

January 27, 2017

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Re: **California Independent System Operator Corporation**  
**Docket No. ER17\_\_\_\_-000**

**Tariff Amendment to Modify Outage Coordination Procedures  
Consistent with Peak Reliability's Implementation of NERC Reliability  
Standard IRO-017-1**

Dear Secretary Bose:

The California Independent System Operation Corporation (CAISO) respectfully requests that the Commission issue an order by March 28, 2017, approving the proposed revisions to the outage coordination provisions of the CAISO tariff.<sup>1</sup> These revisions are necessary to conform the CAISO tariff to Peak Reliability's implementation of North American Electric Reliability Corporation (NERC) standard IRO-017-1.<sup>2</sup> This standard has an April 1, 2017, mandatory compliance date. The CAISO accordingly requests an effective date of April 1, 2017, for these amendments.

## **I. Background**

On November 19, 2015, the Commission approved revisions to the transmission operations and interconnection reliability operations and coordination reliability standards, developed by NERC. Among the standards

---

<sup>1</sup> The CAISO submits this filing pursuant to Section 205 of the Federal Power Act, 16 USC § 824d, Part 35 of the Commission's Regulations, 18 C.F.R. § 35, *et seq.*, and rules 207, and 602 of the Commission's Rules of Practice and Procedure, 18 CFR §§ 385.207 and 385.602. The Capitalized terms not otherwise defined herein have the meanings set forth in the CAISO tariff, and references to specific sections, articles, and appendices are references to sections, articles, and appendices in the current CAISO tariff and revised or proposed in this filing, unless otherwise indicated. Capitalized terms used in quotations from NERC standards or Peak Reliability technical documentation have the meanings as set forth in the applicable NERC or Peak documents.

<sup>2</sup> *Transmission Operations Reliability Standards & Interconnection Reliability Operations & Coordination Reliability Standards*, 153 FERC ¶ 61178 (2015).

approved at that time was IRO-017-1, which was a new standard focused on ensuring that outages are coordinated properly in the operations planning time horizon and near-term transmission planning horizon.<sup>3</sup> The standard contains four separate rules, focusing on the reliability coordinator's responsibility for implementing an outage coordination process with the transmission operators, balancing authorities, planning coordinators, and transmission planners within its reliability coordinator area.<sup>4</sup>

As the revised standards were close to being finalized with the Commission, Peak Reliability, the reliability coordinator in whose reliability coordinator area the CAISO resides, began its stakeholder process on implementing the soon-to-be approved IRO-017-1.<sup>5</sup> That process began in September 2015 and concluded in October 2016 with Peak's publication of the final version of its "Outage Coordination Process" technical documentation.<sup>6</sup> With respect to the CAISO, the primary change to the maintenance outage process going forward is that generator and transmission outages on the bulk electric system will require separate approval from both the CAISO and Peak before the generator or transmission operator may take the outage. Under the new process, generators and transmission operators will submit outage requests to the CAISO, as is the case now. The CAISO will study those requests. If the CAISO approves the requests, then the CAISO will forward the outage request to Peak for Peak to conduct its separate review.

The CAISO participated throughout Peak's process and supports the outcome.

## **II. Discussion of Tariff Amendment**

With Peak finalizing its implementation of IRO-017-1, the CAISO now must revise the outage coordination provisions in section 9 of its tariff to ensure alignment with IRO-017-1 and Peak's implementation of that NERC rule. In considering the needed revisions, the CAISO faced three key questions:

---

<sup>3</sup> *Transmission Operations Reliability Standards & Interconnection Reliability Operations & Coordination Reliability Standards*, Petition of the North American Electric Reliability Corporation, at 34, FERC Docket No. RM15-16-000 (Mar. 18, 2015).

<sup>4</sup> The full standard is available on the NERC website at <http://www.nerc.com/pa/Stand/Reliability%20Standards/IRO-017-1.pdf>.

<sup>5</sup> Details of Peak's stakeholder process are available at <https://www.peakrc.com/whatwedo/IRO017/Pages/default.aspx>.

<sup>6</sup> Peak's final outage process is available at [https://www.peakrc.com/whatwedo/IRO017/Documents/Outage%20Coordination%20Process%20Document%20-%20Final\\_10-03-2016.pdf](https://www.peakrc.com/whatwedo/IRO017/Documents/Outage%20Coordination%20Process%20Document%20-%20Final_10-03-2016.pdf).

1. Should the CAISO continue to review maintenance outages or defer entirely to Peak's outage review process?
2. Should the CAISO change the tariff-defined deadline for submitting maintenance outages?
3. Should the CAISO tariff prevent a generator or transmission operator from taking a maintenance outage without also securing separate approval from Peak?

**A. CAISO Will Maintain Separate Outage Approval Authority**

The CAISO faced a threshold question of whether it could defer to Peak's new outage coordination process for maintenance outages and eliminate its tariff authority over reviewing maintenance outages. The CAISO does not find it prudent to shirk the outage review responsibilities it holds in its role as the transmission operator (in the case of transmission outages) and balancing authority (in the case of generation outages). The technical focus of the CAISO's outage analysis and the analysis that Peak will conduct, while similar, will not be identical. Even with Peak conducting its own outage assessments, the CAISO will continue to require timely and accurate information regarding the availability or outage of transmission facilities and generating units to run its models, optimize market solutions, and reliably operate the grid. Thus, there was no question that there would be two levels of review for maintenance outages and that section 9 of the CAISO tariff would not change fundamentally.

**B. CAISO Will Maintain Eight-Day Maintenance Outage Deadline**

The next issue the CAISO had to consider was whether the existing deadline for requesting maintenance outages would need to change. Sections 9.3.6.3.1 and 9.3.6.3.2 of the CAISO tariff establish an eight-day deadline for requesting maintenance outages on generation and transmission facilities, respectively. A request made with less notice is characterized as a forced outage under the CAISO tariff. With two levels of review, eight days will not provide sufficient lead-time for both the CAISO and Peak to conduct the needed review.

While the Peak stakeholder process was under way, the CAISO and many of its market participants generally agreed that in most cases 24-days' notice to the CAISO for maintenance outages would provide sufficient minimum lead-time for the CAISO to evaluate the outage and forward the request to Peak for Peak to conduct its separate outage review. This is based on a combination of the CAISO's needed review time and Peak's new process. Peak will review planned outages in two time windows: (1) the long-range study window process; and (2)

the short-range study window process.<sup>7</sup> The short-range window occurs closer to the operating day and generally would be the last opportunity for Peak to review a maintenance outage from the CAISO.

Peak's short-range window will study outages in rolling weekly blocks. Outages not already approved in the long-range window and planned for a given week (Monday to Sunday) must be submitted to Peak by the prior Monday morning. The CAISO will submit these outage requests to Peak on behalf of the participants. The CAISO in turn needs to reserve for itself five business days after the day the participant submits the outage to the CAISO to review an outage before passing it on to Peak for its review.<sup>8</sup> With these two constraints combined, requests for maintenance outages would require between 18 and 24 calendar days of lead-time, assuming no holiday.

An example can best illustrate the interplay between the deadlines. Consider a request to take a maintenance outage on April 30 (Sunday). Peak would need to consider that outage in its short-range window covering the week running from April 24 (Monday) through April 30 (Sunday). Peak's deadline for reviewing requested outages for that week would be April 17 (Monday). To provide the CAISO five full business days to review that requested outage in advance of the Peak outage deadline, the request would have to be submitted to the CAISO by April 7. Including the day of outage submission, April 7 is 24 days before April 30. Had the outage been requested for the Monday of the week, *i.e.*, April 24, then the CAISO would only have required 18 calendar days lead-time for the outage to be processed through both levels of review.

Although the current eight-day tariff deadline does not provide sufficient lead-time, for several reasons the CAISO nevertheless will maintain that deadline in the tariff rather than amend the tariff to require participants to: schedule maintenance outages with 24 calendar days lead-time; or schedule maintenance outages on the sixth business day before Peak's deadline.

First, Peak's outage approval process is subject to change. What is for now understood to be, at most, a 24-day deadline may evolve over time. It would not be efficient for the CAISO or its participants if the CAISO had to amend its tariff as Peak's process adapted to meet Peak's needs and the needs of all parties within its reliability coordinator area, only some of which have any involvement with the CAISO. This concern over the tariff impacts from the possible evolution of Peak's standards is of particular concern because the maintenance outage reporting deadline is the basis of several other requirements

---

<sup>7</sup> Peak's final study window is the operational planning analysis window, which does not relate to the tariff amendments proposed in this filing.

<sup>8</sup> This five-business-day requirement is functionally equivalent to the current eight-calendar-day requirement in the CAISO tariff.

in section 9 related to resource adequacy.<sup>9</sup> For this same reason, the CAISO did not structure the tariff deadline as a given number of days before Peak's deadline. Although the deadline published in the business practice manual almost certainly will be established in such a manner, unanticipated changes to Peak's standards may make a strict relationship between the two deadlines impractical. Again, this is a case where it would be inappropriate to embed a specific external standard into the CAISO tariff in this way.

Second, even if the CAISO changed the timeline to 24 days (or five business days before Peak's deadline), the CAISO could not guarantee that all of the necessary outage evaluations would occur in time because that expanded timeframe is based on Peak's analysis. In changing to a 24-day deadline, the CAISO did not want to send a message inadvertently that if an outage were submitted to the CAISO by that deadline then it would be guaranteed for review in time by both the CAISO and Peak. The CAISO did not find it appropriate to commit to a tariff-based deadline when part of the process rests with a third party.

Third, the CAISO still will only require the eight-day lead-time to ensure that the CAISO can complete the CAISO evaluation. Implementation of IRO-017-1 does not change the nature of what the CAISO needs to do to conduct its evaluation. The CAISO finds it is most appropriate for the tariff deadline to reflect the CAISO's own needs and constraints.

In maintaining the eight-day tariff deadline, the CAISO also was mindful of not letting its tariff become misleading in suggesting that meeting the eight-day tariff deadline would guarantee sufficient time for the CAISO and Peak to review the requested outage as a maintenance outage—merely meeting the tariff deadline almost certainly will not provide sufficient time. To address this concern the CAISO proposes to amend both sections 9.3.6.3.1 and 9.3.6.3.2 to include an admonition that meeting the tariff deadline “does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date” and to consult the business practice manual for additional detail about the relationship between the two outage processes. The CAISO anticipates that the business practice manual initially will advise participants to submit requests for maintenance outages to the CAISO no less than five business days before the close of Peak's applicable short-range window. This approach strikes the proper balance between recognizing the reality of the new dual-approval regime while not embedding Peak's subject-to-change procedures in the CAISO tariff.

---

<sup>9</sup> See, e.g., CAISO tariff section 9.3.1.3.3.3 & 9.3.6.3.1.

**C. Failure to Secure Approval from Peak Will Constitute Violation of CAISO Tariff**

In considering Peak's implementation of IRO-017-1, the final issue the CAISO considered was whether the CAISO tariff should address cases where a transmission operator or generator takes an outage that the CAISO has approved but Peak has either rejected or never approved. The CAISO could have left the matter unaddressed, leaving any such instance as a standalone reliability standards compliance issue. The CAISO, however, chose not to pursue this option and instead proposes to amend its tariff to connect the CAISO's outage approval authority to Peak's authority. The CAISO seeks to amend section 9.3.9 of its tariff to preclude transmission operators or generators from requesting the required final approval on the day an outage is meant to start unless Peak has already approved the outage. Separately, the CAISO proposes to amend section 9.3.7 to clarify that the CAISO has authority to cancel an approved outage if Peak later rejects the outage.

With one exception, section 9.3.9 of the CAISO tariff requires the transmission operator or generator for a transmission or generation asset, respectively, with an approved maintenance outage to request final approval to take the outage on the day the outage is scheduled to begin. Section 9.3.9 is clear that "[n]o Maintenance Outage shall commence without such final approval . . . being obtained from the CAISO . . . ." The CAISO proposes to amend section 9.3.9 to additionally provide: "Where a Maintenance Outage requires separate approval from the Reliability Coordinator, the Operator may not request final approval of the Maintenance Outage unless the Reliability Coordinator separately has approved the requested Maintenance Outage." With this amendment, a transmission operator or generator would violate the CAISO tariff if it took a maintenance outage without receiving approval from both the CAISO and Peak.<sup>10</sup>

The limited exception to the general rule in section 9.3.9 is in section 9.3.9.1, which provides the CAISO authority to approve some transmission outages without requiring final approval. The existing tariff language states that the determination is based on factors listed in the business practice manual "and the expected impact of the outage on system conditions and the risk to system reliability." The CAISO proposes to add to that list of factors "the Reliability Coordinator's separate Outage approval process." The addition of this factor clarifies that in determining whether an outage may proceed without final approval, the CAISO may factor into its decision issues such as whether the

---

<sup>10</sup> This filing does not propose any amendments to section 37 of the CAISO tariff. That section includes defined consequences for specific tariff violations. Any maintenance outage taken without approval from both the CAISO and Peak would be treated under the tariff generally as a "Market Violation" subject to potential referral by the CAISO's Department of Market Monitoring under the procedures established in Appendix P of the CAISO tariff.

outage also requires Peak's approval and how long the Peak process might be expected to take.

Section 9.3.7 of the CAISO tariff grants the CAISO authority to request that a transmission operator or generator either take a maintenance outage or change a previously-scheduled outage. Section 9.3.7.1 then provides operators three choices: "(1) refuse the request; (2) agree to the request; or (3) agree to the request subject to specific conditions." The CAISO proposes to amend section 9.3.7 to clarify that it "may direct the Operator to cancel an Approved Maintenance Outage if the Reliability Coordinator has rejected the Outage request through the Reliability Coordinator's separate Outage approval process." The CAISO also proposes to amend section 9.3.7.1 to make compliance with an outage cancellation under these circumstances non-discretionary – "the Operator may not refuse the CAISO request if the request is made because the Reliability Coordinator has rejected the Outage request."

The amendments in section 9.3.7 and 9.3.7.1 permit the CAISO to clear out Peak-rejected outages before, per amended section 9.3.9, it comes time for the operator to request final approval on the day of the outage. Rather than wait until the last minute, the CAISO would be able to clear out from the outage management queue outages that it knows will not proceed. Although the amendment to section 9.3.7 uses the permissive "may direct," rather than the obligatory "shall direct" or "will direct," the CAISO intends to exercise this authority whenever it is able. The CAISO will not necessarily have a perfect flow of information from Peak. In some cases the CAISO may not know that an outage it approved subsequently was rejected by Peak. For that reason, the CAISO was not prepared to take on a tariff-based obligation to cancel such outages. However, when the CAISO knows that Peak has rejected a CAISO-approved outage, the CAISO intends to exercise this cancellation authority.

#### **D. Other Related Amendments**

Aside from the core amendments prompted by Peak's implementation of IRO-017-1, the CAISO also proposes several other related amendments.

Section 9.3.6.2 requires that "each Participating Generator shall notify the CAISO in writing of any known changes to a Generating Unit or System Unit Outage scheduled to occur within the next ninety" days. Section 9.3.6.1 has a similar, but slightly different, requirement that generators and transmission operators provide quarterly updates to the annual long-range outage plans required by October 15 of each year to cover the following calendar year. There is limited value in having both requirements. Also, the 90-day look ahead period does not align with the timing of the long-range study window process Peak is implementing per IRO-017-1, particularly with respect to changes to already-scheduled outages. Accordingly, the CAISO proposes to remove the quarterly

updates required in section 9.3.6.1, implement a look ahead period published in the relevant business practice manuals that can be adjusted as Peak's standards change over time, and ensure that section 9.3.6.2 also applies to transmission outages.

