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## **9. Outages**

### **9.1 Coordination and Approval for Outage**

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.

### **9.2 Responsibility for Authorized Work on Facilities**

The CAISO shall have authority to approve requests by Participating TOs to work on all energized transmission equipment under the Operational Control of the CAISO.

### **9.3 Coordination of Outages and Maintenance**

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

##### **9.3.1.1 Coordinating Maintenance Outages of UDC Facilities**

Each UDC and the Participating TO with which it is interconnected shall coordinate their Outage requirements that will have an effect on their transmission interconnection prior to the submission by that Participating TO of its Maintenance Outage requirements under Section 9.3.

##### **9.3.1.2 Coordinating Maintenance Outage of CDWR-SWP Participating Generating Units**

The provisions of Section 9.3 shall apply to CDWR-SWP Participating Generating Units. The submission by CDWR-SWP of an Outage schedule, Outage request, or request to change or cancel an Approved Maintenance Outage, and the CAISO's treatment of Outage schedules and requests relating to CDWR-SWP Participating Generating Units, shall be in accordance with Section 9.3, except as otherwise provided in Section 9.3.1.2.1.

###### **9.3.1.2.1 Coordinating Maintenance Outages of CDWR-SWP**

- (a) In each Outage schedule, Outage request, and request to change or cancel an Approved Maintenance Outage that CDWR-SWP submits to the CAISO for a CDWR-SWP Participating Generating Unit, CDWR-SWP will state whether CDWR-SWP has

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determined that the proposed maintenance work, and/or the timing of the Outage, is necessary in order for CDWR-SWP to:

- (i) Comply with various federal and state legal and regulatory requirements that govern stream flow, water temperature, water quality and quantity, flood control space, after-bay, reservoir, or lake elevation, and other environmental and wildlife constraints (“CDWR-SWP Statutory Compliance Outage”); or
  - (ii) Maintain reliable operations of critical water infrastructure and not impair its ability to satisfy water delivery or conservation requirements (“CDWR-SWP Water System Reliability Outage”).
- (b) CDWR-SWP will identify each CDWR-SWP Statutory Compliance or Water System Reliability Outage by designating the Outage with an appropriate cause code in the Outage schedule, Outage request, or request to change or cancel an Approved Maintenance Outage and will provide a description of the requirement or constraint. If the designation of an Outage changes, or the Outage no longer meets the criteria of Section 9.3.1.2.1(a)(i) or (ii), CDWR-SWP will notify the CAISO about this change in status as soon as practical but no more than one (1) Business Day after it occurs.
- (c) The CAISO will not deny, cancel, or reschedule a CDWR-SWP Statutory Compliance or Water System Reliability Outage that CDWR-SWP submits to the CAISO in an Outage schedule, Outage request, or request to change or cancel an Approved Maintenance Outage, provided that the Outage request is timely, designates the Outage as a CDWR-SWP Statutory Compliance or Water System Reliability Outage by an appropriate cause code and includes a description of the requirement or constraint.
- (d) The CAISO may contact CDWR-SWP to inquire whether the timing of a CDWR-SWP Statutory Compliance or Water System Reliability Outage can be changed. CDWR-SWP may agree to the change or, after making best efforts to accommodate the change, may notify the CAISO that the change is not feasible as determined by CDWR-SWP in its sole discretion due to the described requirement or constraint. In the event that CDWR-SWP determines that changing the timing of the Outage is not feasible due to the described

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requirement or constraint, the CAISO will not deny, cancel, or reschedule that CDWR-SWP Statutory Compliance or Water System Reliability Outage.

- (e) The CAISO will process any Outage that CDWR-SWP submits in an Outage schedule, Outage request, or request to change or cancel an Approved Maintenance Outage, that is not timely, does not contain a cause code identifying the Outage as a CDWR-SWP Statutory Compliance or Water System Reliability Outage or does not include a description of the requirement or constraint, under the otherwise applicable provisions of Section 9.3 and CAISO Operating Procedures.

**9.3.1.3 Coordinating 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, including whether it is Listed Local RA Capacity. 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 [Not Used]**

**9.3.1.3.2 [Not Used]**

To the extent that a resource is committed to provide Resource Adequacy Capacity during a month, the Scheduling Coordinator for the resource may request an RA Maintenance Outage With Substitution, RA Maintenance Outage Without Substitution, Off Peak Opportunity RA Maintenance Outage, or Short-Notice Opportunity RA Outage, or may request to reschedule an Approved Maintenance Outage, for that Resource Adequacy Capacity in accordance with the provisions of this Section. The timelines set forth in this Section for submitting an Outage request and classifying the outage as a Maintenance Outage or a Forced Outage exclude the day that the request is submitted and the day that the outage is scheduled to commence.

