



California ISO

# **Temporary Shutdown of Resource Operations**

## **Straw Proposal**

**June 21, 2017**

**Market & Infrastructure Policy**

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## 1. Executive Summary

The California Independent System Operator (“CAISO”) committed to hold a stakeholder process in 2017 to explore opportunities to potentially accommodate a resource owner taking a resource out of service for an extended period of time when the resource owner believes that economic conditions cannot support its continued operation.<sup>1</sup> This paper presents the CAISO’s straw proposal for the “Temporary Shutdown of Resource Operations” initiative.<sup>2</sup>

This initiative will consider the conditions under which the CAISO may permit a resource owner to take a resource temporarily out of service for non-physical reasons, including for economic reasons, and what form of compensation, if any, the CAISO would provide if it denies a resource owner’s request to take its resource out of service for non-physical reasons.

This straw proposal describes the plan for stakeholder engagement, background and scope, existing processes and straw proposal. The key elements of the CAISO’s straw proposal are listed below.

- The CAISO may allow a Participating Generator to temporarily shut down operation of its resource for economic reasons, provided that there is no reliability impact to the grid as determined by a CAISO study.
- The resource will need to apply for the temporary shutdown, and this option will be available only to capacity that is operating as part of the CAISO’s balancing authority area (“BAA”) and is not resource adequacy (“RA”) or Reliability Must-Run (“RMR”) capacity.
- The requested shutdown period can be for no less than two months and no longer than four months, and the resource owner can apply for a subsequent four-month period.
- If the CAISO has to deny a request for a temporary shutdown, the CAISO will pay the owner a CPM payment for any months during the requested shutdown period where the CAISO’s studies show the resource is needed for reliability, with a potential maximum CPM payment of four months at a time.
- While on shutdown, the resource owner is free to manage the resource such that it can return to service when its shutdown is over at same MW rating and ramping capability as it had before it went out on shutdown.

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<sup>1</sup> The CAISO made this commitment to the Federal Energy Regulatory Commission (“FERC”) in response to the June 17, 2016 complaint filed by the La Paloma Generating Company related to the CAISO’s denial of an outage La Paloma proposed for economic reasons.

<sup>2</sup> In the 2017 Stakeholder Initiatives Catalog, this effort was titled “Economic and Maintenance Outages,” but the name has been changed to “Temporary Shutdown of Resource Operations” to better reflect the nature of the initiative. In the May 10, 2017 Issue Paper this initiative was referred to as Temporary Suspension of Resource Operations,” but the CAISO is now using the term “shutdown” rather than “suspension” as suspension is already a defined term in the CAISO tariff and has a different meaning than what is being pursued in this initiative. The term “suspension” is currently used to denote a situation where a generating unit is temporarily halting construction work on its unit while in the generator interconnection queue.

- During an approved shutdown, since the resource will not have been paid to be available, the resource will not have to respond to Exceptional Dispatches issued by the CAISO and cannot be called out of shutdown status due to “no touch’ operating conditions on the grid.
- The resource can be recalled from shutdown status if there is a system emergency, and the resource will receive a CPM payment if this occurs.
- The Generating Unit will not be eligible to be used as a RA resource in a RA showing for the period that it has temporarily shut down operations in the CAISO’s BAA.

## 2. Plan for Stakeholder Engagement

The schedule for this initiative is presented in Table 1 below. The CAISO plans to present its final proposal to the CAISO Board of Governors for their approval at their meeting on November 1-2, 2017. The CAISO may take its final proposal to the September 19-20, 2017 Board of Governors meeting for their approval if stakeholder comments can be adequately addressed after the straw proposal. The CAISO will assess the situation after stakeholder comments have been submitted on the straw proposal. The accelerated approach would mean going to a draft final proposal after the straw proposal, thereby only having two rounds of stakeholder comments before going to the Board of Governors.

**Table 1 – Schedule for this Stakeholder Initiative**

	<b>Date</b>	<b>Milestone</b>
Kick-Off	May 4, 2017	Issue market notice announcing this new initiative
Issue Paper	May 10	Post issue paper
	May 19	Hold stakeholder call
	June 6	Stakeholder written comments due
Straw Proposal	Jun 21	Post straw proposal
	Jun 28	Hold stakeholder call
	Jul 13	Stakeholder written comments due
Revised Straw Proposal	Aug 9	Post revised straw proposal
	Aug 16	Hold stakeholder call
	Aug 29	Stakeholder written comments due
Draft Final Proposal	Sep 11	Post draft final proposal
	Sep 18	Hold stakeholder meeting
	Oct 2	Stakeholder written comments due
Final Proposal	Nov 1-2	Present final proposal to CAISO Board for approval

## 3. Background

This initiative will consider the circumstances under which the CAISO may permit a resource owner to temporarily shut down operation of its resource for economic reasons and what form of compensation, if any, the CAISO should provide if it denies a resource owner’s request for a temporary shutdown. The initiative will assess how potentially allowing this type of resource

status change would interact with other requirements of the CAISO tariff, existing contracts, and with grid and market operations.

The CAISO's existing Business Practice Manual ("BPM") for Generator Management contemplates that resource owners can permanently retire or mothball their units, but does not address the above-noted topics in significant detail and in particular does not consider compensation issues. This initiative is meant to provide stakeholders an opportunity to consider those topics in greater detail, as well as what potential changes to current CAISO practice may need to be addressed through a FERC filing to implement new tariff provisions.

The CAISO committed to this stakeholder initiative during the FERC process related to a now-denied complaint that the La Paloma Generating Company filed against the CAISO.<sup>3</sup> As described in the relevant FERC order, in May 2016, La Paloma submitted multi-month outage requests to the CAISO for several units because La Paloma did not anticipate that the continued operation of those units would be economic. The CAISO denied the requests because they were based on economic, rather than physical reasons, and thus did not represent an appropriate use of the outage management system as allowed by the CAISO tariff. On June 17, 2016, La Paloma filed a complaint against the CAISO at FERC related to the CAISO's denial of the requested outages. FERC ruled that the CAISO's denial of the outages was reasonable because "based on the most reasonable construction of the tariff, the only permissible reasons for seeking an outage from CAISO include planned maintenance, new construction, or other work. The tariff thus does not permit CAISO to grant requests for outages for economic reasons, such as those at issue here."<sup>4</sup>

During the FERC process, several intervening parties suggested that FERC order the CAISO to revise its tariff to allow for outages based on economic considerations and/or provide a capacity procurement mechanism designation if the CAISO denies an outage request (at least in the case of a non-resource adequacy capacity resource). The CAISO explained that La Paloma's complaint proceeding was not the appropriate venue to consider those issues, but the CAISO agreed "that, in light of the significant transformation the CAISO grid is undergoing and the significant change in the resource mix, it is appropriate for the CAISO to consider whether the CAISO should allow for economic outages and what form of compensation, if any, the CAISO should provide if it denies a generator's maintenance or economic outage."<sup>5</sup> The CAISO accordingly agreed to begin a stakeholder process in 2017 to address those issues. It committed to hold a process that would allow the CAISO and stakeholders to "carefully consider whether the CAISO should allow for economic outages and compensate generators when it denies an outage for a non-resource adequacy resource. Through that process, the CAISO and

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<sup>3</sup> *La Paloma Generating Co., LLC v. Cal Indep. Sys. Operator Corp.*, 157 FERC ¶ 61,002 (2016) (Order Denying Complaint). Available at: [http://www.caiso.com/Documents/Oct3\\_2016\\_OrderDenyingLaPalomaComplaint\\_EL16-88.pdf](http://www.caiso.com/Documents/Oct3_2016_OrderDenyingLaPalomaComplaint_EL16-88.pdf).

<sup>4</sup> *Id.* at P 29.

<sup>5</sup> *La Paloma Generating Co., LLC v. Cal Indep. Sys. Operator Corp.*, Answer to Protests of the California Independent System Operator Corp., at 5, FERC Docket No. EL16-88 (Jul. 20, 2016).

stakeholders will have sufficient time to consider all pertinent issues, the conditions under which economic outages should be permitted, if at all, and how economic outages would interact with other requirements of the CAISO tariff and with CAISO grid and market operations. Similarly, the CAISO and stakeholders will be able to consider whether compensating non-resource adequacy resources for rejected outage requests is appropriate and, if so, how they should be compensated, and to whom the CAISO would allocate the costs.”<sup>6</sup>

#### **4. Scope of Initiative**

The initiative will address the circumstances that were highlighted in the La Paloma complaint. This initiative also will address the situation where a Generating Unit can switch operation for an extended period of time from one BAA to an adjacent BAA. It will establish the conditions under which such “switching” would be allowed and whether a resource that has switched to an adjacent BAA area would be eligible to be shown as RA capacity.

The scope does not include a discussion of potentially allowing economic outages in general, as the CAISO’s position is that outages such as those submitted to report the status of a Generating Unit through the CAISO’s outage management system should generally be taken only for situations where there is a physical reason for the change in status of the resource. The distinction here is that this initiative will look at the conditions under which the CAISO may allow a Generator to temporarily shut down operation of its Generating Unit for economic or other non-physical reasons. The solution will likely involve a process and a new method for requesting and then reporting a temporary shutdown of operations. As part of the new method or process the CAISO proposes to use the CAISO’s existing outage management system to report these type of new temporary shutdown outages so that the CAISO’s existing systems can be leveraged to the extent possible. The CAISO tariff will be changed to make it permissible for this new type of temporary shutdown outage to be reported through the CAISO’s outage management system. At the same time, the CAISO would look to reinforce its current tariff language regarding the general need for outages reported through the outage management system to be for physical reasons.

The scope does not include refining the existing processes for the permanent retirement or repowering of a Generating Unit, as the requirements for such are already adequately covered in the CAISO tariff, BPM for Generator Management, and agreements. The California Energy Commission (“CEC”) and the California Public Utilities Commission (“CPUC”) already have processes in place to address retirements. Generating Unit owners are expected to use these existing processes when they seek to permanently retire a Generating Unit.

#### **5 Existing Processes**

This section discusses the processes that are currently in place at CEC, CPUC and CAISO that deal with retirement or mothballing resources, including reliability studies performed by the CAISO.

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<sup>6</sup> *Id.* at 5-6.

## 5.1 California Energy Commission

The CEC has no policy on electric generation operation standards or the action of mothballing or permanently retiring a generator, although the CEC refers to the CPUC for maintenance standards and CPUC General Order 167.

## 5.2 California Public Utilities Commission

The CAISO will need to consider any conflicting policy as it plans and implements an option to allow temporary shutdown of a resource for economic reasons. The following text is taken from CPUC General Order 167 Enforcement of Maintenance and Operation Standards for Electric Generating Facilities.

