

# **California Independent System Operator Corporation**

**Compliance with Selected Operating  
Procedures Related to Transmission  
Outage Requests Created after April 1,  
2017 and Started during the period of  
May 1, 2017 through July 31, 2017**

**Report of Independent Accountants**





## **Report of Independent Accountants**

To the Board of Governors of the  
California Independent System Operator Corporation

We have examined the accompanying management assertion of California Independent System Operator Corporation that the selected Operating Procedure Elements related to the transmission outage coordination procedures listed in Table 1 of management's assertion were applied to transmission outage requests created after April 1, 2017 and started during the period of May 1, 2017 through July 31, 2017. California Independent System Operator Corporation's management is responsible for its assertion. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Management has provided additional information in the Management Narrative to Provide Additional Context to the Process column of Table 1 of management's assertion. This information was not subject to the examination engagement and we make no comment as to its completeness, accuracy, or appropriateness.

In our opinion, management's assertion referred to above is fairly stated, in all material respects.

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP". The signature is written in a cursive, flowing style.

December 8, 2017

## **Management Assertion Regarding Compliance with Selected Operating Procedures**

December 8, 2017

### **Overview**

The management of the California Independent System Operator Corporation (the "ISO") is responsible for the design and implementation of procedures necessary to comply with the transmission outage coordination requirements of the California Independent System Operator Corporation Fifth Replacement FERC Electric Tariff Section 9 ("Tariff").

The "Operating Procedure Elements" in the first column of Table 1 represent a subset of the operational procedures designed and implemented by management to meet the requirements of the ISO's Tariff and to carry out its transmission outage coordination procedures. These selected Operating Procedure Elements are not intended to represent the entire set of procedures designed and implemented for management to meet its Tariff and transmission outage coordination requirements. The selected Operating Procedure Elements are excerpts from Operating Procedure 3210 version 16.5, Transmission Outages, effective April 1, 2017 (revised on July 7, 2017), included as Appendix A to this management assertion. The selected Operating Procedure Elements comprise only the transmission outage coordination procedures selected by management on the basis that they could be objectively compared against actual operating practice. The transmission outage coordination procedures related to outages designated in the ISO Outage Management System ("OMS") as final approval required, and the operating procedures were executed solely by ISO personnel.

### **Management Assertion**

Management asserts the selected Operating Procedure Elements related to the transmission outage coordination procedures for Steps 3.3.2, 3.3.3, 3.3.6 and 3.5.4 as listed in Table 1 were applied to the transmission outage requests created after April 1, 2017 and started during the period of May 1, 2017 through July 31, 2017.

**Table 1**

<p><b>Operating Procedure Elements</b></p>	<p><b>Management Narrative to Provide Additional Context to the Process (unaudited)</b></p>
<p><i>Procedure #3210, Version No. 16.5, Effective Date 04/01/17 (revised on 07/07/17)</i></p> <p><i>Transmission Outages</i></p> <p><i>3.3.2 – Review and Approval of Short-Range Outage Requests</i></p> <p>ISO Operations Planning</p> <p>1. Review all new requests and modifications to existing Outage requests.</p> <ul style="list-style-type: none"> <li>- Note: Outages must be reviewed and approved prior to the Peak RC short-range submission timeline. Refer to Desktop Procedure <u>GOT-010, Internal Coordination of Outage Tasks</u>.</li> </ul> <p><i>For purposes of this assertion, “Review all new requests and modifications to existing Outage requests” means outages created after April 1, 2017 and started during the period from May 1, 2017 through July 31, 2017 and is the basis for determining the population of transmission outages subject to the remaining procedure elements.</i></p> <p>2. Determine if the requested Outage affects the Nuclear Plant Interface Requirements (NPIR) (NUC-001-2.1 R6).</p> <p><i>For purposes of this assertion, “Determine if the requested Outage affects the NPIR” relates to transmission outages where procedures are required to be performed on specific lines/equipment. This conclusion is documented within the Outage Management System (OMS).</i></p> <p>3. If the NPIR are affected, contact the requesting PTO and request coordination between the PTO, ISO, and the Nuclear Plant Operator.</p>	<p>In order to be considered in the Short-Range Outage process, each Participating Transmission Owner (PTO) is expected to provide the ISO with planned short-range outages no less than 5 full business days in advance of the Reliability Coordinator’s (RC) short-range submission deadline (PEAK RC short range submission timeline). Under the Short-Range study window process, outages are studied/assessed by the Transmission Operator (TOP)/ Balancing Authority (BA) and are then subsequently studied by the RC as part of a rolling weekly study/coordination process. TOPs and BAs are expected to perform their studies/assessments and to submit outages to Coordinated Outage System (COS) prior to the Short-Range study window submission deadline. Planned outages must be submitted by the Short-Range study window deadline in order to proceed. Any outage submitted after the Short-Range study window deadline may not be submitted as a Planned outage. Planned outages whose start dates occur between Monday and Sunday are to be submitted on a rolling weekly basis by the Monday prior at 6 a.m. Mountain Prevailing Time (MPT).</p> <p>Outages submitted to the ISO less than 5 full business days prior to the PEAK RC short-range submission deadline will not be considered in the short-range outage process but may be processed as unplanned short-range outages if the RC’s conditions for an urgent outage can be met, as specified in the RC’s outage coordination plan.</p> <p>ISO performs preliminary assessments of the planned outages submitted for each operating day to determine if any outage request or combination of outage requests relating to ISO Controlled Grid and Interconnection facilities, Generating Units or System Units may cause ISO to violate the Applicable Reliability Criteria.</p> <p>ISO will perform a preliminary assessment of outage requests submitted within the timeline and confirm, request reschedule, or reject the status of such requests by updating the outage state in the ISO outage management system prior to the PEAK RC short range submission timeline.</p>

