below provides the written stakeholder comments, as well as California ISO ("ISO") responses to those comments.

The table below shows the acronyms used in the table below for the names of the stakeholders that submitted written comments and the acronyms that are used in the stakeholder comments and ISO responses matrix.

Acronym	Name of Stakeholder
AWEA	American Wind Energy Association
BAMx	Bay Area Municipal Transmission
BPA	Bonneville Power Administration
CDWR	California Department of Water Resources
CLECA	California Large Energy Consumers Association
CMUA	California Municipal Utilities Association
CPUC	California Public Utilities Commission
EDF-RE	EDF-Renewable Energy
ICNU	Industrial Customers of Northwest Utilities
LSA	Large-Scale Solar Association
NCPA	Northern California Power Agency
NIPPC	Northwest & Intermountain Power Producers Coalition
ORA	Office of Ratepayer Advocates
PG&E	Pacific Gas & Electric
SCE	Southern California Edison
SCL	Seattle City Light
SDG&E	San Diego Gas & Electric
SVP	Silicon Valley Power
TURN	The Utility Reform Network
UOCS	Utah Office of Consumer Services
UTC	Washington Utilities & Transportation Commission
WPTF	Western Power Trading Forum

The matrix that starts on the following page provides the written stakeholder comments, as well as ISO responses to those comments.

Topic	Stakeholder	Comment	ISO Response
Load Forecasting	SCL	City Light requests that CAISO, CEC, CPUC, and other LRAs that presently "work together under unified planning assumptions" allow any new participating LSEs and LRAs an opportunity to participate in that process as equal partners in achieving the best possible load forecasts for their areas of responsibility.  City Light requests that the ISO provide additional information, including both qualitative and quantitative factors, used to determine what constitutes "unreasonable divergences" when making adjustments to an LSE or LRA load forecast. Please include the historic divergences, adjustments, and actual data, including the methodology used to verify after-the-fact that the adjustments were correct.	The ISO appreciates the comments of SCL and believes that the current California processes for load forecasting are open and transparent. The ISO explains the criteria that would trigger the ISOs ability to review load forecasts in the proposal, Section 5.1.
	"Six Cities"	Subject to evaluation of additional details when they are available, the Six Cities generally support CAISO's proposal to develop load forecasts for purposes of resource adequacy assessment based on load forecasts initially developed by participating LSEs and/or Local Regulatory Authorities, subject to review and potential adjustment for consistency and reasonableness [].	The ISO appreciates the feedback from the Six Cities and understands the need for more detailed information on aspects of the proposal. The ISO will continue to provide more details through the course of this initiative.
	AWEA, Interwest Energy Alliance, Renewable Northwest  [Joint Comments]	The ISO's proposed approach seems reasonable as it would allow the practices currently employed in California to continue, while also providing a path through which new PTOs, which may not have a state run load forecasting program, can provide their own load forecast information. The ISO's proposal to review the LSE load forecast submittals for reasonableness should relieve concerns about inaccurate LSE load forecast submissions.	The ISO appreciates the feedback from the joint commenters in support of this facet of the ISO's load forecasting proposal. The revised straw proposal discusses how the ISO might conduct a reasonableness assessment.

H N	estern Grid Group, Natural Resources Defense Council, Northwest Energy Coalition [Joint Comments]	We support CAISO's proposal that coincident system load forecast for the expanded BAA would be created by the ISO in a transparent process. Assuring adequate resources to meet coincident system peak over a broad footprint will save consumers money compared to the current practice of each BAA building and operating resources for its individual peak load.  We support CAISO's proposal that the California Energy Commission (CEC) would continue to determine load forecasts for LSEs in the existing ISO BAA, while entities outside of the current BAA would create and submit their own load forecasts to the ISO in a transparent manner. In order to decrease confusion and undue burden, PacifiCorp and other LSEs should be encouraged to develop forecasting information similar to that which is developed by the CEC and used by CAISO in its RA process.  We support CAISO's proposal to review entities' forecasts, and make adjustments if forecasts diverge unreasonably from actual peak loads or historical usage. Such review should be conducted in a transparent stakeholder forum.  We urge that load forecasting for any expanded BAA should be robust and transparent. Results should be compared with forecasts and accuracy and forecast errors should be made public. Load forecasts should incorporate accurate energy efficiency and distributed generation projections. Accurate and publicly accountable forecasts are essential so that consumers are not forced to pay for infrastructure investments that result from inflated load forecasts.	The ISO agrees that a transparent process will be needed in the development of a system-wide load forecast for an expanded BAA. The ISOs proposal seeks to establish a transparent stakeholder process for load forecasting. The ISO also appreciates the support of the joint commenters on those aspects of the ISO proposal. The ISO also agrees with the joint commenter's suggestion to explore making public the results of load forecast accuracy in order to be transparent and benchmark the accuracy of submitted forecasts.
	WPTF	This approach seems reasonable to WPTF. However, it is unclear how the ISO would adjust the RA requirement if an LSE's actual peak loads differed from the submitted forecast. The RA requirement is a planning tool and ensures capacity is procured in advance of each month. The ISO would only know if an LSE's forecast was incorrect during the month. Is the ISO suggesting some sort of LSE-specific CPM event or mid-month adjustment to the RA showing in the event actual load is above the forecast by a certain percentage?	The ISO only intends to use historic actual load data as an input to criteria that could trigger the ISO's ability to review a LSEs load forecast. The ISO does not intend to make adjustments to RA load forecasts mid-month, and the ISO is not suggesting any LSE-specific CPM event based on mid-month forecast deviations or any making of other mid-month adjustments to the RA showing.

First, we support the proposal to continue the current loadforecasting practices of both existing and prospective RSO participants. We believe that this approach is essential for an RSO to succeed.

Second, we support requiring all LSEs to provide hourly load forecasts that identify Demand Response, Additional Achievable Energy Efficiency, and Distributed Generation resources. With regard to PacifiCorp, while PacifiCorp does not forecast these resources specifically when developing its state-level *load forecasts* used for integrated resource planning ("IRP"), PacifiCorp does model them as resources to be selected by the IRP optimization algorithm. Given their inclusion in PacifiCorp's long-run plans, and given the tracking and reporting PacifiCorp is required to make to its commissions, it seems likely that PacifiCorp has the ability to develop and provide forecasts of these demand-side resources in the month-ahead timeframe the RSO will need.

Third, we support CAISO's proposal to review and modify an LSE's load forecast if the forecast diverges unreasonably from actual peak loads or historical use and the LSE cannot demonstrate its forecast is reasonable. The RSO must attempt to assure that load forecasts are as accurate as possible to avoid harm. If the load forecast is unreasonably low, reliability can be compromised. If the load forecast is unreasonably high, acquiring unneeded capacity will impose unnecessary costs.

Fourth, we support CAISO's proposal to develop coincident peak forecasts from LSE load forecast data.

In addition, we agree with the comments of WGG et al. that load forecasting for an RSO should be robust and transparent, and the accuracy of forecasts and forecast error should be made public.

In addition we recommend they be reviewed on an annual look-back basis to identify, overtime, biases and any over-forecasting trends. Public disclosure of forecast error may assist the RSO in reducing the frequency of missed forecasts so that it doesn't need to regularly adjust particular LSE forecasts as the RSO expands.

The ISO appreciates the comments in support of this aspect of the proposal.

The ISO agrees with the suggestion that in order to have a transparent process, the ISO will need to look into the possibility of publicly posting the results of forecast accuracy.

The ISO's proposal makes note of the timeline and timeframe needed for the load forecasting submittals.

Western Resource Advocates, NW Energy Coalition

[Joint Comments]

		[] In the Revised Straw Proposal, please provide more detailed	
		information regarding the time scale of the load forecasts used for	
		TPP and CRR and how CAISO anticipates coordinating these with	
		the proposed RA load forecasting approach.	
		Weather-normalized load forecast: We assume that the hourly	The ISO appreciates the suggestions of the NW
		load forecast used to assess adequacy is a weather-normalized	Power & Conservation Council and will take into
		value. The CAISO should clearly define how it defines weather-	consideration the recommendations for the
		normalization to ensure that load forecasts for potential new	proposed load forecasting process.
		members (LSEs) outside the current ISO footprint are consistent.	The ISO agrees that the load forecasting process
		2) Energy Efficiency: We agree that energy efficiency savings	should account for weather normalization. The ISO
		should be included in the hourly load forecast. We recommend that	describes its initial thinking on how weather
		these savings also be reported separately along with a description of	normalization should be accounted for in the
		how they are assessed.	proposal, Section 5.1.
	NW Power & Conservation Council	3) Distributed Generation: We agree that the effects of distributed generation (e.g. solar rooftop) be included in the load forecast and we recommend that this behind-the-meter generation also be reported separately.	The ISO appreciates the recommendation to request the separate reporting of EE, DG, and DR impact in the submitted load forecast for transparency.
		4) Demand Response: Since demand response refers to actions	The ISO believes that DR can be treated both as a
		that can be taken, if necessary, to offset high peak-hour loads, we	load modifier and a supply resource, depending on
		recommend that it be accounted for on the resources side of the	the specific characteristics of the individual
		adequacy calculation. However, if DR is included in the loads, we	resources and programs. The entities responsible
		recommend that it also be reported separately.	for submitting load forecasts should have this
			flexibility in accounting for DR in load forecasts
		IONILL supports the property of 1 to developing to different for	submitted to the ISO.
		ICNU supports the proposal [] In developing tariff proposals for Federal Energy Regulatory Commission ("FERC") approval,	The ISO understands ICNU's concern over the involvement of the LRA and the ISO's proposed
		however, ICNU is especially concerned with a particular aspect of	load forecasting review ability. The ISO will continue
		the ISO's proposal [] Particularly, the ISO proposes to "review LSE"	to conduct all stakeholder processes in a
		forecasts and <i>make adjustments</i> to submitted forecasts if an LSE	transparent manner and serve as an independent
	ICNU	forecast diverges unreasonably from the LSE's actual peak loads or	entity that respects the various state and LRA
	10.10	historical usage and the LSE cannot demonstrate their forecast is	regulations.
		reasonable." Notably missing from this equation is the involvement	
		of a local regulatory authority ("LRA")—potentially giving the ISO	The ISO proposal provides LRAs the same ability to
		unchecked authority to "make adjustments" to LSE forecasts, based	provide input into the current load forecasting that
		on unilateral reasonableness determinations, and thereby dictate the	they have today. The ISO proposes to review load
		effective outcome of "existing procurement programs."	forecasts that have triggered the ISO review based
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	[] A transparent ISO process does not, by itself, provide any safeguards to customers of potential new PTOs if the ISO has plenary authority to make adjustments to forecasts developed through traditional LRA processes. Therefore, to avoid any concerns over wresting practical control from LRAs and altering the course of existing procurement processes, ICNU recommends that the tariff submitted to FERC simply allow for state regulatory input or involvement as a requisite element in ISO reasonableness and forecast adjustments determinations.	on the criteria in the proposal in Section 5.1. Once the ISO conducts the review, the ISO would have a discussion with the parties and reserves the right to make adjustments to submitted load forecasts. Also, please note that the ISO's alternative dispute resolution process in the ISO tariff is available for disputes that are not resolved through the normal review process.
NIPPC	NIPPC agrees []. In the next version of the straw proposal, the ISO should describe in detail the formulas it intends to use to determine the coincidence factor and calculate coincident load and allocate it to LSEs. The ISO will need to develop rules ensuring the consistent treatment of behind the meter generation and demand response resources among the LSEs preparing their own load forecasts.	The ISO proposal describes two options for the Coincident Factor formulas. The ISO proposes to allow individual forecasters to determine the treatment of behind-the-meter generation, DR, and other adjustments, and will require the reporting of the treatment and impact of these adjustments for transparency. Also, the ISO will make a conscious
	After the ISO has allocated coincident load to LSEs, there should be a mechanism for Local Regulatory Authorities (or the LSE) to review and challenge the allocation. Provisions should be included to revise load forecasts during the course of the year. Note that it is critical for the mechanisms used to calculate and allocate the coincident load to be transparent.	effort to create a transparent process that provides for fair treatment of the ISO changes and LSE's forecast. The ISO's alternative dispute resolution process in the ISO tariff is available for disputes that are not resolved through discussion amongst parties.
PacifiCorp	[] PacifiCorp supports the ISO's proposal to utilize an LSE's existing method to forecast load for purposes of creating a coincident system load forecast for an expanded BAA. PacifiCorp requests the ISO provide additional details regarding how the ISO proposes to calculate the coincidence factor when determining the coincident load for each LSE, including the historical time period that would be used for the calculation and the historical coincident peak adjustments for demand response.	The ISO appreciates the comments on the load forecasting proposal by PacifiCorp and has provided the details of establishing a Coincident Factor in the revised straw proposal.
SCE	To develop system-wide forecast from individual forecasts, the CAISO needs those forecasts to have a consistent and similar methodology. In addition, the forecasts should be vetted by the local regulatory agency. For example, forecasts should be a 1 in 2 weather adjusted forecast, the treatment of DR & EE projects, etc., and any explanations of deviations from historical load patterns, etc.	The ISO appreciates SCE's comments on the load forecasting proposal. The ISO agrees that forecasts should include weather normalization and the impact of DR, EE, DG, and other related adjustments. The ISO believes that flexibility can be allowed for LSEs to determine the treatment of these adjustments, however the impact of these

	should be defined. The standards should be outlined in the appropriate tariff and business practice manual.	adjustments should be reported to the ISO for transparency.
TURN	[] the CAISO has a history of forecasting an excessive need for resources. For example, in 2011, the CAISO argued that the state would need to build 4,600 MW of new gas-fired plants by 2020 to maintain reliable service. Today, the notion that the state needed to start building 4,600 MW of new gas capacity to meet its 2020 reliability needs []. Had the CAISO RA straw proposal been in force back in 2011, the CPUC's failure to order additional procurement of new resources would have been deemed deficient and CAISO would have been authorized require such procurement by LSEs or conduct the procurement itself on behalf of the state. The resulting excess costs would have driven up rates for all enduse consumers in the CAISO balancing area.	The ISO does not engage in procurement in the first instance. It only engages in backstop procurement to meet a limited number of reliability needs specified in its tariff. The circumstances identified by TURN do not give rise to ISO backstop procurement under the tariff. The ISO will ensure that load forecasting will be handled in coordination with other entities in a transparent manner.
PG&E	PG&E agrees that a process needs to be developed for the CAISO to review and aggregate load forecast data. PG&E requests that the CAISO create a process to ensure that a consistent methodology is used for counting the reliability contributions of Demand Response, Additional Achievable Energy Efficiency, and Distribution Generation. An inconsistent load forecasting methodology has the same impact as inconsistent counting rules, which the CAISO has identified as a structural inconsistency that promotes capacity leaning.	The ISO appreciates the comments on load forecasting by PG&E. The ISO agrees that forecasts should include weather normalization and the impact of DR, EE, DG, and other related adjustments. The ISO believes that flexibility can be allowed for LSEs to make their own determinations for the treatment of these adjustments; however, the impact of these adjustments should be reported to the ISO for transparency.

California ORA	[] The third-party review and independent stakeholder process performed by the CEC to both determine load forecasts and order LSE plausibility adjustments is an important part of the current RA process in California. In the Straw Proposal, the CAISO may accept or modify LRA and LSE forecasts, thereby eliminating a neutral process and third party review. This raises questions for some of California's key programs, as discussed below.  California has established many unique and progressive programs to reduce GHG emissions, expand low-cost electric vehicle charging, provide reasonable rates for low-income households, and achieve energy efficiency targets. These programs produce unique assumptions and modeling scenarios utilized by the CEC in determining appropriate load forecasts. California's unique regulatory mechanisms in support of its climate goals may be limited or change in unknown ways if a regional ISO assumes authority over forecasting. The blending of individual state forecasts that each use unique assumptions and differing modeling methodologies into one multi-state forecast could contradict the state's determination of resource capacity or may potentially cost California ratepayers more by requiring additional procurement in order to meet its unique policies and goals. Further detail is needed to specifically address a fair balancing of unique LRA forecasting under a regionalized ISO	The ISO understands the issues raised by the ORA and appreciates the comments regarding the considerations that should be made in the proposed load forecasting process. The ISO recognizes the issue of blending of individual state forecasts that each may use unique assumptions and differing modeling methodologies. The ISO must create a system-wide load forecast in order to accurately assess the system RA needs and fully capture the benefits of regional diversity.
BAMx	and how individual state policies and goals can be maintained.  BAMx understands that the load forecasts prepared by the Regional ISO through allocation of the individual LRA/LSE forecasts will be limited to a forecast for the year ahead. BAMx supports such a limitation in the forecast horizon so as to limit the potential for disagreements. In the event that there is still a disagreement in the load forecast, the Straw Proposal needs to identify the resolution process. BAMx is concerned that in the event of such a disagreement, there should be a forum not controlled by the ISO where such appeals may be presented. []  How does the CAISO plan to reconcile different load forecasting methodologies while determining the coincident system load forecast? We understand that the PacifiCorp calculates its PRM applying energy efficiency values in a different method than California.	The ISO appreciates the comments by BAMx. The ISO proposes to review load forecasts that have triggered the ISO review based on the criteria in the proposal in Section 5.1. Once the ISO conducts the review, the ISO would have a discussion with the parties and reserves the right to make adjustments to submitted load forecasts. However, please note that the ISO's alternative dispute resolution process in the ISO tariff is available for disputes that are not resolved through the normal review process. The ISO believes that flexibility can be allowed for LSEs to determine the treatment of adjustments to their load forecasts, however, the impact of these

		adjustments should be reported to the ISO for transparency.
CD	[] CDWR supports keeping CEC's role on demand forecast unchanged for the entities within current CAISO BAA. CDWR would like to reiterate that forecasting methodology adopted by CDWR based on its actual operations is a part of LRA RA program and should not be impacted by any standardized methods of forecasting used for retail loads, as currently, CDWR forecasts it's most likely coincident peak load and provides to CEC. CDWR's power forecasts are driven by water supply and demand (and other factors such as environmental constraints), and most likely demand in real time would be the forecast as close to the month as possible. Any method prescribed for standardized demand forecast that does not support the nature of CDWR's pumping operations will result in higher inaccuracies and inefficiencies.	The ISO appreciates the CDWR comments on load forecasting. Each LSE outside of California and LRAs/LSEs not covered by CEC load forecasting will submit their own load forecast, and the CEC will submit load forecasts for California LSEs in order for the ISO to determine the coincidence peak forecast.
	Please clarify if CAISO will calculate the coincidence factor and determine the allocation of the coincident load only to each LSE not covered by CEC forecast.	
	According to the proposal, ISO intends to review demand forecast and compare with actual demand for entities. Does this apply to all entities or just the entities for which ISO will generate forecast (beyond CEC's jurisdiction)?	
CLE	"balance" would be struck where the load forecasting processes ma	In order to produce a system peak Coincident Load forecast for use in the RA process, the ISO proposes to collect load forecasting information from the CEC, without significant changes from the current practice, as well as from individual LSEs in the expanded footprint. The ISO proposal describes the method of determining Coincidence Factor adjustments.
	differ. [] There are many complexities associated with load forecasting, system coincidence calculations and coincidence factor adjustments, and many different approaches. The CEC has been forecasting for years and continues to refine its methodologies. The CAISO has no similar expertise and has provided no details on how it would actually undertake this new responsibility.	The ISO proposal provides LRAs the same ability to provide input into the current load forecasting that they conduct today. The ISO has no intent to affect the current PacifiCorp IRP process or any other IRP/Utility generation planning process as a result of its load forecasting proposal, but with respect to

The CAISO has provided no information on any sequence or timeline for Local Regulatory Authority (LRA) input to LSEs for the load forecasting. PacifiCorp's IRP process occurs every two years; will that change to a one-year process as the RA forecasts must be done yearly?

[...] in response in part to pressure from the CAISO, the California agencies will take a markedly different approach to how Demand Response is treated in terms of the forecast and RA. The new treatment for Demand Response depends on whether the Demand Response is considered load-modifying (in which case the CEC includes the impact in the hourly forecast used to set the RA requirement) or supply resource (in which case it can meet the RA requirement). How will this difference in the treatment of Demand Response for load forecasting be addressed? Is it different from how PacifiCorp treats Demand Response in its load forecast? Also, will the CAISO adjust the system load forecast for behind-the-meter solar or other customer generation? If so, how?

At the March 2 [...] meeting, [...] CLECA asked if the CAISO intended to change the IEPR process and Joint Agency Steering Committee's role. The response was yes, because load forecasting needs to be done on a regional basis. Those "adjustments going forward", however, have not been detailed beyond the broad statement that the CAISO would calculate the coincident system load forecast (for the entire expanded regional footprint) and then the coincidence factor and identify load ratio shares for each load serving entity. This broad statement provides no information has to how this would actually occur, making it hard for stakeholders to provide any input other than to ask for more information.

Stakeholders also asked at the March 2 [...] meeting whether any lessons had been learned in terms of PacifiCorp's forecasting and integration into the Energy Imbalance Market. While recognizing this as a "good question", the CAISO "did not know how to respond." CLECA suggests a closer look at this "good question", in addition to the others raised, as well as more detailed development of the proposed load forecasting process, system peak and coincidence

the comment that the ISO process requires annual load forecasts; the various ISO RA processes will require the submittal of annual load forecasting data and other RA information that may be different from their current practices.

The ISO proposal envisions that Load Forecasts should allow for LMRs and DR resources to be reported and accounted for in their respective manner, including either the supply resource or demand reduction, depending on the characteristic of the resources or programs. The ISO believes that allowing for either treatment maintains maximum flexibility for load forecasting. The ISO does not propose to make adjustments for BTM solar or other DG type resources. Any adjustment should be conducted by the entities that are currently handling load forecasting in their own process, and the ISO will merely collect the individual LSE and CEC load forecasts and accept the treatment for any adjustments.

The ISO does not intend to change the IEPR process; however, the ISO proposes to determine the forecasted system Coincident Peak based on the submitted load forecasting data for the entire ISO system and will need to calculate the Coincidence Factor adjustment for individual LSEs. The ISO has described options for the coincidence factor methodology in Section 5.1.