*The purpose of this General Order is to implement and enforce standards for the maintenance and operation of electric generating facilities and power plants so as to maintain and protect the public health and safety of California residents and businesses, to ensure that electric generating facilities are effectively and appropriately maintained and efficiently operated, and to ensure electrical service reliability and adequacy. The General Order provides a continuing method to implement and enforce General Duty Standards for Operations and Maintenance, Generator Maintenance Standards (Maintenance Standards), Generator Operation Standards (Operation Standards), and any other standard adopted pursuant to Public Utilities Code § 761.3 (Chapter 19 of the Second Extraordinary Session of 2001-02 (SBX2 39, Burton et al.). The General Order also provides a means to enforce the protocols for the scheduling of power plant outages of the California Independent System Operator. The General Order is based on the authority vested in the California Public Utilities Commission by the California Constitution; California statutes and court decisions; prior Commission decisions and orders; and federal law including, but not limited to, the Federal Power Act, 16 U.S.C. § 791 et seq., and section 714 of the Energy Policy Act of 1992, 16 U.S.C. § 824(g). Nothing in this general order diminishes, alters, or reduces the Commission's existing authority to inspect power plants and to request data from those power plants to assure continued maintenance and operation of the facilities in order to support public safety and the reliability of California's electricity supply.*

## 5.3 California Independent System Operator

### **Generator Management Process**

The CAISO currently has a stakeholder process underway in its BPM change management process wherein the CAISO is proposing some clarifications to the language in Section 11 of the BPM for Generator Management. The proposed provisions are discussed below, including the methodology to be used to determine the retained Deliverability and reorganizing the BPM such that the process to mothball a unit becomes Scenario 4 within the BPM.

Section 11 of the BPM for Generator Management includes four scenarios for retirement and mothballing of Generating Unit(s). The scenarios consist of the following:

- Scenario 1.** Retiring Generating Unit that wishes to reserve the Generating Unit's Deliverability Status and has either:
- Been approved for the affidavit repowering process pursuant to Section 25.1.2 of the CAISO Tariff; or
  - Entered the CAISO generator interconnection queue to be studied for repowering pursuant to the GIDAP.<sup>7</sup>
- Scenario 2.** Retiring Generating Unit that wishes to reserve the Generating Unit's Deliverability but has not yet:
- Committed to or completed the assessment for the repowering process; or
  - Entered into the CAISO generator interconnection queue after a determination that it is ineligible for the affidavit repowering process.
- Scenario 3.** Retiring Generating Unit that will not repower, and has no need to reserve the Generating Unit's Deliverability Status.
- Scenario 4.** Generating Unit that wants to mothball and has not determined its next steps – retirement, repowering or entering the queue.<sup>8</sup>

Currently the CAISO has four projects that are being assessed (301 MW); six projects have retired and entered the interconnection queue (771 MW); 12 projects have retired and not determined what they are going to do yet (3,392 MW), and four projects have retired and either lost or did not want to retain their Deliverability (667 MW).

Depending upon the decision made by the Participating Generator, Net-Scheduled Participating Generator or Qualifying Facility Participating Generator, the schedules in the various agreements need to be revised, the Master File will be revised to designate the Generating Unit as inactive when the Scheduling Coordinator ("SC") disassociates from the Generating Unit, and the status of the meter will impact the requirements of returning to service. In addition, to retain

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<sup>7</sup> The CAISO's procedures for evaluating repower requests by an owner of an existing Generating Unit made pursuant to Section 25.1.2 of the CAISO Tariff allow such entities to obtain a CAISO three-party GIA without having to participate in the CAISO GIDAP study process if they demonstrate that the "total capability and electrical characteristics of the Generating Unit will remain substantially unchanged." The repowered Generating Unit must utilize the same fuel source and point of interconnection to the CAISO Controlled grid as the existing Generating Unit. If the Generating Unit has not been approved (or knows that Section 25.1.2 will be inapplicable), the repowering applicant will need to submit the project into the CAISO generation interconnection queue in accordance with the GIDAP.

<sup>8</sup> The addition of scenario 4 is going through the BPM change management process starting in June to resolve ongoing operational issues. The outcome of this initiative, a Generating Unit that already has mothballed under Scenario 4 will be subject to the policies and rules adopted under this initiative, regardless of whether those policies are implemented by tariff or BPM. Generating Unit's should have no expectation that the terms of their mothballing status will be "grandfathered" once the Temporary Suspension of Resource Operations stakeholder initiative is complete.



Deliverability the unit must demonstrate that it is actively engaged in the construction of the replacement generation within three years of the retirement request. The CAISO will check annually on the status of the generating facilities progress. The BPM for Generator Management further defines the steps under each scenario that the Participating Generator is required to take in retiring or mothballing a Generating Unit.

The actions a Participating Generator must take consist of the following:

The Participating Generator's designated certified SC must begin the process by submitting a letter to SCrequests@caiso.com to relinquish the resource ID(s) which will end-date their association to the resource(s) designating the resource(s) as inactive in Master File. The effective date of this request should coordinate with the Participating Generator's requested effective date for retirement. Participating Generators that have not committed to the CAISO's repowering process or are ineligible for the repowering affidavit process, but that need to retire or "mothball" their Generating Unit(s) and reserve their Net Qualifying Capacity ("NQC") must provide notice to RegulatoryContracts@caiso.com 60 calendar days before the expected retirement date for the Generating Unit(s). This timeframe allows the CAISO to evaluate the impact of the retirement and determine if the system can maintain reliability without the Generating Unit(s). In order to retain Deliverability priority, no later than two consecutive cluster application windows (that occurs during the month of April of each year) after retiring or mothballing its Generating Unit(s), the Participating Generator shall do one of the following:

- a. Designate a certified SC<sup>9</sup> for the resource ID(s) designating them as active in the Master File, recertify the meters associated to the resource ID(s), and begin generating; or
- b. Be accepted in the repower process and have a new GIA executed; or
- c. Be in good standing in the generation interconnection process (Independent Study, Cluster or Fast Track processes).

Failure to do so may result in the loss of Deliverability Status or repowering rights, as applicable.

*Removing the Generating Unit(s) from the PGA / NSPGA/ QFPGA:*

The Participating Generator will request a revision to the Schedule 1 of its Participating Generator Agreement ("PGA"), Net-Scheduled Participating Generator Agreement ("NSPGA"), or Qualifying Facility Participating Generator Agreement (QFPGA) by sending an email to RegulatoryContracts@caiso.com with a redline version of the Schedule 1. Please insert a strikethrough in redline to the technical information to indicate "removal" of the Generating Unit(s) from the Schedule 1. This will not terminate the PGA, NSPGA, or QFPGA.

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<sup>9</sup> The CAISO requires specific letter notifications any time resources are assigned to a SC.  
<http://www.caiso.com/Documents/ResourceOwnerSchedulingCoordinatorSelection-LetterTemplate.doc>.

Removing the Metering Facilities from the MSACAISOME:

The CAISO Metered Entity needs to request a revision to the Schedule 1 of its MSACAISOME by sending an email to RegulatoryContracts@caiso.com with a redline version of the Schedule 1. Please insert a strikethrough in redline to the technical information to indicate “removal” of the Metering Facilities from the Schedule 1. The CAISO will provide a confirmation letter to the CAISO Metered Entity for acknowledgment of retirement or mothballing of the meters associated to the resource IDs after the SC has requested to relinquish the resource(s).

Please note that typically the removal of a Generating Unit from a PGA, NSPGA, or QFPGA and requisite MSACAISOME would result in the automatic termination for the Generating Unit(s). If a Generating Unit has completed the repowering process, the CAISO will not terminate the MSACAISOME, even if the meters are disconnected. However, the CAISO reserves the right, at its discretion, to terminate the MSACAISOME pursuant to Section 4.2 of that agreement.

Scenario Timeline	
Scenario 1 timeline to retain Deliverability:	3 years from 60-days’ written notice with effective date, calculated from receipt of customer’s notice to Regulatory Contracts to retire the unit provided the studies have been completed. If the studies are not completed, the CAISO will notify the Generating Unit(s).
Scenario 2 timeline to retain Deliverability during which Generator entered Queue or was approved for repowering:	Scenario 2 becomes Scenario 1 Generators requesting Scenario 2 must transition to Scenario 1 within the first two Queue Cluster application windows from the original receipt of written notice. Scenario 1 three year timeline’s effective date will be calculated from receipt of customer’s <b>original</b> Scenario 2 written notice to Regulatory Contracts to retire the unit.
Scenarios 2 or 4 timeline to retain Deliverability and later decide to permanently retire:	Scenarios 2 or 4 become Scenario 3 with CAISO approval. If approved, 90-days’ notice with effective date from original receipt of Scenarios 2 or 4 written notice to Regulatory Contracts, or if approved and already exceeded the 90-days’ from customer’s original written request, permanent retirement effective date will be determined by the CAISO to either retire effective immediately or be subject to an additional 90-days from written request to permanently retire the unit.
Scenario 3 timeline and termination of Deliverability rights.	If approved by the CAISO, 90-days’ notice effective date from receipt of customer’s written notice to Regulatory Contracts to retire the unit.
Scenario 4 timeline to retain Deliverability then later decide to generate (inspection of meter	No longer than two cluster application windows from 60-days’ written notice with effective date calculated from receipt of customer’s written notice

<b>Scenario Timeline</b>	
and retaining services of a certified Scheduling Coordinator are required).	to Regulatory Contracts to mothball the Generating Unit. <i>Note: meter inspection could take some time depending on scheduling so please plan ahead.</i>
Scenario 4 timeline to retain Deliverability during which Participating Generator entered Queue or was approved for repowering.	Scenario 4 becomes Scenario 1  Scenario 4 must transition to Scenario 1 within the first two Queue Cluster application windows from original receipt of written notice. Scenario 1 three year timeline's effective date will be calculated from receipt of customer's original Scenario 4 written notice to Regulatory Contracts to retire the unit.

### **Reliability Studies**

This section describes the reliability studies that the CAISO performs when a Participating Generator requests to permanently retire or be placed in a mothball status while it determines the long-term disposition of the resource.

In order to determine if a resource is needed for reliability reasons, the CAISO will perform studies and assessments that may include but are not limited to: power flow, dynamic, voltage stability, reactive margin, flex and ramping needs in relation to locational and other characteristics needs of the ISO system.

## **6 Stakeholder Comments and CAISO Responses**

This section of the straw proposal provides a summary of the stakeholder comments that were received on the May 10, 2017 issue paper, as well as the CAISO's responses to those comments. The full version of the written stakeholder comments that were submitted is provided in Appendix 1.

### **6.1 Scope of Initiative**

The section discusses the stakeholder comments that were received on the scope discussion contained in the May 10, 2017 issue paper.