Peak's long-range window is the first time Peak reviews generation or transmission outages, with the short-range window being the second. The long-range window studies outages in rolling monthly blocks. Outages planned for any point in a given calendar month must be submitted to Peak by the first day of the calendar month three months before. The CAISO in turn needs to reserve for itself a month after the day the participant submits the outage to the CAISO to review a long-range outage before passing it on to Peak for its review.<sup>11</sup> For example, to be considered in Peak's long-range review process, any proposed outage (or proposed change to an already-approved outage) in April would be due to Peak by January 1. For the CAISO to have sufficient time to study an outage or change to an existing outage in April, the CAISO would need to have the request submitted to it by December 1.

Depending on where in the month the requested outage lies, the CAISO will need between approximately 120 and 150 days of advanced notice of changes to long-range outages to ensure the CAISO can review those proposed outage changes and pass them along to Peak for Peak to review those outages in its long-range review process. If the generator or transmission operator notified the CAISO of a change in a scheduled outage with 90 days' lead-time, the CAISO could review the change but it could not pass the outage to Peak until the short-range window for the week in which the outage was requested opened. With only a 90-day look ahead the CAISO still has the benefit of enhanced situational awareness from advanced notice of intended changes to outages, but Peak will not benefit because it will not review the outage until the short-range window opens and the generator or transmission operator will not have the benefit of having any form of outage approval confirmation until the short-range window is completed. This could be with as little notice as a week before the outage is meant to start even though the request to change the outage was submitted to the CAISO 90 days in advance and the initial outage request may have been made over a year earlier as part of the annual outage plan.

If the CAISO is to have a long-range advanced notice requirement, it is more sensible to ensure that its timing aligns with Peak's long-range window so

---

<sup>11</sup> The longer CAISO lead-time (one month) to review outages and changes to already-scheduled outages in the long-range timeframe as compared to the CAISO lead-time needed for more basic maintenance outages (five business days) is because outages submitted in the long-range timeframe tend to involve more critical equipment, capital projects, long duration equipment outages, overlapping outages affecting multiple transfer corridors or area generation simultaneously, etc.. These more complicated outages require more analysis and coordination to evaluate.

that outage requests do not sit in extended limbo between the CAISO and Peak. Unlike with the eight-day outage reporting deadline which, as noted above, also has implications for resource adequacy provisions, the look ahead period is a standalone provision. For this reason, the CAISO proposes to strike it from the tariff entirely and defer publication of the lead-time for the long-range look ahead to the applicable business practice manuals. As is the case with the amendments in sections 9.3.6.3.1 and 9.3.6.3.2, because the Peak process is subject to change and the CAISO cannot warrant the timeliness of a third party's conduct it would not be prudent for the CAISO to include the specific term of the look ahead period in the tariff. The CAISO anticipates, however, that the business practice manual initially will set the look ahead period at one calendar month before the close of each of Peak's long-range study windows.

In association with the amendment to section 9.3.6.2, the CAISO will eliminate the requirement in section 9.3.6.1 that generators and transmission operators provide quarterly updates to the annual long-range outage plans required by October 15 of each year. In moving to a longer look ahead period that effectively will vary between 120 and 150 days, the CAISO no longer views the quarterly updates as necessary, largely because the reporting timelines would overlap as would the changes to already-scheduled outages. The CAISO's interests would not be served by both a rolling 150- to 120-day look ahead and a quarterly update January 15, April 15, July 15, and the annual plan on October 15. Given the additional compliance burden market participants may face with IRO-017-1, the CAISO is comfortable with removing the requirement for quarterly updates.

Finally, unrelated to outage reporting, the CAISO is also proposing minor revisions to clarify section 9, sections 4.4.2, 4.9.4, 4.11.3, portions of Appendix A, and a portion of Appendix G. The clarifications include removing cross-references of the term "CAISO Outage Coordination Office," correction to cross-reference citations, grammar, punctuation, typographical errors, and the correction of defined terms in the CAISO tariff. Furthermore, sections 9.3.1, 9.3.5, 9.3.6, and 9.3.7 are being modified and relocated in order to reconcile the eTariff record. CAISO also has removed references in section 9 and elsewhere in the tariff to the "CAISO Outage Coordination Office." This is an anachronistic reference to a specific office at the CAISO that no longer exists as a standalone business unit. The CAISO proposes to refer generally to the CAISO in all instances where the tariff currently refers to the Outage Coordination Office.

### **III. Stakeholder Process**

These tariff amendments largely are being made to facilitate the outcome of Peak's stakeholder process to implement IRO-017-1. The CAISO nevertheless informally encouraged its stakeholders to be mindful of the evolving Peak process and participate in that process as they saw appropriate.

Additionally, the CAISO participated in Peak's stakeholder process to ensure that the interests of the overall CAISO market were represented. Once the details of Peak's implementation were finalized, the CAISO began a tariff stakeholder process.<sup>12</sup> This began on December 13, 2016, with the CAISO's publication of draft tariff language, followed by a stakeholder teleconference on January 4, 2017, to review the draft language. No stakeholders submitted written comments on the draft tariff language and none expressed concern during the teleconference with the CAISO's draft tariff.

The CAISO notes that the tariff language presented for stakeholder review in section 9.3.6.2 offered a firm look ahead period of 120 days, rather than one that defers to the business practice manual. This earlier proposed look ahead period was based on a misreading of Peak's IRO-017-1 implementation and the overlapping review timelines between the CAISO and Peak.

#### **IV. EFFECTIVE DATE**

The CAISO respectfully requests that the Commission issue an order by March 28, 2017, approving the tariff revisions contained in this filing effective April 1, 2017. An April 1 effective date is necessary to ensure that the CAISO tariff will align with Peak's mandatory compliance date for IRO-017-1.

#### **V. COMMUNICATIONS**

Pursuant to Rule 203(b)(3) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 203(b)(3), please provide all correspondence and other communications to the following individual, whose name appears on the official service list established by the Commission with respect to this filing:

David S. Zlotlow  
Senior Counsel  
California Independent System  
Operator Corporation  
250 Outcropping Way  
Folsom, CA 95630  
Tel: (916) 608-7007  
Fax: (916) 608-7222  
[dzlotlow@caiso.com](mailto:dzlotlow@caiso.com)

---

<sup>12</sup> Details of the CAISO tariff stakeholder process leading to this filing are available at <http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=B313FC5B-E0A3-4699-9E15-B332A5D97333>.

## **VI. SERVICE**

The CAISO has served copies of this filing on the California Public Utilities Commission, the California Energy Commission, and all parties with Scheduling Coordinator Agreements under the CAISO tariff. In addition, the CAISO has posted a copy of the filing on the CAISO website.

## **VII. CONTENTS OF FILING**

In addition to this transmittal letter, this filing includes the following attachments:

- Attachment A – Clean CAISO tariff sheets incorporating this tariff amendment.
- Attachment B – Red-lined document showing the revisions contained in this tariff amendment.

## **VIII. CONCLUSION**

For the reasons set forth in this filing, the CAISO respectfully requests that the Commission issue an order by March 28, 2017, accepting the tariff changes contained in this filing.

Respectfully submitted,

**By: /s/ David S. Zlotlow**

Roger E. Collanton

General Counsel

Anna A. McKenna

Assistant General Counsel

David S. Zlotlow

Senior Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Tel: (916) 608-7007

Fax: (916) 608-7222

[dzlotlow@caiso.com](mailto:dzlotlow@caiso.com)

Counsel for the California Independent System  
Operator Corporation

**Attachment A – Clean Tariff Records**  
**Tariff Amendment to Modify Outage Coordination Procedures**  
**Consistent with NERC Reliability Standards**  
**California Independent System Operator Corporation**

#### **4.4.2 UDC Responsibilities**

Recognizing the CAISO's duty to ensure efficient use and reliable operation of the CAISO

Controlled Grid consistent with the Applicable Reliability Criteria, each UDC shall:

- (a) operate and maintain its facilities, in accordance with the applicable safety and reliability standards, regulatory requirements, applicable operating guidelines, applicable rates, tariffs, statutes and regulations governing its provision of service to its End-Use Customers and Good Utility Practice so as to avoid any material adverse impact on the CAISO Controlled Grid;
- (b) provide the CAISO each year with a schedule of upcoming maintenance (including all equipment Outages) that has a reasonable potential of impacting the CAISO Controlled Grid in accordance with Section 9.3.6 and in accordance with the other scheduling procedures described in the CAISO Tariff;
- (c) coordinate with the CAISO, Participating TOs, and Generators to ensure that the CAISO Controlled Grid Critical Protective Systems, including relay systems, are installed and maintained in order to function on a coordinated and complementary basis with UDCs', Generators', and Participating TOs' protective systems.
- (d) coordinate any requests for emergency Outages on point of interconnection equipment directly with the appropriate CAISO Control Center as specified in Section 7.1.

\* \* \* \*

#### **4.9.4 MSS Operator Responsibilities**

\* \* \* \*

**4.9.4.2** provide the CAISO each year with a schedule of upcoming maintenance of facilities forming part of the MSS that will affect, or is reasonably likely to affect, the CAISO Controlled Grid in accordance with Section 9.3.6;

**4.9.4.3** coordinate with the CAISO, Participating TOs, and Generators to ensure that the CAISO Controlled Grid Critical Protective Systems, including relay systems, are installed and maintained in order to function on a coordinated and complementary basis with the protective systems of the MSS, Participating TOs, and Generators, and notify the CAISO as soon as is reasonably possible of any condition that it becomes aware of that may compromise the CAISO Controlled Grid Critical Protective Systems;

\* \* \* \*

**4.9.4.6** be responsible for Congestion Management and transmission line Outages within or at the boundary of the MSS, and all associated costs of actions the MSS Operator has to take to resolve such Congestion internal to the MSS and not be responsible for Congestion Management elsewhere, except to the extent that a Scheduling Coordinator is delivering Energy, Ancillary Services, or RUC Capacity to or from the MSS. An MSS Operator must notify and communicate with the CAISO regarding transmission line Outages to the extent such Outages impact the CAISO Controlled Grid.

\* \* \* \*

### **4.11.3 SUDC Responsibilities**

Recognizing the CAISO's duty to ensure efficient use and reliable operation of the CAISO Balancing Authority Area and the CAISO Controlled Grid consistent with the Applicable Reliability Criteria, each SUDC shall:

**4.11.3.1** operate and maintain its Distribution System in accordance with the applicable reliability standards, statutes and regulations, and Good Utility Practice so as to avoid any material adverse impact on the reliability of the CAISO Balancing Authority Area and the CAISO Controlled Grid;  
and

**4.11.3.2** provide the CAISO each year with a schedule of upcoming maintenance on its

transmission interconnection facilities with the CAISO Controlled Grid that has a reasonable potential of causing a material adverse impact to the reliability of the CAISO Controlled Grid.

\* \* \* \*

## **9.1 Coordination And Approval For Outages**

In accordance with the Applicable Reliability Criteria, the CAISO shall have authority to coordinate and approve Outages and returns to service of all facilities comprised in the CAISO Controlled Grid and Reliability Must-Run Units in accordance with Section 9.3. The CAISO will coordinate and approve Maintenance Outages and coordinate responses to Forced Outages of all transmission facilities in the CAISO Controlled Grid and Reliability Must-Run Units in accordance with this Section 9. Any scheduled Outages that are cancelled by CAISO Real-Time operations due to system requirements must be rescheduled with the CAISO in accordance with Section 9.3.

\* \* \* \*

### **9.3.1 CAISO Outage Coordination Functions**

\* \* \* \*

#### **9.3.1.3 Coordinating Maintenance Outages of RA Resources**

In performing outage coordination management under Section 9, and this Section 9.3.1.3, the CAISO may take into consideration the status of a Generating Unit as a Resource Adequacy Resource. The CAISO may deny, reschedule or cancel an Approved Maintenance Outage for facilities that comprise the CAISO Controlled Grid or Generating Units of Participating Generators if it determines that the outage is likely to have a detrimental effect on the availability of Resource Adequacy Capacity or the efficient use and reliable operation of the CAISO Controlled Grid or the facilities of a Connected Entity.

\* \* \* \*

#### **9.3.1.3.1.3 Optional List of Specified RA Replacement Capacity**

A Scheduling Coordinator for a Load Serving Entity may include with a monthly Resource Adequacy Plan a list of Specified RA Replacement Capacity for the CAISO's use as RA Replacement Capacity to replace specific Resource Adequacy Capacity identified by the Load Serving Entity that is in its Resource Adequacy Plan, and that is scheduled to take an Approved Maintenance Outage during the month, as provided in Sections 9.3.1.3.2.2 and 40.2.2.4. If the Scheduling Coordinator for a Load Serving Entity opts to include a list of Specified RA Replacement Capacity, the CAISO, in its discretion, will use the specified capacity as RA Replacement Capacity to automatically replace the identified Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan in the amount and for the days specified by the Load Serving Entity that the Resource Adequacy Resource is scheduled to take an Approved Maintenance Outage during the month. The Specified RA Replacement Capacity will not be subject to the must-offer obligations in Section 40.6, nor the standard capacity product provisions in Section 40.9, unless the specified capacity is used by the CAISO as RA Replacement Capacity as provided in Section 9.3.1.3.2.2. The list of Specified RA Replacement Capacity included with a monthly Resource Adequacy Plan shall:

- (a) Identify the resource being replaced,
- (b) Identify the resource that will provide the Specified RA Replacement Capacity, the MW amount and time period of the replacement, and other information as may be required in the Business Practice Manuals, and
- (c) Be submitted in the format required by the Business Practice Manual.

#### **9.3.1.3.1.4 Optional List of Non-Specified RA Capacity**

A Scheduling Coordinator for a Load Serving Entity may include with a monthly Resource Adequacy Plan a list of Non-Specified RA Capacity for the CAISO's use as RA Replacement Capacity to replace Resource Adequacy Capacity included in that Load Serving Entity's monthly Resource Adequacy Plan that is scheduled to take an Approved Maintenance Outage during the month, as provided in Sections 9.3.1.3.2.3, 9.3.1.3.2.4, and 40.2.2.4. If the Scheduling Coordinator for a Load Serving Entity opts to include a list of Non-Specified RA Capacity in its

Resource Adequacy Plan, the CAISO, in its discretion, will select capacity from the list and use the selected capacity as RA Replacement Capacity to automatically replace Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan in the amount and for the days on which the CAISO's validation of the plan determines that the designated capacity scheduled to take an Approved Maintenance Outage during the resource adequacy month must be replaced. The listed Non-Specified RA Capacity will not be subject to the must-offer obligations in Section 40.6, nor the standard capacity product provisions in Section 40.9, unless the Non-Specified Capacity is selected by the CAISO and used as RA Replacement Capacity as provided in Section 9.3.1.3.2.4. The list of Non-Specified RA Capacity included with a monthly Resource Adequacy Plan shall:

- (a) Rank each resource that has available Non-Specified RA Capacity in the order of use preferred by the Load Serving Entity;
- (b) Provide the identity of the resource, the MW amount of available capacity, the time periods when the capacity is available, and other information as may be specified in the Business Practice Manual;
- (c) Indicate the willingness of the Load Serving Entity to offer each resource that has available Non-Specified RA Capacity for procurement as backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43A; and
- (d) Be submitted in the format required by the Business Practice Manuals.