The ISO does not believe that EIM forecasting will have a bearing on the ISOs proposal to collect load forecasting data from individual LSEs and the CEC, and calculation of the Coincidence Factor adjustments. These process are used for the RA processes to determine related RA requirements

	calculations before any policy change is adopted, much less a proposed change in [] tariff.	and not akin to the shorter tem load forecasting used for EIM.
UTC	The UTC agrees with the "blended approach" [] This is a commonsense approach that both builds upon the existing practices in California and respects the validity of existing load forecasting methods used by PacifiCorp and other LSEs in the western states.	The ISO appreciates the comments in support of the proposed load forecasting process.
CPUC	[] It is unclear what the role of the CEC's IEPR forecast would be in the CAISO-developed regional forecast.	The CEC will continue to submit the load forecasts for LSEs in the current BAA, which will be incorporated into the regional analysis of a system coincident peak load forecast.
SDG&E	<ul> <li>[] a coincident system load forecast will be created by the ISO based on load forecast data "submitted by LSEs." Does this mean California utilities, rather than the CEC, would submit the load forecasts to the ISO?</li> <li>Currently, LSEs in the existing BAA include DR, AAEE and DG in the hourly load forecasts. SDG&amp;E wishes to understand if PacifiCorp includes these adjustments, or any additional forecast adjustments not identified by the ISO, and whether ISO would accept those forecast adjustments in the future.</li> <li>The ISO proposal indicates that the ISO will review LSE forecasts and "make adjustments to submitted forecasts" if the LSE "cannot demonstrate their forecast is reasonable." SDG&amp;E requests that the CAISO confirm that a forecast submitted by a California LSE could be adjusted, even if the forecast originated with the CEC.</li> <li>SDG&amp;E recommends ISO provide additional details of its forecasting methodology and how it may differ from that of CEC's current methodology</li> <li>What threshold percentage factor will be used for divergence?</li> <li>What is ISO's target to which it will adjust an LSE's forecast?</li> <li>How many years of actual peak loads or historical usage would be included in ISO's review process?</li> <li>What standards will be required for all LSEs to ensure forecasts can be evaluated equally?</li> <li>SDG&amp;E requests the ISO clarify whether the ISO will generate an independent forecast of coincident peak loads for the BAA to use as the guide for "adjusting" the load forecasts of all LSEs. SDG&amp;E notes that an ISO-generated coincident load forecast</li> </ul>	The ISO does not wish to change the current role of the CEC-submitted forecast for the current BAA. The ISO does need the CEC to submit LSE specific load forecasting information to the ISO.  The ISO intends to accept load forecasts from LSEs and the CEC, including whatever adjustments they have made. The ISO proposed that it would be able to review submitted forecasts, if the submitted load forecast meets the proposed criteria for triggering the ISO review. The ISO would discuss the discrepancy with the party and reserves the right to make adjustments if necessary. The ISO believes this review ability should equally apply to all entities within the BAA. If the discrepancy is associated with a forecast submitted by a California LSE, the ISO would conduct a review, just as it would any other LSE, and would discuss the reasonableness with the parties. For California LSEs, the ISO likely would need to contact both the CEC and the LSE to review the submitted forecast.  The ISO proposal for the ability to review and adjust LSE's submitted load forecasts is discussed in Section 5.1.  The ISO will generate an independent system-wide forecast of Coincident Peak loads for the BAA and

		for the expanded ISO BAA would parallel the ISO's proposal for an ISO-generated system wide planning reserve margin (PRM) for the expanded BAA	will need to make coincidence adjustments based upon the system wide Coincident Peak determined through this load forecasting aggregation, essentially adjusting the load forecasts of all LSEs. The ISO agrees with SDG&E's observation that an ISO-generated Coincident Load forecast for the expanded ISO BAA would parallel the ISO's proposal for an ISO-generated system-wide planning reserve margin (PRM) for the expanded BAA.
	CMUA	CMUA requests additional detail and clarification as to how load forecasting determinations and potential disputes are resolved. As RA requirements become more granular, is it reasonable to assess how more granular load forecasts that affect Tariff development (accounting for Distributed Generation, Demand Response, etc, []) may be accomplished. Right now, although the CEC is responsible for LSEs in the CAISO BAA, that forecast is derived from LSE data submitted pursuant to numerous report forms. As such, LSEs have a strong role in their own load forecasting used ultimately by the CAISO. The CAISO has not explained why or if that should change, and CMUA does not believe that it should. Similarly, absent more supportive explanation, it is unclear why the coincidence factor for the CAISO BAA should be calculated by the CAISO for the existing BAA. If more regional approaches to this calculation are considered, CMUA would like to explore how an independent assessment be performed. Generally, and understandably, grid operators can be	The ISO proposes to review load forecasts that have triggered the ISO review based on the criteria in the proposal in Section 5.1. Once the ISO conducts the review, the ISO would have a discussion with the parties, and it reserves the right to make adjustments to submitted load forecasts. Please note that the ISO's alternative dispute resolution process in the ISO tariff is available for disputes that are not resolved through the normal review process.  The ISO does not intend to change the current processes used by LSE data submission to the CEC. The ISO would continue to collect load forecast data from the CEC for its jurisdictional entities.
		conservative in what assumptions are made the underpinning of any RA requirement. If the CAISO retains the assessment responsibility, some audit or dispute mechanism may be appropriate.	However, the ISO does believe that the Coincidence Factor adjustments must be made utilizing a system-wide forecast in order to capture the full benefits of the load diversity across an expanded BAA footprint.
Maximum Import Capability	SCL	City Light encourages CAISO to review its methodology to ensure that it is appropriately extended from CAISO to include PacifiCorp ("Pac"). The four historical hours from the previous two years may be insufficient to properly estimate import capability given the regional and seasonal diversity. CAISO should work cooperatively	The ISO has reviewed its MIC methodology and believes that the current practice is appropriate. The ISO continues to believe that this current practice allows the ISO the appropriate flexibility necessary to select the hours capturing a sufficient level of imports to use in the MIC determination that will set MIC levels appropriately. The ISO has identified one

	with any new PTO to develop the best approach to aggregated planning and forecasting.	minor change to the MIC methodology that is necessary to perform MIC calculations using non-simultaneous base case studies. This change is described in Section 5.2.
Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition  [Joint Comments]	More analysis is needed by CAISO to determine whether there are any flaws in extending the current Maximum Import Capability (MIC) methodology to the larger footprint. As a starting point, the CAISO should apply the current MIC methodology to the larger CAISO and PacifiCorp footprint and explain its findings. The analysis should explain how pre-existing contractual obligations will be treated for MIC calculations and allocations. Such an analysis will be particularly helpful for understanding the impact of the MIC methodology that covers a large footprint with limited transmission capacity between two big pieces of the footprint (CAISO and PacifiCorp). A technical forum would be a great starting point to share ideas on the MIC methodology.	The ISO agrees that additional analysis to apply the current MIC methodology to the ISO and PacifiCorp combined footprint, and the ISO is still determining the results of that type of analysis with the assistance of PacifiCorp. The analysis will help further explain how pre-existing contractual obligations will be treated for MIC calculations and allocations. For additional information on how existing arrangements will be treated, please see Section 5.2.
Western Resource Advocates, NW Energy Coalition  [Joint Comments]	With regard to the application of the existing MIC methodology to an expanded footprint, we have several questions.  1) How will historical import schedules be determined for interties that were not previously part of the RSO footprint?  2) How will existing contractual rights on these ties be treated?  3) Given the rapidity with which conditions change year-to-year, is an historical approach still a viable method to determine MIC?  We agree with the comments of WGG et al. that more analysis is needed to determine whether the current methodology can be extended to a large footprint with limited transmission capacity between the old and new. We support their request for analysis.	<ol> <li>New PTOs will provide the ISO with historical import schedule data. This means that PacifiCorp will provide the historic data necessary to determine MIC for new interties in an expanded BAA.</li> <li>Because existing contractual rights and preexisting RA commitments will be protected in the MIC allocation process those arrangements will be protected from any impacts.</li> <li>The ISO believes that the current process will continue to be a viable method for determining MIC, but the ISO is conducting additional analysis to apply the current MIC methodology to the ISO and PacifiCorp combined footprint and is still determining the results with the assistance of PacifiCorp.</li> </ol>
NW Power & Conservation Council	Using the "maximum amount of simultaneous energy schedules into ISO BAA, at the ISO coincident peak system load hours over the last two years" to assess maximum import capability can arbitrarily limit the availability of imports from the Northwest. We	The ISO does not agree that the current practice would arbitrarily limit the availability of imports. The ISO does not believe that is necessary to base MIC values on calculated north-to-south transfer

	recognize that the MIC is simply an upper bound for import transfer capability. We also assume that for the adequacy assessment, an estimate of the availability of NW imports will be made. However, in a situation when the NW has had two very dry years followed by an average or wet year, the MIC (based on the dry years) would arbitrarily limit the available imports from the Northwest.	capability, and the current practice allows the ISO the flexibility to select data that will provide a sufficient level of MIC. The ISO is currently conducting additional analysis to apply the current MIC methodology to the ISO and PacifiCorp combined footprint and is determining the results with the assistance of PacifiCorp.
	<ol> <li>We recommend that the MIC be calculated based on a longer historical record and on the calculated north-to-south transfer capability instead of the energy schedules.</li> <li>We also recommend that availability of imports from the Northwest be based on more robust stochastic assessments instead of deterministic load/resource balance calculations (e.g. as reported in the Bonneville Power Administration's White Book).</li> </ol>	The ISO understands the recommendation to consider probabilistic assessments for import availability. As part of the PRM proposal detailed in Section 5.6, the ISO is considering using a robust stochastic LOLE analysis. At some point it may be appropriate to consider the utilizing a probabilistic assessment to determine MIC, but the ISO does not believe that is necessary under this initiative.
AWEA, Interwest Energy Alliance, Renewable Northwes:  [Joint Comments		The ISO appreciates the supportive comments by the joint commenters.
ICNU	ICNU believes that the MIC framework needs to be reevaluated []. For instance, in its current Integrated Resource Process ("IRP"), PacifiCorp relies on front office transactions at bilateral market hubs, such as the Mid-Columbia and Four Corners markets. If the MIC rules do not allow PacifiCorp the exclusive ability to use its current access to these markets for RA purposes, then the framework will likely result in additional costs to PacifiCorp, in violation of a hold harmless standard. Specifically, if the import rights that PacifiCorp currently enjoys at the various market points in its balancing area are reallocated under the ISO's MIC framework, PacifiCorp will, pursuant to the RA standard, have to acquire new resources at great cost to its customers.	The ISO will consider existing contractual rights and pre-existing RA commitments in the MIC process in order to allow for those existing arrangements to continue without impact.  The 13-step allocation process will allow for LSEs to select the interties they wish to request allocation of MIC for. The ISO believes that this process will not negatively impact new or existing market participants.  The ISO agrees that it is more appropriate to move to a zonal RA concept, as noted in Section 5.3.
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With the proposed move towards segregated transmission rates for The ISO understands the recommendation to new participants, [...] ICNU believes that the only way to allocate consider other analysis determining the contribution import rights under a hold harmless standard, in relation to of imports towards meeting RA needs. As part of the PacifiCorp or any other new PTO, is to adopt a system where each PRM proposal detailed in Section 5.6, the ISO is sub-region retains exclusive rights to the import capability physically considering the use of a robust stochastic LOLE deliverable into its sub-region. In addition, transfers between subanalysis for determining PRMs which could lend regions should be available for RA up to the coincidence factor, and itself to a parallel process for MIC in the future. not to exceed transmission limitations. However, at this time, the ISO continues to believe that this current MIC practice allows the ISO the [...] ("MISO") uses zonal RA requirements, which is likely a better flexibility necessary to select the hours capturing a template to evaluate imports rights in a system with sub-regional sufficient level of imports to use in the MIC transmission rates than the ISO's existing framework. [...] it is not determination that will set MIC levels appropriately. clear that the ISO method would be appropriate for use between two sub-regional transmission areas. Finally, ICNU believes that the ISO needs to adopt a more analytically rigorous method for determining the contribution of imports towards RA. [...] The historical usage is dependent on a variety of market and economic factors, which may not be a fair reflection of the amount of imports that can be reliably depended upon for satisfying load requirements. NIPPC urges the ISO to describe its mechanism for allocating import The ISO agrees with the request for more capability to LSEs in the next version of the straw proposal. NIPPC description of the 13-step MIC allocation process and has included a summary of the steps in Section is concerned that annual recalculations of maximum import capability (MIC) and annual reallocations of the MIC to LSEs will 5.3. Additional education and outreach is available for stakeholders to better understand the ISO's RA create unnecessary uncertainty regarding the ability of an LSE to rely on imported generation to meet its resource adequacy provisions, as noted in Section 3. The ISO's Requirements. The risk that import capability (or the LSEs observations of the current MIC calculation and allocation) would be reduced might discourage LSEs from entering allocation do not lead to the conclusion that the ISO into long term contracts for resource adequacy with generators should make major adjustments to those processes **NIPPC** outside the expanded ISO footprint. NIPPC also encourages the ISO at this time. The ISO understands that there may be to host a workshop explaining its Congestion Revenue Rights some additional uncertainty associated with the (CRRs). A full appreciation of import capability allocations (and annual MIC process, internal constraint issues, and allocation of capacity on internal constraints) requires a deeper generator specific contributions to RA, however the understanding of the role CRRs play in the ISO and potential ISO believes that these provisions are necessary in order to ensure resource adequacy to maintain revisions [...]. reliability in an expanded BAA. NIPPC is concerned that the annual calculations of MIC, internal constraints and generator specific contributions to resource

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		adequacy create unnecessary uncertainty regarding the ability of a specific generator to meet a specific LSEs long term RA requirements. NIPPC urges the ISO to consider whether it can maintain reliability of the system without annual calculations of MIC and internal constraints — and instead recalculate those metrics only when specific triggers occur (additions or retirement of facilities, new participants join the expanded footprint or other specific events).	
	PacifiCorp	[] PacifiCorp supports the concept 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 new participants' abilities to meet its RA obligations using wholesale firm market purchases. In particular, PacifiCorp is evaluating whether the current MIC calculation methodology adequately accounts for a non-contiguous BAA in which extensive amounts of third party transmission rights and pseudo-tie resources are relied upon to deliver system capacity. These areas will need additional study to understand if additional methodology changes will be needed. It is important that sufficient import rights be made available to accommodate the use of both resources and wholesale firm market purchases external to the BAA to meet RA requirements.	The ISO agrees that these areas need additional study and will work with PacifiCorp to complete analysis of these issues and describe the results to stakeholders. The ISO agrees that it is important to provide LSEs with sufficient MIC allocations and notes that both resources and firm external market purchases can be utilized to meet RA requirements with the assignment of LSEs' MIC allocations.
	Powerex	Ensuring Economic RA Imports are not Artificially Limited by CAISO's MIC Allocation []. Unfortunately, there is considerable evidence from the procurement of generic system RA that the current MIC allocation process is not working efficiently and hinders the cost-effective procurement of RA from external resources.  In its 2013-2014 report on the RA program, the California Public Utilities Commission ("CPUC") notes that only between 5 to 10% of total committed RA capacity has been from imports. This is consistent with earlier CPUC reports, and also with analysis conducted by the Department of Market Monitoring. In its report for 2012, CPUC compared the quantity of import RA capacity to the allocation of MIC, and concluded that "CPUC jurisdictional LSEs used between nine and 56 percent of their monthly import allocations during the summer of 2012." This low level of utilization of imports would be expected if external RA resources were more	The ISO appreciates the Powerex comments. The ISO understands the suggestion that MIC allocations may be stranded by the current allocation process. The ISO believes that the current MIC process will calculate and allocate sufficient capability to LSEs to meet their RA requirements and respect the currently existing contractual arrangements of new entrants. The ISO disagrees that the current methodology impairs efficient RA procurement.  The intent of this initiative is to extend the existing construct of the RA program to a regional stage with the focus of proposals on only those "need to have" and most necessary changes. The ISO understands the Powerex suggestions to include a MIC allocation
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expensive than instate capacity. But in Powerex's experience, stranding safeguard is appreciated, however, the intertie RA contracts are typically priced below the CPUC's reported ISO believes that this is not necessary to include average price of system-wide RA contracts procured from in-state within the scope of Regional RA. resources. This strongly suggests that the MIC allocations are The ISO believes that these type of MIC revisions significantly under-utilized despite the comparatively low price of are out of scope for this initiative. Numerous import RA. stakeholders have brought other suggestions on Powerex's experience and the CPUC data indicate that the MIC MIC revisions to the ISO's attention previously. The allocation process is a serious impediment to California LSEs ISO does not intend to address requested revisions procuring RA from the lowest cost resources. Simply put, some to MIC that are not absolutely necessary for the LSEs that wish to purchase import RA are unable to obtain sufficient purpose of extending the ISO RA provisions for use MIC capacity, while other LSEs that have received allocations of in a Regional BAA. The appropriate forum for these MIC capacity do not fully utilize that allocation to support RA sort of requests would be the ISO's stakeholder procurement from imported resources. There is a clear inefficiency catalog initiative, which already includes numerous in the allocation of MIC capacity, and it has resulted in significant requests for MIC revisions. and recurring "stranding" of import capability. While Powerex has significant concerns that the MIC allocation methodology may impair least cost procurement of RA, it is cognizant that CAISO does not seek a wholesale redesign of that framework at the present time. Powerex believes that the stranding of capacity can be reduced through incorporating a simple, but highly important, safeguard into the existing MIC allocation methodology. This safeguard would reduce the allocation of MIC capacity to LSEs that did not utilize their allocation (or transfer their unused allocation to other entities) in the prior year. Unallocated MIC capacity could instead be made available to entities that do seek to procure import RA (or Flexible RA, if the FRAC-MOO 2 initiative is implemented), on a first-come, first-served basis. [...] CAISO determines [MIC] during the times of system peak. In the The ISO continues to believe that the current past, the CAISO system peak was correlated with significant amount methodology appropriately selects the hours with of imports. However, the introduction of large amounts of highest imports when load is at or above the 90% renewables has created a net load peak (load less wind and solar) peak. The ISO will monitor changes to future net which is at a different time than the gross load peak. This may have load and be willing to change the % in order to SCE an impact on when imports occur and therefore the calculation of make sure the future net load hours get captured as when the maximum amount of imports occur. The CAISO should well. review the existing methodology and determine if modifications are required.

BPA	BPA understands the need to use a value other than the total rated capacity of every import line for RA purposes, however, it seems the use of two years of historical data is somewhat arbitrary. Two years of historical data does not seem sufficient to truly reflect intertie import capability, especially when large hydroelectric systems are involved. While BPA uses 55 years of data for similar purposes, 10 years of historical data would likely be a more accurate representation of average conditions on an intertie.  The ISO's current framework also does not consider a methodology to account for the rights that long-term transmission customers have today. Specifically, some long-term transmission customers on the PacifiCorp system use those rights to import resources to meet load obligations. Under the OATT paradigm, those customers holding contracts greater than five years in term have the right to "roll-over" their current transmission purchases upon expiration of contracts.  BPA suggests that the ISO account for existing transmission customers' rights to import resources to meet load in determining Maximum Import Capability (MIC) for RA, and in allocating that MIC to entities within the PAC BAAs.	The ISO understands the suggestion to utilize longer periods of historical data to capture more accurate "average" conditions on interties. The ISO does not believe this is necessary for the purposes of calculating MIC because the intent of the MIC analysis is to capture the maximum import schedule data to set the MIC values. The ISO does not believe it would be appropriate or necessary to capture a more "average" representation of the intertie conditions. The ISO needs to identify the maximum level of imports it believes would be capable and still maintain reliability. Using a greater number of observations within the same year will lower the average import level used to calculate the MIC and arbitrarily lower the result.  The ISO's current framework already account for and protect contractual rights and pre-existing RA commitments and will continue to allow long-term transmission customers on the PacifiCorp system to use those contractual rights to import resources to meet load obligations.
PG&E	[] PG&E requests more information on the purpose of this change. The concept of "non-simultaneous base case studies" is difficult for us to understand in the context of a System RA requirement. PG&E also requires more information on how Maximum Import Capability values will be incorporated when internal RA Transfer Capability Constraints are calculated.	This change is needed to accommodate non-simultaneous peaking areas of the grid that are reliant on RA Imports at other times that the overall system peak. For example winter peaking areas should not have their RA Maximum Import Capability restricted by the selection of historical schedule data during a summer peak when the entire ISO may peak since the schedules could be relatively lower at the overall system peak.
CDWR	[] Pre-existing contractual obligations should be treated as they are [] today.	The ISO appreciates CDWR's comments on this issue and intends to continue treating continue treating pre-existing contractual obligations as it does today. The ISO will protect LSE's MIC

		allocations in accordance to each contract's specified load requirement.
CLECA	Many thoughtful questions on Maximum Import Capability (MIC) were raised at the March 2 Policy Development Meeting, but not answered definitively; most often, the response was, "this is high level" or "the details need to be worked out." Again, for stakeholders to assess the impact of the Regional RA policy on their interests and take a position to help inform the CAISO's consideration, details matter.	The ISO understands the request for additional information on MIC. The ISO believes that the current process will continue to be a viable method for determining and allocating MIC, but the ISO is also currently conducting additional analysis to apply the current MIC methodology to the ISO and PacifiCorp combined footprint. The ISO is still
	For example, it was asked if the CAISO could provide a list or criteria for what constraints on the interties might be? Will there be changes in how the CAISO calculates the space available at each intertie point? Will California's anticipated load shape change impact the MIC? These and other questions should be answered in detail.	determining the results with the assistance of PacifiCorp. The ISO will share additional details and provide answers to related questions once the results of the analysis are available.
UTC	[] UTC has concerns about applying the MIC to PacifiCorp's external interties because the Straw Proposal lacks detail of how the MIC would be applied to PacifiCorp's interties with adjacent BAs, and robust analysis of the resulting impacts. Such analysis and data are necessary to perform a net benefits study []. PacifiCorp has historically determined its maximum import capability in the context of its IRP processes in each of the non-California states. It is not clear whether the method PacifiCorp uses to determine such capability is the same as the ISO MIC methodology. [] if the MIC methodology is applied to all of PacifiCorp's external interties [], it is not clear whether the capacity PacifiCorp currently realizes from those interties will be reduced. In order for PacifiCorp to perform a net benefits study, it must determine and quantify any change in the import capacity under the ISO MIC methodology it can use for RA requirements.	The ISO believes that the current process will continue to be a viable method for determining and allocating MIC and would be applied similarly to the interties for PacifiCorp. The ISO only believes that the minor modification to the MIC determination described in Section 5.2 is needed. However, the ISO is currently conducting additional analysis to apply the current MIC methodology to the ISO and PacifiCorp combined footprint and determining the results with the assistance of PacifiCorp. The ISO hopes to share these results with stakeholders as soon as possible.
CPUC	Using historical data may not be appropriate, because import and export ratios should be expected to change under a regional BAA.	The ISO believes that the current process will continue to be a viable method for determining and allocating MIC in an expanded footprint but is conducting additional analysis that it will share with stakeholders at a future date.