Stakeholder Comments - Calpine recommends an alternate proposal wherein an uncontracted resource will not have an obligation to respond to dispatch instructions or operating orders and will then be able to suspend operations without fear of non-compliance. CLECA requests that the CAISO describe how the need for allowing economic shutdown would be determined. DCG is generally supportive of the existing scope. NCPA believes that CAISO stakeholders would be better served by pursuing a comprehensive solution to the problem of insufficient revenues to retain units. NRG appreciates the CAISO following through on the commitment it made in the La Paloma complaint. ORA believes that the scope should be changed from the broader term allowing for suspensions for "non-physical reasons" to read for "economic reasons" and the CAISO should clarify the need to include consideration of whether and what form of compensation should be paid. PG&E recommends that the straw proposal describe the interplay between a hypothetical designation process, and the CPM risk-of-retirement ("ROR")

ROR, RMR and Transmission Planning Process processes and scenarios under which a resource may want to seek a designation for a temporary shutdown. SDG&E believes the scope should be limited to the process and determination of whether a resource should be granted a shutdown, process for crediting the capacity to LSEs, and that the payment mechanism should be the existing CPM mechanism. Six Cities believe the scope should not include consideration of allowing short-term (e.g., daily or weekly) outages or suspensions of operation for economic or other non-physical reasons and strongly believe the CAISO should not consider simply allowing non-RA resources to decide whether or not they wish to respond to ISO dispatch in lieu of establishing a process for evaluating and either granting or not granting temporary shutdowns. WPTF supports a scope that creates a process for evaluating and granting shutdowns and using the existing CPM payment structure should the shutdown be denied. WPTF supports exploring the feasibility of a short-term outage that can be placed for one or two days at a time and the scope should be entirely contained to non-RA capacity and include a discussion on partial-RA resources.

CAISO Response - The scope of this initiative is generally supported by stakeholders. The CAISO does not support Calpine's alternate proposal and provides its own straw proposal. The analysis of need is a key component of the proposed process and the straw proposal describes how the assessment will be done. This initiative considers an exception to the general rule that outages reported to the outage management system must be physical. The scope does not cover the additional task of considering and defining categories of non-physical outages. The CAISO will discuss with stakeholders during this initiative the interplay between this initiative and the CPM ROR initiative and the RMR process. The CAISO proposes to use the current CPM authority when compensation needs to be paid and the current CPM tariff already has a mechanism to credit capacity purchased by CAISO to LSEs. The CAISO notes that Six Cities' comments state that it does not agree with Calpine's alternate proposal. The CAISO will not include in the scope the topic of exploring the feasibility of a short-term outage that can be placed for one or two days at a time for the reasons stated in the issue paper at page 5. The straw proposal provides that RA resources cannot request temporary shutdown. The CAISO agrees that treatment of partial-RA resources should be part of the scope.

## 6.2 Identified Issues

The section is organized into the seven issues that were listed in the May 10, 2017 issue paper.

### ***1. Should CAISO allow a Participating Generator to temporarily suspend operation of its Generating Unit for economic reasons? Under what conditions should CAISO grant such a request?***

Stakeholder Comments – BAMx believes that care must be taken that accommodations do not create a cost risk for ratepayers, but the CAISO should allow resources to temporarily shut down. CLECA requests information on how many such situations have arisen. DGC believes the CAISO should provide a safe harbor for existing assets that may have future contracting or repowering opportunities to maintain the viability of the existing resource site. NCPA generally

supports a resource being able to temporarily shut down for economic reasons. NRG believes the CAISO should grant a temporary shutdown without condition, except for a reasonable limit on the period. PG&E believes in principle that a resource should be permitted to temporarily shut down, but cannot definitively endorse the concept at this time. Six Cities believes it is in the interests of market participants and the CAISO to allow resources reasonable flexibility in managing their response to evolving market conditions. WPTF believes whether suspension is allowed is appropriate to consider.

CAISO Response - Stakeholders generally agree with allowing for temporary shutdown of resources. The CAISO will craft provisions that do not impose unreasonable burdens on other market participants or impede the development of more efficient new resources. The CAISO provides statistics in the straw proposal regarding the amount of resources that are retiring and mothballing. The CAISO's existing BPM process for retirements has provisions for resources to reasonably maintain the viability of their existing site. The CAISO's proposal imposes limited conditions on shutdowns.

## **2. Should CAISO compensate a Participating Generator whose request to temporarily suspend operation of its Generating Unit is denied? If compensation is deemed appropriate, what compensation methodology should CAISO adopt?**

Stakeholder Comments – Calpine sees no reason why the CPM price is not appropriate for a unit denied a shutdown. CLECA believes it is important to determine what basis for payments, if any, should be used and how this initiative can be distinguished from the CPM ROR initiative. NCPA does not believe a new compensation structure should be developed and the CAISO should use one of its preexisting tariff mechanisms to acquire the capacity of the resource (e.g., RMR contract or CPM). NRG believes that if the CAISO denies a request, the resource should be provided with a CPM designation. ORA believes that the CAISO has not demonstrated the need for a new avenue of resource compensation to guarantee grid reliability and payments to resources denied temporary shutdown may negatively impact the bilateral capacity market. PG&E believes in concept that a resource should be compensated if their request to shutdown is denied and the CAISO should describe the circumstances under which a request would be denied. Six Cities believes that if the CAISO denies a request, the resource should receive a CPM designation for the month or months in which the CAISO studies identify a potential need for the resource. WPTF supports paying compensation when a request is denied.

CAISO Response - The CAISO believes that if it has to deny a request for reliability reasons that compensation is warranted. It is expected that such denials would be rare, so there would be minimal or little to no negative impact to the bilateral capacity market. The CAISO proposes to provide a CPM payment when compensation needs to be paid. The straw proposal provides that the compensation, if paid, will be for the period during which the resource is needed for reliability. There is a difference between CPM ROR and Temporary Shutdown of Resource Operations ("TSRO"), especially the temporal aspect of the studies, where in CPM RMR the reliability study looks at the need in the subsequent year and the TSRO looks at the reliability need in the next several months. RA resources are not allowed to request temporary shutdown of operations.

**3. Should CAISO establish a limit on the minimum amount of time that a Generating Unit can suspend its operations, and perhaps a maximum amount of time? Note that under the current BPM for Generator Management if the Generating Unit does not operate at the end of the three year period it loses its Deliverability. Further, the CAISO only allows a Generating Unit to not generate for one year before the CAISO requires the Participating Generator to determine a plan.**

Stakeholder Comments – Calpine does not have a view on whether or how long a suspension might be allowed. CLECA requests that the CAISO address the overlap of this initiative with the RA program timeline. DCG believes an asset should be able to suspend for economic reasons. NCPA agrees that establishing a minimum and maximum amount of time is appropriate. NRG suggests a maximum initial term of one year; at which point the resource should be required to return to operation, retire, or renew the shutdown. PG&E believes that limits should be coordinated with milestones and data requirements of the Transmission Planning Process (“TPP”). SDG&E recommends a minimum time of six to nine months and a maximum time not more than three consecutive trade years. Six Cities suggests a minimum period of one month and a maximum period of one year, and requests should be submitted during designated window periods to be aligned with the RA procurement timeline and potentially with the risk-of-retirement process. WPTF believes time limits are appropriate to consider.

CAISO Response - The CAISO agrees that there should be limits and proposes to have a minimum amount of time of two months and a maximum amount of time of four months for each request. The resource owner can apply for a subsequent four-month period. The CAISO does not see a need to coordinate the timing with the annual TPP. RA resources are not allowed to submit a request for temporary shutdown of operations.

**4. What should CAISO consider when establishing a specific timeline for requesting suspended resource operation, which allows for appropriate operations planning time and notification of approval and denial?**

Stakeholder Comments – BAMx believes that any new process should be within the timeline of the current BPM for Generator Management Scenario 2. Calpine believes that a timeline for clustering suspension requests would likely be necessary and the CAISO should establish detailed, transparent decision making guidelines. CLECA requests the CAISO to explain how studying outage requests on a first-come first-served basis will result in the most efficient, flexible, and least cost capacity over other requests. DGC urges the CAISO to establish a process with determinative timing. NCPA takes no position at this time on the appropriate operations planning time and approval/denial notification periods. NRG believes that the CAISO should establish a procedure and timeline for seeking and granting requests. PG&E recommends that the CAISO base a timeline on the intended interplay between a hypothetical TSRO designation, CPM ROR and RMR designations, and the annual TPP. Six Cities believes there should be a specific process and timeline and requests should be processed as expeditious as possible. WPTF believes timelines are appropriate to consider.

CAISO Response - The straw proposal lays out the CAISO’s initial thinking on the request process and timeline. The straw proposal covers most of the items brought up by stakeholders

in their written comments. The CAISO will work with stakeholders to refine the steps of the process and durations, and, as appropriate, will consider interplay with other processes such as the CPM ROR and RMR designations. The CAISO does not at this time see a need to align this process with the steps of the TPP.

### **5. Is there a level of “return-ability” that would need to be maintained while the Generating Unit is in suspension?**

Stakeholder Comments – Calpine believes that recall rights granted to the CAISO would place resource owners in no different position than the existing provisions of the tariff: imposing uncompensated costs on the owner. NCPA believes that by enforcing a maximum amount of time a resource can suspend its operations, the generator will have an incentive to maintain a level of “return-ability” or otherwise risk losing its right to participate in the CAISO markets once the term has passed. NRG is unclear as to what the CAISO means by return-ability. If the CAISO means “the ability for the unit to return to service after the suspension period is over,” NRG agrees that the generating unit owner should preserve the unit in this state and not take action that would prevent the unit from not being able to return to service without notifying the CAISO of those actions before they are taken. If the CAISO means “the ability for the unit to return to service within the suspension period at the CAISO’s request,” NRG does not see the need for the generating unit to maintain such a state, absent some kind of payment to ensure a state of “return-ability”. PG&E requires additional information from the CAISO in order to comment on this issue. Six Cities believes imposing stringent return-ability obligations would appear to reduce the usefulness of a shutdown, but requiring a commitment to resume operation after a medium-term notice period may be appropriate. WPTF believes return-ability is appropriate to consider.

CAISO Response - The CAISO does not propose a specific return-ability requirements such as minimum levels of staffing, to provide owners with flexibility. However, the CAISO proposes having an emergency recall provision that could be invoked, but the CAISO would compensate the owner through a CPM payment if the resource has to be recalled. In general, the CAISO desires the resource to be able to return to service after the shutdown period is over at the rated operational Pmax and ramping capability that it had prior to the shutdown.

### **6. Should a Generating Unit that is permitted to temporarily suspend operation be ineligible to be used as a RA resource in a RA showing?**

Stakeholder Comments – Calpine, NCPA, NRG, Six Cities and WPTF agree that during the period of time when a resource has temporarily shut down operations it should not be eligible to be used as a RA resource in a RA showing for the defined period of the outage. Calpine and Six Cities note that the process must allow for terminating the shutdown if a contract develops. DCG believes that any resource not committed for all months during a RA compliance period should have the option to shut down during part of the year when it is not committed under RA. PG&E requires additional information (a comprehensive picture) in order to comment on this issue.

CAISO Response – The CAISO proposes to not allow resources on temporary shutdown to count as RA. The straw proposal allows terminating the shutdown if a RA contract develops. The CAISO's straw proposal describes the role of TSRO in the retirement/mothballing process.

**7. A Generating Unit that has suspended operations in one BAA and is now operating in an adjacent BAA should not be able to be counted as a RA resource in the BAA for which it has suspended operation during the time period for which it has suspended operations.**

Stakeholder Comments – Calpine, NCPA, NRG, and WPTF agree that the capacity from a single resource cannot be “counted” in multiple BAAs. NCPA notes that if the capacity of the resource is not otherwise committed to the adjacent balancing authority area, the resource should still be able to supply RA capacity to the CAISO BAA as an import or other tariff authorized source. DCG, PG&E and Six Cities request additional information on this issue and PG&E suggests that the CAISO provide an example of the scenario depicted here in its straw proposal.