\* \* \* \*

#### **9.3.1.3.2.4 Replacement By Non-Specified RA Replacement Capacity**

For each day of the month where the CAISO determines under Section 9.3.1.3.2.3 that replacement is required of Resource Adequacy Capacity scheduled to take an Approved Maintenance Outage, the CAISO may replace the unavailable capacity with Non-Specified RA Replacement Capacity as follows:

- (a) The CAISO will identify each Load Serving Entity that did not include in its monthly Resource Adequacy Plan available Resource Adequacy Capacity for each day in a MW amount equal to or greater than its applicable forecasted

monthly Demand Reserve Margin, and will verify whether each such Load Serving Entity provided a list of Non-Specified RA Replacement Capacity with its plan.

- (b) To the extent that a Load Serving Entity provided a list of Non-Specified Replacement Capacity, the CAISO during the replacement process set forth in Section 9.3.1.3.2.3 will select capacity, in its discretion, from the list and use the selected capacity as RA Replacement Capacity to automatically replace unavailable Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan for each day where the CAISO determines that replacement is required.
- (c) The CAISO will verify whether the Non-Specified RA Replacement Capacity on each list is available during the replacement period and replace the unavailable capacity in the Resource Adequacy Plan with available Non-Specified RA Replacement Capacity. The CAISO will not accept Non-Specified RA Replacement Capacity that is unavailable during the replacement period.
- (d) The CAISO will notify the Scheduling Coordinator for the Load Serving Entity and the Scheduling Coordinator for the resource providing the Non-Specified RA Replacement Capacity that the Non-Specified RA Replacement Capacity has been selected as RA Replacement Capacity. The Scheduling Coordinator for the resource providing the Non-Specified RA Replacement Capacity must verify its agreement to provide the Non-Specified RA Replacement Capacity.
- (e) For the duration of the period that the Non-Specified RA Capacity is providing RA Replacement Capacity, it shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the standard capacity product provisions in Section 40.9 for the MW amount and duration of the replacement period, which

includes the full day of the start date and the full day of the end date of the outage.

#### **9.3.1.3.2.5 Unreplaced Capacity In An RA Plan**

Following replacement by Non-Specified Capacity, for each day of the month where the criteria set forth in Section 9.3.1.3.2.3(b) is not met, and where the Load Serving Entity either did not provide Non-Specified RA Replacement Capacity, or the Non-Specified RA Replacement Capacity it provided was already selected by the CAISO, was insufficient, or was unavailable during the replacement period, the Scheduling Coordinator for the Load Serving Entity will have a replacement requirement. The CAISO will notify the Scheduling Coordinator for the Load Serving Entity of the replacement requirement and will identify the MW amount of capacity remaining in its Resource Adequacy Plan that will be operationally unavailable to the CAISO due to an Approved Maintenance Outage on that day and that it is required to replace. The CAISO will treat the unreplaced capacity as an outage replacement requirement pursuant to Section 40.7(b). If the Scheduling Coordinator for the Load Serving Entity does not provide sufficient operationally available RA Replacement Capacity to meet the replacement requirement identified by the CAISO, and the resource does not reschedule or cancel the outage after its Supply Plan is submitted, the CAISO may exercise its authority to procure backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43A.

\* \* \* \*

#### **9.3.1.3.3.1 RA Maintenance Outage With Replacement**

(a) **Replacement Option.** The Scheduling Coordinator of a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may request that a planned Maintenance Outage be scheduled, or an Approved Maintenance Outage be rescheduled, as an RA Maintenance Outage With Replacement during that month.

(b) **Request.** A request for an RA Maintenance Outage With Replacement must: (i) be submitted to the CAISO no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and no less than eight days prior to the start of

the outage; (ii) provide RA Replacement Capacity in an amount no less than the Resource Adequacy Capacity designated for the resource for the duration of the scheduled outage; and (iii) otherwise comply with the requirements set forth in Section 9.

(c) **Approval.**

- (1) The CAISO will consider requests for an RA Maintenance Outage With Replacement in the order that the requests are received.
- (2) The CAISO may approve the request for an RA Maintenance Outage With Replacement if it determines that: (i) the request meets the requirements in Section 9.3.1.3.3.1(b); and (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid.
- (3) If the request was submitted no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and no less than eight days prior to the start date for the outage, and it meets the requirements in Section 9.3.1.3.3.1(c)(2), the CAISO may approve the request as an RA Maintenance Outage With Replacement,
- (4) If the CAISO denies the request for failing to meet the requirements in Section 9.3.1.3.3.1(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request a different schedule for the RA Maintenance Outage With Replacement or may request that the CAISO accommodate the outage without RA Replacement Capacity at another time.

(d) **Resource Adequacy Obligation.** The RA Replacement Capacity for an RA Maintenance Outage With Replacement approved under Section 9.3.1.3.3.1(c)(3) shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the RAIM provisions in

Section 40.9, for the MW amount and duration of the outage replacement period, which includes the full day of the start date and the full day of the end date of the outage.

#### **9.3.1.3.3.2 RA Maintenance Outage Without Replacement**

- (a) **Option for No Replacement.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may request that a Maintenance Outage be scheduled, or an Approved Maintenance Outage be rescheduled, as an RA Maintenance Outage Without Replacement, without a requirement to provide RA Replacement Capacity for the unavailable capacity for the duration of the outage.
- (b) **Request.** A request for an RA Maintenance Outage Without Replacement must: (i) be submitted to the CAISO no more than forty-five days prior to the first day of the resource adequacy month that the outage is requested for, and no less than eight days prior to the start date of the outage; and (ii) otherwise comply with the requirements of Section 9.
- (c) **Approval.**
  - (1) The CAISO will consider requests received for an RA Maintenance Outage Without Replacement in the order the requests were received.
  - (2) The CAISO may approve a request for an RA Maintenance Outage Without Replacement if it determines that: (i) the request meets the requirements in Section 9.3.1.3.3.2(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid; and (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period. The analysis of system conditions and the overall outage schedule will include Approved Maintenance Outage requests that were received before and after the request for an RA Maintenance Outage Without Replacement.
  - (3) The CAISO will not approve a request for an RA Maintenance Outage Without Replacement earlier than seven days before the first day of the resource

adequacy month, and may hold the request as pending until system conditions are sufficiently known for the CAISO to determine whether the outage meets the requirements in Section 9.3.1.3.3.2(c)(2).

- (4) If the CAISO denies a request for an RA Maintenance Outage Without Replacement for failing to meet the requirements in Section 9.3.1.3.3.2(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request an RA Maintenance Outage with Replacement or may request that the CAISO accommodate the outage at another time.

#### **9.3.1.3.3.3 Off-Peak Opportunity RA Maintenance Outage**

- (a) **Option for Off-Peak Outage.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may submit a request for an Off-Peak Opportunity RA Maintenance Outage without a requirement to provide RA Replacement Capacity for the unavailable capacity for the duration of the outage.
- (b) **Request.** A request for an Off-Peak Opportunity RA Maintenance Outage must: (i) be submitted to the CAISO no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start date for the outage; (ii) schedule the outage to begin during off-peak hours (as specified in the Business Practice Manuals) on a weekday, and to be completed prior to on-peak hours (as specified in the Business Practice Manuals) the following weekday, or to begin during off-peak hours (as specified in the Business Practice Manuals) on Friday, or on Saturday, Sunday, or a holiday, and to be completed prior to on-peak hours (as specified in the Business Practice Manual) on the next weekday; and (iii) otherwise comply with the requirements set forth in Section 9.
- (c) **Approval.**
  - (1) The CAISO will consider requests for an Off-Peak Opportunity RA Maintenance Outage in the order the requests were received.

- (2) If the request was submitted no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start date for the outage, the CAISO may approve the request as an Off-Peak Opportunity RA Maintenance Outage if it determines that:
  - (i) the request meets the requirements set forth in Section 9.3.1.3.3.3(b); and
  - (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid.
- (3) If the CAISO denies a request for an Off-Peak Opportunity RA Maintenance Outage for failing to meet the requirements in Section 9.3.1.3.3.3(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request an RA Maintenance Outage with Replacement or may request that the CAISO accommodate the outage at another time.
- (4) To the extent that an approved Off-Peak Opportunity RA Maintenance Outage is not completed during off-peak hours as scheduled, and extends into on-peak hours, the Scheduling Coordinator for the resource shall submit the portion of the outage that extends into on-peak hours as a new Forced Outage, which shall be subject to the RAAIM provisions in Section 40.9.

#### **9.3.1.3.3.4 Short-Notice Opportunity RA Outage**

- (a) **Option for Short-Notice Outage.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may submit a request for a Short-Notice Opportunity RA Outage without a requirement to provide RA Replacement Capacity or RA Substitute Capacity for the Resource Adequacy Capacity that will be on the Forced Outage or de-rate.
- (b) A Short-Notice Opportunity RA Outage shall not exceed five days in length. The request for a Short-Notice Opportunity RA Outage must: (i) be submitted no more than seven days prior to the requested start date for the outage; (ii) provide the CAISO adequate time to analyze the request before the outage begins; (iii) be submitted before the outage

has commenced as a Forced Outage; and (iv) otherwise comply with the requirements of Section 9.

(c) **Approval.**

- (1) The CAISO will consider Short-Notice Opportunity RA Outages in the order the requests are received.
- (2) If the request was submitted no more than seven days and no less than four days prior to the start date of the outage, the CAISO may approve the request as a Short Notice Opportunity RA Outage if it determines that: (i) the outage and the request meet the requirements set forth in Section 9.3.1.3.3.4(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid; and (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period. The approved outage will be a Forced Outage and will be subject to the RAIM provisions in Section 40.9.
- (3) If the request was submitted three days or less prior to the start date of the outage, the CAISO may approve the request as a Forced Outage if it determines that: (i) the outage and request meet the requirements set forth in Section 9.3.1.3.3.4(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid; (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period; and (iv) the repairs are necessary to maintain system or resource reliability and require immediate attention to prevent equipment damage or failure. A Short-Notice Opportunity RA Outage approved under this Section will be a Forced Outage but it will not be subject to the RAIM provisions in Section 40.9.

- (4) To the extent that an approved Short-Notice Opportunity RA Outage is not completed during the originally approved outage schedule, the Scheduling Coordinator for the resource must submit the portion of the outage that continues from the approved completion time until the time the outage is actually completed as a new Forced Outage, which will be subject to the RAIM provisions in Section 40.9.

\* \* \* \*

### **9.3.2 Requirement For Approval**

An Operator or Scheduling Coordinator shall not take: (i) facilities that comprise the CAISO Controlled Grid; or (ii) Generating Units of Participating Generators out of service for the purposes of planned maintenance or for new construction or other work except as approved by the CAISO, except that final approval may not be required for a Transmission Maintenance Outage as provided in Section 9.3.9.1. The information relating to each Maintenance Outage submitted by a Participating Generator in accordance with Section 9.3.5, or by a Participating TO in accordance with Section 9.3.5, constitutes a request for a long-range Maintenance Outage and is not considered an Approved Maintenance Outage until the CAISO has notified the Participating Generator of such approval pursuant to Section 9.3.6, or the Participating TO pursuant to Section 9.3.6.

\* \* \* \*

### **9.3.4 Single Point Of Contact**

Requests for approvals and coordination of all Maintenance Outages (consistent with Section 9.3.1) will be through a single point of contact between the CAISO and each Operator. The Operator shall provide in its initial request and specify from time to time the identification of the single point of contact along with primary and alternate means of communication pursuant to the detailed procedures referred to in Section 9.3.6.

### **9.3.5 Method Of Communications**

The primary method of communication from an Operator or Scheduling Coordinator to the CAISO with regard to maintenance and Outage planning will be the outage management system as described in the Operating Procedure on the CAISO Website and in the applicable Business Practice Manuals. Emergency capabilities, to be used only as a back-up if the primary communication method is unavailable, will include:

- (a) voice; and
- (b) electronic (E-mail, FTP file).

#### **9.3.5.1 Confirmation**

When electronic communication is utilized in the event the outage management system is unavailable, confirmation from the CAISO must be received by the Operator or Scheduling Coordinator to validate the receipt of the request.

#### **9.3.5.2 Communication of Approval or Rejection**

The CAISO shall use the outage management system as the primary method of communicating the approval or rejection of an Outage request or approval of a request to change an Approved Maintenance Outage to the relevant Operator or Scheduling Coordinator.

9.3.5.2.1 Information regarding planned Outages for resources with an Existing QF Contract or an Amended QF Contract shall be provided to the CAISO by the Participating TO or UDC that is a party to the Existing QF Contract or an Amended QF Contract, or by a Participating Generator. Information provided will be that obtained by the Participating TO, UDC, or a Participating Generator pursuant to the terms of Existing QF Contract or an Amended QF Contract, or as requested by the CAISO. Scheduling and approvals of Maintenance Outages for resources with

an Existing QF Contract or an Amended QF Contract shall continue to be coordinated as detailed in the applicable contract with the Participating TO or UDC, provided the owner of the Regulatory Must-Take Generation resource has not executed a Participating Generator Agreement or Net Scheduled PGA. If the owner of a resource has executed a Participating Generator Agreement or Net Scheduled PGA, it shall comply with Section 9.3.5 and other provisions applicable to Participating Generators.

\* \* \* \*

### **9.3.6 Maintenance Outage Planning**

Each Operator or Scheduling Coordinator shall, by not later than October 15 each year, provide the CAISO with a proposed schedule of all Maintenance Outages it wishes to undertake in the following year. The proposed schedule shall include all of the Operator's transmission facilities that comprise the CAISO Controlled Grid and Generating Units subject to a Participating Generator Agreement, Net Scheduled PGA, or Pseudo-Tie Participating Generator Agreement (including its Reliability Must-Run Units). In the case of a Participating TO's transmission facilities, that proposed schedule shall be developed in consultation with the UDCs interconnected with that Participating TO's system and shall take account of each UDC's planned maintenance requirements. The nature of the information to be provided and the detailed Maintenance Outage planning procedure shall be established by the CAISO. This information shall include:

The following information is required for each Generating Unit of a Participating Generator:

- (a) the Generating Unit name and Location Code;
- (b) the MW capacity unavailable;
- (c) the scheduled start and finish date for each Outage; and
- (d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

The following information is required for each transmission facility:

- (a) the identification of the facility and location;
- (b) the nature of the proposed Maintenance Outage;
- (c) the preferred start and finish date for each Maintenance Outage; and
- (d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

Either the CAISO, pursuant to Section 9.3.7, or an Operator or Scheduling Coordinator, subject to Section 9.3.6.11, may at any time request a change to an Approved Maintenance Outage. An Operator or Scheduling Coordinator may, as provided in Section 9.3.6.3, schedule with the CAISO a Maintenance Outage on its system, subject to the conditions of Sections 9.3.6.4.1, 9.3.6.8, and 9.3.6.9.