SDG&E	The ISO does not explain how it determines that accommodation of "state and federal policy goals" requires the use of power flow studies. This needs to be explained.  • Given that all other portions of the RA framework are based on simultaneous or coincident peak, does calculating MIC based on non-simultaneous power flow base cases make the framework inconsistent?  • Assuming PacifiCorp were to join the ISO, SDG&E requests that the ISO provide a map of the new branch groups of the expanded BAA.  • SDG&E recommends that the ISO determine the MIC for all tie points using forward-looking power flow studies rather than historical schedules. The ISO recognizes that "certain areas of an expanded ISO BAApeak at non simultaneous times." This suggests that expanded use of power flow studies could reveal significantly increased MIC at many points where the ISO BAA is tied to neighboring BAAs. As California reaches the goal of 50% renewables, fewer imports may be scheduled during peak load hours and, there may even be exports if the amount of solar generating capacity is large enough. This will reduce historically-based MIC even though the expanded ISO BAA is physically capable of accommodating a much higher level of imports should preservation of grid reliability require such imports.	In order to determine the Forward-Looking MIC to accommodate state and federal policy goals, the ISO uses power flow studies in a manner similar to the Transmission Planning Process to project a necessary level of MIC for those interties and ensure that future transmission planning accommodates the necessary level of MIC to support meeting the policy goals.  The ISO does not believe the proposed modification to the MIC study to utilize non-simultaneous base case studies is inconsistent with the other RA processes that rely on simultaneous/Coincident Peak studies, because the intent of each process is to meet different objectives. The ISOs proposal is intended to capture the truly maximum reliable MIC values where certain areas may have different seasonal peaking characteristics and where there are no simultaneous constraints between those different areas of the system.  As part of the PRM proposal detailed in Section 5.6, the ISO is considering the use of a robust stochastic LOLE analysis. If the ISO developed that PRM study option and the associated LOLE analysis was developed, it may be possible to eventually benchmark the current deterministic MIC methodology against the probabilistic LOLE analysis.
CMUA	CMUA does observe that the current MIC allocation (as opposed to the calculation) was a carefully crafted package that honored existing and prevailing commercial agreements. Any changes to MIC are undertaken should have those same objectives.	The ISO appreciates CMUA's comments and agrees that any changes to the MIC methodology should maintain those objectives.
Internal RA SCL Transfer	Similar to the comment on MIC (above), the CAISO should re- examine the methodology for internal transfer constraints. New PTOs have different seasonal load and generation characteristics, and CAISO should review the new system and determine, in	The ISO has reexamined the previous proposal to extend the current Path 26 Counting Constraint methodology, in order to account for internal RA transfer constraints, and has determined that it would be problematic for the reasons explained in

Capability Constraints		conjunction with the new PTO, the best way to jointly plan and forecast transfer capabilities and constraints.	Section 5.3. The ISO believes that it is more appropriate to develop a zonal RA concept, as described in Section 5.3.
	"Six Cities"	Subject to evaluation of additional details when they are available, the Six Cities generally support CAISO's proposed treatment of internal RA transfer capability constraints. Specifically, the Six Cities support continuing grandfathered support for pre-RA contract commitments (Straw Proposal at 11), allocation of transfer capability on internal constraints on a directional basis, as discussed at the March 2, 2016 meeting, and netting of RA contracts to allow recognition of greater transfer capability as supported by contract and related RA commitments (Straw Proposal at 11).	The ISO provides details on a zonal RA concept in order to account for internal RA transfer constraints in an expanded BAA. This proposal is explained in Section 5.3.
	Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition [Joint Comments]	We support CAISO's proposal to ensure that any constraints that may potentially limit the transfers of RA resources between major internal areas in an expanded BAA are identified and accurately recognized in RA determinations in the ISO's related processes. However, we request that CAISO identify the paths where RA transfer capability constraints will arise in the larger footprint. This information will be helpful to stakeholders who are trying to assess the benefits and risks of alternative counting mechanisms.	The ISO believes that it is appropriate to develop a zonal RA concept for the purposes of respecting internal RA transfer constraints. This proposal is detailed in Section 5.3 and initially identifies four potential RA zones: South of path 26, North of path 26, PAC West, and PAC West. These potential zones make sense because they would be defined areas that have already been identified as having limiting transfer constraints between each potential zone.
	WPTF	<ul> <li>WPTF asks the ISO the following questions as they move forward with a methodology to determine internal RA transfer constraints:</li> <li>Will the transfer limits apply to flexible RA? If so, will the transfer constraint limits be different for flexible and system requirements? The flexible requirement is based on netpeak load and system requirement based on peak-load, and so it seems inappropriate (although simplifying) to have the same transfer constraint for each RA product.</li> <li>Will the substitution rules for forced and planned outages be updated to enforce limits on internal RA transfer constraints?</li> <li>Can multiple transfer limits affect the amount a resource can count as RA? For example, is it possible that a PacifiCorp resource may count as 500 MW if sold to PacifiCorp, 400 MW if sold to PG&amp;E, and only 300 MW if sold to SDG&amp;E?</li> </ul>	<ol> <li>The ISO does not currently intend to adjust the flexibility needs assessment to be measured at a zonal/sub-regional level, however, the ISO will explore the comment as it continues to develop the zonal RA concept, described in Section 5.3.</li> <li>The substitution provisions may need to be revaluated as part of the further development of the zonal RA concept; however, the ISO is not proposing to change the substitution rules under this initiative.</li> <li>This is a potential issue associated with extending the current Path 26 methodology and was one of the potential problems that led to the ISO's</li> </ol>

Western Resource Advocates, NW Energy Coalition  [Joint Comments]	4) How will the ISO address the following scenario: A California LSE has a long-term contract with a resource located in PacifiCorp after integration:  a. Will the system transfer constraint limit the amount of RA capacity this resource can provide if it has an existing contract?  b. If the RA from the resource is limited by the internal transfer constraint, would the LSE be eligible for a MIC allocation if it can flow through an inter-tie? (For example- PAC -> BPA intertie ->ISO.)  Given the limited connectivity between potential new participants like PacifiCorp and the current CAISO footprint, we support CAISO's proposal to develop intra-BAA transfer capability constraints. However, we would like to better understand the impact of the method CAISO proposes to use to allocate transfer capability. It appears that since all RSO participants would be allocated room on all congested lines on a pro rata load ratio share, any individual RSO participant may or may not have sufficient capacity on any one line to access their RA resources. In the Revised Proposal please explicate the allocation method and its impacts more fully. Please use examples.  To better understand how this method may affect any expanded footprint, we support the WGG et al. request that CAISO identify paths where RA transfer constraints will arise in a footprint that initially includes CAISO and PacifiCorp.	decision to propose to develop a zonal RA concept. Multiple internal constraints would necessitate complex accounting and allocations that would be problematic.  4. The ISO will account for pre-existing commitments and contractual obligations through the allocation of MIC and will also continue to analyze how these potential issues may need to be treated under a zonal RA concept.  The ISO has considered how the allocation of multiple internal constraints would be overly complicated for transfers across multiple potential constraints that would be required in order to extend the current Path 26 methodology. Multiple internal constraints would necessitate complex accounting and allocations that would be problematic. The ISO determined that this would be a potential problem and the ISO instead has proposed to develop a zonal RA concept, as initially described in Section 5.3. In this proposal, the ISO initially identifies four potential RA zones: South of path 26, North of path 26, PAC West, and PAC West. These potential zones make sense because they would be defined areas that have already been identified as having limiting transfer constraints between each potential zone.
ICNU	ICNU supports the proposal [] More specifically, ICNU supports allowing sub-regions to rely on transfers from another sub-region for RA purposes in an amount not to exceed the allocated coincident peak load savings or transmission limitations, whichever is smaller.  As an illustration, PacifiCorp's current 2015 IRP relies on approximately 800 MW of capacity at several interchange points with the ISO [] To meet a hold harmless standard, the amount of RA capacity obtained by PacifiCorp at these potential interconnection points with the ISO must be no less than what is currently being	The ISO has identified potential problems with simply extending the Path 26 concept for additional potential internal constraints. The ISO instead proposes to develop a zonal RA concept that is detailed in Section 5.3. The ISO does not believe that it is necessary to allocate internal transfer capability under the proposed zonal concept and instead proposes to establish zonal RA requirements.

	acquired through bilateral markets. Because, according to the E3 study, PacifiCorp's share of the coincident peak savings is expected to exceed transmission limitations to the ISO, it follows that the proposal to restrict the coincident load savings to the available transfer capability should not be harmful to the Company, relative to its existing market rights.	The ISO intends to accommodate any existing contractual obligations and pre-existing RA commitments in the MIC allocation process and will continue to analyze if there would be any need to address similar issues associated with internal constraints under a zonal RA approach.
NIPPC	NIPPC agrees that the ISO must establish a mechanism to identify internal constraints within an expanded footprint and allocate capacity across those constraints. NIPPC agrees it is important to protect existing contracts in the allocation of capacity on internal constraints. The mechanisms to identify internal constraints, calculate transfer capability across those constraints, and allocate rights to that capacity must be transparent to all parties. NIPPC also seeks more detail regarding the proposed netting of RA contracts across internal constrained paths. NIPPC suggests that the ISO reevaluate the need for confidentiality around the contracts submitted to calculate netting, as these sales of capacity are subject to FERC EQR submittals. There may be suitable mechanisms to provide aggregated data for market participants to understand the assignments, which the CAISO has used in the allocation process.  As noted in its response to the MIC proposal, NIPPC is concerned that annual redeterminations of transfer capability and annual reallocations will discourage LSEs from long term commitments for resource adequacy. Annual recalculations and reallocations will complicate LSE procurement programs and decisions.	The ISO agrees that the mechanisms to identify internal constraints, calculate transfer capability across potential constraints, and allocate rights to that capacity would need to be transparent to all parties. As described in the proposal, the ISO has identified potential problems with simply extending the Path 26 concept for additional potential internal constraints. The ISO instead proposes to develop a zonal RA concept that detailed in Section 5.3. Part of this proposal will be to develop a method for identifying and communicating potential netting benefits but this concept should likely be simplified through the utilization of a zonal RA concept, as opposed to the current Path 26 method. The ISO recognizes there are concerns with annual redeterminations of transfer capability and annual reallocations may discourage LSEs from long term commitments and complicate LSE procurement programs and decisions. These are some of the concerns that led the ISO to move to the zonal RA proposal. A zonal RA concept will mitigate some of these potential issues.
PacifiCorp	[] PacifiCorp supports the ISO's recommendation to enforce internal transfer capability constraints by expanding on the methodology currently used for the Path 26 counting constraint. As with Path 26, the newly defined zonal transfer constraints will likely need to account for existing transmission contracts that serve load outside the regional ISO balancing area. Consideration should also be given to how the methodology could apply to paths on which some facilities included in the path definition are outside the regional	The ISO agrees that any zonal transfer limits should account for pre-existing RA commitments and existing contractual obligations. The ISO believes that the change to a zonal RA concept proposal will mitigate these sort of issues associated with how the previously proposed extension of the Path 26 method would have needed to consider the treatment of facilities outside of the ISO BAA. A

	ISO balancing area or where the path operator is not a participating transmission owner.	zonal RA concept would simplify the way that internal constraints were respected by identifying zonal RA requirements as opposed to requiring allocation on particular paths similar to the Path 26 method. The ISO will further evaluate how the zonal RA concept interacts with any internal constraints that may apply to paths on which some facilities included in the path definition are outside the regional ISO balancing area or where the path operator is not a participating transmission owner. At this time, the ISO does not believe this would be an issue under a zonal RA concept.
SCE	[] Given the growth in local RA requirements, it is not completely clear to SCE that both the local and the internal RA transfer capability constraints are still necessary. As such, SCE requests that the CAISO provide the rational to continue with both constructs. SCE would appreciate real data on RA fleets and transfer capabilities after accounting for local resources to understand the magnitude of the issue.  In addition, the CAISO should define how such Internal RA Transfer Capability Constraints will be allocated. Currently, the allocation is to LSE's serving load in the sink area of the constraint. In other words, PG&E, CCAs, and ESPs serving load in the PG&E service territory, as well as municipalities north of path 15 are allocated the Internal RA Transfer Capability Constraints from south of path 15 to north of path 15. If the joining of PacifiCorp to the CAISO BA results in a new region north of California, will PacifiCorp only be entitled to an allocation on this new north of California region or will they also receive an allocation on path 15? While such a change for PacifiCorp may be relatively simple, the inclusion of other entities within the CAISO BA could prove to make this a complex topic. Understanding this complexity is important to allow market participants to determine if the Internal RA Transfer Capability Constraints rights ultimately will provide the necessary value.	The ISO has identified potential problems with simply extending the Path 26 concept for additional potential internal constraints. Some of the potential issues are associated with the allocation and accounting of multiple additional path constraints as noted by the comment. Rather than extend the Path 26 concept, the ISO proposes to develop a zonal RA concept that is detailed in Section 5.3.
ВРА	BPA proposes that the ISO use sub-regions instead of single transmission lines to define Internal RA Transfer Capability	The ISO agrees that it would be more appropriate to utilize sub-regions and has decided to change its

	Constraints at a minimum, possibly moving down to more granular TAC areas depending on results. The reason for this suggestion is that a larger ISO will more than likely span multiple time zones and using a full ISO coincident peak will more than likely not capture peak constraints in other time zones. Therefore, the pro rata load ratio share should also be calculated against the total load in each sub-region or TAC area. Interties between two sub-regions my need to be handled in a separate process.	proposal to develop a zonal RA concept, as described in Section 5.3. Part of the zonal proposal will be to assign zonal RA requirements based on the LSE's <i>pro rata</i> load ratio share of the zonal load forecast. The ISO believes that any intertie limits between zones would be accounted for in the zonal RA proposal.
EDF-RE	In addition to identifying major internal constraints and considering establishment of RA counting limits for them, the CAISO should commit to evaluating potential upgrades to relieve these constraints in the first integrated Transmission Planning Process (TPP) after a new PTO joins the CAISO.  The Proposal provides for identification of "major internal transfer constraints" in the RISO TPP, drawing an analogy to the Path 26 transmission constraint between northern and southern California.  [] the Proposal would likely also extend the concept of Local Capacity Areas (LCAs) – identification of transmission-constrained "load pockets" in Local Capacity Technical Studies (LCTSs) – to the new sub-regions. [] Generally speaking, there is little point in formation of a larger, west-wide RISO if the different sub-regions and local areas must be largely operated as separate "islands" due to severe transmission constraints between them. In addition to limiting operational efficiencies from consolidation, such constraints could greatly limit ratepayer benefits from greater access to RA resources throughout the RISO. EDF-RE's recommendation for this process would address that issue directly.	The ISO agrees that it is important to avoid limiting operational efficiencies or ratepayer benefits resulting from greater access to RA resources throughout the expanded BAA. The ISO believes that its proposed zonal RA concept will mitigate these concerns, while still allowing the ISO to respect internal transfer constraints in order to maintain reliability.  The ISO appreciates the suggestion to include the potential internal transfer constraints in a TPP study cycle and automatically incorporate an examination of the economics of potential transmission upgrades to relieve those constraints, through Economic Planning Studies. These suggestions, while valuable, are better suited for the TPP forums that can better address the suggested study inputs being considered in the TPP.
	When the RISO first identifies such internal transfer constraints in a TPP study cycle (in the TPP itself or in an LCTS), it should automatically incorporate in that study cycle an examination of the economics of potential transmission upgrades to relieve those constraints, through Economic Planning Studies. This would be in addition to the regular Economic Planning Studies that stakeholders can request through the TPP process. These studies should consider explicitly improvement of LSE access to high-value RA Resources throughout the new RISO area. Such upgrades have the potential to promote true regional integration by not only allowing	
Me IB/C Dayon	potential to promote true regional integration by not only allowing	April 12, 2016

	regions, but providing operational efficiencies and savings as well. As such, they are properly considered in the TPP.  For example, it is clear that the current ~400 MW of transfer capability at Malin has limited benefits from PC participation in the Energy Imbalance Market (EIM) and would likely do so on an even larger scale if PC joins the CAISO. Relieving that constraint would provide operational benefits in both forward and real-time markets as well as RA contracting; all these benefits should be evaluated in the first RISO TPP after the combination. After that initial broader examination in the TPP of potential mitigation measures for these identified sub-regional and local transmission constraints, the RISO can incorporate analysis of economic upgrades []. However, the CAISO should also consider revising that process to have the RISO consider more than just the top five congested interfaces [].  [] we are concerned about [] allocating this RA counting capacity.  It was clarified during the stakeholder meeting that the allocation would be limited to those LSEs whose load could be served in the	The ISO acknowledges BAMx's concerns and agrees that it would be highly problematic to reduce the current allocations on Path 26, as well a number of other complicating factors associated with
BAMx	direction of the allocation. While this is helpful, BAMx is still concerned that the proposal could still result in some LSE's existing RA resources isolated by the proposed allocation process. For example, capacity on Path 26 would not only be allocated to current northern California LSEs, but would also be potentially allocated to all LSEs in the PAC footprint. Similarly, the majority of RA counting transmission capacity on PAC's west-to-east transmission would be allocated to California entities. This would result in a reduction in the current allocations and potentially isolated RA resources. One possible mitigation option would be to allocate the RA counting capacity only to those LSE that are paying for the facilities in their TAC charges. If the TAC charges are widely allocated for existing facilities such that there may still be potential for a LSE's existing RA capacity to be isolated, then the grandfathering of current allocations that support identified RA resources would be a solution. BAMx supports the CAISO's proposal allow netting of RA contracts across Internal RA Transfer Capability Constraints before the application of the limitation to those willing to participate in the netting process.	allocations and accounting for netting across multiple internal constraints. The ISO has identified these potential problems with simply extending the Path 26 concept for additional potential internal constraints and, thus, decided it is appropriate to propose the zonal RA concept detailed in Section 5.3.

CLECA	[] far more detail is needed on contract path issues and flow issues, and how they are managed, for parties to gauge the impact of an expanded BAA footprint on internal RA transfer capability constraints. For example, will PacifiCorp get a load ration share of a Path 26 constraint? Will California entities get load ratio shares of PacifiCorp's "sub-regional" constraints?	The ISO agrees that there are potential problems with simply extending the Path 26 concept for additional potential internal constraints. In order to address these potential issues the ISO proposes to develop a zonal RA concept that is detailed in Section 5.3.
	SCE suggested a more fundamental review of whether internal constraints remain necessary in California given the growth of distributed energy resources and the structured local procurement requirements. This should be considered.	
UTC	[] we agree with the statement in the Straw Proposal that "any reliability constraint that limits the transfer of RA resources between major internal areas in an expanded BA are properly respected." [] The UTC suggests that the ISO discuss the constraint methodology further at currently scheduled stakeholder sessions concerning how it applies to a regional system to ensure that reliability and transfer constraints are properly respected. The UTC will evaluate after these workshops whether the issue of transfer capacity has been sufficiently addressed for purposes of preparing a net benefits study.	The ISO believes that the previous proposal to extend the Path 26 concept would be problematic for numerous reasons and instead proposes to develop a zonal RA concept that is explained in Section 5.3. The ISO believes that a zonal RA concept would more simply and effectively respect internal transfer constraints.
CPUC	It is very important that these be mapped out and pinpointed soon, preferably before the June Board meeting, because these are critical to understanding the potential for additional energy importing/exporting out of the existing CAISO []	The ISO believes that its previous proposal to extend the Path 26 concept would be problematic for numerous reasons and instead proposes to develop a zonal RA concept, as explained in Section 5.3. In this proposal, the ISO initially identifies four potential RA zones: South of path 26, North of path 26, PAC West, and PAC West. These potential zones make sense, because they would be defined areas that have already been identified as having limiting transfer constraints between each potential zone.

SDG&E requests that the ISO confirm whether the ISO's implementation of the current Path 26 Counting Constraint will be retained as is, or whether the proposal to "build on the methodology" means there could be changes within the existing ISO BAA.

- SDG&E requests that the ISO clarify whether its proposal to "identify major internal transfer constraints" could result in a determination that the Path 26 Counting Constraint is no longer needed to ensure the preservation of grid reliability. If ISO's methodology differs from that of the current Path 26 Counting Constraint, then this change should not become effective until the CPUC retires the Path 26 Counting Constraint or implements a methodology consistent with the ISO's.
- As a general matter, SDG&E questions the usefulness of zonally-based transfer constraints. On a network system, such as that of the WECC, power flows in accordance with physical laws, not according to the respective locations of the LSE's loads and the generating resources with which the LSE may have contracted. SDG&E believes a more meaningful assessment of constraints requires the use of power flow studies assuming reasonably probable system conditions.
- Multi-zonal limitations may be very difficult for LSEs to track compared to the current 2 zone limitations. Assuming there are 4 zones, an LSE in zone 1 would receive limitations from zone 4 to zone 3, zone 3 to zone 2 and then zone 2 to zone 1. Currently, the LSE may only need to have MIC at zone 2 and sufficient transfer capability from zone 2 to zone 1. In the expanded BAA, that resource may not fully qualify if the LSE does not have sufficient transfer capability from zone 3 to zone 2. The current MIC process allows the LSE to request more than its load share ratio whereas the internal Path 26 Counting Constraint approach may not.
- The ISO proposes to allow netting of RA contracts across each zone after the baseline allocation calculation. This needs a bit of clarification. Is the proposed netting process different than the CPUC's current netting process?
- Are the netted contracts required to be committed as RA capacity every month because the additional allocation was based on the expected flows of the netted contracts?
- If there are 150MWs of contracts North to South and 100MWs of contracts South to North owned by 6 LSEs, how

The ISO believes that its previous proposal to extend the Path 26 concept would be problematic for numerous reasons, including many that have been identified by stakeholders, including SDG&E. The ISO agrees with many of the comments. In response to these comments, the ISO proposes to develop a zonal RA concept that is explained in Section 5.3.

SDG&E

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		will the ISO determine which contract is netted and which ones are not?  • SDG&E requests the ISO to provide [] detail of its proposed process and respond to SDG&E's comments in this initiative first, rather than in the Transmission Planning Process in order to have support of stakeholders. The TPP process can continue the study process for future years.  [] SDG&E would like ISO to provide additional detail regarding how many local areas the expanded BAA would have if PacifiCorp were to join and what constraints cause those local areas to be defined.	
	CMUA	CMUA recognizes the need to reflect the physical limitations of the grid when examining deliverability of RA resources internal to the BAA. However, CMUA also urges the CAISO to provide more detail on how internal constraints may be allocated on such a wide geographic region and between two sets of entities (CAISO BAA located LSEs v. PacifiCorp). Allocation of California internal constraint capability to other entities, for example, could upset existing allocations. CMUA is unsure how realistic this concern may be because it seems unlikely that, for example, loads in PAC East are taking RA deliveries over Path 26. However, the issue should be discussed so that stakeholder can fully understand the implications of such a proposal.	The ISO believes that the previous proposal to extend the Path 26 concept would be problematic for numerous reasons. In response, the ISO proposes to develop a zonal RA concept that is explained in Section 5.3.
Allocation of RA Requirements to LRAs/LSEs	SCL	City Light requests that the CAISO provide new PTOs an equitable role in determining capacity requirements. The proposal gives the CAISO the lead role and responsibility presently being served by PTOs.	The ISO appreciates SCL's comment and notes that the ISO's role in the RA program is to identify the needs of the system in order to maintain reliability and communicate those needs to stakeholders. Part of the needs assessment is to determine the levels at which the various RA requirements need to be set. The ISO understands that this role may have previously been undertaken by PTO but notes that these roles may need to shift as the result of new PTOs joining an expanded ISO.
	"Six Cities"	[] The determination and quantification of RA requirements allocated among LRAs and LSEs must be based on consistent rules applied throughout the expanded BAA.	The ISO agrees that a consistent set of rules must be applied throughout the expanded BAA.

Western G	rid We support CAISO's proposal to allow LRAs to allocate RA	The ISO appreciates the comments in support of
Group,	requirements to their jurisdictional LSEs, or provide LRAs the option	this proposal that will allow needed flexibility.
Natural	for CAISO to allocate RA requirements directly to LSEs.	
Resource	S	
Defense		
Council		
Northwe:	et	
Energy		
Coalition		
[Joint		
Commen		
	We support CAISO's proposal to allow the allocation of local and	The ISO appreciates the support and agrees that its
Western		proposal will allow needed flexibility.
Resourc		
Advocate		
NW Ener		
Coalition		
T. C. C.	utilities whose state commissions prefer to leave the running of the	
[Joint	day-to-day business of the utility to the utility, and will also	
Commen		
	single regulatory authority overseeing its activities.	
	[] PacifiCorp continues to support allocation of the local and	The ISO agrees with the suggestion to provide RA
	capacity requirement directly to LSEs. PacifiCorp is concerned that	allocations for local and flexible capacity needs
	the ISO's proposal to submit an LSE's total load allocation to an LRA	directly to multi-state LSEs and has incorporated
	will be more complex than its existing submittals for LRAs in one	these recommendations into the proposal.
	state. For example, PacifiCorp's total allocation of local and flexibility	
	requirement would be submitted to six LRAs in its service territory.	
	Under the ISO proposed tariff modification, it is possible that one or	
PacifiCo	more of PacifiCorp's LRAs choose an option to allocate local and	
·	flexible capacity requirements. Under such a scenario, it is not clear	
	whether or how the ISO would determine local and flexible capacity	
	requirements at the state level. PacifiCorp requests clarification on	
	whether the ISO's proposal is to provide a separate jurisdictional	
	allocation of local and flexible capacity requirements to each of the	
	separate LRAs, and if so, to provide information on how this might	
	be calculated. Initially, PacifiCorp could be the only entity regulated	
Malp/C Davids	by utility commissions in each state, except California, participating	April 10, 0010

	in a regional ISO. In the future, it is plausible that another entity in one of these states joins the regional ISO. Absent a state-specific allocation of local and flexible capacity requirements, that LRA would potentially receive PacifiCorp's total allocation, associated with its six-state total demand, as well as the allocation of the additional entity. Under such a circumstance, it is not clear how an LRA might determine what portion of the requirement is associated with the demand within its jurisdictional boundary. [] It may be best that the ISO simply allocate local and flexible capacity requirements directly to multi-jurisdictional LSEs.	
CLEC	Far more detail on how this allocation would occur, the methodology for the coincidence determination and other calculations is needed. This has been a highly contested issue at the CPUC, which has refined its policy for allocating RA requirements over the years, after receiving input from numerous parties. It is not clear how the CAISO would perform this allocation or whether it would do so in an open process with stakeholder input.	The ISO has provided more detail in the revised straw proposal and seeks stakeholder comments. The ISO strives to design a process that will be transparent and robust for all participants.
UTC	[] The UTC requires additional information and analysis to determine which of the options proposed [] is preferable: namely, allocation to the LRA, which then will allocate RA requirements among the [] (LSE's) jurisdictional in Washington state, or allocation by the ISO directly to LSE's. For the ISO to achieve [] consensus, the UTC recommends the ISO provide further examples in revised straw proposals and stakeholder meetings that demonstrate how RA requirements will be calculated and allocated, as well as additional opportunity for stakeholders to discuss these options and provide the necessary information to conduct a net benefits study.	The ISO appreciates UTC's request for additional information and has described additional details in the proposal. As indicated in the text above, the CAISO is available to the extent UTC desires to discuss aspects of the RA program.
CPU	Slide 14 & 19 of the CAISO presentation state that CAISO will allocate RA requirements to CPUC-jurisdictional LSEs, which raises concerns for CPUC Staff, given that CPUC and CEC currently provide such allocations to CPUC jurisdictional LSEs. What would occur if our calculations did not match and CAISO's allocations differed from the IEPR (which is adopted by the CEC after a transparent public process)?	The ISO proposal intends to allow the CPUC to continue to provide allocations to its jurisdictional LSEs, similar to its practice today. The proposal provides for an option for the allocation to go to the LRA or the LSE, depending on whether the LRA desires to defer to the LSE.