CAISO Response – The CAISO agrees with the comments of Calpine, NCPA, NRG and WPTF and proposes to not allow such resources to count as RA. The CAISO is not talking about resources that have dynamic or pseudo-tie relationships with the CAISO, nor about imports. The CAISO is talking about resources that are designed with a switch wherein the resource can be physically disconnected from the CAISO and physically connected to an adjacent BAA. There is at least one such resource currently operating in the CAISO BAA that has this capability and exercises that status for several months each year.

#### 4.3 Other Comments

The section discusses the “other” comments that were submitted by stakeholders (apart from their comments on scope and the seven issues identified by the CAISO).

Stakeholder Comments – BAMx and Six Cities believe there is a strong linkage between the TSRO and CPM ROR initiatives and encourage the CAISO to reconsider its decision to split these initiatives. CLECA recommends a holistic approach to determining future need for generation capacity, and the CPM ROR and TSRO initiatives aim at retaining fossil fuel capacity in an extra-regulatory manner by bypassing the CPUC's RA process. DGC believes that resources that temporarily shut down operations should not face any NQC reduction or other penalty in terms of existing product certifications/eligibility. SDG&E believes that in order for a resource to request a TSRO outage, it must have offered its capacity into the annual CPM CSP for that trade year. If the CAISO denies the request for reliability, then the resource's offer price in the annual CSP should be used for the entire term of the outage. WPTF believes that if the CAISO wants to limit the need for TSRO outages, it should focus on market rule reform that allows non-RA generators more freedom to control their commitment through offers.

CAISO Response – The CAISO is not proposing at this time to combine the CPM ROR and TSRO initiatives. The CAISO does not see this TSRO initiative as bypassing the CPUC's RA process. The straw proposal provides that if a request for a temporary shutdown is denied, the



CAISO will pay the resource the CPM price, which will be the CPM bid price if the resource has submitted one into the CPM CSP, or, if the resource does not have a bid price, the CPM soft offer cap price. The resource will not be required to have offered into the CPM CSP to be eligible to receive a CPM payment for a denied request. DGC raises a question regarding RA counting rules, which is beyond the scope of this initiative in that the topic is something that would be addressed in the CPUC's RA counting rules. However, the CAISO sees no reason that a resource on temporary shutdown should have its counting value decreased. WPTF's comment is beyond the scope of this initiative. The CAISO does have several other initiatives currently underway to enhance the CAISO's market features.

## 7. Straw Proposal

The key features of the CAISO's straw proposal are discussed below.

Element	Proposal
Who is eligible?	The temporary shutdown provisions will be available only to capacity that is not RA or RMR capacity. RA capacity is intended to be capacity that is either "shown" as RA capacity in a RA showing, or capacity that has been procured under a RA contract but may not be shown on a RA showing (for example, it could be RA capacity being held back for RA substitution when maintenance outages occur). Further, the resource must be operating as part of the CAISO's BAA to be eligible to apply for a temporary shutdown.
Whether the CAISO may allow a Participating Generator to temporarily shut down operation of its Generating Unit for economic reasons.	The CAISO may allow a Participating Generator to temporarily shut down operation of its Generating Unit for economic reasons, provided that there is no reliability impact as determined by a CAISO study.
The conditions under which the CAISO may grant a request for temporary shutdown.	<p>The resource owner will need to apply for the temporary shutdown and the CAISO will need to do a study to determine whether grid conditions will allow the CAISO to grant the request.</p> <p>If the study determines that the resource can go out on temporary shutdown without reliability impacts to the grid, the CAISO will grant the request.</p> <p>The resource will use the CAISO's outage management system to report the temporary shutdown status. The tariff will be changed such that it would be a permissible use of the outage system for this kind of resource status.</p>

Element	Proposal
Reliability Studies	<p>Both reliability and RA analyses must be performed on any application for temporary shutdown. The reliability analysis will mirror what is currently conducted to ensure system security for generation maintenance outages, while the capacity analysis will be conducted to ensure sufficient available capacity.</p> <p>TSRO Reliability Analysis: This analysis will be performed in the Operations Planning Time Horizon and in accordance with Peak Reliability Coordinator’s outage coordination process<sup>10</sup>. In conducting the analysis, expected load forecast as well as previously approved transmission and generation outages will be considered as part of the default study assumptions and system topology. To this initial condition N-1, credible N-2, T-1 and G-1 contingencies will be applied<sup>11</sup>. This analysis will be conducted with the intent of determining the following two items:</p> <ul style="list-style-type: none"> <li>• Does the application outage decrease system security by eliminating the CAISO’s ability to mitigate a potential reliability issue via a feasible market solution.</li> <li>• Determine if previously approved and forced outages render the capacity procurement targets defined for local areas in the previous year’s LCR process to be insufficient to ensure system security.</li> </ul> <p>TSRO Local RA Analysis: To ensure the TSRO process does not undercut reliability, a capacity sufficiency check will be performed to ensure enough local capacity is procured to meet the previously defined Local Capacity Requirement (“LCR”) procurement target.</p> <p>Using this methodology will ensure the LCR procurement target will serve as baseline while an updated system topology that reflects all approved and forced transmission and generation outages to date, as well as</p>

<sup>10</sup> <https://www.peakrc.com/whatwedo/1RO017/Documents/Forms/AllItems.aspx>.

<sup>11</sup> This references single line, transformer, and generator contingency, as well a Transmission Operator defined credible multiple-line contingencies.

Element	Proposal
	<p>expected load forecast will be used to validate the LCR procurement targets ability to ensure system security.</p> <p>The ISO proposes that the TSRO Local RA Analysis and TSRO Reliability Analysis will be used in conjunction to determine shutdown request approval or denial. Note that the use of these proposed analyses may produce a situation where the CAISO may deny a shutdown request, even if it the TSRO would not reduce the total level of available local resources below the annual LCR target due to the most up-to-date information being used in the TSRO Reliability Analysis.</p> <p>In addition to the TSRO Reliability Analysis and TSRO Local RA Analyses, the CAISO will also conduct a TSRO System RA check to ensure the TSRO application does not reduce available System RA capacity to below the monthly System RA requirements.</p>
<p>The form of compensation, if any, that the CAISO would provide the Participating Generator if the CAISO denies the Participating Generator's request to take the Generating Unit out of service for a temporary shutdown.</p>	<p>For a temporary shutdown of operations, the CAISO will pay the owner a CPM payment for any months during the requested shutdown period where the CAISO's studies show the resource is needed for grid reliability. If there are months within a multi-month requested period where the resource is needed for reliability, the owner can take the resource out of operation during the months when it is not needed for reliability and will have the resource in operation during the needed months during which it will be paid by the CAISO through the CPM payment. The maximum CPM payment will be for four months at a time.</p> <p>If a request for a temporary shutdown is denied, the CAISO will pay the resource the CPM price, which will be the CPM bid price if the resource has submitted one into the CPM competitive solicitation process ("CSP"), or, if the resource does not have a bid price, the CPM soft offer cap price.</p> <p>The resource will not be required to have offered into the CPM CSP to be eligible to receive a CPM payment for a denied request.</p>
<p>The CAISO may want to establish a limit on the minimum amount of time that a Generating</p>	<p>The request can be for no less than two months and no longer than four months. The resource owner can apply for a subsequent four-month period.</p>

Element	Proposal
Unit can shut down its operations, and perhaps a maximum amount of time.	
The CAISO will need to establish a specific timeline for requesting shutdown of operations allowing for appropriate operations planning time and notification of approval and denial.	<ol style="list-style-type: none"> <li>1. A resource will be allowed to apply for temporary shutdown at any time during the year.</li> <li>2. A resource must submit its request for a temporary shutdown a minimum of 60 days in advance of the requested effective date of the shutdown.</li> <li>3. The CAISO must notify the resource of the CAISO's approval or denial of the requested temporary shutdown no less than eight days prior to the requested effective date of the shutdown.</li> <li>4. The request for temporary shutdown will be submitted using the CAISO's outage management system.</li> <li>5. The CAISO will assess requests on a first-come-first served basis, and there will <u>not</u> be a window that resource owners would need to work around.</li> <li>6. All environmental operating permits must be maintained while on shutdown.</li> <li>7. On its scheduled return-to-service date, a resource must be fully available to meet its requirements under its Participating Generator Agreement, including documented Pmax and ramping capabilities.</li> <li>8. Due to unforeseen circumstances, such as unexpected loss of resources, forced transmission outages, forecasted weather (extreme heat or cold) and associated high demand forecast, a resource applying for temporary shutdown must be able to return to service within 10 business days upon notification from the CAISO.</li> <li>9. The minimum duration for a request is two months.</li> <li>10. A request cannot be scheduled for more than four months in duration.</li> <li>11. Resource owners can submit a subsequent request just prior to when the initial request expires, i.e., owners can submit sequential requests for the same</li> </ol>

Element	Proposal
	<p>resource so that it can be shut down for more than four months, but to do so will require multiple, separate requests, with the next request submitted no sooner than 15 days prior to end date of approved shutdown (in other words, a resource cannot on day one submit many requests for four-month shutdown periods and attempt to be first in line all the time going forward).</p> <p>12. If the CAISO determines system conditions warrant the emergency return to service of the resource for reliability reasons, the approved shutdown will be terminated, the generator will be expected to be ready for service within the emergency return time, and the CAISO will compensate the resource owner through a CPM payment.</p>
<p>Is there a level of “return-ability” that would need to be maintained while the Generating Unit is in shutdown status?</p>	<p>The resource owner is free to manage the resource such that it can return to service when its shutdown is over at same MW rating and ramping capability as before it went out on temporary shutdown. During shutdown, if the resource is <u>not</u> paid to be available through a CPM payment, the resource will not be at risk of having to respond to an Exceptional Dispatch by the CAISO and the resource cannot be called out of shutdown by the CAISO if “no touch’ operating conditions are experienced on the grid. The CAISO will include in the application for this kind of status a provision where the resource could be called back into service early if there is an emergency on the grid. Such emergency return requirement provision will give the resource owner 10 business days to come back into operation and the CAISO will then owe the resource a CPM payment as the resource is now needed for reliability.</p>
<p>If a Participating Generator has temporarily shut down operations of its Generating Unit, would it be eligible to be used as a RA resource in a RA showing for that period?</p>	<p>The Generating Unit will not be eligible to be used as a RA resource in a RA showing for the period it is in temporary shutdown status.</p>

Element	Proposal
If a Generating Unit has shut down operations in one BAA and is now operating in an adjacent BAA, would it be eligible to be counted as a RA resource in the BAA for which it has shut down its operations?	<p>The Generating Unit will not be eligible to be used as a RA resource in a RA showing for the period that it has temporarily shut down operations in the CAISO's BAA.</p> <p>The resource will not be eligible to apply for a temporary shutdown if the resource is not operating within the CAISO's BAA.</p>

## 8. Next Steps

The CAISO will discuss this straw proposal with stakeholders during a stakeholder call on June 28, 2017. Stakeholders are encouraged to submit written comments by July 13, 2017 to [initiativecomments@caiso.com](mailto:initiativecomments@caiso.com).

