Joint RELIABILITY FRAMEWORK
to DEVELOP Multi-Year Resource adequacy OBLIGATIONS WITH A market-based ISO BACKSTOP Capacity Procurement MECHANiSM

July 10, 2013

1. **Summary**

The staffs of the California Public Utilities Commission (CPUC) and the California Independent System Operator Corporation (ISO) propose for consideration a Joint Reliability Framework that would combine multi-year resource adequacy obligations for load serving entities (LSEs) with a multi-year market-based ISO backstop capacity procurement mechanism. [[1]](#footnote-2) Nothing in this document reflects a final decision or endorsement from the California Public Utilities Commission or the Board of Governors of the CAISO. If the ISO and CPUC staffs jointly determine that it is beneficial to continue to develop the proposal, they will consult their respective decision-making bodies, and development and implementation of the Joint Reliability Framework would occur through the appropriate CPUC proceeding(s) and ISO stakeholder process(es). Further, the CPUC staff and ISO recognize that not every LSE in the ISO’s balancing authority is CPUC-jurisdictional and that development of this framework will require participation by other local regulatory authorities.

California’s electric system is undergoing fundamental changes, including the introduction of unprecedented levels of intermittent renewable energy; the expected retirement, repowering or replacement of gas-fired power plants that use once through cooling technology; and an increasing proportion of the generation fleet that is expected to outlive its design life. This transformation presents challenges to traditional mechanisms that have ensured electric grid reliability and underscores the importance of evolving procurement and reliability assurance mechanisms to support a reliable electric supply long into the future. The core of the Joint Reliability Framework is a proposal to implement three major changes to the existing procurement and planning framework:

1. Augment the existing year-ahead resource adequacy procurement obligations for all LSEs, including electric service providers and community choice aggregators, by establishing procurement obligations two and three years prior to a delivery year;
2. Develop an ISO-run capacity auction (the Reliability Services Auction) to provide two functions. First, replace the ISO’s existing backstop capacity procurement mechanism, which expires in 2015, in order to cure deficiencies in resource adequacy demonstrations. Second, provide a voluntary platform for LSEs to procure additional forward capacity beyond that which they procure bilaterally; and
3. Provide an annual long-term reliability planning assessment, focused on the four to ten-year forward period, with information on both the expected fleet (installed capacity) and contracted fleet (procured capacity). The assessment will provide market participants and regulators with better information about net open positions, expected demand, and expected supply.

The CPUC and ISO share a strong interest in ensuring that California and the entire ISO grid have sufficient capacity resources, in the right locations and with the right capabilities. The CPUC and ISO jointly hosted a long-term resource adequacy summit in February 2013, to discuss alternatives to ensure sufficient capacity will be available to operate the electricity grid in a reliable and efficient manner while integrating an unprecedented number of variable energy resources.[[2]](#footnote-3) Extensive discussions occurred following the summit, including ISO and CPUC staff-to-staff meetings. The ISO continues to believe that there is merit in exploring the development of a centralized capacity market to address the issues identified in this paper in the most efficient manner possible. For numerous reasons, however, the CPUC is not supportive of requiring all forward procurement of capacity resources to be cleared through a centralized capacity market.[[3]](#footnote-4) Accordingly, staff-to-staff discussions have focused on alternatives to resolve the issues identified in this paper.

The CPUC staff and ISO request stakeholder review and feedback on this proposal, including specific issues involving the design and implementation of the Joint Reliability Framework. The CPUC and ISO will host a workshop on July 17, 2013 in Folsom, California at the ISO’s offices to present the proposal and request written comments by July 25, 2013.

1. **Background: Reliability Under The Existing Procurement Framework**

Maintaining sufficient resources to support electric grid reliability under the existing procurement framework involves a combination of (1) a one-year ahead resource adequacy procurement obligations, (2) the ISO’s existing backstop capacity procurement mechanism, (3) 10-year ahead resource planning and procurement conducted primarily under the CPUC’s long term procurement planning (LTPP) proceeding, and (4) the ISO’s transmission planning process.

***A. CPUC and ISO Resource Adequacy Framework***

### The CPUC, in collaboration with the ISO, sets system, local and flexible resource adequacy capacity requirements for LSEs under CPUC jurisdiction.[[4]](#footnote-5) This program ensures the ISO has sufficient resources available from CPUC jurisdictional LSEs to support reliable operation of the grid in real time for CPUC jurisdictional load. This program is also designed to provide resources with an additional source of revenue to cover costs not collected through the ISO’s energy and ancillary service markets.