	SDG&E	<ul> <li>SDG&amp;E requests that the ISO provide RA Requirements to LSEs and LRAs at least 90 days and 120 days, respectively, prior to the deadline for providing the ISO with the year-ahead showing.</li> <li>The allocation of RA requirements should only be available for download on ISO's Customer Interface for Resource Adequacy (CIRA) tool and not exchanged via e-mail. If there are updates to the requirements due to load migration, then the ISO should also be responsible to update that RA requirement as well.</li> <li>SDG&amp;E wishes to understand how the ISO plans to comply with LRA specific allocation rules which may differ from the ISO's generic allocation rules.</li> </ul>	The ISO agrees with the suggestion to provide the RA requirements to LSEs and LRAs at least 90 days and 120 days, respectively, prior to the deadline for providing the ISO with the year-ahead showing. The ISO will further consider the suggestion to only use the CIRA tool for the distribution of RA requirements and not exchange them via email. The ISO intends to continue its current arrangements with the CPUC for allocations that are LRA-specific to the CPUC and conducted by the CPUC, although different from the ISOs generic allocation rules. If LRAs in other jurisdictions request similar arrangements, the ISO will need to consider how to work with the LRAs and their jurisdictional LSEs to set up similar LRA-specific processes.
Updating ISO Tariff Language to be More Generic	SCL	City Light encourages the ISO to take a comprehensive look at the tariff. SB 350's direction to expand the CAISO requires a broader review of the tariff, which was developed solely for the current footprint and membership.	The ISO appreciates the comment and will take a comprehensive look at all tariff changes, however, the intent of this aspect of the proposal is simply to clean up the sections of the tariff that include references to California-specific entities. These clean up changes are only intended to avoid creating any barriers or other unintended consequences of the California-specific language that is currently used.
	CPUC	[] If the CAISO remains primarily a California specific entity, then the Resource Adequacy provisions that relate primarily to the CPUC, and to smaller "Local Regulatory Agencies," need not be amended to be generic, nor do existing RA requirements need to change.	The ISO appreciates the concern of the CPUC but believes that it is appropriate to change the tariff to be more generic, even if the expanded BAA remains "primarily a California-specific entity," because it will avoid any unintended barriers to other non-California entities.
	Western Grid Group, Natural Resources Defense Council,	We support CAISO's proposal to avoid creating any unintentional barriers or consequences due to California-specific language currently used, to accommodate additional regulatory authorities beyond current CPUC and non-CPUC jurisdictional entities, and to amend the tariff to reflect multiple time zones in an expanded BAA. We believe that keeping this mindset and making these changes in	The ISO appreciates the supportive comments from the joint commenters on this aspect of the proposal.

Northwest	all related RSO documents and forums should be encouraged and	
Energy	will promote broader support.	
Coalition		
[Joint		
Comments]		
Western	We support CAISO's proposal to update the tariff provisions to make	The ISO appreciates the comments in support from
Resource	the language more generic. We agree this is necessary to avoid	the joint commenters.
Advocates,	creating unintentional barriers or consequences.	
NW Energy		
Coalition		
[Joint		
Comments]		
	With the same caveat applicable to all of ICNU's comments—that [INCU's] support for a particular proposal in this initiative applies merely to the rationality of its specific terms, and does not constitute	The ISO appreciates the ICNU comments in support of the intent of this aspect of the ISO proposal.
ICNU	agreement with ISO expansion as a general matter or as to the integration of certain entities—it would make sense for the ISO to revise its tariff with a view to making its language more generic. To the extent that there is a showing that integration holds harmless the customers of PacifiCorp and any other potential new PTOs, and that any benefits are allocated fairly, then revising [] California-specific terminology will be necessary.	
NIPPC	NIPPC agrees the ISO tariff language should be more generic.	The ISO appreciates the supportive comments from NIPPC.
PacifiCorp	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.	The ISO appreciates the comments by PacifiCorp in support of this proposal.
SCE	SCE supports the need to make terms more generic [].	The ISO appreciates the comment in support by SCE.
SVP	We would urge the CAISO to ensure that FERC-approved tariff changes during the regionalization process do not impact California LSEs prior to their application to other newly-joining entities within a regional footprint. The purpose of the anticipated changes is to address an expanded regional market. There is no reason to burden existing CAISO market participants with the new provisions	The ISO understands the concern and notes that this an effective date issue that the ISO is addressing. See the discussion on effective date, included in the introduction to the proposal in Section 4.
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CDWR	before the regional expansion takes place. Applying tariff changes to existing market participants, while the potential new entrants remain free from CAISO Resource Adequacy (RA) requirements, would place unneeded burdens on California LSEs and could place them at a competitive disadvantage.  [] Changing the tariff to make it more generic should not impact the existing LRA RA programs.	The ISO's proposal to change tariff language to be more generic will not impact existing LRA RA programs.
CLECA	<ul> <li>[] While no specific, draft tariff language is provided, it appears that the contemplated tariff changes would shift jurisdiction from California state agencies to the CAISO, a FERC-jurisdictional entity, for: <ul> <li>Load Forecasting;</li> <li>RA resource counting methodologies;</li> <li>Allocation of RA requirements to Load Serving Entities and Local Regulatory Authorities;</li> <li>Establishing the Planning Reserve Margin</li> </ul> </li> <li>The Regional RA Straw Proposal, however, characterizes these as "minimal changes are required to the existing structures to develop a framework that works for a multi-state ISO." These are not minimal changes. Not only should the implementation of such changes be contingent on the actual expansion of the BAA, their consideration warrants far more time than is currently provided.</li> <li>The reason given for the rush is: "It is important that the provisions for a multi-state ISO be put in place through an order by the FERC by the end of 2016, so that regulatory outreach can occur by early 2017 by entities that may be interested in joining and expanded BAA." This is not a sufficient explanation. Why does outreach have to occur by early 2017? Why does implementation have to be complete in 2018? Why the go-live date is apparently set it stone for January 2019? There is no specific reason given that warrants overriding the clear need for more time to develop this and the other market structure initiatives.</li> </ul>	The ISO understands the concern about implementation and effectiveness of tariff changes. This is an effective date issue that is addressed in the discussion on effective date, included in the introduction to the proposal in Section 4.

	UTC	The UTC agrees that the ISO tariff language must be updated to enable it to apply generically to states with different RA methodologies. The update should not change the meaning or effect of the tariff unless the change in meaning is unavoidable. To ensure that all stakeholders understand that the updates do not alter the meaning, or whether there are changes in meaning, to the tariff, the ISO should modify its existing stakeholder process to provide an opportunity to comment on the final revised tariff. Under this proposal, the ISO would provide an opportunity to comment on a tariff proposal, and after revising the tariff following comments, provide an opportunity for comment on the revised tariff proposal.	The ISO appreciates the comments and will look into providing more specifics in the stakeholder process to bring clarity to which areas of the tariff will need to be changed to more generic language. The ISO will consider the viability of the suggestion for a final comment period during review of tariff language.
	CMUA	CMUA's overarching concern is to "do no harm," and make only such changes that may be necessary or compelling if there is a firm regional expansion proposal. [] CMUA urges the ISO to clarify how any changes to the RA provisions in the Tariff will be made effective. As the ISO is well aware, many of the RA provisions have developed over time and is a careful balance of roles, responsibilities, and jurisdictional boundaries. []We should not be making Tariff changes "on the come," in an attempt to facilitate future hypothetical new Participating Transmission Owners that may seek to be integrated [].	The ISO understands CMUA's concerns and appreciates comments on these important issues. This is an effective date issue that is addressed in the discussion on effective date, included in the introduction to the proposal in Section 4.
	TURN	The CAISO is proposing to present proposed Regional RA changes to its Board in June, well before it will be known if PacifiCorp will choose to join or be allowed to join the CAISO. Yet the tariff language the CAISO is proposing could apparently apply even if PacifiCorp or other entities never join the CAISO. To preserve the current California system – which the CAISO has said "has worked well" – such tariff language [] should not be applied if CAISO does not expand its footprint to cover significant portions of the west.	The ISO understands the concern that is noted in TURN's comments. As indicated in response to other comments above, this an effective date issue that is addressed in the discussion on effective date, included in the introduction to the proposal in Section 4.
Reliability Assessment (Generally)	"Six Cities"	Subject to evaluation of additional details when they are available, the Six Cities (a) support CAISO's proposal to establish a system-wide Planning Reserve Margin for the purpose of resource adequacy assessment [], (b) agree with CAISO's position that resource counting rules must be consistent for purposes of reliability assessment [], and (c) support CAISO's proposal to establish backstop procurement authority and procedures to address aggregate deficiencies in resources required to maintain reliability	The ISO appreciates Six Cities' comments in support of these important aspects of the ISO proposal.

	and to allocate costs for backstop procurement to LSEs that fail to procure their allocated shares of RA proportionate to their shortfall in assigned RA requirements [].
Western Resource Advocates, NW Energy Coalition  [Joint Comments]	We support the RSO conducting a monthly reliability assessment using consistent counting rules and applying a PRM subject to CAISO's minimum requirements and, perhaps, zone-specific constraints that would provide safeguards against capacity leaning. [] We also support CAISO's proposal to allow the ISO to procure backstop capacity in the event of an unresolved shortfall and allocate the costs to the entities responsible for the shortfall. Revertheless, we have several questions regarding the approach CAISO proposes to follow in the event of a shortfall and the reasoning behind it. []  1) How long of a "cure period" does CAISO anticipate? 2) Are there reasons to believe market forces might resolve an insufficiency? 3) At the time the RSO notifies LSEs of a shortfall, would the RSO have available to it each LSE's resource sufficiency or insufficiency as calculated using RSO metrics? 4) Prior to using its backstop authority, does CAISO anticipate the RSO would share each LSE's contribution to the anticipated shortfall with at least those entities who are contributing to the insufficiency? 5) Is CAISO proposing this more generic approach as opposed to providing each LSE's sufficiency and/or insufficiency to avoid potential jurisdictional concerns?  a. If, yes, how does CAISO reconcile allocating the costs of backstop procurement to those entities who cause the need for backstop procurement?  b. Do the metrics used to allocate the costs of backstop procurement after the operating period (to assure that those who cause backstop procurement pay its costs) differ from the metrics that would be used to calculate resource sufficiency or insufficiency as part of the reliability assessment?  6) Has CAISO considered making LSEs' sufficiency's and insufficiencied making LSEs' sufficiency or insufficienced making LSEs' sufficiency or an embod to incent capacity

	acquisition in the event of a shortfall? Similar to our previous comments regarding making forecast error public, it seems that making resource insufficiencies public might incent better behavior.	6) The ISO will consider making LSEs' insufficiencies public as a method to incent capacity acquisition, in the event of a shortfall that requires a cure, and will consider how the ISO can improve the transparency of the backstop procurement process.
NIPPC	NIPCC agrees with the need for clear, consistent rules designed to prevent one LSE from unfairly leaning on resources procured by others. NIPPC notes that load forecasts, planning reserve margins and resource counting methodologies all contribute to a final result. If each element is conservative, LSEs will likely procure more capacity than is reasonably needed at unnecessary cost to consumers; on the other hand if each is too liberal, the system faces increased risk of capacity shortages. Part of the regional resource adequacy program should be a periodic review — not just of the individual components of the resource adequacy program but also exploring how those individual components work together.	The ISO appreciates the comment regarding a periodic review of the overall RA construct and will consider the suggestion.
ВРА	[] BPA understands the need to prevent leaning, but in essence, this [ISO backstop procurement] reduces an LRA's ability to set its own planning reserves. In such a system, it is possible that LRAs and LSEs can be operating under good utility practices and still fall short of ISO minimum requirements. A related question is whether the ISO is willing to accept system Planning Reserve Margins (PRMs) other than the CPUC's 15-17%. Finally, with regards to Backstop Procurement, BPA is interested in the development and application of the Backstop Procurement Authority process and hopes that the CAISO along with stakeholders work together to develop an open and fair procedure that limits the ability of a PTO to pass through any backstop procurement costs to LSEs that did not contribute to RA shortfalls.	The ISO proposal details options for the method to determine a system and zonal PRM targets. These methods need to be discussed further with stakeholders. The ISO appreciates the feedback and agrees that the development of an open and fair procedure is needed in the allocation of backstop procurement costs.
UOCS	It appears to [UOCS] that [] LRA/LSE procurement programs (e.g. IRPs) will have to adopt the ISO's system PRM and counting methodologies [] (and possibly other ISO planning metrics). [] The Office has participated in many stakeholder processes and	The ISO reemphasizes that LRAs will continue to be able to procure resources according to their own RA programs. The ISO does not intend to change the process of LRA or LSE procurement programs,

		regulatory proceedings where the planning metrics currently used by our LSE have been vetted and then approved []. These metrics produce a portfolio of resources that include projected cost, reliability and policy consequences that we support. [] we think that the requirement to meet the ISO's reliability assessment will force our LSE to change its current procurement program and that the ISO's stated "deference" to LRA and LSE procurement [] will be irrelevant. Since we are just beginning to evaluate the potential structure of a [] regional ISO, the Office cannot yet support an approach that would change the LRA-approved resource procurement program of our LSE.	however, the ISO needs the ability to perform a reliability assessment to determine system adequacy using comparable and consistent metrics. The ISO must develop the metrics and counting methods for the purposes of evaluating system reliability and will perform its due diligence to provide an open and fair process for this metric and counting method development.
Reliability Assessment (PRM)	Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition  [Joint Comments]	We support CAISO's proposal to establish a minimum PRM to avoid capacity "leaning", while preserving avoidance of prescribed PRM assignments to new RSO entrants. WGG, NRDC, and NWEC support allowance of individual LSE and LRA PRM standards, subject to CAISO's minimum requirements, and perhaps specific zonal constraints that could provide additional safeguards against capacity leaning.	The ISO appreciates the joint commenter's supportive comments on these aspects of the ISO's proposal.
	WPTF	WPTF conceptually supports a system-wide PRM minimum. The "system-wide" minimum will, however, enable some leaning between LSEs. Establishing a system-wide PRM will still somewhat allow leaning between LRAs to the extent one LRA has a higher PRM than another LRA. In particular, to the extent the PRM is less than 15% (the CPUC-set PRM) small LRAs will easily be able to lean on the CPUC LRA and set a PRM less than the system-wide minimum PRM. This risk is mitigated by the potential for LSEs to be allocated backstop costs if there is a system-wide shortage of system capacity. Under the proposed rules if there is a system-wide shortage, CPM costs would be allocated to entities that are under the system-wide PRM minimum, pro rata. WPTF prefers the alternative where a standardized minimum PRM exists for each LRA. This seems like a more direct method to ensuring reliability and such a proposal would simplify the backstop process.	The ISO appreciates the WPTF comments on the PRM proposal. The ISO believes that the proposed approach to evaluate total system procurement levels is appropriate in order to balance the need to avoid prescribed LSE/LRA specific PRM assignments and allowance of flexibility for procurement decisions for LSE and LRA's, subject to the ISO's minimum PRM requirements should the system wide assessment determine a deficiency.

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R Ad NV C	Western Resource dvocates, W Energy Coalition [Joint comments]	We recommend CAISO review the feasibility of various methods including, among others, loss of load probability studies and developing a PRM in a manner similar to the method WECC employs in conducting its Power Supply Assessment, as well as any other methods participants may suggest.  We further recommend CAISO distribute the information it gathers in a PRM issues paper. CAISO could then conduct a PRM working group meeting and use the information and feedback to propose a PRM method as part of the Revised Proposal. If, however, CAISO does not intend to propose a methodology as part of the RA	The ISO appreciates the comments on this aspect of the proposal and notes that the ISO has proposed options for determining system and zonal PRM targets in Section 5.6. These include the option for utilizing a probabilistic LOLE study.
		proposal, this could be left to a future stakeholder process.  1) Not all PRMs are Equal: In our work with the IEEE Loss of Load Expectation Best Practices Work Group, we have observed that planning reserve margins across the country vary dramatically depending on what uncertainties they are designed to cover. [] Thus, defining a single PRM for an ISO footprint that spans many diverse areas could lead to subareas that are over or under protected with respect to adequacy. One way to avoid this problem is to define a probabilistic adequacy metric and threshold for the entire CAISO footprint and then derive local PRMs based on that adequacy standard []	The ISO appreciates the comments from the NWP&CC and notes that the ISO has proposed options for determining system and zonal PRM targets in Section 5.6. These options include both a deterministic PRM and the option for utilizing a probabilistic LOLE study to set the PRM target. The ISO also believes that the proposed zonal RA concept described in Section 5.3 will address the comments regarding the need for PRM targets to be set on a sub-regional basis.
Cor	V Power & nservation Council	2) Balancing Reserves: Generally, balancing reserves (to compensate for within-hour deviations in load and in variable resource generation) are allocated to specific resources, whose availability is adjusted accordingly. If that is not the case, balancing reserves must be added to the PRM. But that is not recommended because resources providing those reserves have to be specified ahead of time.	
		3) Deterministic vs. Probabilistic PRM: [] defining a PRM in [a] deterministic manner does not present a clear indication of what level of adequacy is being provided. A better approach (but much more complicated) is to use probabilistic methods to define a PRM. For this approach, an LSE must first define a metric to measure adequacy and then set a threshold for that metric. For example, the NW Power and Conservation Council has adopted a 5-percent maximum threshold for the loss of load probability of the NW power supply. In simple terms, this means that if the likelihood of the region	
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	experiencing a shortfall in the year being assessed is 5 percent or less, the power supply is deemed to be adequate. The 5 percent standard can be translated into a PRM by constructing a power supply with exactly a 5 percent LOLP and then extracting the resource capacity and dividing it by the weather-normalized peak load. The use of probabilistic methods to define PRMs is becoming more and more common across the country. Any adequacy metric and threshold will work. NERC has developed a pilot program to standardize the metrics used to assess adequacy. Those metrics are loss of load hours and expected unserved energy. However, NERC is not tasked with setting thresholds for those metrics []. Threshold must be developed regionally [].	
	4) Accommodating Diversity: If a common adequacy standard existed, such as the 5 percent LOLP for the NW, then CAISO subareas could use that standard to define the specific PRM for their own area. It is quite possible then for various subareas to have different PRM values but at the same time they would all be providing exactly the same level of adequacy for their customers. Unfortunately, no common resource adequacy standard exists. Having one overarching PRM for the entire CAISO footprint can lead to overbuilding in areas whose local PRM is smaller than the CAISO PRM. Conversely, a subarea with a local PRM that is greater than the CAISO PRM might lead the CAISO to assume that the subarea is surplus when in fact it is not. Without a predefined probabilistic resource adequacy standard, it is difficult to determine whether all subarea within the CAISO are actually providing the same level of supply adequacy.	
AWEA, Interwest Energy Alliance, Renewable Northwest	The more detailed discussions around how this methodology will be conducted will be critical. The Joint Commenters look forward to future discussions and urges the ISO to continue to pursue RA methodologies that capture the benefits of regional expansion and allow reduced RA requirements to be realized, while maintaining the high level of system reliability.	The ISO appreciates the comments seeking additional details on the proposal and notes that the ISO has provided PRM methodology options for stakeholder feedback in Section 5.6.
[Joint Comments]		

ICNU	One of the most concerning aspects of the straw proposal [] For example, the difference between the ISO's PRM of 15-17% and PacifiCorp's [] 13% is considerable. Moreover, given that ICNU believes that PacifiCorp's recent use of a 13% PRM is itself excessive, the prospect of material increase, via the proposal for "a system-wide" PRM, will likely be troubling for stakeholders throughout the Pacific Northwest as well as in PacifiCorp's eastern regions.  If the PRM is increased, then customers of PacifiCorp (and, likely, of any other potential new PTO) would not be held harmless. For instance, increasing the PRM to 17% would [] cost PacifiCorp customers approximately \$400 million, an amount that will severely dilute any purported [regional] benefits []  ICNU understands the ISO's desire to use a common PRM [] The problem of "leaning," however, is not necessarily a reason to assume a common standard. Because the interconnection points between the ISO and PacifiCorp will be limited, the amount of capacity that PacifiCorp can obtain from the preexisting ISO subregion will be limited by transmission constraints. [] a lower PRM for PacifiCorp will, therefore, not result in it receiving any incremental capacity from the CAISO sub-region. The use of a lower PRM in the PacifiCorp sub-region will only result in greater reliability risk to customers in the PacifiCorp sub-region, a risk which ICNU believes is already overstated.  [] again, ICNU's concerns about [] preemption of LRA authority seem critical. [] the ISO's proposed "backstop" authority would [] allow the ISO to charge LSEs for employing different PRMs. Since those same LRAs could potentially be forced to incorporate the ISO's additional backstop cost allocations in local LSE rates, as under the filed-rate doctrine, the "choice" to establish a different PRM could then be illusory, at best.	Under the ISO's revised straw proposal, the ISO has proposed developing zonal RA requirements. The establishment of these zones will include zonal PRM targets and should address these concerns raised by the ICNU comments. The ISO believes that system-wide adequacy and reliability is paramount and does not believe it is appropriate to operate different areas of the system at differing levels of reliability. The zonal RA proposal will allow for sub-regional diversity, but the zonal PRM targets should be determined using a common reliability criterion, i.e., a 1-in-10 or other LOLE target for example. This may allow for nominally different PRM target for sub-regions of the ISO while ensuring equal levels of reliability.
NIPPC	reserve margin for the system. LRAs should have the ability to direct their LSEs to plan to a higher reserve margin, but enforcement of that alternative should be held by the LRA and not the ISO.	to the LRAs and LSEs. Enforcement decisions is left to the LRAs and LSEs. Enforcement of the ISO determined system-wide PRM target at an individual LSE level will only occur if the reliability assessment indicates an aggregate system wide deficiency, and

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		only if a deficiency remains after the prescribed cure period.
	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, along with system production costs. A detailed discussion of how PacifiCorp utilized a stochastic loss of load study to calculate its reliability metrics at each of the tested PRM levels is provided in Appendix I – Planning Reserve Margin Study in the 2015 IRP. PacifiCorp continues to evaluate and evolve its planning reserve margin study through each of the IRP processes through feedback from its LRAs and stakeholders.	The ISO appreciates the detailed PRM comments provided by PacifiCorp. The ISO has provided details on proposed options for determining system and zonal PRM targets for stakeholder consideration in its PRM proposal in Section 5.6. The ISO agrees with the comment to consider establishing a minimum PRM and allow LRAs to establish their own PRM levels, so long as they achieve the same or greater level of reliability. This is essentially the spirit and intent of the ISO's proposal.
Pacifi	[] PacifiCorp [] supports developing a minimum PRM through a transparent stakeholder process; however, the 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. 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.	
	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. [] To mitigate this risk, the	
		ISO might consider establishing a minimum PRM and allow LRAs to	
		establish their own PRM levels so long as they achieve the same or	
		greater level of reliability.	
		[] Should an LRA use a PRM above the CAISO-mandated	The ISO will establish a minimum PRM that will
		minimum, it could procure unnecessary quantities at ratepayer	come into effect only if the system as a whole is
		expense to meet this higher PRM without receiving any additional	determined to be short. This approach is
		reliability benefits. As currently written, the Straw Proposal would	appropriate in order to balance the need to avoid
		allow an LRA to procure an amount below the minimum PRM if that	prescribed LSE/LRA specific PRM assignments
		under-procurement did not result in a system-wide deficiency. In this	while allowing flexibility for procurement decisions
		situation, an under-procured LRA that did not meet the minimum	for LSE and LRA's, subject to the ISO's minimum
	California	PRM may not be ordered increase procurement and could receive	PRM requirements should the system-wide
	ORA	an unfair advantage at the expense of LRAs with higher PRMs that	assessment determine a deficiency.
		contribute to system-wide resource adequacy.	
		[] it is unclear what authority would be left to the states or LRAs if	
		the CAISO-mandated minimum exists. In the workshops,	
		independent LRAs and LSEs mentioned that they would like to	
		continue to determine their PRM. Further discussions / workshops	
		are warranted regarding how the LRA PRM determinations with	
		differing values from the CAISO's may lead to different procurement	
		levels creating potential inequities that would need to be resolved.	
		BAMx is concerned that the ISO's stakeholder process to determine	The ISO believes that this approach of determining
		a system PRM will effectively displace the existing LRAs' processes.	minimum system and zonal PRM targets is
	D 4 1 4	The selection of a PRM involves many portfolio specific considerations such as the resource technology, past performance,	appropriate, in order to balance the need to avoid prescribed LSE/LRA-specific PRM assignments and
	BAMx	load shape, etc. While the Straw Proposal states that the system-	allow flexibility for procurement decisions for LSEs
		wide PRM will not ascribe a fixed PRM to any individual LSE, this	and LRAs, subject to the ISO's minimum PRM
		may be the result nonetheless.	requirements, should the system wide assessment
		may so the result heriotherese.	determine a deficiency.
		LRAs operating within the current CAISO footprint have been	The ISO would review the aggregate LSE
		designating their own PRMs for nearly a decade []. There is no	procurement levels compared to the Coincident
		reason to suppose that new LRAs would be any less responsible	Peak load forecasts to identify whether a collective
	CDWR	than the LRAs CAISO has worked with for many years. There is no	deficiency below the system-wide PRM exists - in
		reason to infringe on the jurisdiction of any LRA, whether new to the	which case, the ISO would identify only those LSEs
		CAISO BAA or not, based on a supposition.	with showings below the PRM and allow these LSEs
		If, by using the proposed PRM methodology, CAISO	
		determines that RA resource availability is higher than what	
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is required with the system wide single PRM, would that lower the RA obligation to all LRAs on a pro-rata basis?