<p><i>For purposes of this assertion, “request coordination between the PTO, ISO, and the Nuclear Plant Operator” means the outage requires the electric transmission lines to be taken out of service. This conclusion is documented within the OMS.</i></p> <p>4. Perform engineering study:</p> <ul style="list-style-type: none"> <li>- If there are no adverse reliability impacts expected due to the Outage, <ul style="list-style-type: none"> <li>o Assign market impacts as needed to manage constraints in the market due to the Outage.</li> <li>o Approve and submit the Outage to Peak RC for final approval.</li> <li>o If adverse reliability impacts are expected due to the Outage, contact the PTO to reschedule or cancel the outage.</li> </ul> </li> </ul> <p><i>For purposes of this assertion, “adverse reliability impacts expected” means that ISO Operations Planning personnel have concluded that either overlapping outages or other conditions, which could risk an insecure transmission state exist. This conclusion is documented within the OMS.</i></p> <p><i>For purposes of this assertion, “Assign market impacts as needed” means that ISO Operations Planning personnel have concluded that transmission constraints need to be mitigated to prevent conditions that could risk an insecure transmission state. This conclusion is documented within the OMS.</i></p>	<p>If ISO determines that any of the proposed outages, or combination of outages, are forecast to cause ISO to violate the Applicable Reliability Criteria, ISO notifies the relevant requestor(s) of the violation and works to resolve identified conflict(s). The PTOs then must revise the proposed Maintenance outage(s) and re-submit the revised outage to the ISO.</p> <p>Under extenuating circumstances, conditions may warrant rescheduling a priority received outage to giving priority to a later received outage. Such decisions will be made with prioritizing the reliability of the system. Additionally, real time system conditions will be given priority over planned outages when a conflict occurs as a result of unforeseen real time operating conditions or changes to planned outages.</p>
<p>3.3.3. <i>Review and Approval of Forced Outage Requests</i> ISO Operations Planning, ISO Real-Time Operations Engineer, ISO Transmission Dispatcher</p> <ol style="list-style-type: none"> <li>1. Review all new requests and modifications to existing Outage requests. <ul style="list-style-type: none"> <li>- Note: Outages must be reviewed and approved prior to the Peak RC OPA submission timeline from Outage Management BPM and per ISO Desktop Procedure <u>GOT-010, Internal Coordination of Outage Tasks</u>.</li> </ul> </li> </ol>	<p>Excluding short-range outage requests submitted in accordance with 3.3.2, a request for an outage that is submitted to ISO less than seven days prior to the start date for the outage shall be classified as a Forced Outage. The forced outage request review responsibility is between the Operations Engineering – Planning (OEP) and Operations Engineering - Real Time (OERT) as follows:</p> <ul style="list-style-type: none"> <li>• OEP is responsible for monitoring and processing all Forced Outages within 7 – 4 days from outage start date.</li> <li>• OERT is responsible for monitoring and processing all Forced Outages within 3 days from outage start date.</li> </ul>

*For purposes of this assertion, “Review all new requests and modifications to existing Outage requests” means outages created after April 1, 2017 and started during the period from May 1, 2017 through July 31, 2017 and is the basis for determining the population of transmission outages subject to the remaining procedure elements.*

2. Review all Outages in OMS to assess impact to reliability based on projected system conditions.

*For purposes of this assertion, “assess impact to reliability” means an outage is evaluated to identify potential issues or conflicts with overlapping outages on interconnected facilities, as well as situations which could risk limit exceedances or voltage instability. This conclusion is documented within the OMS.*

3. Assign market impacts as needed to manage constraints in the market due to the Outage.

*For purposes of this assertion, “Assign market impacts as needed” means that ISO Operations Planning personnel have concluded that transmission constraints need to be mitigated to prevent conditions that could risk an insecure transmission state. This conclusion is documented within the OMS.*

4. Approve or disapprove Outages in OMS based on engineering study by transitioning the Outage record in OMS to the Approved or Disapproved State respectively.

- Forced Outages received on weekends or holidays when OEP is not in the office should be processed by OERT.

All Forced Outages must be reviewed and approved prior to the Operating Planning Analysis (OPA) lock-down time. OPA lock-down time is 6 a.m. MPT one business day prior to the start date of the outage. Holidays (RC-observed holidays) will also need to be accounted for in the OPA lock-down time to preserve the one business day prior requirement.

Outage submission requirements for the Forced Outages submitted are subject to the same outage study process requirements specified for the Short-Range outages above in Operating Procedure Element 3.3.2.

For a more detailed description of Forced Outage processes, refer to the Business Practice Manual (BPM) for Outage Management which is publicly available at [www.caiso.com](http://www.caiso.com), the ISO’s website.

**3.3.6  
Modifications and Cancellations of  
Approved Outages  
ISO Operations Planning, ISO Real  
Time Operations Engineer**

- 1) *If a change is requested for an Outage within the Outage Coordination Timeframe, review the request for any reliability issues before making the decisions to approve or reject the change, per ISO Desktop Procedures GOT-010, Internal Coordination of Outage Tasks.*

*For purposes of this assertion “Outage Coordination Timeframe” means Operations Planning Engineers are responsible for monitoring and processing all Outages and Pending Requests received 4 days or more prior to the outage start date. Modifications received 3 days or less prior to the outage start date are handled by a Real Time Operations Engineer.*

*For purposes of this assertion, “reliability issues” means the outage may impact current and future approved outages requirements and transmissions constraints that would require mitigation. This conclusion is documented within the OMS.*

Note – The Participating Transmission Owner and Transmission Operator procedures are outside the scope of this assertion.