### The CPUC’s current resource adequacy program requires CPUC-jurisdictional LSEs to demonstrate that they have acquired resources to satisfy forecasted needs in transmission constrained (i.e. local) areas and system wide based on a 15-17 percent planning reserve margin. Each October, LSEs demonstrate that they have procured sufficient capacity resources to meet 100 percent of forecasted local needs in transmission constrained areas for the next year and 90 percent of their overall system needs (including the planning reserve margin) for the following five summer months. Throughout the delivery year, LSEs make additional monthly compliance demonstrations 45 days prior to each operating month. These demonstrations identify the specific resources the LSEs have procured to meet local and system requirements that are then subject to specific resource adequacy requirements for that month.[[5]](#footnote-6) If a CPUC-jurisdictional LSE fails to meet its compliance obligations the CPUC may find that an individual LSE has a deficiency that must be cured, and this may lead to an enforcement action or citation by the CPUC’s Safety and Enforcement Division.

### The CPUC also recently adopted new resource adequacy requirements for flexible capacity that will mandate year-ahead and monthly flexible capacity compliance demonstrations for the 2015 through 2017 resource adequacy years. Similar to assessing local resource adequacy requirements, the flexible capacity requirements are based on ISO technical analyses and, for CPUC jurisdictional LSEs, specific procurement obligations are adopted through the CPUC’s resource adequacy proceedings.[[6]](#footnote-7)

### The ISO tariff imposes system and local resource adequacy demonstration requirements on LSEs that are not subject to the jurisdiction of the CPUC.[[7]](#footnote-8) This tariff, which is approved by the Federal Energy Regulatory Commission (FERC), incorporates default provisions that recognize local regulatory authorities’ resource adequacy requirements and provide for default requirements if a local regulatory authority does not adopt specific rules for its LSE or does not provide the ISO with sufficient local area resources.

### ***B. ISO Backstop Procurement Mechanism***

### Under the ISO’s capacity procurement mechanism tariff provisions, the ISO has authority to engage in backstop procurement for resource needs in either the month ahead or year-ahead timeframe if, following an opportunity for LSEs to cure any deficiency: (1) there is a deficiency in LSEs’ procurement of system resources to meet demand and reserve margin requirements or local area capacity resources,[[8]](#footnote-9) or (2) a collective deficiency in meeting local area capacity needs. In addition, the tariff provides that the ISO may engage in backstop procurement if there is significant event or the ISO determines that a resource is at risk of retirement during the current resource adequacy compliance year that the ISO determines will be needed for reliability by the end of the next resource adequacy compliance year.

### ***C. CPUC Oversight of Procurement through the Long-Term Procurement Planning Proceeding***

### The CPUC separately conducts the LTPP proceeding to ensure sufficient investment in the construction of new resources needed for reliability in the future. To achieve this goal, the CPUC, in consultation with the ISO and using data provided by the California Energy Commission (CEC), determines resource needs for bundled and unbundled customers in the service territories of the CPUC jurisdictional LSEs for at least ten years in the future. The CPUC approves long-term procurement plans for CPUC-jurisdictional LSEs for the following ten years that guide all-source solicitations, address cost recovery and cost allocation issues, and integrate renewables procurement with general procurement.

### ***D. ISO Transmission Planning Processes***

### The ISO performs annual long-term reliability planning assessments of transmission facilities pursuant to the applicable reliability standards and criteria. These assessments are used for planning purposes to approve the addition of new transmission elements that can help ensure reliability.

## Concerns about the Existing Reliability Framework

Over the last 10 years California has had adequate reserves under these jointly coordinated resource planning processes. In fact, California currently has a large oversupply of generic system capacity. But California’s resource planners are preparing for unprecedented changes to the electrical system that present challenges to future electric system reliability, including the integration of increasing numbers of intermittent renewable resources and the expected retirement or repowering of a large portion of the state’s gas-fired plants that use once-through-cooling technology. Further, although the current reliability framework has generally provided for reliable operation of the transmission grid, there are limitations to the existing system’s efficiency and transparency, and some parties have questioned whether the existing framework will be able to maintain reliability as the system changes in the future.

One concern expressed by market participants is that the existing framework reveals a “gap” in forward procurement. Forward procurement occurs even without multi-year forward resource adequacy requirements— the CPUC-jurisdictional LSEs procure resource adequacy products forward to hedge price risks pursuant to their CPUC-approved procurement plans. They continuously maintain a portfolio of resources (utility-owned or under short- or long-term capacity contracts) to ensure they will be able to satisfy their local and system resource adequacy requirements by each October for the forthcoming delivery year.