- Provide an example of how an LRA/LSE would have a shortfall in its RA requirement as determined by ISO based on a system-wide standard PRM. Also provide an example how LSE would be given opportunity to cure the shortfall and how ISO would perform the backstop and allocate costs to LSEs based on PRM differences between the LRA and the ISO determined system-wide standard PRM.
- If an LRA must comply with the new PRM requirement in the event of a system-wide shortfall in capacity, how is the policy objective that an LRA's authority to designate its own PRM preserved?
- What mechanism will be established to determine that a shortfall in capacity (in reliability assessment) is due to a lower PRM set by an LRA?

a curing period, in order to procure the amount needed to cover its individual PRM deficiency.

The ISO would not lower the PRM for all LSEs on a pro-rata basis if the overall procurement was above the ISO minimum PRM target. Rather, the ISO would simply be finished with the reliability assessment, determining that the system-wide procurement was sufficient.

An example of how an LRA/LSE could have a shortfall in its RA requirement, as determined by ISO based on a system-wide standard PRM, would be if the ISO identified a system-wide deficiency, then viewed each individual LSE procurement level, and then determined that some individual LSEs were below the ISO PRM target. The ISO would notify those LSEs of the need to cure the deficiency, after which these LSEs could choose whether to procure; if they do not procure, they would simply be exposed to some level of risk that the ISO may have to perform a backstop procurement if, after the cure period, there was a remaining deficiency.

All LRAs would maintain the flexibility in setting its PRM, in accordance with consistent counting criteria. Only if the system-wide procurement was insufficient would the ISO look into each LSE's particular PRM level to determine if, in fact, the PRM level provided through its demonstrated procurement was below the ISO PRM target. By ensuring common counting criteria, a mechanism used to calculate PRM levels uniformly for the assessment, and identifying the level of PRM supplied by each LSE, the ISO can reliably assess any LSE-specific shortfalls in capacity procurement, should the reliability assessment identify a system-wide deficiency.

CLECA	[] The CAISO asserts that a benefit of the expanded, more regional BAA is load diversity, which, according the CAISO, "should lower the PRM across the broader footprint." This assumption that load diversity will be able to lower the PRM should be substantiated. Furthermore, if the PRMs continue to differ, there is a real concern that regions with lower PRMs will be able to lean on those with higher PRMs.	The ISO appreciates CLECA's comments on this aspect of the proposal. The details of the ISO proposal for establishing minimum PRM targets and determining system adequacy or deficiency is included in Section 5.6.
	[] CLECA agrees [] that a minimum PRM is needed; how will it be calculated? If the overall PRM is not met, and the "delinquent LSE" does not cure the deficiency, that LSE would be allocated any costs of backstop procurement; CLECA agrees with this in principle but has a significant concern in terms of the CAISO's determination of "delinquency" or "deficiency" [].	
	PacifiCorp has historically operated [] using a 13 percent [] (PRM), which the UTC has accepted and acknowledged in successive IRPs in Washington state. The UTC understands that the ISO must be able to assess the level of reliability on a comparable basis across an expanded BA, but the ISO has not provided any study showing that on a standalone basis PacifiCorp's west BA cannot be reliably operated with a 13 percent PRM.	The ISO has proposed developing a zonal RA concept that is explained in Section 5.3. The ISO has also proposed PRM methodology options for stakeholder review that are detailed in Section 5.6.
UTC	[] UTC does not disagree with the assertion in the Straw Proposal that a regional ISO must determine [] the "collective system-wide procurement of RA resources." If the ISO determines, through a study of the integrated BAs, that all load must carry a 15 percent PRM, the ISO should identify which system resources and load drive that requirement, given reliability and transfer constraints in the system. The determination of whether a system-wide minimum of 15 percent PRM is necessary should be made through study and stakeholder process, as the Straw Proposal points out. This will require a comprehensive study [] beyond what the ISO currently proposes for this initiative. For example, the level of resource adequacy is under review currently in the Pacific Northwest by LSEs and the Resource Adequacy Advisory Committee of the Northwest Power and Conservation Council. Such studies should be	

	CPUC	CAISO [] does not specify a percentage or outline its methodology other than stating some general principles. As a result, the PRM could be in conflict with the PRM adopted by the CPUC and other [] (LRAs), which could impact procurement and lead to backstop procurement if CAISO's PRM is higher than the PRM adopted by the CPUC or other LRAs for their jurisdictional LSEs. Backstop procurement leads to real ratepayer costs, and is, on average, twice as expensive per kw/month as the average RA contract authorized by the CPUC.	The ISO appreciates the comments from the CPUC. The ISO has proposed PRM methodology options for stakeholder review that are detailed in section 5.6. The ISO agrees with the CPUC comments that the ISO's backstop provisions will need revisions to ensure that costs of backstop based on an LSE's deficiency in what will become "sub-areas" are fairly allocated.
		The sections of the tariff dealing with System Capacity Procurement Mechanism (backstop) would need to be revisited to ensure that costs of backstop based on an LSE's deficiency in what will become "sub-areas" are fairly allocated. Costs would have to be allocated to each LSE under this new proposed system.	
	SDG&E	SDG&E believes this is a crucial element of the ISO's proposed framework. SDG&E supports determination of a "system wide PRM" []. SDG&E would like ISO to clarify if its PRM will be a minimum for each LRA, for the entire BAA, or both. SDG&E recommends that the ISO determine the methodology for establishing the system wide PRM, and conduct the PRM study, prior to seeking ISO Board approval of the PRM approach. SDG&E requests that the ISO set additional workshops to discuss the methodology it will use to determine the PRM.	The ISO appreciates the comments from SDG&E on these aspects of the ISO proposal. The ISO clarifies that it intends to determine minimum PRM targets for the entire system-wide level of aggregate procurement, as well as minimum zonal PRM targets under the proposed zonal concept described in Section 5.3. The ISO has also proposed PRM methodology options for stakeholder review that are detailed in section 5.6.
	CMUA	CMUA finds it difficult to assess this issue without more information about prevailing practices, and any potential disruption to existing forward procurement. While CMUA does not object in principle to an overall minimum PRM, the implementation details about how it will be derived and how it will be utilized must be developed expeditiously.	The ISO appreciates the suggestion by CMUA and has proposed PRM methodology options for stakeholder review that are detailed in section 5.6.
Reliability Assessment	Western Grid Group, Natural Resources Defense Council, Northwest	We believe that a growing movement toward using an Effective Load Carrying Capability (ELCC) methodology that fairly and appropriately reflects the performance capabilities for each resource for determining qualifying capacity should be accelerated. There are issues that need to be faced when implementing ELCC, or less computationally challenging short-cut methods that approximate ELCC study outcomes. We would urge CAISO to propose in an	The ISO has proposed options for stakeholder consideration that include ELCC as described under Section 5.6. The ISO requests stakeholder comments on both options for wind and solar resources and will develop further details on the preferred methodology through the stakeholder process.

(Resource Counting)	Energy Coalition [Joint Comments]	open stakeholder forum, which ELCC approach it recommends in order to start discussions about the implementation details for an ELCC process. An evaluation of the experience with the CAISO deliverability assessment process including the flexible capacity and "must offer" requirements should be undertaken and reforms adopted as part of adapting the RA program to the expanded CAISO footprint.	
	Western Resource Advocates, NW Energy Coalition  [Joint Comments]	As discussed earlier, we support this proposal, and we support use of some variant of the effective load carrying capability ("ELCC") methodology that balances accuracy with data and computational requirements to determine each technologies' capacity contribution. We encourage CAISO to gather information on variants of the effective load carrying capability methodology and share this information with stakeholders in an issues paper in a manner similar to what we recommended for developing a PRM methodology. The information could be shared in a working group meeting, possibly even the same meeting that considers PRM methodologies. If, however, CAISO does not intend to propose a methodology, this could be left to a future stakeholder process.	The ISO appreciates the recommendation and agrees that further information is needed on various methodologies. The ISO has initially proposed options for counting methods for certain resource types, these include ELCC and Exceedance methods for wind and solar resources and are described in Section 5.6.
	NW Power & Conservation	1) Variable Energy Resources: The capacity contribution of variable energy resources [] must be assessed as a function of the system that they are being added to. [] As more VERs are added, and as more system flexibility is consumed, the amount of dependable VER capacity decreases. Thus, the only way to properly count the contribution of VERs is to assess their effective load carrying capability (ELCC). Methods to assess ELCC are well documented but, as a practical matter, it may be difficult because detailed simulation models may be required.	The ISO appreciates the comments from the NW Power & Conservation Council and the suggestions on the counting methodologies proposal. The ISO has initially proposed options for counting methods for each resource type that are described in Section 5.6.
	Council	2) Market Supplies: Some LSEs do not count market supplies when defining their planning reserve margins. In those cases, LSEs choose to only count on contracted or owned resources to provide adequacy. This approach could lead to slightly overbuilt systems depending on the availability of market supplies. For the west coast, due to the diversity of resources and loads, it makes economic sense to count some amount of market supply to provide for an adequate system. However, as with variable energy resources, the amount of market supply to count in defining the PRM has to be	

	dependable. For example, market availability from the Northwest, which has high variability in surplus energy, should likely be limited to an amount based on low runoff volume years.	
	3) Energy Efficiency and Distributed Generation: We have already commented on how these should be counted.	
	4) Demand Response: We suggest that demand response resources be included on the resource side of the ledger.	
	5) Balancing Reserves: As mentioned earlier, we suggest that balancing reserves be allocated to specific resources and that the capabilities of those resources be adjusted accordingly.	
	The Joint Commenters strongly support the ISO's proposed approach to develop a consistent resource counting approach to determine the amount capacity that each resource could qualify for in the ISO's reliability assessments. []	The ISO appreciates the comments by the joint commenters in support of these aspects of the ISO proposal and will take into consideration the recommendation to account for the geographic
AWEA, Interwest Energy Alliance, Renewable Northwest	As the regional RA framework moves into subsequent phases, we look forward to future discussion on the specifics of the ISO's proposed counting methodology. We are encouraged that the ISO's Straw Proposal recognizes that the Effective Load Carrying Capability (ELCC) approach should be considered. []	diversity of an expanded footprint in regards to the counting methodologies for resources.
[Joint Comments]	The Joint Commenters recommend that the ELCC calculation, or whatever method is ultimately adopted, should be updated following an expansion of the ISO footprint, to properly account for the impact of geographic diversity in electricity supply and demand on the capacity value contribution of all resources. This is particularly important for variable renewable resources, which see significant increases in their capacity value contribution over larger balancing areas due to the geographic diversity of their output.	
ICNU	ICNU understands the goal of establishing consistent counting rules [], however, ICNU is concerned about potentially waning LRA authority. [] regardless of the ISO's intentions, differing LRA and LSE counting methodologies will be of little effect if the ISO determines that a particular LSE is over-counting resources, prompting the ISO to exercise backstop procurement authority [] and then to collect costs incurred from the LSE as a result. The ISO's proposal to provide "transparent methodologies," in the	The ISO appreciates the ICNU comments and understands the concerns about how different resource counting potentially could lead to problems. The ISO needs consistent counting methods to accurately evaluate the level of the system's resource adequacy through the proposed reliability assessment. LRAs may choose to impose alternative counting rules for their own policy

	resource counting context, does nothing to ensure the continued effectual authority of LRAs [].	purposes, but the ISO would not use those alternative counting rules in its reliability
	NIPPC agrees that the ISO should establish standard resource counting rules. LRAs may choose to impose alternative counting rules for their own policy purposes, but those alternative counting rules should exist outside of the ISO's regional resource adequacy program. NIPPC believes that the ISO's existing default qualifying capacity criteria in Section 40.8 of the ISO tariff is a good place to begin discussions of an appropriate resource counting methodology. Changes to the existing default capacity criteria are likely needed for wind, solar and hydro resources.  For wind and solar, some version of Effective Load Carrying Capability (ELCC) should be used that bases a resource's qualifying	assessment.  The ISO appreciates NIPPC's comments in support of the proposal. The ISO has detailed resource counting methodology options in Section 5.6. The ISO has also proposed a zonal RA concept that is described in Section 5.3. The ISO may need to consider how the proposed resource counting and zonal concept proposals would interact and may need to be coordinated.
NIPPC	capacity for RA on its historical contribution to peak load. Because of the very large geographic footprint, solar resources, and perhaps wind resources, may need to be evaluated on their contribution to the non-coincident peak in the zone in which they are sited—not on their contribution to the system coincident peak. Assuming the system coincident peak is driven by loads in California and depending on the time of day of the system coincident peak, a solar generator in eastern Utah, for example, is likely to contribute less to the system peak than an identical project in California, but would have made an equal contribution at the time of its zonal peak.	
	The ISO may need to calculate ELCC by zone. The ISO should encourage operators of hydro projects outside of California to propose modifications to the Section 40.8 criteria if they believe a different methodology to calculate their ability to reliably supply capacity is superior.	
PacifiCorp	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 also considering the LRAs having jurisdiction over LSEs in a regional ISO	The ISO appreciates PacifiCorp's comments and suggestions on the counting methodologies proposal. The ISO agrees that a standardized approach would need to consider industry best practices. LRAs may choose to impose alternative counting rules for their own policy purposes, but the ISO would not use those alternative counting rules

	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. 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.	in its reliability assessment. The ISO agrees that it is critical that any counting methodology adopted by the ISO be consistent with the capacity contribution values used to develop a minimum PRM.
EDF-RE	The CAISO should extend the current CPUC-adopted methodology for storage facilities generally to set RA values for such resources.  The CPUC spent a considerable amount of time and effort developing its current storage counting rules, through an open and thorough process that was only completed recently. The adopted methodology is reasonable, and the many entities developing storage facilities in the current CAISO area are depending on its continuation in their contract arrangements. It is unlikely that the CAISO will have sufficient time before the June Board meeting (where it plans to request adoption of a regional RA framework), or even by year-end (when it plans to complete draft tariff language), for a comparable examination of this issue. Moreover, there are only a few storage facilities on the system, and even fewer pumped-storage hydro facilities. It would be a better use of scarce CAISO and stakeholder resources to focus development of new RA counting rules on the much more numerous solar and wind resources — an area that is likely to be much more controversial — and to retain the storage RA rules as is.	The ISO appreciates EDF's comments on these aspects of the ISO's proposal, particularly in regard to the storage resource counting methodology suggestions, and has taken them into consideration in developing the proposal.
LSA	[] ELCC methodologies are complex, with significant variants across the United States, and they can be sensitive to input assumptions, among other issues. There are also a number of critical implementation issues that need to be addressed and resolved, including how to transition from the current methodology and fairly apply these values to individual generation resources. The CPUC is considering such issues in its Resource Adequacy proceeding (R. 14-10-010), and the CAISO should not prematurely	The ISO recognizes there are currently open proceedings regarding ELCC in California. The ISO has previously stated its intent to coordinate with various State/LRA rules and stay aligned with State and LRA policies to the extent possible. The ISO needs consistent counting methods in order to accurately evaluate the level of the system's resource adequacy through the proposed reliability

	adopt this methodology in its Regional RA initiative before that examination is complete.  [] the Proposal advocates uniform RA counting rules for generation resources. LSA supports this concept generally but believes that, if those uniform rules may be different from the current RA counting rules in California, implementation may take longer than the current proposed schedule. In particular, LSA has concerns about CAISO's potential adoption of rules based on an [] ELCC methodology (as CalWEA has recommended) before the completion and adoption by the CPUC of a methodology and implementation plan.	assessment. LRAs may choose to impose alternative counting rules for their own policy purposes, but those alternative counting rules would not be used for the ISO's reliability assessment.
NCPA	NCPA supports the CAISO's statement that "it is not proposing to eliminate the ability of LRAs and LSEs to develop their own counting methodologies." []  NCPA does not object to refining the default counting methodologies contained in the CAISO Tariff, as long as the current deference provided to LRA jurisdiction is not altered or reduced. Indeed, many LRAs have adopted Resource Adequacy programs that contain counting methodologies that are very similar to the default criteria, and NCPA believes that any reform of the existing default counting criteria could provide a good model for LRAs to reference as they establish and/or refine their adopted Resource Adequacy programs. If this is CAISO's objective in this initiative, the CAISO should consult with the existing LRAs in its footprint to ensure that they are not adversely affected by the change.	The ISO appreciates NCPA's comments on the proposal. The ISO recognizes the need for LRAs to use counting rules they have developed for important policy reasons, however the ISO needs consistent counting methods in order to accurately evaluate the level of the system's resource adequacy through the proposed reliability assessment. LRAs may choose to impose alternative counting rules for their own policy purposes, but the ISO would not use those alternative counting rules for the ISO's reliability assessment. The ISO has previously stated its intent to coordinate with various State and LRA rules, and stay aligned with State and LRA policies, to the extent possible.
SVP	SVP is concerned that different state laws and requirements, such as for the counting of resource adequacy attributes from intermittent resources (the ELCC methodology required by state law in California is an example), could create significant differences in how LRAs/LSEs are able to qualify similar resources for resource adequacy in different sub-regions of the regional entity.	LRAs may choose to impose alternative counting rules for their own policy purposes, but those alternative counting rules would not be used for the ISO's reliability assessment. The ISO needs to establish consistent counting methodologies in order to accurately evaluate resource adequacy in an expanded footprint.
California ORA	[] Similar to the proposed PRM process, the Straw Proposal would allow the LRAs and LSEs to develop their own resource counting methodologies, subject to risks of over- or under-procurement if their methodologies create capacity values that differ from that of a	The ISO appreciates ORA's comments and concerns. The ISO also recognizes the need for LRA's to use counting rules they have developed for policy reasons, however the ISO needs consistent

regional ISO's calculations. In the case of under-procurement, the CAISO may order the LRA or LSE to cure the deficiency, while in the case of a counting methodology leading to over-procurement, ratepayers of the LRA or LSE in question could spend more money than necessary to meet grid reliability needs. Thus, there is an incentive under the Straw Proposal for the LRAs and LSEs to arrive at the same counting results as the CAISO's methodologies. Further discussion is needed to consider whether different local or statewide conditions within a regional ISO might require unique counting methodologies as discussed below. [] The annual RA stakeholder proceeding in California promotes stakeholder engagement and interactions to arrive at calculation methodologies for resources such as demand response, energy storage, distributed generation, and renewable resources. Representatives of ratepayers are key stakeholders in the process. California's goals for these resources lead to unique calculation methodologies and ongoing revisions to properly grant appropriate RA capacity values. In the case of wind and solar, the California Legislature mandated complex Effective Load Carrying Contribution (ELCC) modeling to both adequately determine the accurate capacity value and to reflect changing values as these resources expand. In contrast, PacifiCorp does not model wind and solar with ELCC modeling. This raises questions of unequal resource counting between LRAs from the use of different counting methodologies, which requires additional analysis as part of the regional RA effort.	counting methods in order to accurately evaluate the level of the system's resource adequacy through the proposed reliability assessment and to discourage leaning. LRAs may choose to impose alternative counting rules for their own policy purposes, but those alternative counting rules would not be used for the ISO's reliability assessment. The proposal lays out possible options for these ISO counting methodologies that are described in Section 5.6.
Each state's resource mix can vary widely. It is not clear in the Straw Proposal how the resource capacity will be counted so that RA capacity for renewable resources continues to advance California's climate change initiatives and the RA capacity procured is the most cost efficient for its ratepayers.	
The Straw Proposal would have the Regional ISO develop resource counting methodologies based upon the Regional ISO's composite coincident peak load. Such a counting methodology should not result in any LSE's portfolio that is sufficient to meet the PRM for its load individually to become inadequate to meet its share of the	The ISO appreciates the BAMx comments on the proposal and generally agrees with the suggested principle.

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BAMx

composite coincident peak load.

[...] LRAs operating within the current CAISO footprint have been establishing their own resource counting criteria for nearly a decade [...]. There has been no demonstrated evidence that LRA counting criteria and designation of RA capacity based on such criteria (incentivized by RAAIM) is not effective today. If ISO believes there may be capacity shortfall due to resource counting criteria differences, how does ISO assess those differences?

If resource counting criteria adopted by LRAs is not effective and RA capacity is designated based on that criteria, the Resource Adequacy Availability Incentive Mechanism (RAAIM) will penalize such resources and incentivize such resources to be available. The purpose of RAAIM is to incentivize RA resources to be available and have LRA/LSE/Supplier to designate only the performing capacity for RA. Rather than creating a complex assessment process to determine deficiencies due to different counting criteria, why not rely on RAAIM that incentivizes resources to be available which is the end result of resource counting adopted by LRAs? Consideration should be given to determine if the RAAIM incentive is enough to address concerns due to the different counting criteria issue. For the resources that are RAAIM exempt, tracking availability and advising corrections to their criteria or RA capacity designation process may be a good option.