#### **9.3.6.1 [Not Used]**

##### **9.3.6.1.1 [Not Used]**

##### **9.3.6.1.2 [Not Used]**

#### **9.3.6.2 Look Ahead Updates**

Each Participating Generator and Participating TO shall notify the CAISO through the CAISO's outage management system of any known changes to a Generating Unit or System Unit Outage scheduled to occur within the number of days identified in the Business Practice Manuals as the "Look Ahead Period." A Participating Generator or Participating TO may submit changes to its planned Maintenance Outage schedule at any time. Participating Generators must obtain the approval of the CAISO in accordance with Section 9. Such approval may be withheld only for reasons of System Reliability or security.

#### **9.3.6.3 Timeframe for Scheduling Generation and Transmission Outages**

##### **9.3.6.3.1 Resource Maintenance Outages**

- (a) The Scheduling Coordinator for a Participating Generator, Participating Intermittent Resource, Generating Unit, System Unit, Physical Scheduling Plant, Proxy Demand Resource, Reliability Demand Response Resource, Non-Generation Resource,

Participating Load, or other resource subject to the outage management requirements of Section 9, shall submit a request for a Maintenance Outage or a request to change an Approved Maintenance Outage to the CAISO no less than eight days prior to the start date for the Outage, subject to the provisions of Sections 9.3.6.4.1, 9.3.6.8, and 9.3.6.9. The CAISO timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Submission of a request for a Maintenance Outage or a request to change an Approved Maintenance Outage no less than eight days prior to the start of the Outage does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date. Additional detail on the relationship between the CAISO Outage approval timeline and the Reliability Coordinator approval timeline is available in the Business Practice Manuals.

- (b) The requirement in Section 9.3.6.3.1(a) does not preclude submission of a request for a Forced Outage under Section 9.3.10.3 where immediate corrective action is needed because equipment has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.
- (c) A request for a Maintenance Outage that is submitted seven days or less prior to the start date for the Outage shall be classified as a Forced Outage.
- (d) A request to change an Approved Maintenance Outage that is submitted seven days or less prior to the start date for the Outage, if approved, will remain classified as a Maintenance Outage. If the request is not approved, the Scheduling Coordinator for the resource may submit a request for a new Forced Outage for the schedule change.

#### **9.3.6.3.2 Transmission Maintenance Outages**

An Operator or Scheduling Coordinator shall submit a request for a Maintenance Outage or a request to change an Approved Maintenance Outage for transmission facilities on its system in advance of the start date for the Outage, as follows:

1. An Operator or Scheduling Coordinator may, upon thirty (30) days notice in advance of the first day of the month the Outage is proposed to be scheduled (or within the notice period in the Operating Procedures posted on the CAISO Website), schedule with the CAISO a CRR Transmission Maintenance Outage for transmission facilities on its system, subject to the conditions of Sections 9.3.6.4.1, 9.3.6.8, 9.3.6.9, and 36.4.3.
2. An Operator or Scheduling Coordinator shall submit a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage to the CAISO no less than eight days prior to the start date for the Outage, subject to the provisions of Sections 9.3.6.3.2, 9.3.6.4.1, 9.3.6.8, and 9.3.6.9. The CAISO timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Submission of a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage no less than eight days prior to the start of the Outage does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date. Additional detail on the relationship between the CAISO Outage approval timeline and the Reliability Coordinator approval timeline is available in the Business Practice Manuals. This requirement does not preclude submission of a request for a forced outage under Section 9.3.10.3 where immediate corrective action is needed because equipment has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.
3. If an Operator or Scheduling Coordinator submits a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage seven days or less prior to the start date for the Outage, the CAISO may, at its discretion, reject the request as untimely, or approve the request as an Unplanned Transmission Maintenance Outage provided that the

CAISO has adequate time to analyze the request before the Outage begins and the analysis determines that: (i) the Outage is necessary for reliability; (ii) system conditions and the overall Outage schedule provide an opportunity to take the facilities out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid and without disrupting efficient market operations; and (iii) the Outage has not already commenced as a Forced Outage. The CAISO will consider Unplanned Transmission Maintenance Outages in the order the requests are received.

\* \* \* \*

**9.3.6.4.1** The CAISO shall evaluate whether the requested Maintenance Outage or change to an Approved Maintenance Outage is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid or the facilities of a Connected Entity. The CAISO may request additional information or seek clarification from Participating Generators or Participating TOs of the information submitted in relation to a planned Generating Unit and System Unit Outage or a transmission Maintenance Outage. This information may be used to assist the CAISO in prioritizing conflicting requests for Outages.

\* \* \* \*

**9.3.6.6            Withdrawal or Modification of Request**

The Operator of a Participating Generator or a Participating TO's Operator may withdraw a request at any time prior to actual commencement of the Outage. The Operator of a Participating Generator or Participating TO's Operator may modify a request at any time prior to receipt of any acceptance or rejection notice from the CAISO or pursuant to Sections 9.3.8.1, 9.3.8.2, and 9.3.8.3, but the CAISO shall have the right to reject such modified request for reasons of System Reliability, system security or market impact, because of the complexity of the modifications proposed, or due to insufficient time to assess the impact of such modifications.

**9.3.6.7** Each Participating Generator or Participating TO that has scheduled a Maintenance Outage pursuant to Section 9.3.4 must schedule and receive approval of the Outage from the CAISO prior to initiating the Approved Maintenance Outage. The CAISO will review the

Maintenance Outages to determine if any one or a combination of Maintenance Outage requests relating to CAISO Controlled Grid facilities, Generating Units or System Units may cause the CAISO to violate the Applicable Reliability Criteria. This review will take consideration of factors including, but not limited to, the following:

- (a) forecast peak Demand conditions;
- (b) other Maintenance Outages, previously Approved Maintenance Outages, and anticipated Generating Unit Outages;
- (c) potential to cause Congestion;
- (d) impacts on the transfer capability of Interconnections; and
- (e) impacts on the market.

**9.3.6.8** The CAISO shall acknowledge receipt of each request to confirm or approve a Maintenance Outage for a Generating Unit, System Unit, or Physical Scheduling Plant. Where the CAISO reasonably determines that the requested Maintenance Outage or the requested change to an Approved Maintenance Outage, when evaluated together with existing Approved Maintenance Outages, is not likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid, the CAISO shall authorize the Maintenance Outage or change to the Approved Maintenance Outage, and shall so notify the requesting Operator and other entities who may be directly affected.

**9.3.6.9** Where, in the reasonable opinion of the CAISO, the requested Maintenance Outage or requested change to an Approved Maintenance Outage is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid, the CAISO may reject the requested Maintenance Outage or requested change to Approved Maintenance Outage. If in the CAISO's determination, any of the Maintenance Outages would cause the CAISO to violate the Applicable Reliability Criteria, the CAISO will notify the relevant Operator, and the Operator will then revise the proposed Maintenance Outage and inform the CAISO of the proposed changes. The CAISO shall, in a rejection notice, identify the CAISO's reliability, security and market concerns which prompt the rejection and suggest possible remedies or schedule revisions which might mitigate any such concerns. The CAISO may provide each Operator in writing with any

suggested amendments to those Maintenance Outage requests rejected by the CAISO. Any such suggested amendments will be considered as a CAISO maintenance request and will be approved in accordance with the process set forth in Section 9.3.7. The determination of the CAISO shall be final and binding on the Operator. If, within fourteen (14) days of having made its determination, the Operator requests the CAISO to provide reasons for its determination, it shall do so as soon as is reasonably practicable. The CAISO will give reasons for informational purposes only and without affecting in any way the finality or validity of the determination.

\* \* \* \*

### **9.3.7 Maintenance Outage Requests By The CAISO**

The CAISO may at any time request a Maintenance Outage or a change to an Approved Maintenance Outage from an Operator if, in the opinion of the CAISO, the requested Maintenance Outage or change is required to secure the efficient use and reliable operation of the CAISO Controlled Grid. In addition, the CAISO may, by providing notice no later than 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence, direct the Operator to cancel an Approved Maintenance Outage, when necessary to preserve or maintain System Reliability or, with respect to Reliability Must-Run Units or facilities that form part of the CAISO Controlled Grid, to avoid unduly significant market impacts that would arise if the Outage were to proceed as scheduled. The CAISO may direct the Operator to cancel an Approved Maintenance Outage if the Reliability Coordinator has rejected the Outage request through the Reliability Coordinator's separate Outage approval process. The Operator, acting in accordance with Good Utility Practice, shall comply with the CAISO's direction and the provisions of Sections 9.3.7.1 and 9.3.7.2 shall apply. The CAISO shall give notice of any such direction to Market Participants prior to the deadline for submission of Day-Ahead Market Bids for the day on which the Outage was to have commenced. For purposes of this section and Section 9.3.3, an "unduly significant market impact" means an unplanned event or circumstance (e.g., unseasonable weather, a Forced Outage of a facility, or other occurrence) that adversely affects the competitive

nature and efficient workings of the CAISO Markets, and is of such severity that a prudent Operator would not have scheduled a Maintenance Outage of its facility if the unplanned event or circumstance could have been anticipated.

**9.3.7.1** The Operator may: (1) refuse the request; (2) agree to the request; or (3) agree to the request subject to specific conditions. The Operator, acting in accordance with Good Utility Practice, shall make every effort to comply with requests by the CAISO. Provided, however, the Operator may not refuse the CAISO's request if the request is made because the Reliability Coordinator has rejected the Outage request. In the event that the Operator refuses the CAISO's request, it shall provide to the CAISO written justification for its position within seventy-two (72) hours.

**9.3.7.2** In response the CAISO: (1) overrule any refusal of a Maintenance Outage or a change to an Approved Maintenance Outage by an Operator, in which case the CAISO's determination shall be final; (2) accept any changes or conditions proposed by the Operator, in which case the Maintenance Outage request or the request to change an Approved Maintenance Outage shall be deemed to be amended accordingly; or (3) reject the change or condition, in which case the CAISO and the Operator shall determine if acceptable alternative conditions or changes can be agreed. If the Operator and the CAISO cannot agree on acceptable alternative conditions or changes to the CAISO's request for a Maintenance Outage, or change to an Approved Maintenance Outage, the CAISO's determination shall be final. If the Operator and the CAISO cannot agree on acceptable alternative conditions or changes to the CAISO's request for a Maintenance Outage or change to an Approved Maintenance Outage, the CAISO may notify FERC of the dispute and take any other steps that are within its authority to maintain the reliability of the CAISO Controlled Grid.

\* \* \* \*

### **9.3.8 CAISO Notice Required Re Maintenance Outages**

The CAISO shall provide notice to the Operator of the approval or disapproval of any requested Maintenance Outage. Additionally, the CAISO shall notify any Connected Entity that may in the reasonable opinion of the CAISO be directly affected by an Approved Maintenance Outage. The content of and procedures for such notice shall be established by the CAISO

**9.3.8.1 Data Required**

The Scheduling Coordinator for a Generating Unit owned or controlled by a Participating Generator shall submit to the CAISO, pursuant to Sections 9.3.4 and 9.3.5.2.1, its request to confirm the schedule of a planned Maintenance Outage or to change the schedule of a planned Maintenance Outage. Such request must be made to the CAISO by no less than eight days prior to the starting date of the proposed Outage (or as specified on the CAISO Website). Likewise, all Operators or Scheduling Coordinators for transmission facilities shall submit a formal request to confirm or change an Approved Maintenance Outage with respect to any CAISO Controlled Grid facility to the CAISO in accordance with Sections 9.3.6.3.2, 9.3.8.2, and 9.3.8.3. The timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence.

Such schedule confirmation request shall specify the following:

\* \* \* \*

**9.3.8.4 Priority of Outage Requests**

Outage requests that are listed in the long-range maintenance schedules submitted to and approved by the CAISO will be given a priority in the scheduling and approval of Outage requests over those which have not been listed.

**9.3.8.5 Delay**

Failure to submit a request for an Outage by the proper time may mean a delay in approval from the CAISO or may cause that Outage to be designated as a Forced Outage based on the nearness of the request to the requested Outage date. The CAISO may delay its approval of a Maintenance Outage or an Approved Maintenance Outage schedule if sufficient or complete information is not received by the CAISO within the time frames provided in Sections 9.3.8.2 and 9.3.8.3.

\* \* \* \*

### **9.3.9 Final Approval, Delay And Withholding**

On the day on which an Approved Maintenance Outage is scheduled to commence, the Operator or Scheduling Coordinator shall contact the CAISO Control Center for final approval of the Maintenance Outage, except as provided in Section 9.3.9.1. Where a Maintenance Outage requires separate approval from the Reliability Coordinator, the Operator may not request final approval of the Maintenance Outage unless the Reliability Coordinator separately has approved the requested Maintenance Outage. No Maintenance Outage shall commence without such final approval (including the time of release, in hours and minutes) being obtained from the CAISO Control Center whose decision shall be final. The CAISO may delay its approval of a scheduled Maintenance Outage for a Participating Generator if sufficient or complete information is not received by the CAISO within the time frames set forth in Section 9.3.8.1. The CAISO Control Center shall have the authority to withhold a Final Approval for an Approved Maintenance Outage for reasons of System Reliability, security or system status of the CAISO Controlled Grid or market impact. The CAISO Control Center shall immediately notify the relevant Operator or Scheduling Coordinator of its intention to withhold the Final Approval. The Generator Maintenance Outage or CAISO Controlled Grid facility Maintenance Outage will then be rescheduled pursuant to this CAISO Tariff.

#### **9.3.9.1 Transmission Maintenance Outage Final Approval**

As part of the approval process, the CAISO will determine whether an Approved Maintenance Outage for facilities that comprise the CAISO Controlled Grid will require Final Approval on the start date before the outage begins or may be initiated and completed without Final Approval. The determination will be based on the outage types identified in the Business Practice Manuals and the expected impact of the outage on system conditions, the risk to system reliability, and the Reliability Coordinator's separate Outage approval process. The CAISO will provide its

determination to the Operator or Scheduling Coordinator of the transmission facilities through the outage management system.

- (1) If Final Approval is required, the Operator or Scheduling Coordinator shall comply with the requirements in Section 9.3.9. The Final Approval may be requested and received through the outage management system.
- (2) If Final Approval is not required, the Operator or Scheduling Coordinator may commence the outage as scheduled on the start date and conclude the outage as scheduled on the end date, and report those actions through the outage management system. If the outage does not commence or conclude as scheduled, the Operator or Scheduling Coordinator must request approval to change an Approved Maintenance Outage.

\* \* \* \*

### **9.3.10 Forced Outages**

**9.3.10.3** The following requirements apply to the advance reporting to the CAISO of anticipated and actual Forced Outages:

\* \* \* \*

- (b) Notwithstanding Section 9.3.10.3(a), and unless otherwise exempted pursuant to the terms of a Business Practice Manual, the Operator of an Eligible Intermittent Resource with a PMax of greater than ten (10) MW for its entire generating facility, upon identification of a situation likely to result in a Forced Outage within the next twenty-four (24) hours unless immediate corrective action is taken, where such action requires the removing from service or reducing the maximum output capability of the Eligible Intermittent Resource generating facility by one (1) MW or more from the value most recently recorded in the CAISO's outage management system pursuant to Section 9, shall communicate directly with the CAISO Control Center.