But the amount of forward procurement by LSEs has not been transparent to the ISO or the market, and purely bilateral procurement does not reveal a transparent forward price signal for capacity.[[9]](#footnote-10) Further, the ISO does not have assurance that resources needed in the future will be available when and where they are needed, especially if resources are not expressly shown and made available under a resource adequacy must offer obligation. While the Joint Reliability Framework would not require 100 percent hedging of forward procurement and would not eliminate fully the uneconomic risk of retirement, it would mitigate these identified shortcomings.

Another challenge includes the need to replace the ISO’s existing backstop capacity procurement mechanism tariff, which expires at the end of March 2015. A recent order issued by FERC rejected an ISO proposal to use an administrative backstop to secure resources at risk of retirement needed to meet future reliability needs on the grounds that the ISO and its stakeholders should develop a market-based solution.[[10]](#footnote-11) The CPUC staff and ISO recognize that the ISO needs to transition its current capacity procurement mechanism to a market-based mechanism for backstop procurement that the ISO undertakes to ensure grid reliability. In addition to providing a mechanism that LSEs could voluntarily use to procure additional resource adequacy capacity, the Joint Reliability Framework could support a renewal and expansion of ISO’s backstop capacity procurement mechanism that complements a revised reliability framework.

Finally, the CPUC staff and ISO agree that current market structures have not created a sufficient platform to increase participation by preferred resources such as demand response and electric storage. Preferred resources and storage are authorized by the CPUC through a planning model using specified programs, but competition between preferred and conventional resources has been minimal to date. The CPUC staff and the ISO expect the design of the Joint Reliability Framework would provide additional opportunities for preferred resources to compete to meet capacity requirements in the 2 and 3 year-ahead time frames.

## Shared Objectives Underlying the Joint Reliability Framework

In developing the Joint Reliability Framework, the CPUC and ISO staff identified shared objectives supporting a multi-year resource adequacy and multi-year capacity backstop procurement mechanism administered by the ISO. These objectives include the need for resource adequacy processes to adapt to the changing requirements of the electric grid that include: (1) satisfying system and flexibility needs; (2) satisfying locational needs in transmission constrained areas; (3) minimizing the risk that resources will retire due to market failures rather than environmental or design life limitations; and (4) enhancing preferred resource participation in energy and capacity markets.

The CPUC staff and ISO also agree that greater transparency is necessary regarding LSE procurement occurring over short, intermediate and long-term timeframes as well as ISO system and operational requirements. This transparency will help facilitate ISO planning decisions and provide the CPUC, other local regulatory authorities, and stakeholders with a better understanding of the value of capacity and the requirements of the ISO grid to help guide procurement decisions. Furthermore, the CPUC staff and ISO, along with FERC, desire a market-based ISO backstop procurement mechanism to replace the existing administratively priced backstop. Finally, the CPUC staff and the ISO share the objective of expanding participation of demand response, storage and other preferred resources in near-term capacity markets.

1. **The Proposed Joint Reliability Framework**

The purpose of the proposed Joint Reliability Framework is to enhance the existing resource adequacy program as well the ISO’s authority to identify its local and flexible capacity needs through technical analyses and procure capacity for any deficiencies under backstop procurement tariff provisions on behalf of market participants. The Joint Reliability Framework, if implemented following appropriate proceedings, would take concrete steps to ensure that sufficient capacity with the right characteristics will be available in the operational year to satisfy system, locational and flexible operational needs on the electricity grid under the ISO’s control. Together, the CPUC staff and ISO propose to institute: (1) a three-year forward resource adequacy obligation for all LSEs in the ISO’s balancing authority, (2) a multi-year market-based ISO backstop procurement mechanism subject to market power mitigation (the Reliability Services Auction) that would perform two functions: first subject to approval by its local regulatory authority, allowing LSEs to voluntarily participate in a capacity market to procure additional capacity, and second, enabling the ISO to procure capacity to cure deficiencies in the individual or collective resource adequacy showings (*i.e.,* similar to the existing backstop procurement of local capacity for collective deficiencies), and (3) an annual joint CPUC/ISO resource adequacy planning assessment for years four to ten into the future. Establishing three year forward capacity procurement obligations for all LSEs, coupled with the Reliability Services Auction may provide a number of benefits, if properly designed, including:

* Increasing awareness among market participants, regulators, and the ISO of the volume of forward resource procurement that occurs.
* Reducing the likelihood that resources retire because they are not currently contracted but are expected to be needed in a future delivery year.
* Providing a platform to encourage the development of preferred, non-emitting resources, such as demand response.
* Establishing standard product definitions, which could ultimately facilitate more streamlined bilateral product negotiations.
* Ensuring resource sufficiency through ISO local and flexible capacity technical analyses and a multi-year forward market-based backstop procurement tariff provisions.
* Providing a transparent forward resource adequacy price signal through clearing prices from the Reliability Services Auction. Even though all resources will not clear in the market (and may be a fractional share of total capacity contracts), the market is intended to provide a forward price signal that in turn may facilitate bilateral transactions outside of the voluntary auction mechanism.