If an outage is rescheduled by the PTO and the new scheduled outage start or end dates fall outside of the previously confirmed outage dates, or if a generation resource’s availability amount is decreased beyond the previously confirmed submission, the update will be considered as a new outage request and the outage will be transitioned back to the Study outage state (e.g., the short-range study window or forced outage requests), pending further review through the appropriate planning process based on new outage request and the submission deadlines defined above in Operating Procedure Element 3.3.2.

The outage will not be considered in the Short-Range outage process if the update was submitted less than 5 full business days in advance of the RC’s Short-Range submission deadline for the new request, but may be processed as an unplanned Short Range outage, if applicable, or may need to be rescheduled to meet planned outage submission deadlines. The priority of the original request is lost and will be established based on the new request.

A PTO may cancel a previously approved planned outage or submit a request to change a previously approved planned outage at any time. However, if a PTO cancels an Approved Maintenance Outage after 5:00 a.m. Pacific Prevailing Time (PPT) of the day prior to the day upon which the outage is scheduled to commence and ISO determines that the change was not required to preserve System Reliability, ISO may disregard the availability of the affected facilities in determining the availability of transmission capacity in the Day-Ahead Market. ISO, however, notifies Market Participants and reflects the availability of transmission capacity as promptly as practicable.

The ISO may, by providing notice no later than 5:00 a.m. PPT of the day prior to the day upon which the outage is scheduled to commence, direct the Operator to cancel an Approved Outage, when necessary to preserve or maintain System Reliability. If such cancellation occurs after the 5:00 a.m. deadline, ISO may be liable to compensate the applicable PTO for the direct and verifiable costs incurred by that PTO as a result of the cancellation of an Approved Outage. The Operator, acting in accordance with “Good Utility Practice” as defined by CAISO, must comply with ISO’s direction. ISO will give notice of any such direction to Market Participants prior to the deadline for submission of bids in the Day Ahead Market (DAM) for the day on which the Outage was to have commenced.

	<p>Per ISO's Fifth Replacement Electronic Tariff, 'Good Utility Practice' means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act section 215(a)(4).</p>
<p>3.5.4. <i>ISO Notification of Real Time Change to an Approved Outage</i></p> <p><i>ISO Transmission Desk</i></p> <ol style="list-style-type: none"> <li>1. Review all real time changes to the approved Outage in OMS for impacts to system reliability.</li> <li>2. Re-evaluate any future Approved Outages for reliability.</li> </ol> <p><i>For purposes of this assertion, "for impacts to system reliability" means an outage is evaluated to identify potential issues or conflicts with overlapping outages on interconnected facilities, as well as situations which could risk limit exceedances or voltage instability. The review is evidenced by the Operating Engineer's acceptance of the change in OMS.</i></p> <ol style="list-style-type: none"> <li>3. Request Real-Time Operating Engineer (OE) studies as needed.</li> </ol> <p><i>For purposes of this assertion, "Request real-time OE studies as needed" means that an engineering study is necessary if the Outage is being rescheduled, the description is being changed, or modeling of outage is being changed.</i></p>	<p>If a previously approved Short-Range outage has a significant change submitted less than 5 full business days in advance of the RC's Short-Range submission deadline, the modified outage will not be considered in the Short-Range outage process but may be processed as an unplanned Short-Range Outage, if applicable, or may need to be rescheduled to meet planned outage submission deadlines.</p> <p>A significant change is considered a change, including but not limited to scope or modeling, significant enough to require study to verify system reliability, as determined by ISO Operations Engineers.</p> <p>ISO may at any time request that an unscheduled outage or change to an Approved Outage be scheduled and taken by a PTO. For such situations, the ISO provides its rationale for scheduling any such outages.</p>

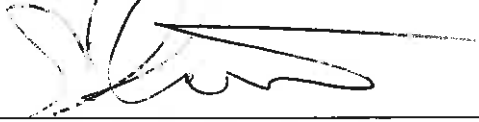


4. Approve the real time changes if it is determined that system conditions allow and there are no adverse impacts to reliability. If the revised Outage extends into the next Outage day, email the Real-Time Outage Changes group.

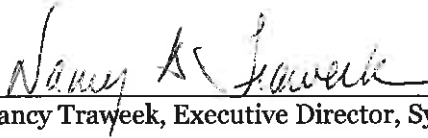
*For purposes of this assertion, "no adverse impacts to reliability" means that ISO Operations Planning personnel have concluded that either overlapping outages or other conditions which could risk an insecure transmission state do not exist. This conclusion is documented within the OMS.*

Note – The Participating Transmission Owner and Transmission Operator procedures are outside the scope of this assertion.

The scope of this management assertion is limited to the Operating Procedure Elements described above and does not extend to any other procedures or functions of the ISO.



Mr. Eric Schmitt, Vice President Operations



Ms. Nancy Traweck, Executive Director, System Operations

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*Appendix A*


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## *Appendix A*

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 <b>California ISO</b>	<b>Operating Procedure</b>	<b>Procedure No.</b>	3210
		<b>Version No.</b>	16.5
		<b>Effective Date</b>	7/07/2017
<b>Transmission Outages</b>		<b>Distribution Restriction: None</b>	

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# Purpose

This procedure details the processes related to planned & forced outages of transmission equipment & interconnections under the ISO jurisdiction.


## 1. Responsibilities

<b>Participating Transmission Owner (PTO)</b>	Ensure that Outages of transmission facilities that are part of the ISO grid are coordinated with the ISO in accordance with this ISO Operating Procedure and the <a href="#">BPM for Outage Management</a> .
<b>Adjacent Balancing Authority (ABA)</b>	Coordinate Outages that affect the ISO control grid with the ISO in accordance with NERC/WECC Reliability Standard.
<b>Transmission Operator (TOP)</b>	Coordinate Outages that affect the ISO control grid with the ISO in accordance with NERC/WECC Reliability Standard.
<b>ISO Operations Planning</b>	Performs engineering studies of Outage requests to determine impacts to reliability, reviews, processes, and approves requests for all Outages in the ISO Outage Coordination Timeframe.
<b>ISO Transmission Desk</b>	Manages and coordinates transmission Outages in real-time to and ensures system reliability.