\* \* \* \*

**9.3.10.3.1** The following requirements apply if prior notice of a Forced Outage cannot be given to the CAISO:

\* \* \* \*

- (b) Notwithstanding Section 9.3.10.3.1(a), and unless otherwise exempted pursuant to the terms of a Business Practice Manual, the Operator of an Eligible Intermittent Resource with a PMax of greater than ten (10) MW for its entire generating facility is required to notify the CAISO within sixty (60) minutes after discovering any change in the maximum output capability of the generating facility of at least one (1) MW from the value registered in the CAISO's outage management system pursuant to Section 9 that lasts for fifteen (15) minutes or longer.

\* \* \* \*

**9.3.10.6.1      Outage Reporting By NRS-RA Resources**

The Scheduling Coordinator for a non-Resource-Specific System Resource that provides Resource Adequacy Capacity shall report to the CAISO through the outage management system any Forced Outage of a Generating Unit or Forced Outage or Constraint of transmission facilities external to the CAISO Balancing Authority Area that directly results in the inability of the resource to deliver all or a portion of the Resource Adequacy Capacity identified in the resource's Supply Plan to the CAISO Balancing Authority Area. The Scheduling Coordinator for a non-Resource-Specific System Resource that provides Resource Adequacy Capacity is required to provide to the CAISO notice of the Forced Outage or Constraint within sixty (60) minutes after becoming aware of the circumstance. The Scheduling Coordinator for a non-Resource-Specific System Resource that provides Resource Adequacy Capacity shall promptly provide information requested by the CAISO to enable the CAISO to review the Forced Outage or Constraint and its

impact on the ability of the resource to deliver Resource Adequacy Capacity to the CAISO Balancing Authority Area.

DMM shall identify and notify FERC's Office of Enforcement staff of instances in which the reporting of the Forced Outage or Constraint may require investigation. DMM is to make a non-public referral to FERC in all instances where DMM has reason to believe that the reporting of the Forced Outage or Constraint constitutes a Market Violation other than those Market Violations identified in Section 11.1.13 of Appendix P. While DMM need not be able to prove that a Market Violation has occurred, DMM is to provide sufficient credible information to warrant further investigation by FERC. Once DMM has obtained sufficient credible information to warrant referral to the Commission, DMM is to immediately refer the matter to FERC and desist from independent action related to the alleged Market Violation. This does not preclude DMM from continuing to monitor for any repeated instances of the activity by the same or other entities, which would constitute new Market Violations. DMM is to respond to requests from FERC for any additional information in connection with the alleged Market Violation it has referred.

#### **9.3.10.7 Other Balancing Authority Areas**

The CAISO shall make all reasonable efforts to coordinate Outages involving other Balancing Authority Areas or affecting an Intertie, import or export capability not under the Operational Control of the CAISO to the extent that they may affect the reliability of the CAISO Controlled Grid.

\* \* \* \*

#### **9.4.1 Coordination By CAISO**

The procedure to energize and place in service any new or relocated piece of equipment, connected to the CAISO Controlled Grid, must be set out by the Operator or Connected Entity in a written procedure and coordinated by the CAISO.

\* \* \* \*

### **9.4.3 Uncomplicated Work**

When line rearrangements and/or station equipment work is uncomplicated and easily understood, the CAISO Outage Coordination Office may determine that the work can be accomplished using Outages approved in accordance with Section 9.3.6. The CAISO will make this determination in coordination with the respective requesting Operator or Connected Entity.

\* \* \* \*

### **9.4.4 Special Procedures For More Complex Work**

#### **9.4.4.1 Responsibility for Preparation**

In cases to which 9.4.3 does not apply, it is the responsibility of the requesting Operator or Connected Entity to prepare a written procedure to enable the CAISO to approve Outages in a manner that enables the necessary work to proceed. The CAISO must approve the procedure.

#### **9.4.4.2 Information to be Provided to the CAISO**

The written procedure must be received by the CAISO a minimum of four (4) weeks prior to the start of procedure. Adequate drawings will be attached to the procedure to help clarify the work being performed and the Outages that will be required to complete the work must be specified. The procedure shall include all of the information referred to on the CAISO Website.

#### **9.4.4.3 Approval of the Procedure**

Upon receipt of the procedure and drawings referred to in Section 9.4.4.2, the CAISO will review the procedure and notify the Operator or Connected Entity of any required modifications. The CAISO may, at its discretion, require changes to and more detail to be inserted in the procedure. The requesting Operator or Connected Entity will consult with other entities likely to be affected and will revise the procedure, following any necessary or appropriate discussions with the CAISO to reflect the requirements of the CAISO. Following the CAISO approval, an approved copy of the procedure will then be transmitted to the Operator or Connected Entity and the other entities

likely to be affected.

#### **9.4.4.4 Changes to Procedure**

Once the procedure is approved by the CAISO, any modifications to the procedure will require the requesting Operator or Connected Entity to notify the CAISO with as much lead time as possible of the recommended changes. The modified procedure will then have to be approved by the CAISO in accordance with Section 9.4.4.2 and 9.4.4.3.

#### **9.4.4.5 Approval of Work Requiring Coordination**

No work can begin pursuant to any approved procedure unless approved by the CAISO.

\* \* \* \*

### **9.5 Information About Outages**

#### **9.5.1 Approved Maintenance Outages**

The CAISO and all Operators shall develop procedures to keep a record of Approved Maintenance Outages as they are implemented and to report the completion of Approved Maintenance Outages. Such records are available for inspection by Operators and Connected Entities at the CAISO. Only those records pertaining to the equipment or facilities owned by the relevant Operator or Connected Entity will be made available for inspection at the CAISO, and such records will only be made available provided notice is given in writing to the CAISO fifteen (15) days in advance of the requested inspection date.

\* \* \* \*

### **37.4.2 Scheduling And Final Approval Of Outages**

#### **37.4.2.1 Expected Conduct**

A Market Participant shall not undertake an Outage except as approved by the CAISO in accordance with Section 9.3.2, Section 9.3.9, and Section 9.3.6.6. A Market Participant shall not

commence any Outage without obtaining final approval from the CAISO Control Center in accordance with Sections 9.3.9 and 9.3.10.

\* \* \* \*

**- Approved Maintenance Outage**

A Maintenance Outage that has been approved by the CAISO.

\* \* \* \*

**[Not Used]**

\* \* \* \*

**- Off-Peak Opportunity RA Maintenance Outage**

A Maintenance Outage at a Resource Adequacy Resource that is approved by the CAISO to be initiated and completed during off-peak hours (as specified in the Business Practice Manual) without RA Replacement Capacity for the Resource Adequacy Capacity on the outage or de-rate.

\* \* \* \*

**- RA Maintenance Outage With Replacement**

A Maintenance Outage, or change to an Approved Maintenance Outage, at a Resource Adequacy Resource that the CAISO receives no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start of the outage and that includes RA Replacement Capacity for the Resource Adequacy Capacity on the outage or de-rate.

\* \* \* \*

**- RA Maintenance Outage Without Replacement**

A Maintenance Outage, or change to an Approved Maintenance Outage at a Resource Adequacy Resource that the CAISO receives no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start of the outage without RA Replacement Capacity for the Resource Adequacy Capacity on the outage or de-rate.

\* \* \* \*

**Appendix G**

**Pro Forma Reliability Must-Run Contract**

**MUST-RUN SERVICE AGREEMENT**

\* \* \* \*

**ARTICLE 1**

**DEFINITIONS**

\* \* \* \*

**“Long-term Planned Outage”** means a planned interruption, in whole or in part, in the electrical output of a Unit to permit Owner to perform a major equipment overhaul and inspection or for new construction work but only if the outage is scheduled to last 21 consecutive days or more (which may span more than one Contract Year) and either (a) is scheduled in accordance with the CAISO’s outage coordination protocol prior to the beginning of the Contract Year or (b) was scheduled as a Long-term Planned Outage for the last quarter of the expiring Contract Year but, with approval of the CAISO, was postponed and rescheduled into the new Contract Year.

\* \* \* \*

**Attachment B – Marked Tariff Records**  
**Tariff Amendment to Modify Outage Coordination Procedures**  
**Consistent with NERC Reliability Standards**  
**California Independent System Operator Corporation**

#### 4.4.2 UDC Responsibilities

Recognizing the CAISO's duty to ensure efficient use and reliable operation of the CAISO

Controlled Grid consistent with the Applicable Reliability Criteria, each UDC shall:

- (a) operate and maintain its facilities, in accordance with the applicable safety and reliability standards, regulatory requirements, applicable operating guidelines, applicable rates, tariffs, statutes and regulations governing ~~their-its~~ provision of service to ~~their-its~~ End-Use Customers and Good Utility Practice so as to avoid any material adverse impact on the CAISO Controlled Grid;
- (b) provide the CAISO ~~Outage Coordination Office~~ each year with a schedule of upcoming maintenance (including all equipment Outages) that has a reasonable potential of impacting the CAISO Controlled Grid in accordance with Section 9.3.6 and in accordance with the other scheduling procedures described in ~~theis~~ CAISO Tariff;
- (c) coordinate with the CAISO, Participating TOs<sub>1</sub> and Generators to ensure that the CAISO Controlled Grid Critical Protective Systems, including relay systems, are installed and maintained in order to function on a coordinated and complementary basis with UDCs', Generators'<sub>1</sub> and Participating TOs' protective systems.
- (d) coordinate any requests for emergency Outages on point of interconnection equipment directly with the appropriate CAISO Control Center as specified in Section 7.1.

\* \* \* \*

#### 4.9.4 MSS Operator Responsibilities

\* \* \* \*

4.9.4.2 provide the CAISO ~~Outage Coordination Office~~ each year with a schedule of upcoming maintenance of facilities forming part of the MSS that will affect<sub>1</sub> or is reasonably likely to affect<sub>1</sub> the CAISO Controlled Grid in accordance with Section 9.3.6;

4.9.4.3 coordinate with the CAISO, Participating TOs<sub>1</sub> and Generators to ensure that the CAISO Controlled Grid Critical Protective Systems, including relay systems, are installed and maintained in order to function on a coordinated and complementary basis with the protective systems of the MSS, Participating TOs<sub>1</sub> and Generators<sub>1</sub> and notify the CAISO as soon as is reasonably possible of any condition ~~that of which~~ it becomes aware of that may compromise the CAISO Controlled Grid Critical Protective Systems;

\* \* \* \*

4.9.4.6 be responsible for Congestion Management and transmission line Outages within or at the boundary of the MSS, and all associated costs of actions the MSS Operator has to take to resolve such Congestion internal to the MSS and not be responsible for Congestion Management elsewhere<sub>1</sub> except to the extent that a Scheduling Coordinator is delivering Energy, Ancillary Services, or RUC Capacity to or from the MSS. An MSS Operator must notify and communicate with the CAISO regarding transmission line Outages to the extent such Outages impact the CAISO Controlled Grid.

\* \* \* \*

#### **4.11.3 SUDC Responsibilities**

Recognizing the CAISO's duty to ensure efficient use and reliable operation of the CAISO Balancing Authority Area and the CAISO Controlled Grid consistent with the Applicable Reliability Criteria, each SUDC shall:

4.11.3.1 operate and maintain its Distribution System in accordance with the applicable reliability standards, statutes and regulations, and Good Utility Practice so as to avoid any material adverse impact on the reliability of the CAISO Balancing Authority Area and the CAISO Controlled Grid;

and

4.11.3.2 provide the CAISO ~~Outage Coordination Office~~ each year with a schedule of upcoming

maintenance on its transmission interconnection facilities with the CAISO Controlled Grid that has a reasonable potential of causing a material adverse impact to the reliability of the CAISO Controlled Grid.

\* \* \* \*

## 9.1 Coordination And Approval For Outages

In accordance with the Applicable Reliability Criteria, ~~The~~ CAISO shall have authority to coordinate and approve Outages and returns to service of all facilities comprised in the CAISO Controlled Grid and Reliability Must-Run Units in accordance with Section 9.3. ~~The~~ CAISO will coordinate and approve Maintenance Outages and coordinate responses to Forced Outages of all transmission facilities in the CAISO Controlled Grid and Reliability Must-Run Units in accordance with this Section 9. Any scheduled Outages that are cancelled by CAISO Real-Time operations due to system requirements must be rescheduled with the CAISO ~~Outage Coordination Office~~ in accordance with Section 9.3.

\* \* \* \*

### 9.3.1 CAISO Outage Coordination ~~Functions~~Office

~~The CAISO Outage Coordination Office shall be established by the CAISO and shall coordinate and approve Maintenance Outages of: (i) all facilities that comprise the CAISO Controlled Grid and (ii) Participating Generators. The CAISO shall additionally coordinate and approve Outages required for new construction and for work on de-energized and live transmission facilities (e.g., relay maintenance or insulator washing) and associated equipment. The CAISO Outage Coordination Office will be operational Monday through Friday, except holidays. The Outage Coordination Office is located in Folsom. Each office and the areas of responsibility of that office are detailed in the most recent version of the applicable CAISO Operating Procedures, which are posted on the CAISO Website.~~

\* \* \* \*

### **9.3.1.3 Coordinating Maintenance Outages of RA Resources**

In performing outage coordination management under Section 9, and this Section 9.3.1.3, the CAISO ~~Outage Coordination Office~~ may take into consideration the status of a Generating Unit as a Resource Adequacy Resource. The CAISO ~~Outage Coordination Office~~ may deny, reschedule or cancel an Approved Maintenance Outage for facilities that comprise the CAISO Controlled Grid or Generating Units of Participating Generators if it determines that the outage is likely to have a detrimental effect on the availability of Resource Adequacy Capacity or the efficient use and reliable operation of the CAISO Controlled Grid or the facilities of a Connected Entity.

\* \* \* \*

#### **9.3.1.3.1.3 Optional List of Specified RA Replacement Capacity**

A Scheduling Coordinator for a Load Serving Entity may include with a monthly Resource Adequacy Plan a list of Specified RA Replacement Capacity for the CAISO's use as RA Replacement Capacity to replace specific Resource Adequacy Capacity identified by the Load Serving Entity that is in its Resource Adequacy Plan, and that is scheduled to take an Approved Maintenance Outage during the month, as provided in Sections 9.3.1.3.2.2 and 40.2.2.4. If the Scheduling Coordinator for a Load Serving Entity opts to include a list of Specified RA Replacement Capacity, the CAISO, in its discretion, will use the specified capacity as RA Replacement Capacity to automatically replace the identified Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan in the amount and for the days specified by the Load Serving Entity that the Resource Adequacy Resource is scheduled to take an Approved Maintenance Outage during the month. The Specified RA Replacement Capacity will not be subject to the must-offer obligations in Section 40.6, nor the standard capacity product provisions in Section 40.9, unless the specified capacity is used by the CAISO as RA Replacement Capacity as provided in Section 9.3.1.3.2.2. The list of Specified RA Replacement Capacity included with a monthly Resource Adequacy Plan shall:

- (a) Identify the resource being replaced,

- (b) Identify the resource that will provide the Specified RA Replacement Capacity, the MW amount and time period of the replacement, and other information as may be required in the Business Practice Manual<sup>s</sup>, and
- (c) Be submitted in the format required by the Business Practice Manual.