Establishing an annual reliability planning assessment will also provide a number of benefits, including:

* Providing market participants, regulators, and the ISO with insight into the trajectory of future needs. The annual assessment will rely on joint agency coordination and market participant input concerning assumptions and methodologies.
* Providing an annual forum to standardize and refresh assumptions about forthcoming grid and system conditions across all state agencies.
* Building upon the coordination that already occurs in the context of developing resource planning assessments in the LTPP, the ISO transmission planning process, and through the California Energy Commission (CEC) Integrated Energy Planning Report (IEPR) to create a more unified approach to system planning.

The Joint Reliability Framework would achieve these objectives through the changes described in the following sections.

### ***Retain and enhance the one year-ahead resource adequacy requirements with an ISO-run market-based backstop mechanism.***

Each October before the resource adequacy program delivery year, LSEs in the ISO’s balancing authority would demonstrate compliance with all then-existing year-ahead resource adequacy requirements. The requirements will continue to be determined pursuant to ISO technical analysis and either CPUC decisions (for CPUC-jurisdictional LSEs) or the ISO tariff (for non-CPUC jurisdictional LSEs). For example, this would include demonstrating by October before the delivery year that the LSE has secured 90 percent of its system requirement (for the five summer months), 100 percent of local requirement (for the entire year), and a defined percent of flexible capacity required (for the entire year).

The CPUC would continue to coordinate refinements regarding the amount of procurement required and the allocation of procurement obligations to its jurisdictional LSEs through the CPUC’s resource adequacy proceedings. The ISO would continue to coordinate tariff-based resource adequacy requirements with non-CPUC jurisdictional LSEs.

If there is an individual deficiency in a specific LSE’s compliance demonstration[[11]](#footnote-12) or a collective deficiency then the ISO will issue a notice to allow for an opportunity to cure. If, after an opportunity to cure, there are still uncured collective or LSE-specific deficiencies in the compliance demonstrations by the LSEs, the ISO will procure additional resources through the Reliability Services Auction. The ISO and the CPUC will endeavor to align their requirements so that, to the degree feasible, there will not be a collective deficiency if each individual LSE meets its own obligations.

A LSE’s participation in the Reliability Services Auction would be voluntary with respect to the forward procurement of a LSE’s resource adequacy requirement. Thus, an LSE can avoid incurring costs for resources procured through the RSA by demonstrating full compliance with its year-ahead resource adequacy requirements. However, a LSE could choose to clear some or all of its capacity requirements through the RSA subject to authorization by the LSE’s local regulatory authority. For CPUC-jurisdictional LSEs, the CPUC will retain authority over the extent, if any, that its LSEs may utilize the Reliability Services Auction for voluntary forward procurement.

Conversely, the ISO would rely on the Reliability Services Auction as the primary backstop procurement mechanism to cure any collective or LSE-specific deficiencies. Therefore, the Reliability Services Auction would be “mandatory” with respect to the ISO’s backstop procurement of for resource adequacy deficiencies and collective deficiencies in any compliance year, following an opportunity to cure and taking into account the resource adequacy demonstrations of all LSEs. In other words, the Reliability Services Auction would be voluntary for purposes of LSE multi-year forward procurement of resource adequacy requirements, subject to approval by the local regulatory authority, but mandatory for ISO backstop procurement of resource adequacy deficiencies.

The ISO will retain backstop authority for procurement on shorter time-frames consistent with the provisions of existing ISO tariff section 43. All resources identified in resource adequacy showings would be subject to the resource adequacy requirements in the ISO tariff, including must offer obligations, outage replacement requirements and standard capacity product availability assessments.

Additionally, existing penalties for non-compliance will be maintained. For CPUC jurisdictional LSEs, penalties may be imposed pursuant to the CPUC’s resource adequacy compliance program.

### ***Implement procurement obligations for two and three years-ahead of the resource delivery year.***

Each October, all LSEs in the ISO balancing authority (both CPUC jurisdictional and non-CPUC jurisdictional) would demonstrate to their local regulatory authority and the ISO their compliance with two-year and three-year forward procurement obligations to secure a percentage of system, local and flexible requirements from available resources.[[12]](#footnote-13) The percentages will be determined through the CPUC and ISO processes undertaken to consider implementation of the Joint Reliability Framework. The CPUC and ISO envision that the forward contracting percentages will: (1) be higher for flexible and possibly local resource adequacy than for generic system resource adequacy, and (2) decline each year, leaving some open contracting position as the year-ahead resource adequacy compliance date approaches.