## 2. Scope/Applicability

### 2.1. Background

The CAISO Tariff establishes the business processes used by the ISO to coordinate the scheduling of transmission Outages and management of Forced Outages. The provisions of this procedure are intended to be consistent with the CAISO Tariff.

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<b>Transmission Outages</b>		<b>Distribution Restriction:</b> <b>None</b>	

## 2.2. Scope/ Applicability

Describes the procedures for managing transmission Outages within the ISO’s jurisdiction, including the submission and approval of transmission Outage Requests. The procedure is applicable to all Participating Transmission Owners and transmission entities connected to the ISO grid with operating agreements that require coordination of Outages with the ISO. Procedures for managing generation Outage requests are covered in ISO Operating Procedure [3220, Generation Outages](#). For an overview of implementation rules, requirements and guidelines regarding scheduling of generation and transmission outages, refer to the ISO [BPM for Outage Management](#).

## 3. Procedure Detail

### 3.1. Outage Coordination and Request Timeframes


#### 3.1.1. Planned vs. Forced

New requests for planned transmission Maintenance Outages or requests to change Approved Maintenance Outages must be submitted to the ISO at least seven (7) days in advance of the start date for the Outage, in order for the Outage to be designated as a Planned Outage. The timeline for submitting the required advanced notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence.

New Outage requests or requests to change Approved Maintenance Outages submitted seven (7) days or less prior to the start of the Outage are designated as Forced Outages.

The preferred medium for submitting Outage requests is through the ISO Outage Management System (OMS). Outages can be submitted to the ISO OMS directly from a web interface or via an Application Program Interface (API). The ISO OMS will automatically designate an Outage as either Planned or Forced based on the date of submittal.

If the ISO OMS is unavailable during the Outage Coordination timeframe, then requests can be provided via email. If the ISO OMS is unavailable during the Real-Time Timeframe, then requests can be provided by phone.

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<b>Transmission Outages</b>		<b>Distribution Restriction: None</b>	

### 3.1.2. Planned Outage Requests of Significant Facilities for CRR

ISO transmission facilities of 200 kV or greater, or which have been designated as Significant Facilities in Attachments B, C, or D, must be submitted 30 days in advance of the calendar month that the outage is to begin. If the 30th day falls on a non ISO business day then the Planned Outage Request is due on or before the last business day, 30 days prior to the month the Outage is to begin.

### 3.1.3. Long-Range Outage Plans


By October 15th of each year, PTOs shall provide the ISO with any proposed Outages for the following year impacting its transmission system, in the ISO OMS. These proposed Outage submittals should also include any requested additions or changes to previously approved Outages. The resulting submittal looks forward approximately 15 months, including any new or revised Outages for the period January 1st until December 31st of the following year. In addition, long range plans from external BAs and TOPs are also accepted and are used in determining priority of all Outages affecting PTOs.

### 3.1.4. Sharing of Outage Information

To maintain coordinated system operation, all approved Outage information shall be available by 10:00 a.m. Pacific Prevailing Time (PPT) for the next day. The ISO shares Outage information with the following entities (TOP-002-2a R4):

- Peak Reliability Coordinator (RC)
- Affected Balancing Authorities (BA)
- Affected Transmission Operators (TOP)

The Peak RC has final authority for the resolution of Outages affecting the bulk electric system. Operating Instructions received to cancel Outages from the Peak RC are final. The ISO publishes Path limiting Outages up to 30 days prior to the current date on the ISO OASIS site (**Note:** requires an ISO digital certificate to access). The ISO also publishes Approved Outages and Outages in progress for the next seven (7) days on the website.

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<b>Transmission Outages</b>		<b>Distribution Restriction:</b> <b>None</b>	

### 3.2. Submittals of Outage Requests

Outage Requests
<p>Outage requests must be submitted for:</p> <ul style="list-style-type: none"> <li>• All types of work on transmission equipment, communication and monitoring facilities listed in the <a href="#">BPM for Outage Management</a>.</li> <li>• Energization/Synchronization of new, rerated or modified transmission facilities, identified as part of transmission projects in the ISO Resource Interconnection Management System (RIMS). Refer to the <a href="#">BPM for Managing the Full Network Model</a> for more information on the RIMS process.</li> <li>• Permanent removal of existing transmission equipment from service.</li> </ul> <p>At a minimum, all transmission Outage requests must include the following information:</p> <ul style="list-style-type: none"> <li>• Equipment information</li> <li>• Outage start date and time</li> <li>• Outage end date and time</li> <li>• Discovery date and time</li> <li>• Emergency return time</li> <li>• Nature of Work (NoW)</li> <li>• Short description of outage</li> <li>• Primary and secondary cause codes, if the request is submitted within the Forced Outage timeframe</li> </ul> <p>If an equipment is to be taken out of service, then modeling of the switch positions is required.</p>


#### 3.2.1. Nature of Work (NoW) Categories

All Outage requests submitted to the ISO OMS must have an associated NoW category assigned to them.

The NoW categories streamline Outage submission and processing time, capture relevant data for outage coordination, and increase consistency in the level of information reported. These NoW categories will provide downstream systems with the structured data necessary to ensure appropriate Outage processing and will facilitate increased automation of Outage requests.


Furthermore, the use of certain NoW categories in OMS will automatically designate an Outage as Final Approval Required (FAR) or Final Approval Not Required (FAN). See Section 3.5 for a description of how FAR and FAN outages are processed in real time.