## Appendix 1

## Stakeholder Written Comments

This section of the straw proposal provides the entire written stakeholder comments that were submitted to the CAISO. The CAISO has provided responses to these written comments in the body of the straw proposal in section 6.

### Scope of Initiative

Calpine – [Note: Calpine submitted an alternative proposal, which is presented in its entirety at the end of this appendix. Calpine’s key points are summarized here.] Secular changes in the generation fleet are increasingly exposing resources to uneconomic operation during low-net-load periods of the year. Unfortunately, the tariff unavoidably obligates uncontracted and uneconomic Participating Generators to respond to (and therefore bear the costs of) Dispatch Instructions and Operating Orders every minute of every day in which a Participating Generator Agreement is in effect. For uncontracted resources, this obligation is forcing generators to provide capacity support to the system without compensation – in essence an uncompensated call-option on the facility. The CAISO proposes a complicated process to evaluate a request from an uncontracted Participating Generator to suspend operations. The proposal invokes many questions of overlap with other CAISO processes and places much of the discretion associated with asset disposition in the hands of the CAISO. We suggest a much simpler approach – one which relieves the uncontracted Participating Generator (specifically, those not “shown” in an RA Supply Plan) of the obligation to respond to Dispatch Instructions or Operating Orders. This path would be to eliminate the Dispatch Instruction “response obligation” for resources that are not a part of the RA Supply showings or not otherwise contracted for operation. These resources would then be able to suspend operations in whole or in part without fear of non-compliance. Beneficially, they would be able to bid and operate when and if the resource owner, alone, concludes that market conditions make operation optimal but importantly, they would no longer be generally available to the CAISO. Of course, under these conditions, these resources would be required to respond to Dispatch Instructions that resulted from their voluntarily submitted bids. Of the outstanding matters that came up on the stakeholder call, however, one seems clear to Calpine. That is, units that do not have bilateral or CAISO contracts – should not be relied upon in planning or managing the reliability of the CAISO grid. Specifically, in planning for fires, wires down and other routine contingencies, the CASIO should not depend upon uncontracted or more specifically, uncompensated resources.

CLECA - The CAISO has also asserted that the scope of the initiative would be limited. However, this initiative overlaps other CAISO initiatives such as CPM ROR, which the CAISO has recently embarked upon as well as its ongoing stakeholder process for FRACMOO-2. It is also not clear how this initiative overlaps and interacts with the CPUC’s RA proceeding which, in collaboration with FRACMOO, analyzes the reliability of the electric grid and determines its local, system, and flexible capacity needs. CLECA notes that the outlined scope excludes an important issue, namely *how* the need for economic suspension of the unit would be determined. The CAISO’s Business Practice Manual (BPM) for Generator Management outlines existing processes for a unit to suspend its operations. The applicable conditions include situations in which a unit is actively engaged in construction of replacement generation within three years of retiring to retain its deliverability status or situations in which a unit is being permanently retired. However, the proposed new process for Suspension of Operations would allow a

unit's request to suspend operations for economic reasons. In other words, the CAISO would have to believe that the unit would be needed in future years for reliability and therefore would need to maintain the unit's deliverability status. Several questions arise with regard to the proposed scope of the initiative. It is not clear, for example, that in the current market a generator would consent to maintain a degree of availability without some form of compensation, rather than retiring. The ratepayers would thus end up paying for the capacity to be retained in suspended form. Therefore, it is important for the CAISO to demonstrate that the unit would be needed for flexible, local, or system capacity in the future. If the CAISO wishes to pursue this initiative, the analysis of need must be at the top of the list of issues identified by the CAISO.

DGC - Diamond Generating Corporation ("DCG") is generally supportive of the existing scope, but suggests the following refinements. The ability to suspend operations for economic reasons should extend to any resource that is not committed to CAISO as a RA resources. Resources that have a RA commitment for a current RA compliance year should not be suspended in that same year, but may wish to pursue suspension if they are unlikely to secure a RA commitment for the unit in the following year. This should dovetail with the compensation issue—if a resource is denied the request to suspend, it should be designated a RA resource and be compensated via the backstop CPM.

NCPA - NCPA understands that this initiative, together with FRAC-MOO 2 and the CPM risk of retirement initiatives, is intended to propose discrete and limited changes to address some of the difficulties assuring that resources providing necessary reliability services are adequately compensated for those services. NCPA believes that CAISO stakeholders would be better served by pursuing a comprehensive solution to the problem of insufficient revenues to retain efficient and flexible baseload units. However, in the absence of such a comprehensive examination, NCPA agrees that changes to the existing framework should be limited in nature. With that framework in mind, NCPA provides its comments on the changes proposed. As further described in the Issue Paper, CAISO is proposing to limit the scope of this initiative to (i) consider what conditions, if any, the CAISO may allow a Participating Generator to temporarily suspend the operation of its Generating Unit, and (ii) under what conditions could a Generating Unit switch operations for an extended period of time from one balancing authority area to another adjacent balancing authority area. NCPA generally supports the limited nature of the scope proposed by the CAISO.

NRG - NRG appreciates the CAISO following through on the commitment it made in the La Paloma complaint proceeding (EL16-88) to conduct a stakeholder process to consider issues Germaine to a non-contracted generating unit seeking an outage from the CAISO. NRG understands the CAISO's rationale for referring to a non-contracted generating unit making itself unavailable to the CAISO for a period of time for whatever reason as a "temporary suspension of resource operations", reserving the term "outage" for other purposes.

ORA - ORA recommends limiting the scope to consideration of temporary suspension for economic reasons. Specifically, the language of the scope of the initiative should be changed from the broader term allowing for suspensions for "non-physical reasons" to read for "economic reasons." The information provided in the issue paper and the accompanying stakeholder presentation did not offer reasons for non-physical suspensions other than economic reasons. The term "non-physical reasons" is overly broad and could allow for suspension reasons not vetted by stakeholders in the initiative process. CAISO should clarify the need to include consideration of whether and what form of compensation should be paid by the



CAISO to a resource following a CAISO denial of a temporary suspension request. The CAISO may deny a temporary suspension request in situations where the suspension could result in unacceptable risks to grid reliability. However, procurement through the CPUCs RA program should account for the contracting of resources necessary to maintain grid reliability. In rare situations where the RA program procurement fails to satisfy reliability needs, the CAISO already possesses procurement authority under Exceptional Dispatch, RMR and CPM. The issue paper does not address the scenarios CAISO envisions that require a new mechanism for resource compensation. As detailed below, the introduction of an additional potential avenue for resource compensation would present unnecessary challenges.

PG&E -PG&E believes these issues are best addressed in the context of a larger conversation about the optimal market design to ensure the *right quantity* and *type* of supply-side resources are available to maintain grid reliability. As such any discussion on creating a TSRO designation is at best incomplete if conducted in isolation from a discussion of the overall capacity retirement/retention process. PG&E recommends that CAISO's initial TSRO straw proposal describe the interplay between a hypothetical TSRO designation process, and a number of related processes, including the CPM ROR and the RMR designation processes, as well as the annual TPP. PG&E believes that at a minimum the CAISO's straw proposal should describe the primary purpose of each designation, any inconsistencies or overlaps, and the likely compensation that would be available to a generator under the CPM ROR and RMR processes. PG&E recommends that the CAISO articulate scenarios under which a Participating Generator may want to seek TSRO designation for a Generating Resource and discuss how the TRSO designation and process would address the issues faced by the resource owner.

SDG&E - SDG&E believes the scope should be limited to the process and determination of whether a resource should be granted a TSRO Outage as well as the process of crediting the capacity to LSEs when the TSRO Outage is denied due to reliability needs. The scope should not focus on how much the CAISO or LSEs should pay for such denial since the CAISO has already established the CPM based on annual, monthly and intra-monthly CSPs.

Six Cities - The Six Cities agree with the ISO's determination that the scope of this initiative should not include consideration of allowing short-term (e.g., daily or weekly) outages or suspensions of operation for economic or other non-physical reasons. Further, the ISO should not consider simply allowing non-RA resources to decide whether or not they wish to respond to ISO dispatch in lieu of establishing a process for evaluating and either granting or not granting a resource's request for permission to suspend operations for a temporary period.

WPTF- WPTF supports a scope that creates a process for evaluating and granting TSRO Outages, and payment structure should the TSRO Outage be denied by the ISO for reliability purposes. That said, WPTF supports a payment based on previously established policy for payments in the case of non-RA need- the CPM based on annual, monthly and intra-monthly CSPs. Therefore it seems reasonable for the scope to include explicitly expanding the CPM process to denied TSRO Outages. Tariff section 9, Outages, has historically referenced the CPM section. WPTF sees a natural parallel between the two sections that could be explored in this initiative. Additionally, WPTF supports exploring the feasibility of a short-term TSRO Outage that can be placed for one or two days at a time that would not need significant review by operations to approve and not be eligible to be denied, except in severe circumstances. Finally the scope should be entirely contained to non-RA capacity and include a discussion on partial-RA resources.

## **Identified Issues**

### ***1. Should CAISO allow a Participating Generator to temporarily suspend operation of its Generating Unit for economic reasons? Under what conditions should CAISO grant such a request?***

BAMx - California's transition to a low carbon future represents a major, long-lasting, change for the electric industry. With this change, the market will not likely support the capacity surpluses that exist today. While generator owners understandably will seek to reduce their costs in their attempt to become competitive, care must be taken that accommodations by the CAISO to provide optionality to generators do not create a cost risk for ratepayers. For example, any new process should not create a path around or extend the CAISO's current process for "mothballing" generation as described in the Generator Management BPM. The existing process is already generous in allowing a generator to maintain its Deliverability priority for two consecutive cluster application windows after shutting down. Ratepayers face the potential cost risk of unnecessary transmission if the system is expanded to accommodate new generators while an out-of-market existing generator is contemplating its future options.

Calpine - Yes, the ISO should allow units to temporarily suspend operations. As suggested above, uncompensated and uncontracted resources should be released from the tariff obligation to respond to Dispatch Instructions and Operating Orders.

CLECA -The establishment of need for suspended capacity must be studied before other considerations are addressed. In support of this initiative, the CAISO has quoted a single example, namely the complaint of La Paloma Generating Company to FERC after the CAISO denied its request for an economic, multi-month outage of several units which were not under RA contracts. The FERC denied La Paloma's request because the CAISO's tariffs only allowed for physical, and not economic, outages. CLECA is not clear how many such situations have arisen and what the likelihood is that in the future, additional, similar requests will be made.