As with the current year-ahead resource adequacy program, the CPUC will determine the two and three year-ahead resource adequacy obligations for CPUC-jurisdictional LSEs based on ISO technical analyses. The ISO would continue to provide its technical analyses of local and flexible capacity needs to the CPUC, which would adopt forecasted capacity needs taking into account this analysis and assign its jurisdictional LSEs specific resource adequacy procurement obligations. Additionally, the ISO would rely on its technical analyses for determining resource adequacy obligations for non-CPUC jurisdictional LSEs. The ISO would also propose tariff rules to address must offer obligations for this resource adequacy capacity in the applicable resource adequacy delivery year.

Further, if LSEs procure more capacity than the minimum resource adequacy capacity compliance obligation, they could voluntarily provide this information to the ISO. As such, the CPUC staff proposes to require the CPUC jurisdictional LSEs to submit to the ISO data on the amount (net qualifying capacity and/or effective flexible capacity) and expiration dates of all forward contracts.[[13]](#footnote-14) This data will provide the ISO with a more complete vision of the forward capacity procurement amounts and could impact the ISO’s determination of whether there is a collective deficiency. For example, if resources that are part of this voluntary showing have contractual obligations with an LSE to meet applicable resource adequacy requirements for the delivery year,[[14]](#footnote-15) then these resources could reduce the ISO’s assessment of whether a collective deficiency exists.

### ***Implement an ISO-run Reliability Services Auction to conduct backstop procurement for the two- and three-year ahead resource adequacy compliance obligations.***

The ISO will seek authority from FERC to run the Reliability Services Auction, which would be both a market-based backstop mechanism for the ISO to procure capacity to cure deficiencies in any resource adequacy compliance year, and a voluntary auction to clear buy/sell bids for the forward procurement of resource adequacy capacity. In other words, as allowed by the local regulatory authority, LSEs within the ISO’s balancing authority area could voluntarily use the Reliability Services Auction to procure contracts to meet, or to exceed, their forward capacity procurement requirements. The CPUC would expressly maintain authority to authorize or limit participation by CPUC-jurisdictional LSEs in the voluntary auction (*i.e.*, the CPUC may require LSEs to satisfy their compliance obligations through bilateral contracts and thereby avoid exposure to the Reliability Services Auction; the CPUC may also authorize or prohibit its jurisdictional LSEs to submit voluntary buy or sell bids). However, the ISO would be solely responsible for procuring backstop capacity to cure deficiencies through the Reliability Services Auction once an appropriate cure period has expired.

Thus, if there is a deficiency in an individual LSE showing[[15]](#footnote-16) following notice and an opportunity to cure, the ISO will automatically procure on the LSE’s behalf from the Reliability Services Auction up to the amount needed to cure the LSE’s deficiency for each respective resource adequacy compliance year. LSEs that are deficient will incur the ISO cost of backstop procurement, but will not incur explicit penalties for falling short of the two or three year-ahead resource adequacy compliance requirements.

All procurement resulting from the Reliability Services Auction would be firm commitments. Any demand bids for capacity that clear in the auction will pay the price determined through the procurement auction for the capacity during the performance year. LSEs for which the ISO procures backstop capacity to cure a deficiency in that LSE’s resource adequacy showing will also pay this price. LSEs may count this capacity in subsequent required showings, although they may seek to trade like-for-like capacity in future auctions. Future showings of sufficient bilaterally-procured capacity would not reduce or eliminate the obligation of the LSE to pay for capacity procured on the LSE’s behalf through the Reliability Services Auction. Resources awarded contracts for any resource adequacy delivery year would be required to provide the capacity (or like-for-like capacity subject to applicable replacement rules) during the applicable delivery year.

The CPUC and ISO also recognize that rules would be needed to address potential load shifting among LSEs following an LSE’s procurement to satisfy resource adequacy obligations in the forward time frame and before the applicable delivery year. This issue has presented one of the key challenges to establishing multi-year forward resource adequacy obligations given that load serving entities expect some amount of load shifting between the future year and the delivery year.

Under this proposal, all LSEs, including electric service providers and community choice aggregators would each receive obligations based on current and expected percentages of load share. The proposal would establish a multi-year forward resource adequacy obligation for all LSEs even if they lack certainty regarding their future share of load. The proposal would mitigate these challenges by setting the forward resource adequacy obligations at a reduced percentage for system capacity and because LSEs can buy needed capacity or sell excess capacity using the ISO’s Reliability Services Auction.