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**NoW Categories for Transmission Outage**  
 (Screenshot provided below to demonstrate the terms “Equipment,”  
 “Switches” and “Equipment Rating Changes”):

Category	Purpo
<b>Out of Service*</b>	Transmission equipment out of service or interrupting a transmission flow path
<b>Energized Work</b>	Transmission equipment work while facilities are energized
<b>Relay Work*</b>	Protective equipment taken out of service
<b>Special Setup</b>	Transmission work that requires unique system setup and modeling
<b>Test Program</b>	Transmission facility/equipment testing (equipment may or may not be energized)
<b>Equipment De-rate</b>	Work that will cause a derate of transmission facility/equipment
<b>Equipment Abnormal</b>	Work that requires switching or placing system equipment in abnormal positions
<b>Path Limitation</b>	Work that will limit capacity on a transmission path
<b>Communications</b>	Work on system communication equipment
<b>Out of Service with Special Setup *</b>	Transmission work that requires equipment to be out of service while also requiring unique system setup and modeling.
<b>RIMS Outage</b>	Participant projects that are new, replacement, or decommissioning of equipment scheduled to be energized
<b>RIMS Testing</b>	Request to test new or replaced equipment before energizing


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### 3.2.2. Final Approval Required/ Not Required Designation

FAR vs FAN
<p>All Outages submitted to the ISO OMS are automatically designated as FAR or FAN based on specific criteria.</p> <p>Transmission Maintenance Outages in following categories will be automatically designated as FAR:</p> <ul style="list-style-type: none"> <li>• Outage with data defined in the Market Impacts portion of the outage</li> <li>• Equipment with voltage of 500 kV or higher</li> <li>• NoW of Communications is selected</li> <li>• Outage is included in a group. The ISO OMS automatically groups outages when certain criteria is met (e.g. when OMS automatically trumps switch positions in 2 or more outages, the outages will be grouped and designated as FAR). Also, an ISO Operator can manually group 2 or more outages if it is determined that one outage impacts the other, or for other reliability reasons).</li> </ul> <p>All other Transmission Maintenance Outages will be designated as FAN. If the Outage is not automatically set to FAR, that designation can be manually entered by ISO Operations Planning or a Real-Time Dispatcher. If the OMS designates the outage type as FAR, it cannot be manually changed to FAN.</p>

### 3.2.3. Initiation of an Outage Request


Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. <b>Submit</b> Outage requests to the ISO OMS using the appropriate NoW category in Section 3.2.1. <ul style="list-style-type: none"> <li>○ If OMS is not available, <b>submit</b> the Outage request to the ISO by electronic format (e.g., email) or voice communication (refer to <a href="#">3210A, Transmission Outage Request</a> and <a href="#">3210F, CAISO Outage Coordination Contact Information</a>).</li> </ul> </li> <li>2. If the request is for a transmission equipment significant to CRR, <b>select</b> the “CRR Designation attribute”. If the request is for an equipment that affects a RAS, <b>select</b> the “Affects RAS” attribute. <ul style="list-style-type: none"> <li>○ <b>Note:</b> Refer to Section 5 of the BPM for Outage Management for the requirements for scheduling transmission equipment significant to CRRs</li> </ul> </li> <li>3. If the request is for Outage Coordination long term planning: <ul style="list-style-type: none"> <li>○ <b>Select</b> the “OC Long Term Planning” attribute (i.e., identify work planned for which Outages or derates are required) to request Outages or derates starting at the beginning of the quarter and for at least the next twelve (12) months.</li> </ul> </li> </ol>

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- **Include** the preferred start date, the duration of the Outage, the specific work to be done along with the required boundaries for the Outage (i.e. clearance limits). Include all information relative to the necessary Outage window:
    - System equipment operating limits
    - Emergency return time
    - Lead-time required to prepare for the Outage
    - Required completion date, if any
  - **Provide** alternative start dates and any information relative to linkages with other Outages.
- 4. If the request is for Energization of new equipment:
  - **Select** the “Is New Equipment Energized” attribute.
  - **Include** applicable information from [3210G, Outages to Connect New or Re-arranged Facilities](#).
- 5. If the request is for an equipment associated with a RIMS project, **select** the relevant RIMS NoW and **enter** the RIMS project information in the RIMS project information fields.
  - **Note:** *the RIMS project identifier which can be provided by the PTOs RIMS coordinator.*
- 6. If the request is for equipment that will be taken out of service, **model** associated switch and/or circuit breaker positions in the ISO OMS.
  - If the Outage requires a switch position to change during the Outage period, **submit** a separate Outage request for each configuration.
    - **Note:** *This requirement is not applicable to test programs and switches that do not change the power flow which are not operated off of the normal position for more than 30 minutes.*
- 7. If the request is for an outage induced equipment ratings change, **enter** the new ratings in the ISO OMS in the equipment ratings change section.
- 8. **Provide** any other relevant details related to the Outage in the free form text notes’ field of the OMS Outage entry form.

### 3.2.4. Outage Request Submission Timelines

The following timeline is provided to meet Peak RC Outage Coordination timelines.