DGC – DGC notes that, "in light of the significant transformation of the CASIO grid is undergoing and the significant change in the resource mix", some of the existing Tariff provisions with respect to retirement and maintenance of Deliverability status of existing generation may deserve reassessment. California is unlikely to support significant development of additional fossil fired resources. Accordingly, the fleet of existing resources needs to be considered in term of maintaining reliability, and presenting a means to see how the system evolves from a technological and load perspective. Moreover, the current regulatory environment around LTPP/IRP at the CPUC does not currently appear to provide a clear path for re-contracting of existing gas resources that will be rolling off existing contracts in the next few years. Because of these conditions, CAISO should provide a safe harbor for existing assets that may have future contracting or repowering opportunities to maintain the viability of the existing resource site.

NCPA - NCPA generally supports the concept of a Participating Generator being able to temporarily suspend operations of its Generating Unit for economic reasons pursuant to a defined set of criteria, provided that the Participating Generator has not made any prior commitments to provide capacity to the CAISO (e.g., a Resource Adequacy commitment) and provided that a comprehensive set of appropriate criteria are established for granting such requests. For example, NCPA believes a minimum period will need to be established (e.g., a minimum of six months) during which the Generating Unit cannot return to

service after its election to suspend operations for economic reasons. The criteria developed should focus on limiting a Participating Generator's ability to exercise market power that may arise as a result of the resource owner learning that its unit cannot be made unavailable, or that might arise if the unit is unavailable (due to ownership of multiple units).

NRG - The CAISO should grant a temporary suspension of operations to an uncontracted generating unit without condition, except for a reasonable limit on the suspension period. Such a unit has been deemed to be unnecessary to maintain reliability.

PG&E - In principle PG&E believes that a Participating Generator should be permitted to seek authority to temporarily suspend operations of a Generating Unit for economic reasons (i.e. make a "TSRO request" or seek a "TSRO designation"). However, without a complete understanding of the intended interplay between a TSRO designation, and existing backstop procurement mechanisms like the Capacity Procurement Mechanism Risk-of-Retirement (CPM ROR) and Reliability Must Run (RMR) contracts, PG&E cannot definitively endorse the concept at this time. In developing its straw proposal, PG&E urges the CAISO to work towards a market design that does not skew participation and pricing in the RA markets, and appropriately limits a resource owners' ability to exercise single resource and portfolio market power in resource adequacy and energy markets.

Six Cities - The Six Cities believe there are potential benefits for grid reliability in allowing resources the ability to suspend operations for a temporary period under appropriate circumstances and procedures. Both the resource fleet and customer demand patterns are evolving rapidly, often in ways that are not fully anticipated. The rapid changes in supply attributes and demand patterns have created widely recognized operational challenges for the ISO. It is in the interests of all market participants and the ISO to allow resources reasonable flexibility in managing their response to evolving market conditions so long as the measures adopted to permit such flexibility do not impose unreasonable burdens on other market participants or impede the development of more efficient new resources.

WPTF - WPTF supports the issues as described and believes whether suspension is allowed is appropriate to consider.

## **2. Should CAISO compensate a Participating Generator whose request to temporarily suspend operation of its Generating Unit is denied? If compensation is deemed appropriate, what compensation methodology should CAISO adopt?**

Calpine - We see no reason why the CPM price is not appropriate for a unit denied a suspension (and therefore deemed needed for reliability), but is otherwise uncontracted. The term of that designation should be no less than the term sought in the suspension request.

CLECA - It will be important to determine what basis for payments to non-RA units, if any, should be used. It is also not clear how this initiative can be distinguished from the Risk of Retirement CPM initiative that the CAISO has undertaken at the same time. If a unit requests a suspension on the basis of economics, wouldn't it then be at the risk of retirement if its request is not granted? What then would distinguish the authorization for Suspension of Operations from authorization for Risk of Retirement CPM? Or would the former precede the latter?

NCPA - NCPA does not believe a new compensation structure should be developed within the scope of this initiative. If, upon a Participating Generator submitting a request to suspend its operations, the CAISO determines the Generating Resource is needed for reliability purposes; the CAISO should use one of its preexisting tariff mechanisms to acquire the capacity of the resource (e.g., RMR contract or CPM). NCPA expects that temporary suspension requests will be rare, and CAISO denial of such requests will be even rarer still, so expending significant staff time and resources to develop a new compensation structure is not necessary at this time.

NRG - If the CAISO does not allow a non-contracted generating unit to temporarily suspend resource operations, such denial constitutes a *de facto* indication that the generating unit is needed to maintain reliability, and the generating unit should be provided with a CPM designation and associated compensation. NRG does not view as controversial or “difficult” the premise that an uncontracted unit that the CAISO does not permit to temporarily suspend operations is entitled to a CPM designation. Such a unit has been deemed to be unneeded for reliability. Denying a suspension amounts to a *de facto* indication that the unit is needed for reliability, which should immediately result in a CPM designation.

ORA - ORA questions the inclusion of issue #2 that calls for determination of potential compensation that the CAISO would pay to a resource upon denial of that resource’s temporary suspension request. The issue paper does not demonstrate the need for a new avenue of resource compensation to guarantee grid reliability. The proposed CAISO payments to resources denied temporary suspension of operations based on reliability needs may negatively impact the bilateral capacity market. The bilateral market requires negotiation of prices between resources and LSEs. CAISO payments following a denial of resource suspension creates an imbalance of power that may favor the resources in bilateral contract negotiations. Resources provided an option for compensation from the CAISO may become less motivated to contract with the LSEs. Additionally, generators could game the system by requesting multiple short-term temporary suspensions to test their need by the CAISO and the potential to gain higher payments. For example, a resource may gain insight into CAISO reliability needs by submitting suspension requests for a few months at different times of the year or one that spans two years. This information gives the resource a competitive advantage in bilateral contract negotiations with the LSEs. Granting resources an option to temporarily suspend operations may provide an alternative to a permanent retirement when uneconomic conditions are predicted. However, the current RA program procurement provides a 15 percent planning reserve margin and, along with the CAISO’s backstop procurement authority under the CPM tariff, should negate a need to provide an additional source of revenue through temporary suspension policies.

PG&E - In concept PG&E believes that a Participating Generator should be compensated if their request to temporarily suspend operation of a Generating Unit is denied. PG&E recommends that the CAISO describe the circumstances under which a TSRO request would be denied. For example, should a resource included in an RA showing be automatically prohibited from applying for a TSRO designation? PG&E recommends that CAISO’s straw proposal address the following questions:

- What criteria will CAISO use to determine if a Generating Resource is “needed” over a predefined planning horizon, and under what conditions might it deny a TSRO request?
- Should the compensation be capped or standard for all resources?
- What additional requirements will be placed on the generator for accepting the compensation?
- How will costs be allocated and who will pay?

- If costs are allocated to LSEs, should they receive resource adequacy “credits” towards their obligation?
- What market power tests or mitigation rules might need to be considered as a part of these reforms?
- How have other Balancing Authorities dealt with the question of compensation?

Six Cities - Subject to compliance with procedural requirements and criteria for minimum and maximum suspension periods, the ISO should not deny a request by a resource for permission to implement a temporary suspension of operations except for reliability reasons, *i.e.*, where the ISO’s reliability studies demonstrate a significant potential that the resource will be needed to maintain reliability during the proposed suspension period. In circumstances where the ISO denies a request for temporary suspension of operations based on a determination of potential need during the suspension period, the resource should receive a CPM designation for the month or months in which the ISO studies identify a potential need for the resource, with a minimum designation period of thirty days, if the requested suspension period is 30 days, or 60 days, if the requested suspension period is 60 days or greater. Acceptance of such a CPM designation and compliance with the obligations of CPM resources during the CPM designation period should be a condition for receiving permission to implement a temporary suspension during the remainder of the proposed suspension period. Market notice provisions generally applicable to CPM designations should apply to CPM designations for resources denied permission for temporary suspension of operations.

WPTF - WPTF supports the issues as described and believes compensation is appropriate to consider.

**3. Should CAISO establish a limit on the minimum amount of time that a Generating Unit can suspend its operations, and perhaps a maximum amount of time? Note that under the current BPM for Generator Management if the Generating Unit does not operate at the end of the three year period it loses its Deliverability. Further, the CAISO only allows a Generating Unit to not generate for one year before the CAISO requires the Participating Generator to determine a plan.**

Calpine - We do not have a view on whether or how long a suspension might be allowed. This is only one of several complications that are eliminated by simply exempting uncontracted resources from the mandatory Dispatch response. In fact, Calpine’s proposed simple solution allows the resource owner the discretion to operate when and if it deems it appropriate with the understanding of other BPM / deliverability / retirement conditions.

CLECA – Another important issue not addressed is the overlap of this initiative with the RA program, particularly with regard to the timeline. The CAISO has run into serious problems with coordinating the timeline of its Risk-of-Retirement CPM initiative with the RA program. It is likely that when the timeline and time limits are explored in this initiative, similar problems will arise.

DCG - An otherwise operable asset should be able to suspend for economic reasons where it does not have a RA commitment to stay available and it is unlikely to secure a contract in the coming annual solicitation cycle. The asset owner may be waiting for market and demand conditions to change to see if there is a future opportunity for the resource as configured, or alternatively for a solicitation in the near future for a change in configuration, or collocation of other technologies such as storage. This may turn in large part on how the IRP proceedings and any future solicitations occur, or whether the resource will be designated under CPM.

NCPA - NCPA agrees that establishing a limit for both the minimum and maximum amount of time a Participating Generator can suspend its operations due to economic circumstances is appropriate.

NRG - NRG agrees that there should be a limit on the amount of time a generating unit may temporarily suspend operations without retiring or returning to operation. Similar to the time that the CAISO allows for a retiring generating unit to establish a plan to retain its deliverability, NRG offers that the maximum term for a single temporary suspension should be one year. At that point, the resource should be required to return to operation, retire, or renew the suspension. If the resource renews the suspension, it should be required to submit a plan to retain its deliverability. The “difficult” issues center around the time the resource may “temporarily” suspend resource operations and the process for extending that time.

PG&E - PG&E believes that any limits on the minimum/maximum amount of time that a Generating Unit can suspend its operations should be coordinated with the milestones and data requirements of the annual Transmission Planning Process (TPP).

SDG&E - An important aspect of this outage is the term so that generators cannot overly utilize this option. SDG&E recommends the minimum length should be six to nine months. An exemption can be provided if the timing of the CAISO’s CPM ROR process is able to make its determination in less time. The outage should also not last more than three years consecutive trade years, not rolling years. This three year limit is based on the CAISO’s process for resources to keep their deliverability after retirement. The resource should not be allowed to submit for CPM Risk of Retirement at the end of year three after the CPM ROR deadline passes. This means that the resource must submit for CPM ROR by the deadline in the third year or expect to return to service for year four.

Six Cities - There should be both minimum and maximum time limits for temporary suspensions of operation. In addition, the ISO should establish a process and timeline such that requests for temporary suspensions must be submitted during designated window periods, such as a specified month during every six month period, to be aligned with the RA procurement timeline and, potentially, with the risk of retirement notification and evaluation process. Establishing designated window periods for submission of temporary suspension requests would minimize the potential for gaming, reduce the administrative and analytical burdens on the ISO as compared with an open, rolling opportunity to request suspensions, and allow the ISO to study the reliability impacts of multiple suspension requests on a cluster basis. Subject to implementation of specified window periods for submitting temporary suspension requests, the Six Cities’ preliminary view is that the minimum suspension period should be one month, and the maximum initial suspension period should be one year. A resource should be allowed to request permission to extend a temporary suspension of operations for succeeding one-year periods but should not be permitted to retain full deliverability status beyond an initial one-year suspension period unless repowering criteria and procedures are applicable and satisfied.