The ISO backstop procurement authorization would include assessing if the procured resources collectively satisfy the ISO’s specific operational requirements, such as maximum ramping, load following, and regulation needs. In addition, the ISO and CPUC acknowledge that the development of the Joint Reliability Framework will require developing methods for assessing if collective deficiencies exist even when all LSEs have met their required resource adequacy showings and determining what is the appropriate backstop procurement authority to cure such a collective deficiency in two and three-year ahead resource adequacy demonstrations.

The details of such backstop authority, including the applicable tariff provisions, remain to be developed through further CPUC and ISO collaboration and the proceedings in which the Joint Reliability Framework would be implemented.

Both the ISO and CPUC agree that upon being finalized and implemented, the Joint Reliability Framework should be given a reasonable amount of time to operate and mature before considering any significant alterations to either the ISO tariff rules or the CPUC resource adequacy rules.

Finally, from the CPUC staff perspective, a critical benefit of the proposed Joint Reliability Framework is that it clearly allows the CPUC to maintain direct control over procurement mandates for preferred resources for CPUC jurisdictional LSEs over both short- and long-term procurement time frames. California achieves preferred resource procurement through a variety of statutory and regulatory mandates and targets. Subject to satisfying applicable performance or other operational criteria and to ensure the reliable operation of the grid, preferred resources can count toward satisfying an LSE’s existing or expanded resource adequacy requirements even if they are not as economically competitive compared to other resources. With respect specifically to IOUs, the CPUC reviews the products and markets that can be used by IOUs in the satisfaction of their procurement obligations under the IOU bundled procurement plans. This would remain true under the proposal, in which ISO backstop procurement is limited to curing deficiencies and satisfying voluntary additional procurement bids***.***

### ***Enhance and coordinate an annual long-term reliability planning assessment to inform ISO transmission planning and CPUC long term procurement planning processes.***

For the four to ten-year time horizon, the ISO and CPUC would publish a reliability planning assessment of projected needs for system, local and flexible requirements and identify available supply (the entire fleet) and supply under utility ownership or long-term contracts to meet those needs. This reliability planning assessment would be coordinated with the demand forecast process led by the CEC. The assessment would be based on common assumptions developed under a separate memorandum of understanding between the ISO and the CPUC. The reliability planning assessment would be used solely for information purposes and would not create a resource adequacy obligation for LSEs or give rise to backstop procurement authority for the ISO. This assessment would build upon the past several years of joint cooperation that allow for planning assumptions that can be used in the transmission planning process and LTPP. The key changes from the current practice is that the assessment would be conducted jointly by the CPUC and ISO (and in collaboration with the CEC); it will assess not just physical resources (the fleet) but also contractual obligations; and review projected system, local and flexible needs annually. The ISO hopes to explore a similar approach with other local regulatory authorities.

### ***Proposal Summary Table***

The Joint Reliability Framework proposal is summarized in Table A below.

**Table A – Joint Reliability Framework**

| **Time Horizon** | **1 year ahead of operational year** | **2 and 3 years ahead of operational year** | **4 to 10 years ahead of operational year**  |
| --- | --- | --- | --- |
| CPUC RA  | Compliance requirement:System: 90% Local: 100%Flexible: [90% - exact amount to be set by expected forthcoming CPUC decision]Existing requirements for month-ahead system showings and 100% month-ahead showing for local and flexible requirements. | Compliance requirement System: percentages TBD Local: percentages TBDFlexible: percentages TBDThese requirements would be full year showings for system, local and flexible capacity and the percentages for each capacity type do not need to be the same. For example, flexible capacity attributes may require higher percentages to avoid premature retirement of flexible resources. | No compliance requirement.  |
| ISO Backstop  | In event of deficiency (individual LSE after considering all resource adequacy demonstrations or collective), ISO issues notice and gives LSEs the opportunity to cure. ISO will undertake backstop procurement for any uncured deficiency through ISO-run Reliability Services Auction subject to market power mitigation rules.ISO will maintain existing authority to backstop on shorter time frame consistent with its tariff.  | Following notice and opportunity to cure the ISO will automatically procure any LSE deficiency in year 2 or 3 through ISO-run Reliability Services Auction subject to market power mitigation rules.Creates firm commitments to pay for capacity procured on an LSE’s behalf through backstop procurement. | No backstop procurement authority.  |
| Voluntary Data Provision  |  | The CPUC staff proposes to require CPUC-jurisdictional LSEs to provide ISO data showing all resources that are owned or under forward contract. Other LSEs may also voluntarily supply contracting and ownership data in excess of the resource adequacy compliance requirement. The ISO will use these data solely for planning purposes. The information will not create any ISO backstop procurement authority. | The ISO will conduct a long-term reliability planning assessment using LSE data. The ISO and CPUC will enter a memorandum of understanding regarding the development of long-term forecast assumptions for this assessment. |
| Voluntary ISO Market  | N/A  | The ISO will implement a Reliability Services Auction to clear bids to buy/sell capacity products. The CPUC will maintain authority to limit participation by CPUC-jurisdictional LSEs in the Reliability Services Auction to procure capacity in excess of established resource adequacy requirements.   | N/A  |
| Penalties | Existing penalties for non-compliance and cost-allocation for backstop procurement.  | LSEs do not incur penalties for falling short of compliance obligation But ISO will allocate costs of backstop procurement costs to deficient LSEs.  | No penalties. Assessment published for information purposes only. Creates no obligation for LSEs.  |