**9.3.1.3.1.4 Optional List of Non-Specified RA Capacity**

A Scheduling Coordinator for a Load Serving Entity may include with a monthly Resource Adequacy Plan a list of Non-Specified RA Capacity for the CAISO's use as RA Replacement Capacity to replace Resource Adequacy Capacity included in that Load Serving Entity's monthly Resource Adequacy Plan that is scheduled to take an Approved Maintenance Outage during the month, as provided in Sections 9.3.1.3.2.3, 9.3.1.3.2.4, and 40.2.2.4. If the Scheduling Coordinator for a Load Serving Entity opts to include a list of Non-Specified RA Capacity in its Resource Adequacy Plan, the CAISO, in its discretion, will select capacity from the list and use the selected capacity as RA Replacement Capacity to automatically replace Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan in the amount and for the days on which the CAISO's validation of the plan determines that the designated capacity scheduled to take an Approved Maintenance Outage during the resource adequacy month must be replaced. The listed Non-Specified RA Capacity will not be subject to the must-offer obligations in Section 40.6, nor the standard capacity product provisions in Section 40.9, unless the Non-Specified Capacity is selected by the CAISO and used as RA Replacement Capacity as provided in Section 9.3.1.3.2.4. The list of Non-Specified RA Capacity included with a monthly Resource Adequacy Plan shall:

- (a) Rank each resource that has available Non-Specified RA Capacity in the order of use preferred by the Load Serving Entity;
- (b) Provide the identity of the resource, the MW amount of available capacity, the time periods when the capacity is available, and other information as may be specified in the Business Practice Manual;

- (c) Indicate the willingness of the Load Serving Entity to offer each resource that has available Non-Specified RA Capacity for procurement as backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43A; and
- (d) Be submitted in the format required by the Business Practice Manuals.

\* \* \* \*

#### **9.3.1.3.2.4 Replacement By Non-Specified RA Replacement Capacity**

For each day of the month where the CAISO determines under Section 9.3.1.3.2.3 that replacement is required of Resource Adequacy Capacity scheduled to take an Approved Maintenance Outage, the CAISO may replace the unavailable capacity with Non-Specified RA Replacement Capacity as follows:

- (a) The CAISO will identify each Load Serving Entity that did not include in its monthly Resource Adequacy Plan available Resource Adequacy Capacity for each day in a MW amount equal to or greater than its applicable forecasted monthly Demand Reserve Margin, and will verify whether each such Load Serving Entity provided a list of Non-Specified RA Replacement Capacity with its plan.
- (b) To the extent that a Load Serving Entity provided a list of Non-Specified Replacement Capacity, the CAISO during the replacement process set forth in Section 9.3.1.3.2.3 will select capacity, in its discretion, from the list and use the selected capacity as RA Replacement Capacity to automatically replace unavailable Resource Adequacy Capacity included in that Load Serving Entity's Resource Adequacy Plan for each day where the CAISO determines that replacement is required.
- (c) The CAISO will verify whether the Non-Specified RA Replacement Capacity on each list is available during the replacement period and replace the unavailable capacity in the Resource Adequacy Plan with available Non-Specified RA Replacement Capacity. The CAISO will not accept Non-Specified RA Replacement Capacity that is unavailable during the replacement period.

- (d) The CAISO will notify the Scheduling Coordinator for the Load Serving Entity and the Scheduling Coordinator for the resource providing the Non-Specified RA Replacement Capacity that the Non-Specified RA Replacement Capacity has been selected as RA Replacement Capacity. The Scheduling Coordinator for the resource providing the Non-Specified RA Replacement Capacity must verify ~~their~~ its agreement to provide the Non-Specified RA Replacement Capacity.
- (e) For the duration of the period that the Non-Specified RA Capacity is providing RA Replacement Capacity, it shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the standard capacity product provisions in Section 40.9 for the MW amount and duration of the replacement period, which includes the full day of the start date and the full day of the end date of the outage.

#### **9.3.1.3.2.5 Unreplaced Capacity In An RA Plan**

Following replacement by Non-Specified Capacity, for each day of the month where the criteria set forth in Section 9.3.1.3.2.3(b) is not met, and where the Load Serving Entity either did not provide Non-Specified RA Replacement Capacity, or the Non-Specified RA Replacement Capacity it provided was already selected by the CAISO, was insufficient, or was unavailable during the replacement period, the Scheduling Coordinator for the Load Serving Entity will have a replacement requirement. The CAISO will notify the Scheduling Coordinator for the Load Serving Entity of the replacement requirement and will identify the MW amount of capacity remaining in its Resource Adequacy Plan that will be operationally unavailable to the CAISO due to an Approved Maintenance Outage on that day and that it is required to replace. The CAISO will treat the unreplaced capacity as an outage replacement requirement pursuant to Section 40.7(b). If the Scheduling Coordinator for the Load Serving Entity does not provide sufficient operationally available RA Replacement Capacity to meet the replacement requirement identified by the CAISO, and the resource does not reschedule or cancel the outage after its Supply Plan is

submitted, the CAISO may exercise its authority to procure backstop capacity under the Capacity Procurement Mechanism pursuant to Section 43A.

\* \* \* \*

#### 9.3.1.3.3.1 RA Maintenance Outage With Replacement

(a) **Replacement Option.** The Scheduling Coordinator of a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may request that a planned Maintenance Outage be scheduled, or an Approved Maintenance Outage be rescheduled, as an RA Maintenance Outage With Replacement during that month.

(b) **Request.** A request for an RA Maintenance Outage With Replacement must: (i) be submitted to the CAISO ~~Outage Coordination Office~~ no more than forty-five days prior to the first day of the resource adequacy month ~~for which~~that the outage is requested for, and no less than eight days prior to the start of the outage; (ii) provide RA Replacement Capacity in an amount no less than the Resource Adequacy Capacity designated for the resource for the duration of the scheduled outage; and (iii) otherwise comply with the requirements set forth in Section 9.

(c) **Approval.**

(1) The CAISO ~~Outage Coordination Office~~ will consider requests for an RA Maintenance Outage With Replacement in the order that the requests are received.

(2) The CAISO ~~Outage Coordination Office~~ may approve the request for an RA Maintenance Outage With Replacement if it determines that: (i) the request meets the requirements in Section 9.3.1.3.3.1(b); and (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid.

(3) If the request was submitted no more than forty-five days prior to the first day of the resource adequacy month ~~thatfor which~~ the outage is requested for, and no less than eight days prior to the start date for the outage, and it meets the

requirements in Section 9.3.1.3.3.1(c)(2), the CAISO ~~Outage Coordination Office~~ may approve the request as an RA Maintenance Outage With Replacement,

- (4) If the CAISO ~~Outage Coordination Office~~ denies the request for failing to meet the requirements in Section 9.3.1.3.3.1(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request a different schedule for the RA Maintenance Outage With Replacement or may request that the CAISO ~~Outage Coordination Office~~ accommodate the outage without RA Replacement Capacity at another time.

- (d) **Resource Adequacy Obligation.** The RA Replacement Capacity for an RA Maintenance Outage With Replacement approved under Section 9.3.1.3.3.1(c)(3) shall be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed on Resource Adequacy Resources by the CAISO Tariff, including the must-offer obligations in Section 40.6 and the RAIM provisions in Section 40.9, for the MW amount and duration of the outage replacement period, which includes the full day of the start date and the full day of the end date of the outage.

#### 9.3.1.3.3.2 RA Maintenance Outage Without Replacement

- (a) **Option for No Replacement.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may request that a Maintenance Outage be scheduled, or an Approved Maintenance Outage be rescheduled, as an RA Maintenance Outage Without Replacement, without a requirement to provide RA Replacement Capacity for the unavailable capacity for the duration of the outage.
- (b) **Request.** A request for an RA Maintenance Outage Without Replacement must: (i) be submitted to the CAISO ~~Outage Coordination Office~~ no more than forty-five days prior to the first day of the resource adequacy month ~~for which~~that the outage is requested ~~for~~, and no less than eight days prior to the start date of the outage~~;~~ and (ii) otherwise comply with the requirements of Section 9.
- (c) **Approval.**

- (1) The CAISO ~~Outage Coordination Office~~ will consider requests received for an RA Maintenance Outage Without Replacement in the order the requests were received.
- (2) The CAISO ~~Outage Coordination Office~~ may approve a request for an RA Maintenance Outage Without Replacement if it determines that: (i) the request meets the requirements in Section 9.3.1.3.3.2(b)<sub>1,7</sub>; (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid<sub>1,7</sub>; and (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period. The analysis of system conditions and the overall outage schedule will include Approved Maintenance Outage requests that were received before and after the request for an RA Maintenance Outage Without Replacement.
- (3) The CAISO ~~Outage Coordination Office~~ will not approve a request for an RA Maintenance Outage Without Replacement earlier than seven days before the first day of the resource adequacy month, and may hold the request as pending until system conditions are sufficiently known for the CAISO to determine whether the outage meets the requirements in Section 9.3.1.3.3.2(c)(2).
- (4) If the CAISO ~~Outage Coordination Office~~ denies a request for an RA Maintenance Outage Without Replacement for failing to meet the requirements in Section 9.3.1.3.3.2(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request an RA Maintenance Outage with Replacement or may request that the CAISO ~~Outage Coordination Office~~ accommodate the outage at another time.

#### **9.3.1.3.3.3 Off-Peak Opportunity RA Maintenance Outage**

- (a) **Option for Off-Peak Outage.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may submit a request for an Off-Peak Opportunity RA Maintenance Outage

without a requirement to provide RA Replacement Capacity for the unavailable capacity for the duration of the outage.

- (b) **Request.** A request for an Off-Peak Opportunity RA Maintenance Outage must: (i) be submitted to the CAISO ~~Outage Coordination Office~~ no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start date for the outage; (ii) schedule the outage to begin during off-peak hours (as specified in the Business Practice Manual~~s~~) on a weekday, and to be completed prior to on-peak hours (as specified in the Business Practice Manual~~s~~) the following weekday, or to begin during off-peak hours (as specified in the Business Practice Manual~~s~~) on Friday, or on Saturday, Sunday, or a holiday, and to be completed prior to on-peak hours (as specified in the Business Practice Manual) on the next weekday; and (iii) otherwise comply with the requirements set forth in Section 9.

(c) **Approval.**

- (1) The CAISO ~~Outage Coordination Office~~ will consider requests for an Off-Peak Opportunity RA Maintenance Outage in the order the requests were received.
- (2) If the request was submitted no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start date for the outage, the CAISO ~~Outage Coordination Office~~ may approve the request as an Off-Peak Opportunity RA Maintenance Outage if it determines that: (i) the request meets the requirements set forth in Section 9.3.1.3.3.3(b); and (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid.
- (3) If the CAISO ~~Outage Coordination Office~~ denies a request for an Off-Peak Opportunity RA Maintenance Outage for failing to meet the requirements in Section 9.3.1.3.3.3(c)(2), the Scheduling Coordinator for the Resource Adequacy Resource may request an RA Maintenance Outage with Replacement or may

request that the CAISO ~~Outage Coordination Office~~ accommodate the outage at another time.

- (4) To the extent that an approved Off-Peak Opportunity RA Maintenance Outage is not completed during off-peak hours as scheduled, and extends into on-peak hours, the Scheduling Coordinator for the resource shall submit the portion of the outage that extends into on-peak hours as a new Forced Outage, which shall be subject to the RAAIM provisions in Section 40.9.

#### **9.3.1.3.3.4 Short-Notice Opportunity RA Outage**

- (a) **Option for Short-Notice Outage.** The Scheduling Coordinator for a Resource Adequacy Resource designated as Resource Adequacy Capacity during the resource adequacy month may submit a request for a Short-Notice Opportunity RA Outage without a requirement to provide RA Replacement Capacity or RA Substitute Capacity for the Resource Adequacy Capacity that will be on the Forced Outage or de-rate.
- (b) A Short-Notice Opportunity RA Outage shall not exceed five days in length. The request for a Short-Notice Opportunity RA Outage must: (i) be submitted no more than seven days prior to the requested start date for the outage; (ii) provide the CAISO ~~Outage Coordination Office~~ adequate time to analyze the request before the outage begins; (iii) be submitted before the outage has commenced as a Forced Outage; and (iv) otherwise comply with the requirements of Section 9.
- (c) **Approval.**
  - (1) The CAISO ~~Outage Coordination Office~~ will consider Short-Notice Opportunity RA Outages in the order the requests are received.
  - (2) If the request was submitted no more than seven days and no less than four days prior to the start date of the outage, the CAISO ~~Outage Coordination Office~~ may approve the request as a Short Notice Opportunity RA Outage if it determines that: (i) the outage and the request meet the requirements set forth in Section 9.3.1.3.3.4(b); (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental

effect on the efficient use and reliable operation of the CAISO Controlled Grid;<sup>17</sup> and (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period. The approved outage will be a Forced Outage and will be subject to the RAIM provisions in Section 40.9.

- (3) If the request was submitted three days or less prior to the start date of the outage, the CAISO ~~Outage Coordination Office~~ may approve the request as a Forced Outage if it determines that: (i) the outage and request meet the requirements set forth in Section 9.3.1.3.3.4(b)<sup>17</sup>; (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid;<sup>17</sup> (iii) the outage will not result in insufficient available Resource Adequacy Capacity during the outage period;<sup>17</sup> and (iv) the repairs are necessary to maintain system or resource reliability and require immediate attention to prevent equipment damage or failure. A Short-Notice Opportunity RA Outage approved under this Section will be a Forced Outage but it will not be subject to the RAIM provisions in Section 40.9.
- (4) To the extent that an approved Short-Notice Opportunity RA -Outage is not completed during the originally approved outage schedule, the Scheduling Coordinator for the resource must submit the portion of the outage that continues from the approved completion time until the time the outage is actually completed as a new Forced Outage, which will be subject to the RAIM provisions in Section 40.9.

\* \* \* \*

### **9.3.2 Requirement For Approval**

An Operator or Scheduling Coordinator shall not take: (i) facilities that comprise the CAISO Controlled Grid;<sup>17</sup> or (ii) Generating Units of Participating Generators out of service for the

purposes of planned maintenance or for new construction or other work except as approved by the CAISO ~~Outage Coordination Office~~; except that final approval may not be required for a Transmission Maintenance Outage as provided in Section 9.3.9.1. The information relating to each Maintenance Outage submitted by a Participating Generator in accordance with Section 9.3.5 or by a Participating TO in accordance with Section 9.3.5 constitutes a request for a long-range Maintenance Outage and is not considered an Approved Maintenance Outage until the CAISO has notified the Participating Generator of such approval pursuant to Section 9.3.6 or the Participating TO pursuant to Section 9.3.6.

\* \* \* \*

#### **9.3.4 Single Point Of Contact**

Requests for approvals and coordination of all Maintenance Outages (consistent with Section 9.3.1) will be through a single point of contact between the CAISO ~~Outage Coordination Office~~ and each Operator. The Operator shall provide in its initial request and specify from time to time the identification of the single point of contact along with primary and alternate means of communication pursuant to the detailed procedures referred to in Section 9.3.6.

#### **9.3.5 Method Of Communications**

The primary method of communication from an Operator or Scheduling Coordinator to the CAISO with regard to maintenance and Outage planning will be the outage management system as described in the Operating Procedure on the CAISO Website and in the applicable Business Practice Manuals. Emergency capabilities, to be used only as a back-up if the primary communication method is unavailable, will include:

- (a) voice; and
- ~~(b) fax (last resort); and~~
- ~~(c)~~ electronic (E-mail, FTP file).