**9.3.1.3.3.1 RA Maintenance Outage With Substitution**

- (a) **Substitution Option.** The Scheduling Coordinator of a Resource Adequacy Resource

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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 Substitution during that month.

- (b) **Request.** A request for an RA Maintenance Outage With Substitution must: (i) be submitted to the CAISO no less than eight (8) days prior to the start of the outage; (ii) provide RA Substitution Capacity in an amount no less than the amount of Resource Adequacy Capacity that would be on 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 Substitution in the order that the requests are received.
  - (2) The CAISO may approve the request for an RA Maintenance Outage With Substitution 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 less than eight (8) 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 Substitution.
  - (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 Substitution or may request that the CAISO accommodate the outage without RA Substitute Capacity at another time.
- (d) **Resource Adequacy Obligation.** The RA Substitute Capacity for an RA Maintenance Outage With Substitution 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 substitution 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 Substitution**

- (a) **Option for No Substitution.** 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 Substitution, without a requirement to provide RA Substitute Capacity for the unavailable capacity for the duration of the outage to be excluded from the RAIM calculation under Section 40.9.
- (b) **Request.** A request for an RA Maintenance Outage Without Substitution must: (i) be submitted to the CAISO no less than eight (8) 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 Substitution in the order the requests were received.
  - (2) The CAISO may approve a request for an RA Maintenance Outage Without Substitution 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 Substitution.

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- (3) The CAISO will not approve a request for an RA Maintenance Outage Without Substitution 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 Substitution 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 Substitution 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 Substitute Capacity for the unavailable capacity for the duration of the outage to be excluded from the RAIM calculation under Section 40.9.
- (b) **Request.** A request for an Off-Peak Opportunity RA Maintenance Outage must: (i) be submitted to the CAISO no less than eight (8) 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.

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- (2) If the request was submitted no less than eight (8) 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 Substitution 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 RAIM 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 Substitute Capacity for the Resource Adequacy Capacity that will be on the Forced Outage to be excluded from the RAIM calculation under Section 40.9.
- (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 (7) 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



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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 not 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 and 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 RAAIM provisions in Section 40.9.

**9.3.1.3.4 Outage Reporting for Resource Adequacy Resources between 1 MW and 10 MW**

Scheduling Coordinators or Resource Adequacy Resources with a PMax of at least one (1) MW but less than 10 MWs that do not meet the requirement to provide information on Forced Outages in accordance with Section 9.3.10 shall report Outages in accordance with the process set forth in the Business Practice Manual.

**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.

**9.3.3 Request Submission and Information**

The Operator or Scheduling Coordinator of facilities that comprise the CAISO Controlled Grid or of 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 use the ISO's outage management system to –

- (1) Submit all outage requests under Section 9.

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- (2) Provide the required information about the outage and work to be performed using the nature of work categories described in the Business Practice Manual.
- (3) For transmission outage requests, additionally provide structured and detailed outage modeling information at the facility level and/or the breaker/switch level. If the work to be performed will require a switch position to change during the outage period, the Operator or Scheduling Coordinator must submit a separate outage request for each configuration.
- (4) For resource outage requests, additionally provide the required information for the resource at the aggregate project or plant level, and also at the individual unit level for a unit de-rate greater than 50 MW, and any limitations on the resource's availability to provide each type of ancillary service for which it is certified.
- (5) Notify the CAISO of temporary changes in physical characteristics specified in the Master File, including the PMax, Minimum Load, and Ramping capability of the unit, due to changes in their actual physical characteristics. Changes in the physical characteristics related to Minimum Load shall only be for temporary increases in Minimum Load due to ambient temperature, outages of mechanical equipment, or environmental regulations.

#### **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 Communication**

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

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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**

#### **9.3.6.1.1 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

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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 Changes to Maintenance Outages**

A Participating TO may submit changes to its Maintenance Outage information at any time, provided, however, that if the Participating TO cancels an Approved Maintenance Outage after 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence and the CAISO determines that the change was not required to preserve System Reliability, the CAISO may disregard the availability of the affected facilities in determining the availability of transmission capacity in the Day-Ahead Market. The CAISO will, however, notify Market Participants and reflect the availability of transmission capacity in the Real-Time Market as promptly as practicable.