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### 3.2.4.1. Long Range Outage Submission Timeline

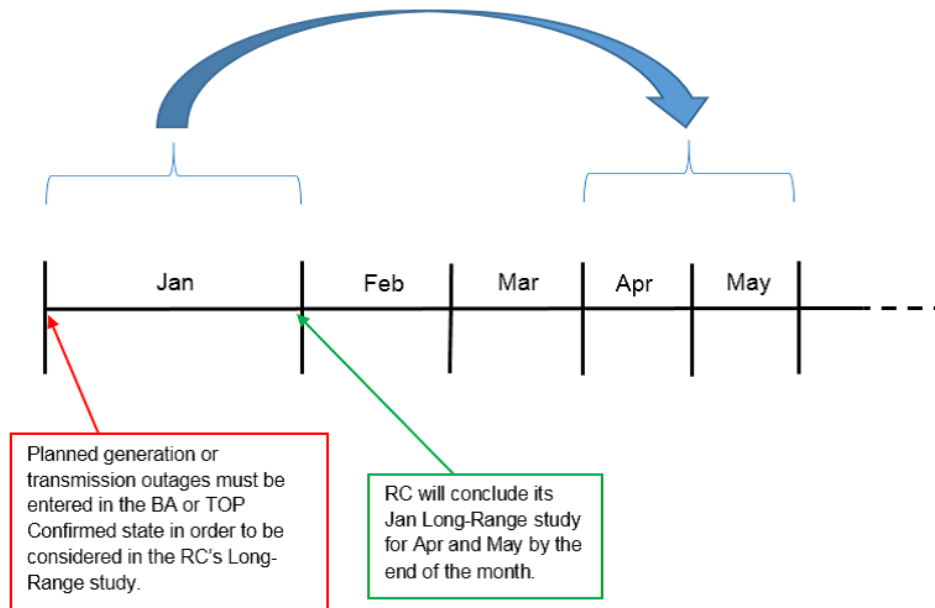



Figure 1\_ Peak RC Long Range Outage Study Windows.png

### 3.2.4.2. Short Range Outage Submission Timeline

PTOs are expected to submit five (5) business days prior to Peak RC short range outage submission deadline for outages to be evaluated in the RC short range study process.

Outages that were not received prior to the RC Short Range Outage Study Window will need to meet Peak RC urgent outage requirements. For additional details, please refer to the [BPM for Outage Management](#)

Peak RC OPA lock-down time is 08:00 a.m. MPT one (1) business day prior to the start date of the outage.


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See the following **Figures 2a and 2b Peak RC Short Range Outage Study Windows**.

Example of Outage Submission from PTOs to ISO to meet RC Outage Submission deadline with Weekly rolling period ( <b>without Holidays</b> )						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				SCs/PTOs to finalize the Outages for (5/1-5/7) <b>COB</b>		
ISO to start studying the outages for (5/1-5/7)				ISO to finalize the outages for (5/1-5/7)		
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
RC Deadline for the outages for (5/1-5/7) <b>6AM MPT</b>						
Monday (5/1)	Tuesday (5/2)	Wednesday (5/3)	Thursday (5/4)	Friday (5/5)	Saturday (5/6)	Sunday (5/7)
Planned Outage Start Date (Monday)	Planned Outage Start Date (Tuesday)	Planned Outage Start Date (Wednesday)	Planned Outage Start Date (Thursday)	Planned Outage Start Date (Friday)	Planned Outage Start Date (Saturday)	Planned Outage Start Date (Sunday)


Example of Outage Submission from PTOs to ISO to meet RC Outage Submission deadline with Weekly rolling period ( <b>with Holidays</b> )						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		SCs/PTOs to finalize the Outages for (5/1-5/7) <b>COB</b>	ISO to start studying the outages for (5/1-5/7)			
		ISO to finalize the outages for (5/1-5/7)	RC Deadline for the outages for (5/1-5/7) <b>6AM MPT</b>			
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			Holiday	Holiday		
Monday (5/1)	Tuesday (5/2)	Wednesday (5/3)	Thursday (5/4)	Friday (5/5)	Saturday (5/6)	Sunday (5/7)
Planned Outage Start Date (Monday)	Planned Outage Start Date (Tuesday)	Planned Outage Start Date (Wednesday)	Planned Outage Start Date (Thursday)	Planned Outage Start Date (Friday)	Planned Outage Start Date (Saturday)	Planned Outage Start Date (Sunday)

Figure 2a\_Peak RC Short Range Outage Study Windows.png  
 Figure 2b\_Peak RC Short Range Outage Study Windows.png

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### 3.3. Review and Approval of Outage Requests

Outage Request Review and Approval
<p>The ISO Operations Planning group (OP) reviews all Outages in accordance with ISO Operating Procedure <a href="#">3100, Establishing System Operating Limits for the Operations Horizon</a> and of the <a href="#">BPM for Outage Management</a> to assess impact to reliability based on the projected system conditions. Based on the results of the assessments, the ISO OP will either approve or deny the Outage request.</p> <p><i><b>Note:</b> Planned Outages should not be considered “Approved” until an assessment has been completed by both ISO OP and Reliability Coordinator personnel. In addition, final approval from an ISO Real-Time Dispatcher must be received on the day of the outage prior to commencing or ending an Outage designated as a FAR Outage.</i></p> <p><b><u>Outage Request Priority</u></b></p> <p>Outage Requests are generally considered on a first-come first-serve basis with additional consideration given to the following factors:</p> <ol style="list-style-type: none"> <li>1. Uncontrollable limitations</li> <li>2. Regulatory or other legal constraints</li> <li>3. Joint ownership facilities requiring ISO coordination with external entities.</li> <li>4. Warranty requirements</li> <li>5. Facilitation of additional (new) system resources</li> <li>6. Seasonal constraints (restricted access due to weather or protected areas for migratory birds, protected species, etc.)</li> <li>7. Linkage to other outages (overlapping equipment, required to enable return of other equipment, etc.)</li> <li>8. Other environmental benefits</li> </ol>


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### 3.3.1. Review and Approval of Long-Range Outage Requests