##### **9.3.5.1 Confirmation**

When ~~fax or~~ electronic communication is utilized in the event the outage management system is unavailable, confirmation from the CAISO must be received by the Operator or Scheduling Coordinator to validate the receipt of the request.

### **9.3.5.2 Communication of Approval or Rejection**

The CAISO shall use the outage management system as the primary method of communicating the approval or rejection of an Outage request or approval of a request to change an Approved Maintenance Outage to the relevant Operator or Scheduling Coordinator.

9.3.5.2.1 Information regarding planned Outages for resources with an Existing QF Contract or an Amended QF Contract shall be provided to the CAISO ~~Outage Coordination Office~~ by the Participating TO or UDC that is a party to the Existing QF Contract or an Amended QF Contract, or by a Participating Generator. Information provided will be that obtained by the Participating TO, UDC, or a Participating Generator pursuant to the terms of Existing QF Contract or an Amended QF Contract, or as requested by the CAISO. Scheduling and approvals of Maintenance Outages for resources with an Existing QF Contract or an Amended QF Contract shall continue to be coordinated as detailed in the applicable contract with the Participating TO or UDC, provided the owner of the Regulatory Must-Take Generation resource has not executed a Participating Generator Agreement or Net Scheduled PGA. If the owner of a resource has executed a Participating Generator Agreement or Net Scheduled PGA, it shall comply with Section 9.3.5 and other provisions applicable to Participating Generators.

\* \* \* \*

### **9.3.6 Maintenance Outage Planning**

Each Operator or Scheduling Coordinator shall, by not later than October 15 each year, provide the CAISO with a proposed schedule of all Maintenance Outages it wishes to undertake in the following year. The proposed schedule shall include all of the Operator's transmission facilities that comprise the CAISO Controlled Grid and Generating Units subject to a Participating Generator Agreement, Net Scheduled PGA, or Pseudo-Tie Participating Generator Agreement

(including its Reliability Must-Run Units). In the case of a Participating TO's transmission facilities, that proposed schedule shall be developed in consultation with the UDCs interconnected with that Participating TO's system and shall take account of each UDC's planned maintenance requirements. The nature of the information to be provided and the detailed Maintenance Outage planning procedure shall be established by the CAISO. This information shall include:

-The following information is required for each Generating Unit of a Participating Generator:

- (a) the Generating Unit name and Location Code;
- (b) the MW capacity unavailable;
- (c) the scheduled start and finish date for each Outage; and
- (d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

-The following information is required for each transmission facility:

- (a) the identification of the facility and location;
- (b) the nature of the proposed Maintenance Outage;
- (c) the preferred start and finish date for each Maintenance Outage; and
- (d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

Either the CAISO, pursuant to Section 9.3.7, or an Operator or Scheduling Coordinator, subject to Section 9.3.6.11, may at any time request a change to an Approved Maintenance Outage. An Operator or Scheduling Coordinator may, as provided in Section 9.3.6.3, schedule with the CAISO ~~Outage Coordination Office~~ a Maintenance Outage on its system, subject to the conditions of Sections 9.3.6.4.1, 9.3.6.8, and 9.3.6.9.

### **9.3.6.1 ~~[Not Used] Quarterly Updates~~**

**9.3.6.1.1 ~~[Not Used] Each Participating Generator will provide the CAISO with quarterly updates of its long-range Outage schedule referred to in Section 9.3.6 for Generating Units and System~~**

~~Units by the close of business on the fifteenth (15th) day of each January, April, and July. These updates must identify known changes to any previously planned Generating Unit Outages and any additional Outages anticipated over the next twelve (12) months from the time of this report. In this report, each Participating Generator must include all known planned Outages for the following twelve (12) months.~~

~~**9.3.6.1.2 [Not Used]** Each Participating TO will provide the CAISO with quarterly updates of the data provided under Section 9.3.6 by close of business on the fifteenth (15th) day of each January, April, and July. These updates must identify known changes to any previously planned CAISO Controlled Grid facility Maintenance Outages and any additional Outages anticipated over the next twelve (12) months from the time of the report. As part of this update, each Participating TO must include all known Maintenance Outages for the following twelve (12) months.~~

**9.3.6.2 ~~90-Day Look Ahead Updates~~**

~~In addition to changes made at quarterly Outage submittals, e~~Each Participating Generator and Participating TO shall notify the CAISO through the CAISO's outage management system in writing of any known changes to a Generating Unit or System Unit Outage scheduled to occur within the next ninety (90) days-number of days identified in the Business Practice Manuals as the "Look Ahead Period." ~~and~~ A Participating Generator or Participating TO may submit changes to its planned Maintenance Outage schedule at any time. Participating Generators must obtain the approval of the CAISO ~~Outage Coordination Office~~ in accordance with Section 9. Such approval may be withheld only for reasons of System Reliability or security.

**9.3.6.3 Timeframe for Scheduling Generation and Transmission Outages**

**9.3.6.3.1 Resource Maintenance Outages**

- (a) The Scheduling Coordinator for a Participating Generator, Participating Intermittent Resource, Generating Unit, System Unit, Physical Scheduling Plant, Proxy Demand Resource, Reliability Demand Response Resource, Non-Generation Resource, Participating Load, or other resource subject to the outage management requirements of Section 9, shall submit a request for a Maintenance Outage or a request to change an Approved Maintenance Outage to the CAISO ~~Outage Coordination Office~~ no less than

eight days prior to the start date for the Outage, subject to the provisions of Sections 9.3.6.4.1, 9.3.6.8, and 9.3.6.9. The CAISO timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Submission of a request for a Maintenance Outage or a request to change an Approved Maintenance Outage no less than eight days prior to the start of the Outage does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date. Additional detail on the relationship between the CAISO Outage approval timeline and the Reliability Coordinator approval timeline is available in the Business Practice Manuals.

- (b) The requirement in Section 9.3.6.3.1(a) does not preclude submission of a request for a Forced Outage under Section 9.3.10.3 where immediate corrective action is needed because equipment has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.
- (c) A request for a Maintenance Outage that is submitted seven days or less prior to the start date for the Outage shall be classified as a Forced Outage.
- (d) A request to change an Approved Maintenance Outage that is submitted seven days or less prior to the start date for the Outage, if approved, will remain classified as a Maintenance Outage. If the request is not approved, the Scheduling Coordinator for the resource may submit a request for a new Forced Outage for the schedule change.

#### **9.3.6.3.2 Transmission Maintenance Outages**

An Operator or Scheduling Coordinator shall submit a request for a Maintenance Outage or a request to change an Approved Maintenance Outage for transmission facilities on its system in advance of the start date for the Outage, as follows:

1. An Operator or Scheduling Coordinator may, upon thirty (30) days notice in advance of the first day of the month the Outage is proposed to be scheduled (or within the notice period in the Operating Procedures posted on the CAISO Website), schedule with the CAISO ~~Outage Coordination Office~~ a CRR

Transmission Maintenance Outage for transmission facilities on its system, subject to the conditions of Sections 9.3.6.4.1, 9.3.6.8, 9.3.6.9, and 36.4.3.

2. An Operator or Scheduling Coordinator shall submit a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage to the CAISO ~~Outage Coordination Office~~ no less than eight days prior to the start date for the Outage, subject to the provisions of Sections 9.3.6.3.2, 9.3.6.4.1, 9.3.6.8, and 9.3.6.9. The CAISO timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Submission of a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage no less than eight days prior to the start of the Outage does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date. Additional detail on the relationship between the CAISO Outage approval timeline and the Reliability Coordinator approval timeline is available in the Business Practice Manuals. This requirement does not preclude submission of a request for a forced outage under Section 9.3.10.3 where immediate corrective action is needed because equipment has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.
3. If an Operator or Scheduling Coordinator submits a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage seven days or less prior to the start date for the Outage, the CAISO ~~Outage Coordination Office~~ may, at its discretion, reject the request as untimely, or approve the request as an Unplanned Transmission Maintenance Outage provided that the CAISO ~~Outage Coordination Office~~ has adequate time to analyze the request before the Outage begins and the analysis determines that: (i) the Outage is necessary for reliability; (ii) system conditions and the

overall Outage schedule provide an opportunity to take the facilities out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid and without disrupting efficient market operations; and (iii) the Outage has not already commenced as a Forced Outage. The CAISO ~~Outage Coordination Office~~ will consider Unplanned Transmission Maintenance Outages in the order the requests are received.

\* \* \* \*

**9.3.6.4.1** The CAISO ~~Outage Coordination Office~~ shall evaluate whether the requested Maintenance Outage or change to an Approved Maintenance Outage is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid or the facilities of a Connected Entity. The CAISO may request additional information or seek clarification from Participating Generators or Participating TOs of the information submitted in relation to a planned Generating Unit and System Unit Outage or a transmission Maintenance Outage. This information may be used to assist the CAISO in prioritizing conflicting requests for Outages.

\* \* \* \*

#### **9.3.6.6            Withdrawal or Modification of Request**

The Operator of a Participating Generator or a Participating TO's Operator may withdraw a request at any time prior to actual commencement of the Outage. The Operator of a Participating Generator or Participating TO's Operator may modify a request at any time prior to receipt of any acceptance or rejection notice from the CAISO ~~Outage Coordination Office~~ or pursuant to Sections 9.3.8.1, 9.3.8.2, and 9.3.8.3, but the CAISO ~~Outage Coordination Office~~ shall have the right to reject such modified request for reasons of System Reliability, system security or market impact, because of the complexity of the modifications proposed, or due to insufficient time to assess the impact of such modifications.

**9.3.6.7** Each Participating Generator or Participating TO ~~which~~that has scheduled a Maintenance Outage pursuant to Section 9.3.4 must schedule and receive approval of the Outage from the CAISO ~~Outage Coordination Office~~ prior to initiating the Approved Maintenance Outage. The

CAISO ~~Outage Coordination Office~~ will review the Maintenance Outages to determine if any one or a combination of Maintenance Outage requests relating to CAISO Controlled Grid facilities, Generating Units or System Units may cause the CAISO to violate the Applicable Reliability Criteria. This review will take consideration of factors including, but not limited to, the following:

- (a) forecast peak Demand conditions;
- (b) other Maintenance Outages, previously Approved Maintenance Outages, and anticipated Generating Unit Outages;
- (c) potential to cause Congestion;
- (d) impacts on the transfer capability of Interconnections; and
- (e) impacts on the market.

**9.3.6.8** The CAISO ~~Outage Coordination Office~~ shall acknowledge receipt of each request to confirm or approve a Maintenance Outage for a Generating Unit, System Unit, or Physical Scheduling Plant. Where the CAISO ~~Outage Coordination Office~~ reasonably determines that the requested Maintenance Outage or the requested change to an Approved Maintenance Outage, when evaluated together with existing Approved Maintenance Outages, is not likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid, the CAISO shall authorize the Maintenance Outage or change to the Approved Maintenance Outage, and shall so notify the requesting Operator and other entities who may be directly affected.

**9.3.6.9** Where, in the reasonable opinion of the CAISO ~~Outage Coordination Office~~, the requested Maintenance Outage or requested change to an Approved Maintenance Outage is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid, the CAISO ~~Outage Coordination Office~~ may reject the requested Maintenance Outage or requested change to Approved Maintenance Outage. If in the CAISO's determination, any of the Maintenance Outages would cause the CAISO to violate the Applicable Reliability Criteria, the CAISO will notify the relevant Operator, and the Operator will then revise the proposed Maintenance Outage and inform the CAISO of the proposed changes. The CAISO ~~Outage Coordination Office~~ shall, in a rejection notice, identify the CAISO's reliability, security and market concerns which prompt the rejection and suggest possible remedies or schedule

revisions which might mitigate any such concerns. The CAISO ~~Outage Coordination Office~~ may provide each Operator in writing with any suggested amendments to those Maintenance Outage requests rejected by the CAISO ~~Outage Coordination Office~~. Any such suggested amendments will be considered as a CAISO maintenance request and will be approved in accordance with the process set forth in Section 9.3.7. The determination of the CAISO ~~Outage Coordination Office~~ shall be final and binding on the Operator. If, within fourteen (14) days of having made its determination, the Operator requests the CAISO ~~Outage Coordination Office~~ to provide reasons for its determination, it shall do so as soon as is reasonably practicable. The CAISO will give reasons for informational purposes only and without affecting in any way the finality or validity of the determination.

\* \* \* \*

### **9.3.7 Maintenance Outage Requests By The CAISO**

The CAISO ~~Outage Coordination Office~~ may at any time request a Maintenance Outage or a change to an Approved Maintenance Outage from an Operator if, in the opinion of the CAISO ~~Outage Coordination Office~~, the requested Maintenance Outage or change is required to secure the efficient use and reliable operation of the CAISO Controlled Grid. In addition, the CAISO ~~Outage Coordination Office~~ may, by providing notice no later than 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence, direct the Operator to cancel an Approved Maintenance Outage, when necessary to preserve or maintain System Reliability or, with respect to Reliability Must-Run Units or facilities that form part of the CAISO Controlled Grid, to avoid unduly significant market impacts that would arise if the Outage were to proceed as scheduled. The CAISO may direct the Operator to cancel an Approved Maintenance Outage if the Reliability Coordinator has rejected the Outage request through the Reliability Coordinator's separate Outage approval process. The Operator, acting in accordance with Good Utility Practice, shall comply with the CAISO's direction and the provisions of Sections 9.3.7.1 and 9.3.7.2 shall apply. The CAISO shall give notice of any such direction to Market Participants prior

to the deadline for submission of Day-Ahead Market Bids for the day on which the Outage was to have commenced. For purposes of this section and Section 9.3.3, an "unduly significant market impact" means an unplanned event or circumstance (e.g., unseasonable weather, a Forced Outage of a facility, or other occurrence) that adversely affects the competitive nature and efficient workings of the CAISO Markets, and is of such severity that a prudent Operator would not have scheduled a Maintenance Outage of its facility if the unplanned event or circumstance could have been anticipated.

**9.3.7.1** The Operator may: (1) refuse the request; (2) agree to the request; or (3) agree to the request subject to specific conditions. The Operator, acting in accordance with Good Utility Practice, shall make every effort to comply with requests by the CAISO ~~Outage Coordination Office~~. Provided, however, the Operator may not refuse the CAISO's request if the request is made because the Reliability Coordinator has rejected the Outage request. In the event that the Operator refuses the CAISO's request, it shall provide to the CAISO ~~Outage Coordination Office~~ written justification for its position within seventy-two (72) hours.

**9.3.7.2** In response the CAISO ~~Outage Coordination Office may~~: (1) overrule any refusal of a Maintenance Outage or a change to an Approved Maintenance Outage by an Operator, in which case the CAISO's ~~Outage Coordination Office~~ determination shall be final; (2) accept any changes or conditions proposed by the Operator, in which case the Maintenance Outage request or the request to change an Approved Maintenance Outage shall be deemed to be amended accordingly; or (3) reject the change or condition, in which case the CAISO ~~Outage Coordination Office~~ and the Operator shall determine if acceptable alternative conditions or changes can be agreed. If the Operator and the CAISO ~~Outage Coordination Office~~ cannot agree on acceptable alternative conditions or changes to the CAISO ~~Outage Coordination Office~~'s request for a Maintenance Outage, or change to an Approved Maintenance Outage, the CAISO's ~~Outage Coordination Office~~ determination shall be final. If the Operator and the CAISO ~~Outage Coordination Office~~ cannot agree on acceptable alternative conditions or changes to the CAISO ~~Outage Coordination Office~~'s request for a Maintenance Outage or change to an Approved Maintenance Outage, the CAISO may notify ~~the~~ FERC of the dispute and take any other steps that are within its authority to maintain the reliability of the CAISO Controlled Grid.