**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.

**9.3.6.5 CAISO Analysis of Generating Unit Outage Plans**

**9.3.6.5.1 [Not Used]**



#### **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.

**9.3.6.10 Failure to Meet Requirements**

Any request to consider maintenance that does not meet the notification requirements contained in Sections 9.3.8.2 and 9.3.8.3 will be rejected without further consideration, unless Section 9.3.10 applies.

**9.3.6.11 Cancellation of Approved Maintenance Outage**

In the event an Operator of facilities forming part of the CAISO Controlled Grid cancels an Approved Maintenance Outage after 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence and the CAISO determines that the change was not required to preserve System Reliability, the CAISO may disregard the availability of the affected facilities in determining the availability of transmission capacity in the Day-Ahead Market, provided, however, that the CAISO will, as promptly as practicable, notify Market Participants and reflect the availability of the affected facilities in determining the availability of transmission capacity in the Real-Time Market.

### **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.

**9.3.7.3** The CAISO will compensate the applicable Participating TO or Participating Generator for any direct and verifiable costs that such Participating TO or Participating Generator incurs as a result of the CAISO's cancellation of an Approved Maintenance Outage pursuant to this Section 9.3.7. For purposes of this section, direct costs include verifiable labor and equipment rental costs that have been incurred by the applicable Participating TO or Participating Generator solely as a result of the CAISO's cancellation of the Approved Maintenance Outage. Each Participating TO or Participating Generator must make a reasonable effort to avoid incurring any such direct costs through such measures as, but not limited to, the prompt cancellation of all contractual arrangements with third parties related to the Approved Maintenance Outage.

**9.3.7.4** The amount used to compensate each applicable Participating TO and Participating Generator, as described in Section 9.3.7.3, shall be charged to the Scheduling Coordinators in proportion to their metered Demand (including exports) during the Settlement Period(s) of the originally scheduled Outage.

**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:

- (a) the Generating Unit or System Unit name and Location Code, or the identification of the transmission system element(s) to be maintained including location;
- (b) the nature of work to be performed;
- (c) the date and time the Outage is to begin;
- (d) the date and time the Outage is to be completed;
- (e) the time required to terminate the Outage and restore the Generating Unit to normal capacity or the transmission system to normal operation;
- (f) identification of primary and alternate telephone numbers for the Operator's single point of contact; and
- (g) in the case of a request for a change to an Approved Maintenance Outage, the date and time of the original Approved Maintenance Outage.

#### **9.3.8.2 Eight-Day Prior Notification**

Any request by a Participating Generator to confirm or change an Approved Maintenance Outage must be submitted no less than eight days prior to the starting date of the Approved Maintenance Outage (or as posted on the CAISO Website). 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. Any request by an Operator or Scheduling Coordinator of transmission facilities to confirm or change an

Approved Maintenance Outage seven (7) days or less in advance of the start date for the Outage is subject to Section 9.3.6.3.2.

**9.3.8.3 [Not Used]**

**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**

**9.3.10.1** Coordination of all Forced Outages (consistent with Sections 9.3.4 and 9.3.5.2.1) will be through the single point of contact between the Operator and the CAISO Control Center.

**9.3.10.2** Each Participating TO shall report any change or potential change in equipment status of the Participating TO's transmission assets turned over to the control of the CAISO or in equipment that affects transmission assets turned over to the control of the CAISO immediately upon discovery to the CAISO (this will include line and station equipment, line protection, Remedial Action Schemes and communication problems, etc.). Each Participating TO shall also keep the CAISO immediately informed upon discovery as to any change or potential change in the Participating TO's transmission system that could affect the reliability of the CAISO Controlled Grid. This would include, but is not limited to, adverse weather conditions, fires, bomb threats, system failures, etc. To the extent possible, the CAISO shall

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reflect all transmission Outages in the Integrated Forward Market and Real-Time Market.

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

- (a) Any Operator, 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 a Generating Unit or a Resource-Specific System Resource by ten (10) MW or more from the value most recently recorded in the CAISO's outage management system pursuant to Section 9, or removing a transmission facility from service, shall communicate directly with the CAISO Control Center.
- (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.

All notifications of Forced Outages shall be communicated to the CAISO Control Center with as much notice as possible in order that the necessary security analysis and CAISO Controlled Grid assessments may be performed. If prior notice of a Forced Outage cannot be given, the Operator shall notify the CAISO of the Forced Outage within thirty (30) minutes after it occurs. Any Operator, upon identification of a situation likely to result in a Forced Outage but of a nature not requiring a removal from service until some time more than twenty-four (24) hours in the future will be subject to the provisions of Section 9 with respect to any necessary Outage except the requirements imposing time limits for notification will be waived and the request will be expedited by the CAISO provided notice is given as soon as possible.