WPTF - WPTF supports the issues as described and believes time limits are appropriate to consider.

**4. What should CAISO consider when establishing a specific timeline for requesting suspended resource operation, which allows for appropriate operations planning time and notification of approval and denial?**

BAMx - Any new process developed under this initiative should be within the timeline of the current Generator Management BPM Scenario 2, and should not be sequential. While market adjustments can be disorderly, procedural and market mechanisms should encourage market participants to act in a timely manner to avoid “fire drills” associated with short lead-time notifications. For example, if compensation is to be considered for the request for economic suspension that is denied, such compensation should be linked to the generator having provided sufficient notice such that short-term measures for transmission improvements can be considered and implemented. Generators should not be rewarded for creating crises on the electric system or unnecessary ratepayer costs due to a short notification period.

Calpine - Agreed. A timeline for clustering suspension requests would likely be necessary. Also, the ISO would have to establish detailed, transparent decision making guidelines for how it might reject the suspension request from one of several generators in a given local area, or class of resources. Again, this would be unneeded if the “response obligation” is eliminated for uncontracted resources.

CLECA - There are also other important issues with regard to the timeline. During the webinar, the CAISO explained for example that the outage requests are studied on a first-come first-served basis. It is not clear therefore how the CAISO will prioritize the most efficient, flexible, and least cost capacity over other, similar plants that might request suspensions.

DGC - DGC urges the CAISO to establish a process with determinative timing, or a “deemed not denied” status whereby the asset owner can proceed to suspend/mothball unless CAISO determines that the suspension will be denied and CPM provided.

NCPA - NCPA takes no position at this time on the appropriate operations planning time and approval/denial notification periods associated with requests for temporary suspension. NCPA expects CAISO will make a reasonable proposal based on its assessment of the amount of time CAISO will need to properly study and evaluate this type of request, while minimizing the risk of market power.

NRG - NRG agrees that the CAISO should establish a procedure and timeline for seeking and granting a temporary suspension of resource operations. Given that the non-contracted generating unit at issue has already been deemed non-essential for reliability, the application and review process should happen expeditiously.

PG&E - PG&E recommends that the CAISO base a TSRO process timeline on the intended interplay between a hypothetical TSRO designation, CPM ROR and RMR designations, and the annual TPP. Without this clarity, PG&E cannot offer a more specific recommendation at this time.

Six Cities - The Six Cities agree that there should be a specific process and timeline for requesting suspended operation, allowing for ISO evaluation of the impact of a proposed suspension, and providing notification of approval or denial. As described above, the Six Cities recommend establishment of specified windows for submission of suspension requests. To maximize usefulness of the process to resources, the timeline from submission of a request for permission to suspend to notification of approval or denial should be as expeditious as possible consistent with the ISO’s ability to conduct necessary reliability analyses.

WPTF supports the issues as described and believes timelines are appropriate to consider.

**5. Is there a level of “return-ability” that would need to be maintained while the Generating Unit is in suspension?**

Calpine - No. As we understand it, “return-ability” or “recall” rights granted to the ISO would place resource owners in no different position than the existing provisions of the tariff – imposing uncompensated costs on the resource owner. Rather, if the simple approach is taken and the response obligation is eliminated, resource owners could bid and operate when and if it deemed appropriate while also responding with good faith efforts (rather than an iron-clad obligation) to requests from the ISO for compensated operations.

NCPA - By enforcing a maximum amount of time a Participating Generator can suspend its operations, NCPA believes the generator will have an incentive to maintain a level of “return-ability” or otherwise risk losing its right to participate in the CAISO markets once the term has passed.

NRG - NRG is unclear as to what the CAISO means by “return-ability”. If, by “return-ability”, the CAISO means “the ability for the unit to return to service after the suspension period is over”, NRG agrees that the generating unit owner should preserve the unit in this state and not take action that would prevent the unit from not being able to return to service without notifying the CAISO of those actions before they are taken. If, by “return-ability”, the CAISO means “the ability for the unit to return to service within the suspension period at the CAISO’s request”, NRG does not see the need for the generating unit to maintain such a state, absent some kind of payment to ensure a state of “return-ability”. Should the CAISO make that kind of request, it must be willing to compensate the unit owner for all costs incurred to return the unit to service before the suspension period is over, plus ensure a minimum-term CPM designation once the unit has been returned to service. Again, such a non-contracted resource has been declared to be not needed for reliability. Requiring that the unit maintain some state of “return-ability” implies it is needed under some circumstances. If it is needed, it should be under an RA contract.

PG&E - PG&E requires additional information in order to comment on this issue. The CAISO’s proposal has not provided a comprehensive picture of the envisioned role of TSRO in the retention/retirement process the CAISO is proposing.

Six Cities - Imposing stringent “return-ability” obligations (e.g., maintaining a skeleton crew or ability to resume operations within a short time period) would appear to reduce the usefulness of a temporary suspension option for resources. Requiring a commitment to resume operation after a medium-term notice period may be appropriate.

WPTF - WPTF supports the issues as described and believes “return-ability” is appropriate to consider.

**6. Should a Generating Unit that is permitted to temporarily suspend operation be ineligible to be used as a resource adequacy resource in a resource adequacy showing?**

Calpine - Certainly, no third-party should be able to “show” a supply resource that is not contracted and whose operations have been suspended. That said, the process envisioned by the CASIO must allow a new procedure for terminating the suspension (an off-ramp) if in fact a contract develops. Again, the simple approach needs no off ramp, as a resource can contract at any point, assume the must-offer obligation and the sell right to be “shown” in a supply plan.



DCG - The current RA process requires LSEs to secure all local RA resources on a year-ahead basis for all 12 months, and 90% of their total forecasted load plus planning reserves for May through September for system RA resources. Any resource not committed for all months during a RA compliance period should have the option to suspend during part of the year when they are not committed under RA. This would include some of the months when the total quantity of RA required out of the system is lower than others. In other words, it is possible for a resource to only get contracted for a few of the peak months, and therefore desire ability to lay-up for the balance of the year.

NCPA - NCPA agrees that during the period of time when a Generating Unit has temporarily suspended operations, it should not be eligible to be used as a Resource Adequacy resource in a Resource Adequacy showing, for the defined period of the outage.

NRG - Agreed.

PG&E - Generally, PG&E believes that CAISO should incentivize participation in the market whenever possible. However PG&E requires additional information in order to comment on this issue. The CAISO's proposal should provide a comprehensive picture of the envisioned role of TSRO in the retention/retirement process the CAISO is proposing. There are annual and monthly RA showings, and more information is needed regarding the intended scope of this question.

Six Cities - A resource certainly should not be eligible to be used as an RA resource in an RA showing submitted after the ISO has allowed a temporary suspension of operation for the duration of the temporary suspension period. Moreover, the ISO should reject a request by a resource for permission to suspend operation during any period for which the resource has been included as an RA resource in an RA showing unless the resource provides substitute RA capacity. Subject to and following a one-month minimum suspension period, a resource should be permitted to end a suspension early in order to contract to provide RA capacity.

WPTF - A resource on a TSRO outage should not be able to be counted on as RA because it has no reliability obligations.

**7. A Generating Unit that has suspended operations in one balancing authority area and is now operating in an adjacent balancing authority area should not be able to be counted as a resource adequacy resource in the balancing authority area for which it has suspended operation during the time period for which it has suspended operations.**

Calpine - We agree that the capacity from a single resource cannot be "counted" in multiple balancing authority areas.

DCG - Additional clarity is need regarding "suspension" of resources that may move from being within one BAA to another, since a resource can only be subject to one BA at a time. This appears related to dynamic / pseudo-ties and the value of being located within one BA versus another. For some resources the optionality to change host BAs may be critical for their continued economic viability.

NCPA - A Generating Unit that has suspended operations in one balancing authority area, and is now operating in an adjacent balancing authority area should not be able to be counted as a Resource

Adequacy resource in the balancing authority area for which it has suspended operations during the time period for which it has suspended operations if the unit is now being claimed as “resource adequacy capacity” in the adjacent balancing authority area; provided, however, if the capacity of the resource is not otherwise committed to the adjacent balancing authority area, the resource should still be able to supply Resource Adequacy capacity to the CAISO balancing authority area as an import or other tariff authorized source (since unlike the alternative case described in the Issue Paper, the resource is still operationally available to the grid).

NRG - Agreed.

PG&E - PG&E requires additional information in order to comment on this issue. We request that CAISO provide an example of the scenario depicted here in its straw proposal.

Six Cities - The Six Cities do not understand why a resource that has switched operation from the ISO’s BAA to an adjacent BAA should not be eligible to be counted as an RA resource on the same basis and to the same extent as any other resource external to the ISO BAA (*i.e.*, in accordance with the RA provisions applicable to System Resources).

WPTF- Switching is appropriate to consider, albeit perhaps a secondary issue because it does not seem contentious.

## **Other Comments**

BAMx - There is a strong linkage between the stakeholder initiatives “Temporary Suspension of Resource Operations” and “Capacity Procurement Mechanism Risk-of-Retirement (“CPM ROR”) Process Enhancements.” In each case, the CAISO must make a determination whether certain generators must remain available to maintain system reliability that would otherwise shut down in response to market conditions. We expect this issue to become more acute as the state proceeds in achieving its GHG goals. The CAISO acknowledged the overlap in these initiatives during the respective stakeholder meetings, but offered that the schedules have been organized so that they run in parallel. Given the overlap and the similar schedules, the benefits of maintaining two separate initiatives with similar topics, similar stakeholders and closely scheduled stakeholder meetings appears to be inefficient. BAMx encourages the CAISO to reconsider its decision to split these initiatives.

CLECA recommends a holistic approach to determining future need for generation capacity. It is our observation that the CAISO’s latest initiatives such as the Risk of Retirement CPM and the Suspension of Operations aim at retaining fossil fuel capacity in an extra-regulatory manner by bypassing regulatory processes established by state law, specifically the CPUC’s RA process. With the anticipated retirement of Once-Through-Cooling plants in the next few years and increasing amounts of intermittent renewable resources, California may well experience increased need for economic flexible and local capacity in the long term. However, the CPUC’s Integrated Resource Planning (IRP) proceeding is expected to develop a long-term resource plan accounting for such future changes. The IRP might also outline California’s resource planning needs in the medium term. In fact, the CAISO itself has quoted the IRP proceeding as a justification for not developing a durable flexible capacity product, which stakeholders have been awaiting for the last few years. CLECA therefore recommends that in the meantime, the CAISO should only seek retention fossil resources once it has determined the need for attributes the resources can

provide. CLECA notes that the CEC and the CPUC recently held a joint workshop on the subject of the risk of retirement of power plants. CLECA recommends that the CAISO should work with these agencies to develop long term solutions to these challenges.