\* \* \* \*

### **9.3.8 CAISO Notice Required Re Maintenance Outages**

The CAISO ~~Outage Coordination Office~~ shall provide notice to the Operator of the approval or disapproval of any requested Maintenance Outage. Additionally, the CAISO ~~Outage Coordination Office~~ shall notify any Connected Entity that may in the reasonable opinion of the CAISO ~~Outage Coordination Office~~ be directly affected by an Approved Maintenance Outage. The content of and procedures for such notice shall be established by the CAISO

#### **9.3.8.1 Data Required**

The Scheduling Coordinator for a Generating Unit owned or controlled by a Participating Generator shall submit to the CAISO, pursuant to Sections 9.3.4 and 9.3.5.2.1, its request to confirm the schedule of a planned Maintenance Outage or to change the schedule of a planned

Maintenance Outage. Such request must be made to the CAISO ~~Outage Coordination Office~~ by no less than eight days prior to the starting date of the proposed Outage (or as specified on the CAISO Website). Likewise, all Operators or Scheduling Coordinators for transmission facilities shall submit a formal request to confirm or change an Approved Maintenance Outage with respect to any CAISO Controlled Grid facility to the CAISO ~~Outage Coordination Office~~ in accordance with Sections 9.3.6.3.2, 9.3.8.2, and 9.3.8.3. The timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence.

-Such schedule confirmation request shall specify the following:

\* \* \* \*

#### **9.3.8.4 Priority of Outage Requests**

Outage requests ~~which that~~ are listed in the long-range maintenance schedules submitted to and approved by the CAISO will be given a priority in the scheduling and approval of Outage requests over those which have not been listed.

#### **9.3.8.5 Delay**

Failure to submit a request for an Outage by the proper time may mean a delay in approval from the CAISO or may cause that Outage to be designated as a Forced Outage based on the nearness of the request to the requested Outage date. The CAISO ~~Outage Coordination Office~~ may delay its approval of a Maintenance Outage or an Approved Maintenance Outage schedule if sufficient or complete information is not received by the CAISO ~~Outage Coordination Office~~ within the time frames provided in Sections 9.3.8.2 and 9.3.8.3.

\* \* \* \*

#### **9.3.9 Final Approval, Delay And Withholding**

On the day on which an Approved Maintenance Outage is scheduled to commence, the Operator or Scheduling Coordinator shall contact the CAISO Control Center for final approval of the Maintenance Outage, except as provided in Section 9.3.9.1. Where a Maintenance Outage

requires separate approval from the Reliability Coordinator, the Operator may not request final approval of the Maintenance Outage unless the Reliability Coordinator separately has approved the requested Maintenance Outage. No Maintenance Outage shall commence without such final approval (including the time of release, in hours and minutes) being obtained from the CAISO Control Center whose decision shall be final. The CAISO ~~Outage Coordination Office~~ may delay its approval of a scheduled Maintenance Outage for a Participating Generator if sufficient or complete information is not received by the CAISO ~~Outage Coordination Office~~ within the time frames set forth in Section 9.3.8.1. The CAISO Control Center shall have the authority to withhold a Final Approval for an Approved Maintenance Outage for reasons of System Reliability, security or system status of the CAISO Controlled Grid or market impact. The CAISO Control Center shall immediately notify the relevant Operator or Scheduling Coordinator of its intention to withhold the Final Approval. The Generator Maintenance Outage or CAISO Controlled Grid facility Maintenance Outage will then be rescheduled pursuant to this CAISO Tariff.

#### **9.3.9.1 Transmission Maintenance Outage Final Approval**

As part of the approval process, the CAISO will determine whether an Approved Maintenance Outage for facilities that comprise the CAISO Controlled Grid will require Final Approval on the start date before the outage begins or may be initiated and completed without Final Approval. The determination will be based on the outage types identified in the Business Practice Manuals and the expected impact of the outage on system conditions, ~~and~~ the risk to system reliability, and the Reliability Coordinator's separate Outage approval process. The CAISO will provide its determination to the Operator or Scheduling Coordinator of the transmission facilities through the outage management system.

- (1) If Final Approval is required, the Operator or Scheduling Coordinator shall comply with the requirements in Section 9.3.9. The Final Approval may be requested and received through the outage management system.
- (2) If Final Approval is not required, the Operator or Scheduling Coordinator may commence the outage as scheduled on the start date and conclude the outage as scheduled on the end date, and report those actions through the outage

management system. If the outage does not commence or conclude as scheduled, the Operator or Scheduling Coordinator must request approval to change an Approved Maintenance Outage.

\* \* \* \*

### 9.3.10 Forced Outages

9.3.10.3 The following requirements apply to the advance reporting to the CAISO of anticipated and actual Forced Outages:

\* \* \* \*

- (b) Notwithstanding Section 9.3.10.3(a), and unless otherwise exempted pursuant to the terms of a Business Practice Manual, the Operator of an Eligible Intermittent Resource with a PMax of greater than ten (10) MW for its entire generating facility, upon identification of a situation likely to result in a Forced Outage within the next twenty-four (24) hours unless immediate corrective action is taken, where such action requires the removing from service or reducing the maximum output capability of the Eligible Intermittent Resource generating facility by one (1) MW or more from the value most recently recorded in the CAISO's outage management system pursuant to Section 9, shall communicate directly with the CAISO Control Center. ~~The failure of the Operator of the Eligible Intermittent Resource to report a Forced Outage between one (1) MW and ten (10) MW in accordance with this Section 9.3.10.3(b) shall be subject only to the provisions of Section 37.4.1.2(a) and (b)(1) of Section 37.4.1.2.~~

\* \* \* \*

9.3.10.3.1 The following requirements apply if prior notice of a Forced Outage cannot be given to the CAISO:

\* \* \* \*

- (b) Notwithstanding Section 9.3.10.3.1(a), and unless otherwise exempted pursuant to the terms of a Business Practice Manual, the Operator of an Eligible Intermittent Resource with a PMax of greater than ten (10) MW for its entire generating facility is required to notify the CAISO within sixty (60) minutes after discovering any change in the maximum output capability of the generating facility of at least one (1) MW from the value registered in the CAISO's outage management system pursuant to Section 9 that lasts for fifteen (15) minutes or longer. ~~The failure of the Operator of the Eligible Intermittent Resource to report a Forced Outage between one (1) MW and ten (10) MW in accordance with this Section 9.3.10.3.1(b) shall be subject only to the provisions of Section 37.4.1.2(a) and (b)(1) of Section 37.4.1.2.~~

\* \* \* \*

#### **9.3.10.6.1 Outage Reporting By NRS-RA Resources**

The Scheduling Coordinator for a non-Resource-Specific System Resource that provides Resource Adequacy Capacity shall report to the CAISO through the outage management system any Forced Outage of a Generating Unit or Forced Outage or Constraint of transmission facilities external to the CAISO Balancing Authority Area that directly results in the inability of the resource to deliver all or a portion of the Resource Adequacy Capacity identified in the resource's Supply Plan to the CAISO Balancing Authority Area. The Scheduling Coordinator for a non-Resource-Specific System Resource that provides Resource Adequacy Capacity is required to provide to the CAISO notice of the Forced Outage or Constraint within sixty (60) minutes after becoming aware of the circumstance. The Scheduling Coordinator for a non-Resource-Specific System Resource that provides Resource Adequacy Capacity shall promptly provide information requested by the CAISO to enable the CAISO to review the Forced Outage or Constraint and its impact on the ability of the resource to deliver Resource Adequacy Capacity to the CAISO Balancing Authority Area.

DMM shall identify and notify ~~the Commission~~FERC's Office of Enforcement staff of instances in which the reporting of the Forced Outage or Constraint may require investigation. DMM is to make a non-public referral to ~~FERC~~the Commission in all instances where DMM has reason to believe that the reporting of the Forced Outage or Constraint constitutes a Market Violation other than those Market Violations identified in Section 11.1.13 of Appendix P. While DMM need not be able to prove that a Market Violation has occurred, DMM is to provide sufficient credible information to warrant further investigation by ~~FERC~~the Commission. Once DMM has obtained sufficient credible information to warrant referral to the Commission, DMM is to immediately refer the matter to ~~the Commission~~FERC and desist from independent action related to the alleged Market Violation. This does not preclude DMM from continuing to monitor for any repeated instances of the activity by the same or other entities, which would constitute new Market Violations. DMM is to respond to requests from ~~the Commission~~FERC for any additional information in connection with the alleged Market Violation it has referred.

#### **9.3.10.7 Other Balancing Authority Areas**

The CAISO ~~Outage Coordination Office~~ shall make all reasonable efforts to coordinate Outages involving other Balancing Authority Areas or affecting an Intertie, import or export capability not under the Operational Control of the CAISO to the extent that they may affect the reliability of the CAISO Controlled Grid.

\* \* \* \*

#### **9.4.1 Coordination By CAISO**

The procedure to energize and place in service any new or relocated piece of equipment, connected to the CAISO Controlled Grid, must be set out by the Operator or Connected Entity in a written procedure and coordinated by the CAISO ~~Outage Coordination Office~~.

\* \* \* \*

### **9.4.3 Uncomplicated Work**

When line rearrangements and/or station equipment work is uncomplicated and easily understood, the CAISO Outage Coordination Office may determine that the work can be accomplished using Outages approved in accordance with Section 9.3.6. The CAISO ~~Outage Coordination Office~~ will make this determination in coordination with the respective requesting Operator or Connected Entity.

\* \* \* \*

### **9.4.4 Special Procedures For More Complex Work**

#### **9.4.4.1 ~~\_\_\_\_\_~~ Responsibility for Preparation**

-In cases to which 9.4.3 does not apply, it is the responsibility of the requesting Operator or Connected Entity to prepare a written procedure to enable the CAISO to approve Outages in a manner that enables the necessary work to proceed. The CAISO ~~Outage Coordination Office~~ must approve the procedure.

#### **9.4.4.2 ~~\_\_\_\_\_~~ Information to be Provided to the CAISO**

-The written procedure must be received by the CAISO ~~Outage Coordination Office~~ a minimum of four (4) weeks prior to the start of procedure. Adequate drawings will be attached to the procedure to help clarify the work being performed and the Outages that will be required to complete the work must be specified. The procedure shall include all of the information referred to on the CAISO Website.

#### **9.4.4.3 ~~\_\_\_\_\_~~ Approval of the Procedure**

-Upon receipt of the procedure and drawings referred to in Section 9.4.4.2, the CAISO ~~Outage Coordination Office~~ will review the procedure and notify the Operator or Connected Entity of any required modifications. The CAISO ~~Outage Coordination Office~~ may, at its discretion, require changes to and more detail to be inserted in the procedure. The requesting Operator or Connected Entity will consult with other entities likely to be affected and will revise the procedure,

following any necessary or appropriate discussions with the CAISO to reflect the requirements of the CAISO. Following the CAISO approval, an approved copy of the procedure will then be transmitted to the Operator or Connected Entity and the other entities likely to be affected.

#### **9.4.4.4 \_\_\_\_\_ Changes to Procedure**

~~Once the procedure is approved by the CAISO, Outage Coordination Office any modifications to the procedure will require the requesting Operator or Connected Entity to notify the CAISO Outage Coordination Office with as much lead time as possible of the recommended changes.~~

The modified procedure will then have to be approved by the CAISO ~~Outage Coordination Office~~ in accordance with Section 9.4.4.2 and 9.4.4.3.

#### **9.4.4.5 \_\_\_\_\_ Approval of Work Requiring Coordination**

No work can begin pursuant to any approved procedure unless approved by the CAISO ~~Outage Coordination Office~~.

\* \* \* \*

## **9.5 Information About Outages**

### **9.5.1 Approved Maintenance Outages**

The CAISO and all Operators shall develop procedures to keep a record of Approved Maintenance Outages as they are implemented and to report the completion of Approved Maintenance Outages. Such records are available for inspection by Operators and Connected Entities at the CAISO ~~Outage Coordination Office~~. Only those records pertaining to the equipment or facilities owned by the relevant Operator or Connected Entity will be made available for inspection at the CAISO ~~Outage Coordination Office~~, and such records will only be made available provided notice is given in writing to the CAISO fifteen (15) days in advance of the requested inspection date.

\* \* \* \*

## 37.4.2 Scheduling And Final Approval Of Outages

### 37.4.2.1 Expected Conduct

A Market Participant shall not undertake an Outage except as approved by the CAISO ~~Outage Coordination Office~~ in accordance with Section 9.3.2, Section 9.3.9, and Section 9.3.6.6. A Market Participant shall not commence any Outage without obtaining final approval from the CAISO Control Center in accordance with Sections 9.3.9 and 9.3.10.

\* \* \* \*

#### - Approved Maintenance Outage

A Maintenance Outage ~~which that~~ has been approved by the CAISO ~~through the CAISO Outage Coordination Office~~.

\* \* \* \*

#### - ~~[Not Used] CAISO Outage Coordination Office~~

~~The office established by the CAISO to coordinate Maintenance Outages in accordance with Section 9.3.~~

\* \* \* \*

#### - Off-Peak Opportunity RA Maintenance Outage

A Maintenance Outage at a Resource Adequacy Resource that is approved by the CAISO ~~Outage Coordination Office~~ to be initiated and completed during off-peak hours (as specified in the Business Practice Manual) without RA Replacement Capacity for the Resource Adequacy Capacity on the outage or de-rate.

\* \* \* \*

**- RA Maintenance Outage With Replacement**

A Maintenance Outage, or change to an Approved Maintenance Outage, at a Resource Adequacy Resource that the CAISO ~~Outage Coordination Office~~ receives no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start of the outage and that includes RA Replacement Capacity for the Resource Adequacy Capacity on the outage or de-rate.

\* \* \* \*

**- RA Maintenance Outage Without Replacement**

A Maintenance Outage, or change to an Approved Maintenance Outage at a Resource Adequacy Resource that the CAISO ~~Outage Coordination Office~~ receives no more than forty-five days prior to the first day of the resource adequacy month for which the outage is requested and no less than eight days prior to the start of the outage without RA Replacement Capacity for the Resource Adequacy Capacity on the outage or de-rate.

\* \* \* \*

**Appendix G**

**Pro Forma Reliability Must-Run Contract**

**MUST-RUN SERVICE AGREEMENT**

\* \* \* \*

**ARTICLE 1**

**DEFINITIONS**

\* \* \* \*

**“Long-term Planned Outage”** means a planned interruption, in whole or in part, in the electrical output of a Unit to permit Owner to perform a major equipment overhaul and inspection or for new construction work but only if the outage is scheduled to last 21 consecutive days or more (which

may span more than one Contract Year) and either (a) is scheduled in accordance with the CAISO's outage coordination protocol prior to the beginning of the Contract Year or (b) was scheduled as a Long-term Planned Outage for the last quarter of the expiring Contract Year but, with approval of the CAISO ~~Outage Coordination Office~~, was postponed and rescheduled into the new Contract Year.

\* \* \* \*