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

- (a) The Operator of a Generating Unit or a Resource-Specific System Resource is required to notify the CAISO within sixty (60) minutes after discovering any change in the maximum output capability of at least ten (10) MW or five percent (5%) of the value registered in the Master File, whichever is greater, from the value registered in the CAISO's outage management system pursuant to Section 9 that lasts for fifteen (15) minutes or longer.
- (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.

**9.3.10.4** The CAISO Control Center shall coordinate any operational changes necessary to accommodate a Forced Outage and Market Participants shall comply with the CAISO's instructions given for that purpose.

**9.3.10.5** All Forced Outages shall be communicated by the CAISO Control Center to Operators likely to be affected by the Outage using the same procedures adopted for Maintenance Outage coordination procedures.

**9.3.10.6 Review of Forced Outages.** With respect to Forced Outages of Generating Units that result in a reduction in maximum output capability that lasts fifteen (15) minutes or longer of 40 MW or more below the value registered in the Master File and ten (10) percent of the value registered in the Master File, Operators, and where applicable, Eligible Customers, Scheduling Coordinators, UDCs and MSS Operators promptly shall provide information requested by the CAISO to enable the CAISO to review the changes made to the maximum output capability or Forced Outages submitted by the Operator or Scheduling Coordinator and to prepare reports on Forced Outages. If the CAISO determines that any

Forced Outage may have been the result of gaming or other questionable behavior by the Operator, the CAISO shall submit a report describing the basis for its determination to FERC. The CAISO shall consider the following factors when evaluating the Forced Outage to determine if the Forced Outage was the result of gaming or other questionable behavior by the Operator: 1) if the Forced Outage coincided with certain market conditions such that the Forced Outage may have influenced market prices or the cost of payments associated with Exceptional Dispatches; 2) if the Forced Outage coincided with a change in the Bids submitted for any units or resources controlled by the Operator or the Operator's Scheduling Coordinator; 3) if the CAISO had recently rejected a request for an Outage for, or to Shut-Down, the Generating Unit experiencing the Forced Outage; 4) if the timing or content of the notice of the Forced Outage provided to the CAISO was inconsistent with subsequent reports of or the actual cause of the Outage; 5) if the Forced Outage or the duration of the Forced Outage was inconsistent with the history or past performance of that Generating Unit or similar Generating Units; 6) if the Forced Outage created or exacerbated Congestion; 7) if the Forced Outage was extended with little or no notice; 8) if the Operator had other alternatives to resolve the problems leading to the Forced Outage; 9) if the Operator took reasonable action to minimize the duration of the Forced Outage; or 10) if the Operator failed to provide any information or access to the generating facility requested by the CAISO within a reasonable time.

#### **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 Outage Coordination for New Facilities**

#### **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.

#### **9.4.2 Types of Work Requiring Coordination**

The types of work which the CAISO will coordinate includes any new addition, replacement or modification to the CAISO Controlled Grid, including:

- (a) transmission lines from part of the CAISO Controlled Grid;
- (b) equipment including circuit breakers, transformers, disconnects, reactive devices, wave traps, forming part of the CAISO Controlled Grid;

- (c) Generating Unit Interconnections; and
- (d) protection and control schemes, including RAS, SCADA, EMS, or AGC.

### **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 Responsibilities 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 to 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 procedures 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.

#### **9.5.2 Publication to Website**

The CAISO shall publish on the CAISO Website a list of all Generating Units that have been reported to the CAISO pursuant to the CAISO Tariff or contract as undergoing Outages, together with the Generating Unit's PMax, the amount of the curtailment, the name of its Scheduling Coordinator, and other non-confidential information about these Generating Units as CAISO determines.

### **9.6 Facility Power**

The facility owner shall remain solely and directly responsible for the performance of all maintenance work, whether on energized or de-energized facilities, including all activities related to providing a safe working environment.

### **9.7 Multi-Stage Generating Resources Outages**

Participating Generators of Multi-Stage Generating Resources shall report Outages in accordance with the Outage reporting requirements in Section 9 for the Generating Unit and for each MSG Configuration, as applicable. In addition, to the extent that the responsible Scheduling Coordinator modifies the registered Multi-Stage Generating Resource's characteristics as provided in Section 27.8.3, the Participating Generator for the Multi-Stage Generating Resource shall modify any information or reports previously submitted pursuant to this Section 9 to account for any registered status and characteristic

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changes as soon as possible after receiving notice from the CAISO acceptance of the registered status or characteristics changes and no later than two (2) business days prior to the date on which the Section 27.8.3 changes are expected to be in effect.