ISO Operations Planning
<ol style="list-style-type: none"> <li>1. <b>Coordinate</b> annual maintenance plan submitted by participants to the ISO by October 15th of the prior year.</li> <li>2. <b>Coordinate</b> with SC any modifications and additions expected to annual maintenance plan.</li> <li>3. <b>Determine</b> if the requested Outage affects the Nuclear Plant Interface Requirements (NPIR) (NUC-001-2.1 R6).</li> <li>4. If the NPIR are affected, <b>contact</b> the requesting PTO and request coordination between the PTO, the ISO, and the Nuclear Plant Operator.</li> <li>5. <b>Approve</b> the Outage plan via OMS, by transitioning the Outage to the Approved State, if there are no reliability concerns otherwise disapprove the outage by transitioning the Outage to the Disapproved State.</li> <li>6. If a change is requested, <b>assign</b> that Outage request on a first come first serve basis. The Outage no longer has priority.</li> <li>7. <b>Offer</b> any additional Outage opportunity based on adjusted assumptions or reschedule Outages or derates. If the Outage opportunity is refused, remove the requester from further consideration or the affected Outage.</li> <li>8. If there is a need to cancel a Planned Outage due to system reliability concern, <b>request</b> volunteers via phone or email to reschedule their Outage without loss of their priority status.</li> <li>9. If insufficient volunteers are identified, <b>cancel</b> and <b>re-schedule</b> Outages or derates starting with the lowest prioritized Outage listed for that start date.</li> </ol>

### 3.3.2. Review and Approval of Short-Range Outage Requests

ISO Operations Planning
<ol style="list-style-type: none"> <li>1. <b>Review</b> all new requests and modifications to existing Outage requests. <ul style="list-style-type: none"> <li>○ <b>Note:</b> <i>Outages must be reviewed and approved prior to the Peak RC short range submission timeline. Refer to Desktop Procedure <a href="#">GOT-010, Internal Coordination of Outage Tasks.</a></i></li> </ul> </li> <li>2. <b>Determine</b> if the requested Outage affects the Nuclear Plant Interface Requirements (NPIR) (NUC-001-2.1 R6).</li> <li>3. If the NPIR are affected, <b>contact</b> the requesting PTO and request coordination between the PTO, ISO, and the Nuclear Plant Operator.</li> <li>4. <b>Perform</b> engineering study: <ul style="list-style-type: none"> <li>○ If there are no adverse reliability impacts expected due to the Outage, <ul style="list-style-type: none"> <li>▪ <b>Assign</b> market impacts as needed to manage constraints in the market due to the Outage.</li> <li>▪ <b>Approve</b> and <b>submit</b> the Outage to Peak RC for final approval.</li> </ul> </li> <li>○ If adverse reliability impacts are expected due to the Outage, <b>contact</b> the PTO to reschedule or cancel the outage.</li> </ul> </li> </ol>

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### 3.3.3. Review and Approval of Forced Outage Requests

ISO Transmission Desk, ISO Operations Planning, ISO Real-Time Operations Engineer
<ol style="list-style-type: none"> <li>1. <b>Review</b> all new requests and modifications to existing Outage requests.</li> <li>2. <b>Note:</b> Outages must be reviewed and approved prior to the Peak RC OPA submission timeline from Outage Management BPM and per ISO Desktop Procedure <a href="#">GOT-010, Internal Coordination of Outage Tasks</a>.</li> <li>3. <b>Review</b> all Outages in OMS to assess impact to reliability based on projected system conditions.</li> <li>4. <b>Assign</b> market impacts as needed to manage constraints in the market due to the Outage.</li> <li>5. <b>Approve</b> or disapprove Outages in OMS based on engineering study by transitioning the Outage record in OMS to the Approved or Disapproved State respectively.</li> </ol>


### 3.3.4. “Transmission Induced” Resource Outages Identified Before Real-Time

ISO Operations Planning
<p>If a transmission outage is submitted and it is identified that the transmission outage causes a resource to be limited or out of service:</p> <ol style="list-style-type: none"> <li>1. <b>Ensure</b> an OMS outage is created for each affected resource, using the NoW of “TRANSMISSION_INDUCED”.</li> <li>2. <b>Notify</b> the Scheduling Coordinator(s) for the affected resource(s) that a “TRANSMISSION_INDUCED” resource outage has been created.</li> <li>3. <b>Create</b> an outage group in OMS which contains both the transmission outage and the “TRANSMISSION_INDUCED” resource outage(s). The group comment will indicate that the group is created due to a transmission induced resource outage scenario.</li> </ol>

### 3.3.5. Rejection Notification

ISO Operations Planning
<ol style="list-style-type: none"> <li>1. If an Outage cannot be approved as requested, <b>identify</b> the reliability concerns that initiated the rejection.</li> <li>2. <b>Request</b> additional information (if required) to prioritize the Outage <b>and/or identify</b> scheduling opportunities; and <b>suggest</b> possible remedies or schedule revisions, as available, to mitigate reliability concerns.</li> <li>3. If adjustments cannot be exercised to remedy the Outage conflict, <b>disapprove</b> the request. <ul style="list-style-type: none"> <li>o <b>Note:</b> The only exception applies to Outages of an immediate nature that threaten public safety, personnel or equipment.</li> </ul> </li> </ol>



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### 3.3.6. Modifications and Cancellations of Approved Outages

Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. <b>Submit</b> changes or cancellations to Approved Outages in the ISO OMS: <ul style="list-style-type: none"> <li>○ If modifying an Approved Outage, <b>submit</b> a request to modify the Outage Card at any time prior to the minimum notification requirements for Planned Outages (see Section 3.1.1), or prior to notification of approval or rejection by the ISO, whichever occurs later. <ul style="list-style-type: none"> <li>▪ <b>Note:</b> <i>Outage priority will change if the Outage is rescheduled to a timeframe that is outside the timeframe of the original request.</i></li> </ul> </li> <li>○ If cancelling an Outage, <b>submit</b> the cancellation request at any time prior to actual initiation of the Outage. Best efforts should be made to provide at least 4½ hours cancellation notice for outages with market impacts.</li> </ul> </li> </ol>