1. **Interdependencies with Other Policy Initiatives**

The Joint Reliability Framework has a number of dependencies with existing CPUC proceedings and ISO stakeholder processes. If the Joint Reliability Framework continues to evolve, the CPUC and the ISO will decide how and whether to incorporate this proposal into ongoing policy development processes.

In addition, several policy issues, while not central to the implementation of the Joint Reliability Framework, are closely related to the success of this effort. The CPUC and the ISO will need to coordinate the resolution of such issues with any development of the Joint Reliability Framework. For instance, the CPUC and ISO expect that other efforts to expand participation of demand response and storage in capacity and energy markets will require work in other proceedings and through other initiatives. The ISO’s efforts to develop a flexible resource adequacy criteria and must-offer obligation for the interim flexible resource adequacy requirement recently adopted by the CPUC must also advance in tandem with any development of the framework, so they are in place for the 2015 resource adequacy year. The CPUC is reviewing rules related to bundled procurement in Track III of the current LTPP proceeding, including forward hedging and procurement requirements. A critical task is to catalog all of the proceedings and initiatives that interrelate to the Joint Reliability Framework and consider how to coordinate them. The CPUC and the ISO request stakeholder comments on this effort.

1. **Next Steps**

In order to facilitate stakeholder discussion regarding the Joint Reliability Framework, the CPUC and ISO will hold a joint workshop on July 17, 2013 in Folsom, California, hosted by the ISO. This workshop will be open to the public and available via teleconference. At the workshop, representatives of the CPUC and the ISO will provide an overview of the framework described in this paper and seek to obtain input from interested persons on how to proceed with its design and implementation.

The CPUC and the ISO request that stakeholders submit written comments to Candace.morey@cpuc.ca.gov and Multiyearreliability@caiso.com by July 25, 2013. Comments will be posted publicly on the ISO website (www.caiso.com).

The CPUC and ISO welcome stakeholder feedback on the proposal, including feedback on the following questions:

* Is the CPUC and ISO staff’s Joint Reliability Framework proposal preferable to the existing set of policies and regulations designed to ensure long term resource adequacy in California?
* What are the strengths and weaknesses of the Joint Reliability Framework in comparison to the existing set of policies and regulations designed to ensure long term resource adequacy in California?
* Could the Joint Reliability Framework further the goals of ensuring sufficient resource capabilities to operate the grid and creating an opportunity for preferred resources?
* What other policy initiatives should the CPUC and the ISO coordinate with when undertaking further consideration of the Joint Reliability Framework?

The CPUC and the ISO recognize that there are many outstanding design and implementation issues that would require additional discussion and decisions if the proposed Joint Reliability Framework were to continue to be developed through the appropriate proceedings and processes at both the CPUC and ISO. Commenters are welcome to identify these issues, but should recognize that the CPUC and ISO are already aware that these issues include:

* Determining compliance obligation percentages for each of the two and three year ahead resource adequacy obligations;
* Determining input assumptions and methodology the CPUC and ISO would use to set forward resource adequacy obligations for CPUC-jurisdictional LSEs;
* Determining how forward resource adequacy requirements would be allocated;
* Determining how the CPUC and ISO would determine if any individual or collective deficiency exists;
* Establishing default ISO resource adequacy and capacity procurement tariff provisions applicable to local regulatory authorities;
* Identifying necessary design elements of the multi-year Reliability Services Auction that will serve as a mechanism for multi-year backstop procurement, including the frequency of auctions;
* Determining if and what effectiveness factors the ISO should apply to ensure LSEs have secured adequate flexible capacity;
* Developing market power mitigation rules for the ISO Reliability Services Auction, including tests for whether market liquidity exists and the administrative pricing mechanism (or price) if there is insufficient market liquidity;
* Defining the standard capacity product, including whether it would include both system and local products, each bundled with flexibility characteristics, and
* Rules and processes for LSEs and generators to submit year-ahead and multi-year supply plans that can be validated by the CPUC (or applicable LRAs) and ISO to determine compliance.