Let RAAIM determine whether the LRA counting criterion is effective or not for a significant period (for example, 2 years after Regional RA go live) for assessment of counting criteria effectiveness. ISO could assess through RAAIM the availability of resources under each LRA criteria before making system-wide changes.

For example, if CAISO nevertheless proceeds with its proposal to develop its own resource counting criteria for its reliability assessment, then CAISO must avoid disrupting current California LSE RA planning (often supported by long term resource procurement arrangements and contracts), which is based on the counting criteria adopted by their respective LRAs. CAISO should consult with individual LRAs with existing RA programs in the development of any such criteria to determine impact on their programs. Where an LRA has adopted its own resource counting

Uniform counting criteria proposed by the ISO would be used to calculate the contribution of resources in meeting the ISO's reliability needs. The ISO needs consistent counting methods in order to accurately evaluate the level of the system's resource adequacy through the proposed reliability assessment and to prevent any leaning. While RAAIM incentivizes availability of previously-committed resources, it does not address whether sufficient future resources are available to satisfy the ISO's reliability needs as measure using the proposed uniform counting criteria.

**CDWR** 

	criteria and where there is no evidence of abuse, it would be an unnecessary infringement on LRA jurisdiction to allocate procurement responsibility based on CAISO tariff default criteria.	
CLECA	[] There is a current "misalignment" between the Local Regulatory Authority (CPUC) and the CAISO in terms of resource counting of demand response for local reliability purposes; this is being addressed at the CAISO in a BPM appeal process and at the CPUC in the ongoing RA proceeding. Given this current misalignment, it is difficult to take at face value the statement made at the March 2 policy development meeting that the CAISO doesn't "take issue with the existing counting rules being used now." This issue merits an indepth discussion in the next iteration and at the next meeting. The CAISO proposed that its "DR counting methodology" for other jurisdictions that allow the use of DR would be "shared"; this sharing should happen sooner rather than later, or the timeline should be changed to allow more time for its consideration and evaluation.	The ISO understands the comments by CLECA and will continue to work with stakeholders to clarify the identified gaps. The ISO has proposed methodologies and options for counting methods for certain resource types in the proposal, Section 5.6. LRAs may choose to impose alternative counting rules for their own policy purposes, but those alternative counting rules would not be used for the ISO's reliability assessment. The ISO has previously stated its intent to coordinate with various State and LRA rules, and stay aligned with State and LRA policies to the extent possible.
	California law requires use of Effective Load Carrying Capability to determine the net qualify capacity of renewable resources; it was suggested that if the CAISO used a different methodology, it would conflict with state law. The CAISO committed to "contemplating how best to deal with that." This contemplation should also happen sooner rather than later, or the timeline should be changed.	
	It is not clear if the CAISO will use an August Net Qualifying Capacity monthly value for solar resources or if it will change that counting convention. This too should be clarified soon.	
UTC	[] UTC agrees [] that there is a need for "consistent counting rules" []. However, more work must be done to assess how each of the LRAs involved in or affected by a regional ISO assess capacity contributions from VER and baseload generation resources in their IRP planning and reliability processes. The UTC requests that the ISO provide details of its proposed methodology and conduct additional workshops beyond what is currently planned to explain its proposed methodology, including examples of its application.	The ISO appreciates the Washington UTC comments on the proposal. The ISO has proposed counting methodologies for various resource types as well as options for stakeholder consideration on methods for counting certain resource types. The ISO welcomes additional feedback from stakeholders on how to incorporate best practices that could be gleaned from the work that has been conducted by other regional entities in the Pacific Northwest.

CPUC	The ISO should consider other RA studies underway, including that by the Northwest Power Planning Council. The ISO should examine the unique challenges of modeling capacity in the Pacific Northwest and the methods used before determining the RA methodology appropriate for a regional ISO that includes the Pacific Northwest.  [] CAISO [] has not provided any details (e.g., what methodology would CAISO use for wind, solar and demand response resources and what impact would these methodologies have on overall costs of the regional initiative).  CPUC Staff continue to oppose proposals for CAISO to develop a counting methodology for RA resources procured by CPUC-jurisdictional LSEs. [] it should not matter if different states' RA programs count their capacity slightly differently. If each state has sufficient resources based on its own assessment and based on benchmarks created by a regional ISO, there should be no reliability concerns. Slide 35 cites stakeholder comments regarding a "difficulty transacting for capacity across states." CPUC Staff believe that, without a regional capacity market, this is would not be a relevant concern, because imported capacity would be subject to the resource counting rules of the purchasing- state (as is currently).	The ISO recognizes the need for LRA's to use counting rules they have developed for policy reasons, however the ISO needs consistent counting methods in order to accurately evaluate the level of the entire system's resource adequacy through the proposed reliability assessment, ensure consistency, and prevent leaning. LRAs may choose to impose alternative counting rules for their own policy purposes, but those alternative counting rules would not be used for the ISO's reliability assessment. The ISO has previously stated its intent to coordinate with various State and LRA rules, and stay aligned with State and LRA policies to the extent possible. The ISO disagrees with the CPUC Staff conclusion that "it should not matter if different states' RA programs count their capacity slightly differently. If each state has sufficient resources based on its own assessment and based on benchmarks created by a regional ISO, there should be no reliability concerns." The ISO does not believe that it will be sufficient to rely solely on the determination of each state or LRA that its own needs have been met through assessment using their own individual counting rules. Uniform counting rules will, allow the ISO to be able to ensure system-wide procurement is sufficient in order to maintain reliability. The use of different counting rules could also result in inappropriate leaning.
SDG&E	SDG&E recommends ISO schedule additional workshops to develop a uniform counting methodology for all resource types.	The ISO has provided proposed counting methodologies and options for various resource types in the proposal, Section 5.6.

	CMUA	Similar to the observation in 6(a), an [] assessment of just how disparate existing practices are is needed, to assess the practical implications of moving to a regional counting convention. Given all of the issues that must be considered, CMUA suggests that this issue would be well placed on the back burner. Further, replacement of LRA counting practices for intermittent resources, or assessing and updating hydro-electrical conditions, must be known and know well in advance of any effectiveness of the new program.	The ISO appreciates the comments by CMUA on the proposal. The ISO needs to develop consistent counting methods in order to accurately evaluate the level of the entire system's resource adequacy through the proposed reliability assessment.
	WPTF	Creation of consistent values for qualifying capacity [] The ability for LRAs to provide differing QCs for similar resources itself causes some complication. Currently, in the circumstance where a resource has sold some capacity to one LRA and some capacity to another LRA, and if these LRAs count the resource QC differently, the ISO must determine which QC value to use. In this situation the ISO simply uses the highest qualifying capacity value. In the future, particularly with renewable resources, allowing resources to qualify as different values may lead to additional complications and inequitable treatment between LSEs. WPTF supports consistent QC values by resource type, even if this requires a separate stakeholder initiative due to the technical, and potentially contentious, nature of developing these values.	The ISO agrees that consistent counting methodologies would alleviate inequitable LSE treatment. The ISO appreciates WPTF's comments in support of this aspect of the ISO proposal.
Reliability Assessment (ISO Backstop)	Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition  [Joint Comments]	We support the position that backstop procurement costs should flow to beneficiaries of procurement and those not benefiting should not be assigned costs.  We support the concept that tracking cost causation by placing backstop procurement risk with entities that are shown to be short is appropriate.	The ISO agrees with the comments of the Western Grid Group, Natural Defense Council, and Northwest Energy Coalition that backstop costs should be allocated based on cost causation principles. The existing and proposed CPM framework adheres to that approach by allocating CPM costs to LSEs that are deficient and entities located within the areas where the backstop procurement occurs or is needed, depending on the nature of the procurement.
	Western Resource Advocates,	We support modifying the backstop provisions of the tariff to incorporate a reliability assessment.	The ISO appreciates Western Resource Advocates and NW Energy Coalition's support for backstop provisions that incorporate a reliability assessment. The ISO intends to pursue such tariff revisions.

NW Energy Coalition		
[Joint Comments]		
ICNU	ICNU is concerned that this "important" backstop role will translate into significant rate increases for customers of potential new PTOs, like PacifiCorp, that currently employ much lower PRMs. [] from the perspective of customers who contend that a 13% PRM is already too high, it would be difficult to accept further increases to the PRM. If a new PTO is currently sufficiently meeting its reliability needs using a lower PRM, there needs to be more justification than a simple "melding principle" to support a system-wide PRM and the allocation of additional costs after ISO integration. A larger ISO footprint, for example, may support a lower PRM, but no loss of load study of which ICNU is aware has been performed to analyze the reliability requirements of the larger footprint.  [] ICNU [] cannot identify any circumstance where the safety of the system would be at risk if the PacifiCorp sub-region were to perform planning using a lower PRM than the preexisting ISO sub-region. Certainly, the MISO allows for differing PRMs in its zonal	The ISO appreciates ICNU's suggestions and comments about potential zonal RA concepts. The ISO has changed its proposal and has now included a zonal RA concept in Section 5.3. This zonal proposal will address many of ICNU's concerns and suggestions. The ISO has proposed two methods for determining zonal PRM targets and one method would be the utilization of a probabilistic LOLE study.
	resource areas, based on specific loss of load characteristics of each zone. It is, therefore, unclear why safety issues would be created if the regional ISO were to do the same thing.	
	[] ICNU does not believe that the use of a lower PRM for the PacifiCorp sub-region will allow PacifiCorp to "lean" by obtaining incremental capacity from the ISO sub-region. Transmission constraint will prevent undue leaning. Similarly, the reliability risk of having a lower PRM in the PacifiCorp sub-region would be largely borne by customers in the PacifiCorp sub-region. An outage at Lake Side II, for example, is unlikely to result in lost load in California. To the extent that the use of a lower PRM in the PacifiCorp sub-region does increase reliability risk in California, such an argument must be supported by concrete loss of load studies, which do not seem to have been performed.	

	Finally, [] ICNU would not agree that the ISO should function as a "mechanism," or some sort of policeman, to enforce the decisions of certain LRAs at the expense of other LRAs []. If one LRA approves a higher PRM for an LSE under its jurisdiction, then that LRA has no more of a "right" to enforcement of its policy than does a neighboring LRA within the ISO that approves a lower PRM for an LSE under its jurisdiction.	
NCPA	[] NCPA supports the CAISO's authority to procure backstop capacity in the event that it is required, and to allocate the cost of that procurement based on principles of cost causation, while honoring the resource counting criteria adopted by individual LRAs. NCPA recommends that the CAISO retain the discretion not to procure backstop capacity even in the event of a shortage if the capacity is not needed for system reliability.	The ISO agrees with NCPA that backstop costs should be allocated based on principles of cost causation, and the existing and proposed CPM is designed in that manner. As indicated in the discussion above, the ISO will retain its discretion not to procure backstop capacity. As it is today, CPM will not be automatic. With respect to resource counting, as discussed above, the ISO desires to achieve consistent treatment of resources and prevent any "leaning" by load serving entities that could arise as the result of different counting methodologies.
NIPPC	NIPPC agrees that the ISO needs backstop authority to procure capacity for reliability if LSEs fail to procure their obligation and that the ISO has provided adequate notification and cure period for the LSE to rectify its filing.  The ISO's regional resource adequacy program is essentially a short term procurement mechanism. The timelines do not allow for the construction of new generation resources. Despite having backstop authority, the ISO cannot procure capacity that does not exist. The backstop authority provisions assume that idle generator capacity is already appropriately located to meet the need identified. NIPPC recommends that the next version of the straw proposal identify the true usability of Integrated Resource Planning, the value of which varies by LRAs within an expanded geographic footprint.	The existing and proposed CPM reflects NIPPC's position that the ISO needs backstop authority in the event LSEs fail to meet their RA obligations, and the ISO will continue to provide adequate notification and an opportunity to cure. The ISO believes that IRP processes currently in place should continue and can be used in conjunction with the ISO's month ahead backstop provisions.

E	ЗАМх	BAMx supports the general concept that backstop procurement costs would be allocated to those entities that are resource deficient when the Regional ISO is also resource deficient in the aggregate. However, more information is needed on the details of the backstop procurement cost calculation methodology. In particular, if all the LSEs have sufficient resources to meet their LRA PRM requirement and there is still a shortfall, how would the cost of any backstop procurement be allocated?	The ISO's backstop proposal would allocate costs to LSEs that are short of the ISO system wide PRM minimum in the event that a deficiency remained after the cure period. LRAs and LSEs may choose to procure to a different level of PRM but would risk potential backstop cost allocation if the ISO identified remaining system-wide deficiency after the cure period.
C	DWR	[] There has been no demonstrated evidence that the LRAs counting criteria and designation of RA capacity based on such criteria (incentivized by RAAIM) is not effective today. If ISO must develop and use default counting criteria and compare the differences of default and LRA counting criteria for shortfall in reliability need, why not let the shortfall due to counting criteria differences (if at all) be addressed by a CPM significant event, unless it is a regular pattern? Such events should be rare if the LRA counting criteria are working today. CPM backstop events have been very low historically, and with the expanded BAA with more available capacity and diversity, such events could reduce further.	The ISO agrees that the ISO to date has not had to procure backstop because capacity because of RA deficiencies or counting inconsistencies. However, the ISO footprint could increase significantly, potentially resulting in multiple new LRAs. More uniformity is needed under these circumstances to prevent leaning and ensure consistent counting of the similar resources. A uniform counting criteria would ensure that each resource's capacity across all LSEs is equally measured, thereby ensuring that each LRAs' PRM accurately reflects the relative amount of potential shortfall from its LSEs. This in turn could help address any leaning issues. The ISO agrees that an expanded BAA potentially could reduce the need for CPM, particularly for systemtype events.
	UTC	[] backstop procurement is a threshold issue that must be vetted and discussed thoroughly []. [] the ISO should clarify its legal authority to exercise its backstop authority when it concludes that the load forecast of a load serving entity is too low. In addition, the UTC believes that it would be useful for the ISO should clarify whether it has legal authority to exercise its backstop authority, under current practice in California, in the event it does not agree with the load forecasts produced by the CEC. If the CEC's determination is binding on the ISO, the ISO should clarify if that result is due to the ISO effectively delegating its authority to the CEC.	As discussed in the text above, the CPM is not intended to procure backstop capacity if the ISO disagrees with the annual forecast provided by LSEs or the applicable regulatory authority. This does not fit into one of the specified CPM categories. It does not constitute an RA deficiency. Further, it does not constitute a change from what was assumed in the RA program (indeed, it is an assumption in the RA program for purposes of determining RA requirements) and by itself does not result in a material change in systems conditions that would threaten reliability.

	SDG&E	SDG&E believes the ISO's [] (CPM) is entwined with the ISO's PRM proposal. It was apparent from the March 2, 2016 stakeholder meeting that the ISO needs to provide stakeholders with more background. The ISO should also detail its new CPM competitive solicitation process that has yet to be implemented.  SDG&E would like ISO to also detail if, and how, the ISO's local CPM authority would be integrated with PacifiCorp's Integrated Resource Planning (IRP) process.  The ISO proposal does not address the ability of the ISO to initiate backstop procurement beyond the time-frame of the upcoming RA compliance period. For example, if it was announced that a significant amount of coal-fired generation would be retired two years beyond the end of the upcoming RA compliance period, under what conditions and with what timing could the ISO impose a Reliability Must Run (RMR) contract to prevent those resources from retiring?	In the proposal, the ISO has provided a link to its tariff amendment filing to implement the new CPM. This shows the applicable tariff language and the ISO's transmittal letter that describes the new CPM competitive solicitation process.  The ISO tariff has a risk of retirement CPM that allows the ISO to designate capacity that will be needed before the end of the next RA compliance year, but does not have an RA contract for the current compliance. The ISO is not proposing to expand the scope of this provision.
	CMUA	CMUA supports the concept that any backstop procurement cost is allocated to the entity that is causing the deficiency, and further than the procurement need should only be triggered if there is a collective deficiency, consistent with the current paradigm. Again, additional details are needed to fully develop this proposal.	The ISO agrees that backstop costs should be allocated to the entity that causes a deficiency, and the existing and proposed CPM is designed in that manner. The ISO does not intend to change the existing collective deficiency (and aggregate deficiency) paradigm.
Other (Periodic RA Review)	NIPPC	NIPPC urges the ISO to develop a process to regularly review its regional resource adequacy program in its entirety. The overall program, not just its individual components, should be no more costly than necessary to meet the ISO's reliability goals.	The ISO appreciates NIPPC's comment. The ISO will conduct an adequate period review of all of its market rules and tariff provisions as normal course of business.
Other	SCL	The April version of the straw proposal must contain more details about all aspects of the proposal to allow new PTOs, potentially impacted LSEs and LRAs, and all existing CAISO participants, an opportunity to fully understand the nature of the commitments a regional approach to RA will require. The additional information should provide both principles the ISO follows to ensure fair	The ISO appreciates the SCL comments on the proposal and has provided many more details in this proposal.

(Initiative Process)		outcomes and the data and methodologies the ISO uses ensure that outcome.	
		The ISO should strive to avoid different interpretations by stakeholders of the straw proposal [] By providing more information about the goals of the program, whether obtaining possible savings across an expanded ISO footprint is one of the considerations or not, and how the ISO and potential PTOs retain responsibility for the outcomes will help all parties understand the RA commitment they may be held to in the future. Some questions, such as whether the ISO should standardize a planning reserve margin or allow LSEs to establish their own, may also be resolved by providing sufficient detail about the required approach so that parties can understand the proposed requirements and the impact on their LRA or LSE.	
		CAISO's proposed schedule for this initiative is too accelerated and the Straw Proposal too general to support meaningful evaluation and thoughtful development of regional RA rules. The Straw Proposal provides only a general framework, but the details for implementing that framework will be important. The details are not available now, and the rushed schedule proposed by CAISO provides no time to develop, much less carefully consider, such details.	The ISO appreciates the Six Cities' comments on the proposal and has taken them into consideration, determining that the schedule for this initiative should be extended and is now targeting bringing this proposal to the August Board meeting.
	"Six Cities"	Moreover, there is no legitimate reason to rush this process. The claim that PacifiCorp must have FERC-approved RA rules in place to enable review of its proposal to participate in an expanded ISO by its state regulators is fallacious [] A glance at the list of pending stakeholder initiatives available on CAISO's website reveals that changes to the CAISO tariff occur on an ongoing and nearly continual basis. In particular, tariff provisions relating to RA rules have changed substantially over the past three to five years to address evolution of the resource fleet and related operational impacts. There is no reason to expect that the tariff applicable to an expanded regional ISO will be any less dynamic. Indeed, with an expanded footprint and greater diversity of system conditions and available resources, it is more likely that tariff provisions may need to be modified even more frequently. New participants in the regional ISO and their state regulators will have the same	

	opportunities to participate in stakeholder initiatives and to shape tariff revisions as CAISO stakeholders have had all along.	
	In light of the constantly evolving nature of the tariff, it makes no sense to rush to judgement with respect to a set of regional RA rules that then will be subject to the same evolutionary process. There is no reason why state regulatory review of PacifiCorp's participation in a regional ISO based on CAISO's markets cannot proceed in parallel with the stakeholder initiative to develop regional RA rules or any other stakeholder initiative relevant to regionalization of CAISO's markets. Such parallel processes would enable better informed and more careful development of the initial rules applicable to a regional ISO and would afford PacifiCorp's state regulators a more realistic overview of the dynamic nature of the tariff and the process by which it changes.	
Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition  [Joint Comments]	While we understand that CAISO desires to limit the scope of this current RA initiative to only those items that must be changed to accommodate a multi-state RSO footprint, we believe this RA initiative offers opportunities for CAISO to launch a review of its default program that better aligns with the reality of the changing resource mix in the West. PUCs and other local regulatory authorities could then adopt this improved RA process in lieu of developing their own RA requirements. Ideally, this review and development of an improved RA default program should be completed within the timeframe of this initiative (before January 2019) to enable an improved RA default process to be adopted prior to the RSO becoming operational.	The ISO appreciates the comments; however, the focus of this proposal will continue to be only on those elements that are necessary for expansion of the ISO BAA. The ISO's proposed reliability assessment provisions would replace the need for default provisions under the ISO tariff.
Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition	[] we urge CAISO to convene additional technical workshop sessions prior to the May 10th completion of the draft final RA proposal so stakeholders will have the opportunity to provide input regarding the many details that are yet to be resolved. Such details include methodologies for establishing either a formulaic or minimum PRM, decisions whether to use ELCC or a methodology that approximates ELCC in resource counting, identifying what changes will be required to the current MIC methodology, and how to incorporate more real time tools into reliability assessments as	The ISO has extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting. The ISO has provided additional details in the proposal and requests that stakeholders provide their input on the proposed methodologies for PRM, counting rules, MIC, load forecasting, and zonal RA concepts as part of the stakeholder process. Stakeholders are encouraged to provide feedback during the stakeholder meetings, through written comments, and can reach

[Joint Comments]	renewable energy resources continue to comprise larger portions of the grid.	out to the ISO staff to discuss ideas and suggestions at any time.
WPTF	WPTF recommends the ISO offer workshops to market participants on the ISO's current RA program, with particular attention to the elements the ISO is proposing to change. WPTF strongly supports integration and is concerned by the quantity and depth of the questions asked during the March 2, 2016 meeting. Many participants understandably appear to lack a comprehensive understanding of the current ISO RA rules. The ISO has said they do not want to get "into the weeds" with this initial proposal. However, in order to draft and file tariff language this fall, the ISO must get into the details very soon. WPTF is unsure how the ISO can solicit feedback on the framework, let alone the details without providing additional information.	The ISO appreciates WPTF's recommendations. The ISO has heard stakeholder's requests for additional time and extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting. Please see Section 3 in the proposal, in the Stakeholder Process discussion the ISO describes its plans to offer additional opportunities for stakeholder education.
ICNU	ICNU shares the concerns of other stakeholders [] that the RA initiative schedule is too aggressive. The very short timeframe is especially troubling in view of potential federal preemption concerns. In particular, the ISO's plan to file revised tariffs for FERC approval in 2016 may preempt LRAs from any effective authority to safeguard jurisdictional LSE customers when LRAs consider PacifiCorp's integration into the ISO through state regulatory proceedings in 2017—and the same concerns would apply to other potential new PTOs. Any details or decisions that are left ambiguous after the current RA initiative would potentially, after FERC approval of revised tariff terms, allow the ISO plenary authority to implement cost allocations which LRAs could then be compelled to simply pass on to jurisdictional ratepayers. The aggressive RA initiative	The ISO understands the ICNU concerns. The ISO has heard stakeholder's requests for additional time and extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting. Please see Section 3 in the proposal, in the Stakeholder Process discussion the ISO describes its plans to offer additional opportunities for stakeholder education.