DGC - CAISO should review the RA NQC counting rules where past performance is used to set NQC. A unit that suspends operation should have the period of any suspension omitted from the NQC analysis. In other words, to the extent NQC is a function of operating at full capacity over certain hours of a month (or other calculation), resources that suspend operations should not face any NQC reduction or other penalty in terms of existing product certifications/eligibility. In many respects, the issues raised here are critical to the maintenance of system reliability during a period of tremendous technological change that was not contemplated during development of the current Tariff provisions. Given the continued evolution of the resource mix in California, and the likelihood that similar changes will be occurring throughout WECC, ensuring that existing resource sites remain viable as market conditions change is important to avoid unintended consequences. Similarly, suspension of operations may be a resource owner's only commercial option while regulatory changes on the procurement front are underway, as well as the potential to add or collocate certain non-combustion technologies at existing resource sites.

SDG&E - SDG&E believes that in order for a resource to request for a TSRO outage, it must have offered its capacity into the annual CPM CSP for that trade year. If the CAISO determines that the TSRO outage is denied for reliability, then the resource's offer price in the annual CSP should be used for the entire term of the outage. For each new trade year, the CAISO should reassess the reliability needs of the grid with the resource(s) on TSRO outage to ensure the most needed resource is available for reliability of the grid. This may mean that one resource's outage may be approved for its initial term, years one through three, but the outage is denied for year two based on the study results for year two in year one.

Six Cities - The Six Cities strongly disagree with and urge the ISO to reject the suggestion made during the May 19, 2017 stakeholder call that, rather than developing a process for allowing resources to temporarily suspend operation (or receive compensation if a request for permission to suspend operation is denied for reliability reasons), the ISO should simply eliminate any obligation for non-RA resources to comply with ISO dispatch instructions except in accordance with their own bids. Contrary to the assertion of the Calpine representative who made the suggestion during the stakeholder call, the suggested approach would not lead to the same result as implementing an orderly process and criteria for allowing (or disallowing) temporary suspensions of operation. There would be significant differences in terms of information available to the ISO, temporal differences, and differences in the ISO's ability to manage capacity potentially needed under stressed system conditions. If non-RA resources generally had no obligation to respond to an ISO Exceptional Dispatch instruction, any and all non-RA resources could decide whether or not to respond on a day-by-day or even interval-by-interval basis, and the ISO would have no ability to predict whether non-RA resources would or would not respond to Exceptional Dispatch instructions. In contrast, the ISO would be able to deny or limit a request for temporary suspension of a resource potentially needed for reliability (in effect issuing an advance CPM designation). And the ISO would be aware in advance that a resource permitted to implement a temporary suspension of operation would not be available for the duration of the allowed temporary suspension period and could plan and direct operations accordingly. Moreover, it is not accurate to characterize the obligation of non-RA resources to respond to Exceptional Dispatch instructions as "an uncompensated call option." Resources that connect to the ISO grid, including non-RA resources, have the continuing opportunity to engage in transactions using the grid. Except when exporting from the grid (for export transactions other than

through the Energy Imbalance Market), resources make no direct contribution to the fixed and variable costs of having and maintaining the transmission grid. Maintaining reliability of the grid under stressed conditions provides clear benefit to all resources that rely on the grid to do business. And when a non-RA resource responds to an Exceptional Dispatch instruction, it receives capacity payments under the CPM mechanism for either thirty or sixty days, as the FERC determined to be appropriate. The compensation for expecting non-RA resources to respond to Exceptional Dispatch instructions when they are physically able to do so and for which they will receive capacity payments for thirty or sixty days is the ability of those resources to rely on the grid for doing business whenever they choose to do so.

WPTF - It is perfectly rational for a non-RA resource to want to be relieved of their market obligation under current market rules and conditions. In the CCDEB initiative, ISO is proposing to explicitly limit start-up and minimum costs to only recover short-run variable costs and today implicitly imposes the return of short-run variable costs through the commitment cost offer cap. Many resources frequently run at minimum load or are dispatched down across the day during negative prices leading to BCR or low margins. If a non-RA resource cannot recover sufficient fixed costs in the energy market it is punitive to force them to have a de facto must offer obligation during unknown reliability events. This issue will only increase as negative prices become more prevalent. Additionally, EIM resource are allowed to “outage” their non-RA resources for any reason because there is no must-offer obligation. It seems like the ISO at a minimum should have to justify why there should be different treatment between the ISO’s BAA and EIM Entities BAAs non-RA resources. If ISO wants to limit the need for TSRO outages, they should focus on market rule reform that allows non-RA generators more freedom to control their commitment through offers. If a non-RA resource could reflect their willingness to provide energy through their start-up and minimum load costs, it may in fact be unnecessary to allow short-term TSRO outages and these outages could be for longer-term outages only.

## **Calpine’s Alternate Proposal**

Secular changes in the generation fleet are increasingly exposing resources to uneconomic operation during low-net-load periods of the year. Unfortunately, the tariff unavoidably obligates uncontracted and uneconomic Participating Generators to respond to (and therefore bear the costs of) Dispatch Instructions and Operating Orders every minute of every day in which a Participating Generator Agreement is in effect. For uncontracted resources, this obligation is forcing generators to provide capacity support to the system without compensation – in essence an uncompensated call-option on the facility. The CAISO proposes a complicated process to evaluate a request from an uncontracted Participating Generator to suspend operations. The proposal invokes many questions of overlap with other CAISO processes and places much of the discretion associated with asset disposition in the hands of the CAISO. We suggest a much simpler approach – one which relieves the uncontracted Participating Generator (specifically, those not “shown” in an RA Supply Plan) of the obligation to respond to Dispatch Instructions or Operating Orders.

### **The Key Driver: The PGA Binds a Generator to the CAISO Tariff, which Creates a Continuous Response Obligation.**

The execution of a Participating Generator Agreement (PGA) by itself obligates a Participating Generator to comply with all portions of CAISO tariff (Section 4.2).

**“4.2 Agreement Subject to CAISO Tariff.** The Parties will comply with all applicable provisions of the CAISO Tariff. This Agreement shall be subject to the CAISO Tariff which shall be deemed to be incorporated herein.”

The “applicable provisions” include, among other things, an obligation to continuously “Comply With Dispatch Instructions and Operating Orders” unless the resource is *physically* unable to do so (Tariff 4.2). In addition, such a resource is subject to Exceptional Dispatch (Tariff 34.11) and a Rule of Conduct requiring it to comply with operating orders (Tariff 37.2.1.1). Importantly, this obligation exists *whether or not* the unit has Resource Adequacy capacity contracts and the resultant must offer obligations. As such, the resource owner must be continuously staffed, and physically prepared to respond to CAISO Dispatch Instructions, whether or not the resource is receiving *any* – or adequate – revenues for standing ready to respond to CAISO dispatch. Uncontracted resources seeking to avoid CAISO dispatch can do so largely, but not entirely, by not submitting bids to the market. However, regardless of whether the unit submits a bid or not, the CAISO has unfettered discretion to reach out to the resource and issue an Exceptional Dispatch Instruction. As exposed by the La Paloma filing, the only path to complete avoidance of Dispatch Instructions – and therefore avoidance of Rules of Conduct violations -- today is to terminate the PGA entirely.

### **The Tariff Grants the CAISO an Unjust and Unreasonable “Call Option”**

A long-standing and often controversial provision intertwined within the tariff is the CAISO’s discretionary use of Exceptional Dispatches. The CAISO has conditioned participation in the market (through the PGA and its obligations to follow the tariff) upon the ability to call upon any resource at any time, but it has done so without any reasonable compensation. In its essence, an Exceptional Dispatch is an uncompensated call-option on the capacity of a resource. In the power marketing context, a call option grants one party the right to call upon (i.e., dispatch) a resource at the buyer’s discretion, but with appropriate compensation to the resource owner for this optionality. The compensation is provided *ex ante* and the payment for the transfer of dispatch rights is paid regardless of whether or not the capacity is ultimately called to operate (i.e., dispatched). In the CAISO tariff, this (Exceptional) call option is real and present, but not compensated unless called upon. That is, the only time a resource is compensated is when the non-RA resource receives a Dispatch Instruction and it is paid *ex post* through the provisions of section 43A of the tariff (CPM) – and then payment is only for that particular dispatch, without compensation for the time period in which the resource stood ready to receive the call. Thus, the resource owner receives no compensation for the option it is providing to the CAISO. Calpine believes that the secular shifts in resource technologies that have occurred over the last several years have amplified the unjust and unreasonable aspects of this uncompensated call option. We appreciate the CAISO’s efforts to remedy this injustice.

### **Two Paths to Relief; One Complicated, One Simple**

The CAISO could address this uncompensated call by creating new complicated administrative processes (as proposed in the Issue Paper) or by simply exempting resources that are not shown in an RA supply plan from the response obligation. In its Issue Paper, the CAISO posits a detailed submission, then review, and subsequent possible compensation, process for evaluating units that seek a temporary suspension of operations – in effect an administrative vehicle to avoid the uncompensated call option of the CAISO. In the jargon of the La Paloma case, this was patterned as an “economic outage”. In this

proposal, the unit would be unavailable for CAISO dispatch, just like a unit undergoing a planned or forced outage<sup>2</sup>. In the CAISO's proposal, presumably, the unit would be unable to submit bids or operate – even if market conditions suggest that voluntary bidding would be optimal.

This process is wrought with unexplored details some of which are included in the Issue Paper (addressed below) and some of which were identified in the workshop, such as:

- What reliability studies would be made?
- What assumptions should be made in those studies?
- How and when would requests be clustered when several resources seek suspension at the same time?
- Which resources would be allowed to cease operation and which ones would be required to remain operational?
- Should responses to Exceptional Dispatch for resources on suspension be “best efforts”?
- Should a resource be able to toggle between operating and not operating for the specified term of an economic outage, or once the resource decides to operate, need it reapply to go back on economic outage again?
- If resources on economic outage are allowed to operate, would suspensions (“economic outages”) have to be tracked differently from other outages because OMS currently tracks only those resources are *physically* unavailable to operate?

These and other questions raise challenging process, implementation and timing issues that make the proposed process fraught with potential challenges.

The other, much simpler path would be to eliminate the Dispatch Instruction “response obligation” for resources that are not a part of the RA Supply showings (which, of course, include a planning reserve margin) or not otherwise contracted for operation. These resources would then be able to suspend operations in whole or in part without fear of non-compliance. Beneficially, they would be able to bid and operate when and if the resource owner, alone, concludes that market conditions make operation optimal but importantly, they would no longer be generally available to the CAISO. Of course, under these conditions, these resources would be required to respond to Dispatch Instructions that resulted from their voluntarily submitted bids.

### **Units Not Included in RA Supply Plans Should Not be Depended Upon in Reliability Planning**

Of the outstanding matters that came up on the stakeholder call, however, one seems clear to Calpine. That is, units that do not have bilateral or CAISO contracts – should not be relied upon in planning or managing the reliability of the CAISO grid. Specifically, in planning for fires, wires down and other routine contingencies, the CASIO should not depend upon uncontracted or more specifically, uncompensated resources.