The CPUC and the ISO expect to explore these and other issues in future revisions to the staff proposal to consider a Joint Reliability Framework. Some solutions may need to be developed within the proceedings undertaken to examine the Joint Reliability Framework in CPUC and ISO proceedings while others may be more appropriate to defer to interdependent proceedings.

The CPUC and ISO are planning to present the Joint Reliability Framework at the FERC technical conference scheduled to occur on July 31 and August 1, 2013 in Sacramento, California. At the FERC technical conference, FERC staff plans to facilitate a structured dialogue on flexible and local resources at risk of retirement and for the ISO to develop a market-based mechanism to ensure that the electric reliability needs are met in the ISO’s balancing authority.[[16]](#footnote-17) The CPUC and ISO will listen to stakeholder feedback on the problems and solutions raised at the July 17, 2013 joint stakeholder workshop and the FERC technical conference and consider that feedback.

1. The Joint Reliability Framework proposed herein is a joint staff proposal. Nothing in this document reflects a final decision or endorsement from the California Public Utilities Commission or the Board of Governors of the ISO. Unless otherwise stated, any view, opinion, proposal, or agreement reflected in this document should be understood as the view, opinion, proposal, or agreement of the staff of the respective organization. [↑](#footnote-ref-2)
2. *See* Documents for the CPUC-CAISO Long-Term Resource Adequacy Summit at the following website: [http://www.caiso.com/Documents/Long-term%20resource%20adequacy%20summit%20-%20Feb%2026,%202013](http://www.caiso.com/Documents/Long-term%20resource%20adequacy%20summit%20-%20Feb%2026%2C%202013). [↑](#footnote-ref-3)
3. *See* CPUC Decision 10-06-018, *Decision on Phase 2 – Track 2 Issues: Adoption of a Preferred Policy for Resource Adequacy*, at 62-66. While it declined to adopt a centralized capacity market the Commission encouraged staff to continue to examine these issues. [↑](#footnote-ref-4)
4. California Public Utilities Code § 380. [↑](#footnote-ref-5)
5. These requirements include must offer requirements, replacement requirements for resources on outage, and standard capacity product availability assessments. [↑](#footnote-ref-6)
6. CPUC Decision 13-06-024, *Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local Procurement Obligations*. [↑](#footnote-ref-7)
7. The ISO intends to propose amendments to its tariff that, like local capacity, will allocate flexible capacity requirements in a manner consistent withISO tariff section 40. [↑](#footnote-ref-8)
8. For CPUC-jurisdictional LSEs, the CPUC determines if any individual LSE is deficient in its resource adequacy compliance showing. The ISO provides notice and an opportunity to cure prior to exercising its backstop procurement authority. [↑](#footnote-ref-9)
9. The CPUC and ISO also recognize concerns with price differentials between resource adequacy capacity payments in which existing resources receive lower capacity payments than new resources. [↑](#footnote-ref-10)
10. *California Indep. System Operator Corp.,* 142 FERC ¶ 61,248 (2013). <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13219949> [↑](#footnote-ref-11)
11. ISO will test whether there exists an aggregate deficiency in the total amount of resource adequacy capacity that is procured compared to the total resource adequacy requirement for all LSEs after taking into account all LSEs’ demonstrations in their resource adequacy plans. [↑](#footnote-ref-12)
12. Resources that are not currently online but that are forecasted to come online prior to the contracted delivery month may count in an LSE’s resource adequacy compliance showing according to existing requirements. [↑](#footnote-ref-13)
13. Pursuant to existing CPUC confidentiality rules, certain data on contracts and net short positions for the front three years of forecast data are afforded confidential treatment. *See* D.06-06-066, as modified by D.07-05-032. [↑](#footnote-ref-14)
14. Any excess capacity that is considered to reduce a collective resource adequacy capacity deficiency would be subject to applicable requirements, including must offer obligations, outage replacement rules, and standard capacity product availability assessments. [↑](#footnote-ref-15)
15. As with the year-ahead resource adequacy program, for CPUC jurisdictional LSEs, the CPUC will determine and notice individual LSE deficiencies. [↑](#footnote-ref-16)
16. Notice of Staff Technical Conference in FERC Docket AD13-5 dated May 28, 2013: <http://www.ferc.gov/EventCalendar/Files/20130528162908-AD13-5-000TC.pdf> [↑](#footnote-ref-17)