	schedule all but assures that critical details will not be fully and adequately vetted by interested stakeholders before [] June 2016.	
	Moreover, the aggressive RA initiative schedule ensures that more holistic revision and substantive modification of the ISO tariff structure is impossible. [] this minimalist emphasis, of an abbreviated initiative "focused on 'need to have' items," will inevitably maximize ISO discretion and authority to unilaterally define all methodological details impacting potential new PTOs. ICNU supports an RA initiative that is not needlessly constrained, and which allows for thorough review of the entire RA construct.	
UTC	[] ISO should modify its existing stakeholder process to provide an opportunity to comment on the final revised tariff. []	The ISO will have an open stakeholder process for development of the tariff language. This is a standard ISO practice for stakeholder initiatives.
NIPPC	The ISO straw proposal contains numerous references to annual and monthly calculations, reallocations, and designations by the ISO or LSEs. To facilitate and expedite discussions and a common understanding, NIPPC encourages the ISO to prepare a timeline that lays out the complete schedule of the numerous calculations (load forecast, MIC, internal constraints, resource counting for RA) and allocations that make up the ISO regional resource adequacy proposal.	The ISO agrees with this recommendation and has developed a draft timeline for stakeholder input that can be found in Appendix A of the proposal.
ВРА	[] with the Regional RA initiative, the ISO has not presented enough detail in order for stakeholders to be able to evaluate the proposed changes to RA rules effectively. For example, it is difficult to evaluate proposed changes to the Maximum Import Capability (MIC) without knowing how the current set of MIC rules would look when applied to PacifiCorp's system. Similarly, for Internal RA Transfer Constraints, stakeholders do not have any information on what the methodology for Path 26 looks like. As such, it is impossible to develop a position on this methodology applied to PacifiCorp's system.	The ISO appreciates the BPA comments on the need for additional detail and analysis of the proposal and has taken them into consideration. The ISO is currently conducting many areas of analysis on the way the current ISO RA provisions would be applied to an expanded BAA with the help of PacifiCorp and will provide the results of these analyses as they become available. The ISO has provided some results in this proposal as well in order to help inform the process and stakeholders.
	For the Transmission Access Charge Options stakeholder process, the ISO, even in its Issue Paper, provided examples of what the different proposals might look like when applied to rate forecasts. The ISO even provided a computational tool for stakeholders to do	

	their own analysis of different scenarios. BPA suggests that for the next Straw Proposal, the ISO provide similar details of what Regional RA looks like when applied to PacifiCorp's system, and how proposed changes might affect that. Specifically: please provide details on the Maximum Import Capability and Internal RA Transfer constraint figures that stakeholders can expect to see in the expanded ISO footprint. BPA also suggests including other details as well, such as how the 13-step process the ISO currently uses will allocate RA import capability to the LSEs in PacifiCorp's BAAs, and where the ISO plans to draw lines for TAC Areas to be used in Local RA calculations.	The ISO appreciates the feedback from
PG&E	The [straw proposal] does a good job of laying out the structure of a framework for a regional RA program that accommodates differences in LRA requirements, but also ensures overall system reliability and avoids regional differences from shifting costs. As a proposal, the document is a first step, with many more details needed to adequately describe how the proposed process would actually work. [] PG&E urges the CAISO to provide as much detail as possible on the workings of the proposed regional RA program before taking it to the CAISO board and filing tariff changes at FERC. Many of the features of the existing RA program are incorporated into the CAISO's proposal. However, there are also many differences. Given the diversity of stakeholders, including those who may not be familiar with the existing RA program, the CAISO may want to provide greater clarity as to the features in the proposal that are common to the existing program and those that are new. The CAISO should provide greater detail regarding those features that will be new to the RA program. In particular, greater details on the load forecasting process, internal RA transfer capability constraints, and the reliability assessment would be helpful. []  The schedule within the Regional RA straw proposal envisions approval from the Board of Governors at the June 28-29 BOG meeting. However, at the stakeholder meeting, CAISO staff indicated that it would re-evaluate the schedule following the meeting and stakeholder comments. In this regard, PG&E recommends greater specificity in the proposal be enumerated prior	The ISO appreciates the feedback from stakeholders on the granularity of the regional integration timeline. The ISO is updating the regional integration timeline located on our website as new developments become. The Regional Energy Market webpage can be accessed by the following link:  http://www.caiso.com/informed/Pages/RegionalEnergyMarket/BenefitsofaRegionalEnergyMarket.aspx  The ISO has also developed a high level RA timeline detailing the current processes timelines and the potential sequence of the various steps envisioned in the proposed changes to the RA process; please see Appendix A of the proposal.  Please refer to the effective date discussion contained within the introduction to this proposal, Section 4.  The ISO is proposing significant changes in certain areas of its RA provisions and will need to consider how any CPUC proceedings determining RA rule changes would need to be considered within the context of the regional RA program.

to consideration by the Board, given the novelty of these issues to many of the stakeholders that are likely to be affected by CAISO expansion. The CAISO should be as specific as possible regarding which features of the proposal will be specified in detail prior to BOG consideration. Such clarity should facilitate stakeholder discussion and lead to progress on the details needed for FERC approval.

[...] At the stakeholder meeting, there were requests for at least two different timelines to be provided by the CAISO. The first has to do with the expansion process. Stakeholders during the meeting indicated that the timeline provided by the CAISO on Slide 9 of the stakeholder presentation was not specific enough for stakeholders to assess how the various stakeholder processes will be staged and are interrelated to each other. [...]

The second timeline requested was a timeline of the RA process. It would be helpful if the CAISO could propose a specific timeline of its various steps in the proposed RA process. [...] Given the new features the CAISO is proposing, including the determination of path constraints and the reliability assessment, it would be helpful to see how the proposed RA process would flow. This should include the entire process from the development of requirements by LRAs through to the evaluation of the performance of the capacity via Resource Adequacy Availability Incentive Mechanism (RAAIM). [...] will the CAISO continue to provide the analysis and inputs for the CPUC to continue its process? Will the CAISO provide similar support to other LRAs to operate the LRA's RA programs? The current timeline provided in the proposal and stakeholder presentation indicates that PacifiCorp would go-live with its full participation in January 2019. When does the CAISO propose to have these changes in the RA structure to take effect? Would it be sooner than January 2019? CAISO staff at the stakeholder meeting indicated that these changes would need to be made if any other LSE decided to join and were not dependent on PacifiCorp's decision. Is the CAISO planning to incorporate changes in the CPUC's RA program for 2017 and 2018, such as changes in the definition of flexibility, into its regional RA program?

[...] the process of developing and applying resource counting methodologies can be complicated. The CAISO needs to allow sufficient time to allow the details of such methodologies to be developed and worked out – in a robust stakeholder process. For example, one item that could be considered in such a process would be whether monthly Net Qualifying Capacity (NQC) figures should allow for updating as the year progresses to capture changes in available fuel (such as for hydroelectric resources).

Such resource counting methodologies need to be in place well in advance of any required demonstration under new regional RA rules to allow for LSEs to assess and potentially make adjustments to their resource portfolios. CAISO should ensure that any proposed changes to resource counting methodologies are addressed early on in the stakeholder process, and significant time should be provided between adoption of any changes and the first demonstration for which the new methodologies would be applied. [...] SVP continues to be concerned about the compressed time frame being provided for consideration of changes to long-established RA provisions. Aiming for a June Board presentation on this topic, in conjunction with the other major initiatives being addressed, fails to recognize the potential impacts on existing market participants as they plan for meeting RA requirements. The justification that potential new entrants need to obtain approvals from their regulators does not justify acting in haste and unnecessarily burdening existing market participants. The Straw Proposal indicates that major elements, such as the development of regional RA counting methodologies, are to be resolved in some future stakeholder process. Though the timing for these future events is unclear, it is critical that they not be rushed and allow for full engagement by all stakeholders.

Lastly, SVP is concerned that the sequential nature of the CAISO process asks the stakeholders to provide input on proposed structural changes on a conceptual basis while the ramifications of such changes are to be defined at some later date. For example, as noted above, there are both local requirements concerning RA counting to be addressed as well as new counting methodologies that will likely be developed. Therefore it is difficult to assess and

The ISO appreciates SVP's comments on the proposal. The ISO has heard stakeholder's requests for additional time and extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting. Please refer to the effective date discussion contained in the introduction to this proposal, Section 4. The ISO will define as much detail and certainty in the following iterations of the proposal.

SVP

	support a proposal for regional RA counting rules when much of the detail has yet to be defined.	
California ORA	In meetings, stakeholders raised questions about the Straw Proposal, asked for more details on the specific SB 350 studies and called for a reasonable extension of the time frame for considering issues critical to the regional RA initiative. The CAISO's current schedule would conclude the stakeholder effort in May with a CAISO Board decision in June followed by a tariff submission to FERC. If the schedule is extended, the proposed tariff filing with its RA framework will be informed by upcoming studies currently being conducted as directed by California Senate Bill 350.  [] More time would allow for stakeholders to develop a framework	The ISO has heard stakeholder's requests for additional time and agrees that more time would allow for stakeholders to provide additional input and gain a better understanding of the proposed changes. The ISO has extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting.
	which includes enough detail for states to make informed decisions regarding a regional RA framework.  CLECA agrees with the many stakeholders that find the CAISO's	The ISO appreciates CLECA's stated concerns. As
CLECA	current timeline inadequate, imprudent, and infeasible. Like SDG&E, given the lack of detail in the current Regional Resource Adequacy (RA) Straw Proposal on multiple, complex, interrelated issues, CLECA believes a June 2016 board vote on the policy is premature. The Regional RA Straw Proposal suggests sweeping changes to the current RA process in California and, in certain aspects at least, to the PacifiCorp Integrated Resource Plan (IRP) process. The California Public Utilities Code sets certain requirements for current California RA process; PU Code §380. (a) Provides "The commission, in consultation with the Independent System Operator, shall establish resource adequacy requirements for all load serving entities." It is not clear how – or if – this or other statutory requirements would be met under the Regional RA Straw Proposal. Indeed, it is not clear if the proposal contravenes state law. As the Regional RA Straw Proposal itself states, "The framework does not have all of the details spelled out at this time." The proposed changes require far more development and detail, with	discussed above, the ISO has extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting. Please see Section 3 of the proposal; in this Stakeholder Process discussion, the ISO describes its plans to offer additional opportunities for stakeholder education.

	methodologies specified to enable potential impacts on cost and reliability to be determined. Without such detail, stakeholders cannot realistically evaluate the merits of the proposed changes and are hard-pressed to take reasoned positions to help inform the CAISO's consideration of a Regional RA policy. Indeed, such details should be fully vetted before the CAISO staff takes such a sweeping proposal to its board of governors or proposes major tariff changes.  [] Mistakes can lead to [] increased costs, over-procurement or under-procurement of resources, and misallocation of costs and responsibilities [].  [] The schedule should be revised to provide sufficient time for this complex policy development.	
CPUC	[] it is CPUC Staff's understanding that CAISO intends to develop and file tariff amendments with FERC as early as summer 2016.  This could mean that the current California RA structure is modified by such tariff amendments before it is certain whether PacifiCorp is joining to form an expanded ISO.	Please refer to the effective date discussion contained in the introduction to this proposal, Section 4.
SDG&E	SDG&E believes it is necessary to have additional details for each element fleshed out before the proposal is presented to the ISO Board of Governors for approval. SDG&E recommends the ISO create additional workshops to develop the additional details or processes required for its "need to have" elements. The ISO must also consider how its proposal may change current LRAs' RA processes and the timing of regulatory approvals at the California Public Utilities Commission that would need to be adopted in order to align with ISO's new proposal.	The ISO appreciates the SDG&E comments regarding the need for additional details and the ISO has provided further details in this proposal. The ISO also understands the concerns related to the coordination with LRA processes and timelines. The ISO has included a high level RA process timeline in Appendix A of the proposal.
CMUA	CMUA is optimistic that the Regional RA proposal constitutes a sound starting point to develop more details and possible consensus. However, the CAISO has not provided nearly enough time to allow these details to be developed prior to finalizing this proposal and seeking Board approval. And it will not be enough to approve these program changes <i>seriatum</i> . It must be presented as a complete package. Particularly frustrating is that stated rationale for the rush, namely PacifiCorp's for certainty as it contemplates state regulatory filings for approval to transfer operational control of its transmission system to the CAISO, does not reflect the reality that the RA program is ever-changing. It is quite plausible, even likely,	The ISO appreciates CMUA's concerns regarding the initiative timeline. The ISO has extended the timeline of the initiative to bring the final proposal to the August Board of Governors meeting. The ISO has provided its view of the full regional integration effort in the proposal as well.

		that significant details of the market affecting the RA program will change between the culmination of this effort, and PacifiCorp Go-Live. Any purported "certainty" for the purposes of facilitating state regulatory approvals is illusory.	
Other (Regional Governance)	SCL	Clarity on the regional governance is also essential to understanding whether CAISO expansion serves interests other than those of California's LRAs and LSEs. For this reason, City Light strongly encourages the CAISO to release for public review, workshop, and comment the regional governance proposal that is currently in draft within the CAISO.	The ISO is supporting the discussions with western states in considering governance modifications to support a regional ISO. The ISO fully expects opportunity for public input on the governance principles and structure, which is anticipated to occur in the near future. This is a departure from the process originally described by the ISO but is necessary to allow appropriate consultation between states and stakeholders. Proposed governance modifications and results of studies, as laid out in California Senate Bill 350, will be presented in at least one public workshop with the CPUC, CEC, and CARB, and will include opportunities for the public to provide comments.
	AWEA, Interwest Energy Alliance, Renewable Northwest  [Joint Comments]	[] There are many disparate regional integration initiatives that will take place over the coming months (TAC, RA, GHG, etc.). [] Therefore, the Joint Commenters recommend that the ISO develop a plan to review the complete regional integration package with stakeholders before moving forward with Board approval of the disparate proposals. This is important because, while discrete proposals may seem reasonable on their own, the sum of the parts may not result in a robust market design that encourages regional expansion. We look forward to additional discussions on how this proposal will interact with other elements of regional integration and more information on the ISO plans for a holistic review of the various regional integration proposals.	The ISO understands that there are a number of concurrent and sequential initiatives concerning regional integration. Through stakeholder meetings, comments and ISO management review, the intent is to be informed by all of the work in this area and build upon decisions as they are made by the Board of Governors. The ISO supports continued dialogue and welcomes the opportunity to discuss how the various efforts work together with stakeholders at any time. As discussed in the revised straw proposal, the ISO is committed to discussing the RA framework with individual stakeholders that desire more information. Please contact your ISO representative or submit a request for such a discussion at regionalintegration@caiso.com. The ISO will provide any updates to the schedule or other changes as they occur, and stakeholders can view the updated timeline diagram on the regional integration website for further details at:

		http://www.caiso.com/informed/Pages/RegionalEner
		gyMarket/BenefitsofaRegionalEnergyMarket.aspx
PG&E	[] It would be helpful if the CAISO could provide a more detailed timeline of the steps of the regional integration activities, and provide an indication of how the steps are related.	The ISO appreciates the feedback from stakeholders on the timing and dependencies of initiatives required for regional integration. There are several initiatives underway to allow regional expansion to begin in January 2019. The work being performed in compliance with SB 350 is intended to provide the California Governor and Legislature with information before the end of the 2016 legislative session. With PacifiCorp's expression of interest in joining a regional ISO, certain market design changes need to be known in order to facilitate regulatory filings by PacifiCorp's in each of the six states. PacifiCorp is anticipating the regulatory processes to take a year, which will be followed by implementation activities to combine the necessary
California ORA	[] A Straw Proposal has not yet been issued on governance. Governance of the regional ISO is key, since the future governing body of the proposed regional ISO may seek to make tariff changes it finds necessary []. Questions arise since potential future revisions and modifications to the expanded ISO's RA framework by the new board are unknown. For this reason, the governance structure of the new board is vital when considering changes to the current resource adequacy paradigm. ORA would like to see a final governance proposal that clearly defines each state's role and authority in a new regional entity. Therefore, ORA requests that the regional RA initiative be scheduled for consideration following completion of a governance framework.	systems, also estimated to take a year to complete.  The ISO has extended the schedule for both the Transmission Access Charge and Regional Resource Adequacy initiatives, which now target requesting approval from the ISO Board of Governors in August. This extension is in response to stakeholder requests for more time to review and provide additional input within the policy development phase. The ISO will further develop the details of the two proposals and add an additional iteration in the stakeholder process. This new extended schedule still permits the ISO to request approval from the Federal Energy Regulatory Commission by the end of 2016.  Regarding governance, the ISO is supporting the discussions with western states in considering governance modifications to support a regional ISO. The ISO fully expects opportunity for public input on the governance principles and structure, which is

		anticipated to occur in the near future. This is a departure from the process originally described by the ISO but is necessary to allow appropriate consultation between states and stakeholders. Proposed governance modifications and results of studies, as laid out in California Senate Bill 350, will be presented in at least one public workshop with the CPUC, CEC, and CARB, and will include opportunities for the public to provide comments.
	A decision on governance must be made before developing Regional RA requirements, as illustrated by the fact that the following questions cannot be answered without understanding the potential governance structure of a regional entity:  • Who approves the tariff amendments before they are filed at FERC? • When is the appropriate time to file tariff amendments?	The ISO does not believe the governance of a regional ISO must be fully resolved before policy changes can be designed to support a regional market. Rather, it is essential to proceed with the stakeholder initiatives, including RA, because these issues are pertinent for any potential utility seeking to join the ISO.
CPUC	At a minimum, the governance of the new regional entity will need to recognize the concerns of other states that would be a part of a regional ISO. An efficient way to establish a regional RA framework is to link it with a governance proposal package as there will likely be significant implications from any regional RA proposal upon existing states' jurisdiction over resource planning. Therefore, decisions about Regional RA cannot be finalized in isolation from decisions about governance structure.	For example, PacifiCorp has shown its interest to explore this option but has clearly indicated that it and its regulators cannot fully assess the business case until the framework is firmed-up and the costs can be estimated.  The current ISO Board has stated that they are supportive of developing a regional ISO. To do that,
	The existing CAISO board could potentially approve a Regional RA structure or "framework" before there is a clear proposal for regional governance, but it would be inappropriate for the CAISO Board to authorize tariff amendments related to regional RA. Final decisions regarding potential tariff amendments will need input from all states that would be impacted. Typically, the CAISO board votes to adopt a proposal from CAISO management before tariff language is developed. For Regional RA, CPUC Staff believe that all stakeholders and a new governing body should review actual tariff language.	the Board must recognize the concerns of other states and consider policies that support an ISO that provides benefits to the broader region.  Typically, the ISO board votes to adopt a policy proposal from ISO management before tariff language is developed. ISO management, in turn, runs an open stakeholder process to review tariff language to ensure the modifications are consistent with the policy approved by the ISO Board.  The ISO currently expects to file proposals at FERC on these regional matters by year's end. As a result,

		the policy development is in parallel with the discussion on governance.  The ISO must develop additional details under this initiative, and it would not be sufficient to only present a general framework to the ISO Board (and to FERC). That approach would not provide sufficient clarity to stakeholders interested in assessing the costs and benefit associated with joining the ISO subject to the proposed revisions for the RA provisions.
UOCS	[] the ISO states that a system PRM and consistent counting [] will be determined through future studies and open and transparent stakeholder processes. These planning metrics are critical [] in this straw proposal and would be robustly debated among stakeholders in these future processes. The Office has concerns about the timing []. First, the Office questions the commencement of any of these processes without first settling the issue of governance of a regional ISO. Second, the Office questions the viability of the ISO's current timeline for Board, FERC and state commission approvals when the outcomes for reliability assessment and governance are not yet close to being determined.	The ISO appreciates the feedback on the timing and dependencies of initiatives required for regional integration. The ISO is supporting the discussions with western states in considering governance modifications to support a regional ISO. The ISO fully expects opportunity for public input on the governance principles and structure, which is anticipated to occur in the near future. This is a departure from the process originally described by the ISO but is necessary to allow appropriate consultation between states and stakeholders. Proposed governance modifications and results of studies, as laid out in California Senate Bill 350, will be presented in at least one public workshop with the CPUC, CEC, and CARB, and will include opportunities for the public to provide comments.  The ISO has extended the schedule for both the Transmission Access Charge and Regional Resource Adequacy initiatives, which now target requesting approval from the ISO Board of Governors in August. This extension is in response to stakeholder requests for more time to review and provide additional input in the policy development phase. The ISO will further develop the details of the two proposals and add an additional iteration in the stakeholder process. This new extended

Other (Retain Bilateral RA Framework)	"Six Cities"	The Six Cities strongly support retention of the currently effective bilateral contracting framework for RA procurement. As CAISO noted at slide 12 in the presentation materials for the March 2 <sup>nd</sup> meeting, the bilateral market for RA has worked well for the CAISO BAA and has provided ample, consistent, and effective support for reliability requirements. Moreover, the bilateral contracting framework is consistent with resource procurement practices in other BAAs that may participate in an expanded regional ISO. It is neither necessary nor appropriate to consider imposing a centralized capacity market in order to accomplish regionalization of CAISO's Day-Ahead and/or Real-Time markets.	schedule still permits the ISO to request approval from the Federal Energy Regulatory Commission by the end of 2016.  The ISO appreciates Six Cities' comments. The intent of the initiative is to extend the bilateral procurement construct of the RA program to a regional stage with the focus of proposals limited to only necessary changes. The ISO agrees that it is neither necessary nor appropriate to consider imposing a centralized capacity market in connection with regionalization.
	LSA	Thus, LSA's main recommendation is that the CAISO: (1) retain the current California RA framework for now; and (2) focus its efforts on the considerable work that would be needed to implement the RA framework more generally for new entities like PacifiCorp. First, as the CAISO has stated, that framework – which has been developed and refined over many years – has worked well and continues to do so. Incremental changes can be made in this interim period – e.g., in response to the CPUC's ongoing development of an ELCC methodology – but generally there is no immediate need to revise the framework at this time.  Second, revisions of RA rules in place now – especially the RA counting rules – would have consequences that may be beyond the CAISO's ability to manage. For example, some standard Power Purchase Agreements (PPAs) require guarantees of specific Net Qualifying Capacity (NQC) amounts, which could be significantly impacted by counting-rule changes. In addition, some Load-Serving Entities (LSEs) that have been in compliance with RA requirements to date may have transitional problems if some of their resources would provide significantly less NQC than before.	The ISO appreciates the LSA comments. The intent of the initiative is to extend the existing construct of the RA program to a regional stage with the focus of proposals on necessary changes. The ISO believes that standardized counting methodologies will be needed in the construct of a regional RA reliability assessment.  The ISO hopes to minimize any impact to current contractual arrangements due to changes under the regional RA proposal, however, prudent practice suggests that market participants conducting business in a regulatory environment should include "reopener" clauses within contractual obligations, which would allow for the adjustment of terms subject to any changes that were out of the counterparties' control.

	CMUA	[] CMUA remains concerned that evolution to a multi-jurisdictional ISO will rekindle discussions about a centralized capacity mechanism that uses administrative proxy new entry prices to increase compensation for existing generation. CMUA adamantly opposes such mechanisms and there should be iron-clad assurances that they will not be put forward by the CAISO.	The ISO appreciates CMUA's comments. The intent of the initiative is to extend the existing construct of the RA program to an expanded BAA with the focus of the proposal on only those necessary changes. The ISO believes that it is neither necessary nor appropriate to consider imposing a centralized capacity market for regionalization.
Other (Virtual Bidding)	"Six Cities"	In light of the potential for gaming and manipulation that may occur as a result of internal transfer capability constraints, the Six Cities strongly oppose any extension of virtual bidding opportunities and in particular oppose allowing submission of virtual bids at any locations affecting or affected by internal transfer capability constraints.	The ISO appreciates the concerns expressed by Six Cities. The ISO has now proposed a zonal RA concept that would ease these potential concerns.
Other (Consistency)	"Six Cities"	In order to avoid leaning and cross-subsidization, rules and methodologies for establishing RA requirements, must-offer obligations, and application of RAAIM incentives and penalties must be consistent throughout the expanded BAA. Based on statements at the March 2 <sup>nd</sup> meeting, the Six Cities understand CAISO intends to follow this principle.	The ISO agrees with the statement on the need for consistently applying RA provisions to all entities within any expanded BAA.
Other (Deliverability)	Western Grid Group, Natural Resources Defense Council, Northwest Energy Coalition  [Joint Comments]	The CAISO should consider: Will historically-based deliverability serve us well in a changing future? Will deliverability based on past grid flows be an adequate guide to reliability of future grid flows? Will real time grid deliverability tools now being demonstrated play a larger role in operations, and thereby need to be incorporated in reliability assessments? We believe such questions should be incorporated into the current reliability assessment evaluation, so they can be largely resolved by the time expanded RSO operations start. []  WGG, NRDC, and NWEC have concerns that the current implementation of the RA process at CAISO, through its deliverability assessment, is overly restricting various resources to meet system resource adequacy needs. In particular, we believe that that the use of an N-2 contingency condition as a requirement for deliverability eligibility is not only overly restrictive, but also leads to unnecessary investment in infrastructure upgrades and new infrastructure. Today's resource assessment process has served	The ISO appreciates the joint comments concerns regarding the deliverability process. The comments raise some interesting questions and suggest the ISO should adjust its deliverability methodology. The ISO does not intend to change its deliverability methodology in this initiative. The ISO has previously stated that the intent of the initiative is to extend the existing construct of the RA program to a regional BAA, with the focus only on those changes that are necessary.

	PG&E	well, but changes in how the grid will be used in the future are coming. Both state policies and well established technology and cost trends suggest that tomorrow's grid will be incorporating much more clean and renewable energy. These changes will impact how reliability assessments need to be conducted to meet reliability concerns in the future. As previously noted, Mr. Berberich has called for more attention to "capabilities" and there is growing interest in increased flexibility as a grid assessment topic. As previously noted, WGG, NRDC, and NWEC urge CAISO to recognize that deliverability based on past grid flows will not be an adequate guide to reliability of future grid flows, and thus, more real-time analytical tools and stochastic modeling efforts will be required to deal with a growing penetration of variable, renewable energy resources.  [] Will the CAISO continue to determine the deliverability for California resources for the CPUC? Will the CAISO also determine deliverability for non-California LRAs and LSEs? If so, how will this be incorporated into the LRAs' programs and into the CAISO's reliability assessment? For storage resources, PG&E believes the deliverability determination should include the ability of the storage resource to charge at the appropriate times, and not just discharge power to the grid.	The ISO does not intend to change its deliverability methodology or the application of deliverability assessments under this initiative. The ISO will continue to assess the deliverability of all RA resources within the ISO BAA and for any new areas of an expanded BAA. The deliverability assessment will be used in determining the RA resources' NQC values in the same manner as it is today. The ISO appreciates the PG&E suggestion on the need to think about deliverability of storage resources, but a change to the deliverability methodology for storage resources is not within the scope of this initiative.
Other (Proposal Language)	Western Resource Advocates, NW Energy Coalition  [Joint Comments]	We support [CAISO's three] principles [to guide the RA initiative]. We recommend, however, that the phrase "planning and" be inserted before the word "procurement" in the first principle so that it reads: "Provide an approach that will allow state regulatory commissions and LSEs to continue their existing planning and procurement programs." We believe this language makes the principle more generic. In this form it is more consistent with planning processes in other states and is not inconsistent with California's.	The ISO appreciates the comment and agrees that suggestion to include the phrase, "planning and procurement," is reasonable.

Other (PAC Load Forecasting)	Western Resource Advocates, NW Energy Coalition  [Joint Comments]	We recommend CAISO request PacifiCorp provide, as an appendix to the Revised Proposal, a detailed explanation of how it develops the load forecasts it uses in the operating period. We had previously learned that these forecasts were aggregated from bus level information. For the purposes of this initiative, understanding how PacifiCorp currently forecasts loads for use in the operating timeframe would be most helpful.  The function of buying and selling capacity and energy to balance the PacifiCorp system in real-time currently belongs to PacifiCorp's "Front Office," with the transactions referred to as "Front Office Transactions." For the edification of the CAISO and PacifiCorp's stakeholder communities, we recommend PacifiCorp explain how the forecasts used by the Front Office are developed, how the forecasts are tied to system topology, and how the forecasts used by the Front Office link to the state-level forecasts used for integrated resource planning.	The ISO understands the request for additional information regarding PacifiCorp Load forecasting processes and points stakeholders to the appendix of the prior ISO straw Proposal, in which the ISO provided a summary of the PacifiCorp load forecast methodology. The ISO also suggests stakeholders review the PacifiCorp IRP documentation.
Other (Regional Benefits)	ICNU	ICNU has not necessarily concluded that integration into the ISO of PacifiCorp or any other particular entity will be beneficial to large consumers. Such a conclusion can only be reached by a clear showing that: 1) joining the market will result in no harm to PacifiCorp or other new PTO customers; and 2) any benefits associated with the market are shared equitably between the market participants. ICNU looks forward to further analysis of the changes proposed by the ISO to determine if such a showing can be reached.  [] ICNU has serious reservations about supporting the integration of PacifiCorp, or any other potential new PTO, if the practical application of a melded PRM level equates to customers of a new PTO signing on to increased rates.  [] As noted above, ICNU is concerned that LRAs may not be able to safeguard customers of any new PTOs against ISO backstop allocations because of the filed-rate doctrine or related federal-state supremacy principles. Thus, it is extremely important that a reliability assessment methodology be worked out in this initiative process, to ensure that future cost allocations are made in a truly "fair and open manner." To the extent ambiguity exists at the time	The ISO appreciates the ICNU comments and will be providing additional information as the various PacifiCorp integration initiatives move forward that demonstrate benefits. This proposal discusses the reliability assessment methodology and how the backstop authority would be revised to acknowledge the reliability assessment.

	the ISO submits a revised tariff for FERC approval in 2016, stakeholders may be forced to accept plenary exercise of ISO discretion [].	
CPUC	In a separate stakeholder process, CAISO has hired a consulting team to assess the potential benefits (and costs) associated with Regionalization, as required by California law (SB 350). CPUC Staff believe that it will be difficult to accurately assess the benefits of regionalization without first having completed much of the analysis this initiative plans to address. For example, without knowing the peak coincidence factor, the potential benefits from reduced capacity needs in California cannot be understood. Moreover, without understanding the locations and quantities of transmission constraints that would become "internal" to the expanded ISO, it is impossible to know how regionalization will allow for greater contracting across existing state borders. Therefore, the benefits study [] should use information and analysis resulting from this initiative. However, the timing of these two initiatives does not appear to consider this inter-dependency.	With respect to RA, the ISO and consulting team assume in the SB 350 study process that the RA procurement requirements will stay the same and be the responsibility of the applicable regulatory authority. For the study, the ISO makes the assumption that meeting the same reserve margin over a larger balancing area could have load-diversity benefits, and those benefits will be estimated in the study. In addition, the local operating and RA constraints are included in the modeling of California in both the "with" and "without a regional market" cases. The ISO believes the two study processes can be accomplished in parallel.
	Developing a regional ISO with an expanded balancing authority (BA) beyond California may offer potential net benefits in the western region, but is a significant undertaking that requires time, transparency and significant discussion among all affected entities and states. It is important to ensure that governance, policy development and technical details, including RA, are all considered thoroughly and completely, as there could be region-wide unintended consequences of inadequate development.	The ISO understands the comments of the Washington UTC and appreciates the need for adequate information to perform benefit assessments. The ISO is currently conducting analysis with the assistance of PacifiCorp in order to provide more information to stakeholders, including an analysis of a MIC calculation for an expanded BAA.
UTC	A net benefits study is a key factor for state commissions to determine whether PacifiCorp's participation in an ISO is in the public interest, i.e., whether it provides net benefits to ratepayers in the states in which PacifiCorp provides service. The UTC's primary focus in submitting these comments to the Straw Proposal is the lack of development of the rules and assumptions for RA necessary to perform a thorough net benefits study of PacifiCorp joining an ISO. Specifically, the results of applying both the proposed maximum import capability (MIC) calculation and allocation methodology to determine a utility's share of capacity for RA purposes are necessary to perform a net benefits study.	

Other (Jurisdictional Issues)	TURN	[] the enhanced authority sought by the CAISO could be exercised to supplant State/LRA programs and frustrate state policy preferences. This potential is underlined by comments such as "[t]he CAISO intends to continue to allow LRAs and LSEs to have discretion in developing their RA and procurement programs", which suggests the CAISO envisions itself retaining the ultimate power to set and enforce RA policies.	The ISO understands the jurisdictional concerns presented in TURN's comments. The ISO has no intention of supplanting State or LRA jurisdiction nor frustrating state policy preferences, and the ISO does not believe this proposal causes that result. The ISO is charged with working work with the State and LRA entities consistent with state policy goals.
	NCPA	[] NCPA strongly opposes any proposal to limit the jurisdiction of the LRAs to establish resource counting criteria appropriate to their own LSE Resource Adequacy programs, or to undermine that jurisdiction by ignoring the LRA counting criteria in the Reliability Assessment for Backstop Procurement. There is simply no evidence that the current method causes any problems, or that new LRAs would be any less responsible.  [] NCPA strongly believes that the current deference allowing local jurisdictional authorities to establish programs for their respective LSEs is a key element to the success of the overall program. Each LSE may have unique resources, planning and procurement strategies and requirements that are driven by the needs of their customers and other conditions, such as environmental goals. There is no reason for CAISO to assume that LRAs outside of the current CAISO footprint are any less responsible than those within the current footprint. Absent some indication that an LRA is abusing its discretion, none of which CAISO has offered, there is no reason to infringe upon the jurisdiction of all LRAs.	The ISO understands NCPA's comments expressing concern regarding the jurisdiction associated with the resource counting rules and establishing LRA programs that are tailored to their particular needs. The ISO intends to maintain as much flexibility as possible for LRAs and LSEs. The ISO has provided its rational for the need for uniform counting methodologies for the reliability assessment in the proposal.
	CPUC	CAISO's proposal could conflict with State law, which requires the CPUC to use an Effective Load Carrying Capability (ELCC) method for renewable resource capacity counting.	The ISO appreciates the CPUC comment describing the potential issues related to State law and the ISO's proposed counting methodology proposal. The ISO will work with stakeholders to balance the needs of a regional organization with the need to avoid running counter to State law.

Other (Revise RA Framework)	ICNU	[] ICNU is concerned that the structure of the RA framework may penalize participants, even when they have been compliant with the ISO's instructions. That is, [] the ISO can [] determine that its reliability needs have not actually been met and "procure additional capacity" on an LSE's behalf. [] the ISO proposes to then allocate the costs for such backstop procurement to specific LSEs. ICNU's concern is that this entire framework may constitute a form of "double jeopardy" for potential new PTOs, with continuing risk following an initial showing of reliability compliance. Customers of PacifiCorp or any other potential new PTO should not be exposed to the risk of additional cost allocations under the RA framework adopted by the ISO.  ICNU is very concerned about the potential loss of LRA jurisdiction over PacifiCorp's RA practices. [] By requiring the local and flexible capacity requirements to come from the ISO, [], the ISO could presumably preempt any decision made by a LRA regarding RA. The issue of preemption is important, particularly because PacifiCorp stakeholders are presently faced with the prospect of holding little influence in the governance of the ISO. Simply put, until ISO governance changes, the states should not abrogate any jurisdiction to the ISO, even for issues such as local and flexible capacity requirement.  This is particularly troubling to ICNU because, based on the current integration timeline, the ISO is seeking FERC approval of a regional ISO tariff prior to individual state regulatory proceedings involving PacifiCorp. Once a revised tariff is approved by FERC, however, the LRAs presently exercising jurisdiction over PacifiCorp rates may lose authority over PacifiCorp transmission system.	The ISO's proposed framework would not penalize participants that have demonstrated compliance with RA requirements. The ISO's reliability assessment, including the proposal for the process for exercising any backstop authority needs is detailed in Section 5.6. If LSEs procurement meets the ISOs minimum PRM target, there would be no risk of individual LSE specific backstop procurement under the proposed reliability assessment process.  The ISO has established authority to determine local and flexible capacity needs and allocations. This means that the ISO would not be preempting LRA jurisdiction regarding local and flexible capacity requirements.  The ISO understands the concern of ICNU regarding governance and effective date of the proposal and notes that the ISO has described its current thinking for the effective date issue in the introduction, Section 4.
Other (Holistic Approach to Bilateral RA Framework)	AWEA, Interwest Energy Alliance, Renewable Northwest	As the ISO moves forward with the regional RA framework and other regional initiatives, AWEA. Interwest Energy Alliance and Renewable Northwest (together "Joint Commenters" urge the ISO to take a more comprehensive approach to the regional market designs it is proposing.  As the regional RA framework is further developed and refined, Joint Commenters support a number of key principles. The Regional RA framework should ensure:	The ISO appreciate AWEA's comments, and the ISO intends to move forward with a holistic approach to its expanding its current RA construct, with a focus on adjustments to the program in only those areas that are necessary for regional expansion.

[Joint Comments]	<ul> <li>The final proposal can be supported by regulators spanning the Western</li> <li>Interconnection. The final proposal should not diminish the rights of state regulators but should continue to provide mechanisms for the ISO to ensure system reliability is maintained</li> <li>The Regional RA framework should appropriately capture the benefits of regional diversity and allow the realization of reduced RA requirements due to regional diversity</li> <li>The Regional RA methodology should not unduly harm existing RA resources operating in the CAISO today and should generally ensure that existing resources operating in the CAISO today can maintain their RA status under the revised methodology.</li> <li>To the extent possible, RA counting methodologies should be consistent across the ISO footprint. The counting methodologies should recognize the RA benefits that can be provided by renewable resources and should further recognize the RA benefit provided by regionally diversifying the generation portfolio.</li> <li>Generally, the ISO's Straw Proposal appears to adhere to these principles. However, as the details are developed, the Joint Commenters encourage the ISO to continue to strive to meet these goals.</li> </ul>	The ISO agrees that the RA provisions should capture the benefits of regional diversity, which is one of the major factors in the development of many parts of the ISO proposal, including the load forecasting, MIC, and reliability assessment sections.  The ISO agrees that the RA provisions should not harm existing or future resources ability to be considered for the provision of RA capacity.  The ISO agrees with AWEA's comment that RA counting methodologies should be consistent across the ISO footprint and the counting methodologies should recognize the RA benefits that can be provided by renewable resources.
LSA	<ul> <li>[] the CAISO must perform a significant amount of work to implement the basic RA framework for PacifiCorp and other new PTO entities, and that is where the CAISO should focus its resources at this time. This work will include:         <ul> <li>Identifying any Local Capacity Areas (LCAs) in the PacifiCorp area and assessing whether Local Capacity Requirements (LCRs) must be established in those areas;</li> <li>Identifying and quantifying RA counting limits (like the current Path 26 CAISO counting limit) internal to the PacifiCorp system (e.g., between east and west areas) and between that system and the current CAISO footprint (e.g., at Malin);</li> <li>Determining Maximum Import Capability (MIC) and Target Import Capability (TIC) figures for the many PacifiCorp interties with other areas;</li> </ul> </li> </ul>	The ISO appreciates the recommendations of LSA regarding the scope of needed analysis to understand the implementation of the RA framework for PacifiCorp and other entities. The ISO is currently conducting the suggested facets of analysis and will provide the results of such study when available.  The ISO intends to allow for continued LRA procurement programs, but believes that the proposed changes to the RA provisions must be applied to the entire ISO BAA with expansion and addition of PTOs.

		<ul> <li>Performing deliverability assessments for all the generation resources in the PacifiCorp area, and also for new resources in the PacifiCorp interconnection queue.</li> </ul>	
		The significant amount of CAISO resources needed for these analytical and implementation efforts, as well as the adequacy of the current CAISO-area framework, supports LSA's recommendation to leave the current CAISO-area RA rules in place for now. Those rules can be allowed to evolve incrementally as needed (e.g., in response to CPUC decisions on ELCC implementation) but should not be subject to other changes at this time.	
Other		[] Because the actual selection, negotiation, and execution of RA contracts is generally left to the subjective judgment of each individual LSE, there is no assurance that such a framework will lead	The ISO continually promotes transparency and seeks opportunities to further enhance it within its current RA construct, to the extent that
(Transparency)		to competitive and least-cost outcomes. Assessing the performance of a bilateral RA program requires publication of objective	confidentiality concerns are not violated.  Many of the concerns that Powerex has expressed
		information and analysis regarding actual procurement decisions of LSEs. The public information provided under the current RA program falls short of this objective. For instance, the last CPUC report on the RA program is for 2013-2014. Furthermore, the analysis in that report is based on a data set representing just 25% of the RA requirements []. Notably, the CPUC analysis did not include—and did not request—any information on RA procured from external resources.	are related to improving the transparency of the bilateral framework currently in place and questioning the efficiency of such a construct. These issues, while important to many stakeholders, are not considered in scope for this regional RA initiative, which is focused only on those changes necessary for regional expansion.
	Powerex	The limited information that is available on RA procurement decisions raises questions about the competitiveness of the procurement process. For instance, the CPUC report for 2013-2014 shows that, even though the weighted average contract price for "CAISO System RA Capacity" was \$2.86/kW-month, LSEs paid as little as \$0.11/kW-month under some contracts and as much as \$18.99/kW-month under other contracts. Additional detail in the CPUC analysis—including disaggregation between monthly and	
		annual contracts, and between internal and external resources—and data that is truly comprehensive of all procurement decisions are necessary to provide the transparency required to support a	
		competitive RA procurement environment. Increased transparency will allow regulators, consumer representatives, and other stakeholders to assess whether RA procurement is, indeed,	

	competitive. The CAISO's Market Surveillance Committee also recently noted "the lack of transparency in California's RA markets [.]" Increased transparency will also provide potential sellers of RA capacity with more robust price signals to which they can respond, directly enhancing competition in providing this service.	
	Powerex therefore recommends that CAISO work with the CPUC and the respective state regulatory agencies that would oversee procurement by LSEs subject to any regional RA framework to provide for timely and comprehensive publicly-available reporting on the market pricing of various RA products. The reporting should be sufficiently granular to differentiate	
	<ul> <li>By product type (e.g., local vs. system [] etc.),</li> <li>By contract duration,</li> <li>Between new and existing resources, and</li> <li>Between internal and external resources.</li> </ul>	
	The latter is especially important to permit interested parties to gauge whether the MIC allocation, discussed above, may be artificially limiting procurement of lower cost capacity and flexible capacity resources from outside of the CAISO RTO footprint.	
PG&E	PG&E believes that a central aspect of the successful adoption of a Regional RA structure is to promote transparency in the CAISO's Reliability Assessment. The existing Capacity Procurement Mechanism process is complex and opaque. PG&E supports the CAISO providing a commitment in its Tariff to provide more information to market participants on the results of the CAISO's Reliability Assessments and what actions, if any, the CAISO takes as a result of these assessments. This information will provide market participants with greater clarity into what activities the CAISO must engage in as a result of the CAISO determination that a reliability need has not been met.	The ISO appreciates PG&E's comments and continually promotes transparency and seeks opportunities to further enhance it within its current RA construct, as well as consider how in particular the CPM process can be as transparent as possible.
California ORA	[] the CAISO initiative process does create a record or allow for evidentiary hearings on complex issues. Therefore, any additional efforts by CAISO to increase public transparency, access and involvement by all affected parties, including consumer interests, in this vital initiative would be time well spent.	The ISO appreciates the concerns regarding transparency and engagement. The ISO continually promotes transparency and seeks opportunities to further enhance it within its processes. All stakeholder initiatives are public and the relevant proposals and stakeholder comments are posted on

			the ISO's public website, allowing for a robust and transparent process.
Other (MOO, Local RA, Flexible RA)	CLECA	[] It is an open question how that [flexible RA] ramp would be measured –would it be measured in sub-regions? For the entire BAA? Notably, it became apparent at the March 2 meeting that no analysis has been done to support the current CAISO assumption that an expanded ISO with a more regional footprint would have less-steep three-hour ramps. Such analysis is clearly needed as a fundamental support for even undertaking regionalization.	The ISO does not currently intend to adjust the flexibility needs assessment to be measured at a zonal/sub-regional level, however, the ISO will explore the comment as it continues to develop the zonal RA concept, described in Section 5.3.
	SDG&E	The ISO proposal references the existing "must offer" requirement for RA resources. How might FERC's recent proceeding regarding West-Wide Must Offer Requirements affect the must offer requirements for RA in ISO's proposal?	The ISO intends to apply its existing Must-Offer requirement provisions to any expanded BAA equally. If FERC directs the ISO to comply with some changes related to the mentioned proceeding, the ISO would address those needs at such time.
	CMUA	What is not emphasized in the Straw Proposal is also important. CMUA strongly believes that the details of the Must Offer, Local Capacity Obligation, and Flexible Capacity Obligation, must be uniform across the ISO footprint. These provisions of the RA program are not simply reliability tools but affect price formation in markets, and must be applied to all entities. If there are aspects of these elements of the RA program that stakeholders would like to reassess, CMUA is willing to engage in that dialogue. However, the end result cannot be asymmetrical rules for LSEs in the existing CAISO BAA, and those outside.	The ISO agrees with the comments of CMUA and also strongly believes that the details of the Must-Offer, Local Capacity Obligation, and Flexible Capacity Obligation, must be uniform across the ISO footprint. The ISO fully agrees that the end result cannot be asymmetrical rules for LSEs within the existing ISO BAA, versus those outside.
	CPUC	<ul> <li>[] Where are the "local areas" expected to be in PacifiCorp territory? Has this been studied? When will CAISO study and identify which areas that are likely to be designated transmission constrained local areas outside of California? Will this be available to stakeholders before the June Board meeting?</li> <li>How will local RA requirements for new local areas be developed?</li> <li>Would CAISO run a parallel LCR study process, or include these new areas in the scope of the existing LCR study?</li> <li>Will CAISO study a system-wide (regional) flexible RA need? Will this replace the California based calculation of need based on the largest 3 hour ramp in each month? Will this study be done in</li> </ul>	The ISO is currently conducting analysis with the assistance of PacifiCorp in order to determine the potential local areas in the PacifiCorp footprint. The results of this analysis are still being completed, but an initial summary of the analysis is included within the proposal. Local capacity needs within an expanded BAA would be determined similarly to the current practice, and the ISO does not intend to change the LCR method under this initiative. The ISO intends to study a system-wide flexible RA need in order to fully capture the benefits of regional

		FRAC-MOO 2? Will this be available to stakeholders before the June Board meeting?  • Given the potentially decreased coincidence of system peaks the overall flex RA requirement might be much lower across a combined balancing area.	diversity. The results of the analysis examining this potential benefit are summarized in the proposal.
Other (Go-Live Assurances)	CPUC	[] It is premature to file tariff amendments before it is clear that PacifiCorp will join the CAISO, or that the California legislature will amend the PU Code and approve the merger.	The ISO understands stakeholder concerns have been expressed on the effective date of the proposed Tariff revisions and has described its current thinking regarding this effective date issue within the introduction of this proposal, Section 4.
	SDG&E	SDG&E believes ISO should request an effective date of when another BAA joins the ISO and not before. SDG&E's comments are based on that effective date.	The ISO appreciates the suggestion by SDG&E and understands stakeholder concerns regarding the effective date of the proposed Tariff revisions. The ISO has described its current thinking regarding this effective date issue within the introduction of this proposal, Section 4.
	CLECA	CLECA's comments address the proposed tariff changes more broadly. [] CAISO stated that [the] request to implement the tariff changes would be made regardless of whether any new Participating Transmission Owner had joined. This is very troubling. What if the tariff sections changed but no new PTO joined? Implementation of such sweeping tariff changes should be contingent at a minimum on a new PTO joining.	The ISO understands CLECA's concerns regarding the effective date of the proposed Tariff revisions. The ISO has described its current thinking regarding this effective date issue within the introduction of this proposal, Section 4.
	TURN	[Regional RA Tariff changes] should be made contingent upon other non-California PTOs joining [].	The ISO has described its current thinking regarding this effective date issue within the introduction of this proposal, Section 4.
	CMUA	[] CMUA does not support changes to RA-related Tariff provisions that would go into effect prior to PacifiCorp's effective Go-Live Date for becoming a Participating Transmission Owner, setting aside minor details such as the timing of required reporting obligations. CMUA urges the CAISO to clarify this point.	The ISO appreciates the concerns and suggestions expressed by CMUA regarding the effective date of the proposed Tariff revisions. The ISO has described its current thinking regarding this effective date issue within the introduction of this proposal, Section 4.