ISO Operations Planning, ISO Real-Time Operations Engineer
<ol style="list-style-type: none"> <li>1. If a change is requested for an Outage within the Outage Coordination Timeframe, <b>review</b> the request for any reliability issues before making the decision to approve or reject the change, per ISO Desktop Procedure <a href="#">GOT-010, Internal Coordination of Outage Tasks</a>.</li> </ol>

### 3.3.7. Deferred Planned Outages

ISO Operations Planning
<p>If the ISO defers a Planned Outage due to system reliability requirements, <u>AND</u> during that deferral period, the affected facility has a failure, which is directly related to the deferred Planned Outage:</p> <ol style="list-style-type: none"> <li>1. <b>Designate</b> the Outage as a Planned Outage.</li> <li>2. <b>Conduct</b> a review, as appropriate, to determine the nature and circumstances of the failure. <ul style="list-style-type: none"> <li>○ If such a review is conducted, <b>report</b> the results of that review (including the forced or planned designation of the Outage) to the facility owner, and the Peak RC.</li> </ul> </li> </ol>

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### 3.4. Forced Outage Submissions

#### 3.4.1. Immediate Forced Outages


Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. If a situation is likely to occur that results in a Forced Outage, within the next twenty-four (24) hours (any of the following situations), take immediate corrective action: <ul style="list-style-type: none"> <li>• Removing transmission facilities from service, or</li> <li>• Causing RAS to be disabled or lose redundancy, <b>submit</b> an outage request through OMS with as much notice as possible, and <u>within 60 minutes</u> of the discovery of the Outage.</li> </ul> </li> </ol>

ISO Transmission Desk
<ol style="list-style-type: none"> <li>1. <b>Look</b> for conflicts to current forced outages and active planned outages as well as any near term upcoming outages (next 12-24 hours).</li> <li>2. <b>Request</b> Real-Time OE studies as needed to validate reliability impacts.</li> <li>3. <b>Cancel/reschedule</b> conflicting Outages if deemed necessary to ensure reliability.</li> </ol>

#### 3.4.2. Imminent Forced Outages

Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. If a situation is likely to result in a Forced Outage, but of a nature not requiring a removal from service until more than twenty-four (24) hours in the future: <ul style="list-style-type: none"> <li>• <b>Submit</b> an Outage entry in OMS in accordance with the requirements in Section 3.1 and 3.2, and</li> <li>• <b>Attach</b> any special procedures to outage card.</li> </ul> </li> </ol>

ISO Transmission Desk
<ol style="list-style-type: none"> <li>1. If the request is for an Outage within the Real-Time Timeframe: <ul style="list-style-type: none"> <li>• <b>Review</b> and approve the request at the earliest opportunity if system conditions allow.</li> <li>• <b>Request</b> Real-Time OE review as needed.</li> <li>• <b>Email</b> the Real-Time Outage Changes group.</li> </ul> </li> <li>2. If the request is for an Outage outside the Real-Time Timeframe, <b>forward</b> the request for review by Operations Planning.</li> </ol>

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<b>ISO Day Ahead Operations Engineer, ISO Real-Time Operations Engineer</b>
1. <b>Review</b> and <b>approve</b> the requests for Imminent Forced Outages within the Outage Coordination Timeframe.

### 3.4.3. "Transmission Induced" Resource Outages Identified In Real-Time

<b>ISO Transmission Desk</b>
1. If a transmission outage occurs, and it is identified that the transmission outage causes a resource to be limited or out of service: <ul style="list-style-type: none"> <li>• <b>Ensure</b> an OMS outage is created for the transmission outage.</li> <li>• <b>Notify</b> ISO Generation Desk of transmission outage and all identified resources that are affected.</li> </ul>


<b>ISO Generation Desk</b>
1. If notified of a transmission outage that causes a resource to be limited or out of service: <ul style="list-style-type: none"> <li>• <b>Ensure</b> an OMS outage is created for each affected resource, using the NoW of "TRANSMISSION_INDUCED".</li> <li>• <b>Ensure</b> notification is made to the Scheduling Coordinator(s) for the affected resource(s) that a "TRANSMISSION_INDUCED" resource outage has been created.</li> <li>• <b>Create</b> an outage group in OMS which contains both the transmission outage and the "TRANSMISSION_INDUCED" resource outage(s). The group comment will indicate that the group is created due to a transmission induced resource outage scenario.</li> </ul>

### 3.5. Real-Time Outage Processing

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### 3.5.1. Final Approval

Final Approval
<p><b><u>ISO Final Approval</u></b></p> <p>In accordance with the <a href="#">BPM for Outage Management</a>, a PTO/TOP within the ISO controlled grid must not initiate an Outage without receiving final approval of the Outage, unless the ISO determined that final approval not required.</p> <p>In Real-Time, FAR outages require ISO System Operator final approval to start and end outages; requests and approval of requests may be handled electronically. FAN outages can proceed as scheduled without ISO System Operator approval, and actions are reported electronically.</p> <p>Prior to the start of the Outages for the day, the ISO Transmission Desk:</p> <ul style="list-style-type: none"> <li>• Reviews all scheduled Outages for the day to ensure no reliability issues exist.</li> <li>• If determined necessary, completes a Dispatch Load Flow (DLF) analysis to verify reliability impacts.</li> <li>• Reviews any applicable nomograms, procedures, and/or historical data relating to the Outage.</li> <li>• And during the Outage, periodically verifies to ensure no reliability issues exist.</li> </ul> <p><b><u>RC Final Approval</u></b></p> <p>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.</p>

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### 3.5.2. Starting an Approved Outage


Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. <b>Initiate</b> the start of an Outage in accordance with FAN/FAR Outage processing rules below: <ul style="list-style-type: none"> <li>• <b>Request</b>, if Outage designated as FAR, to start the outage by submitting an “Out OK” request electronically in OMS or by contacting the ISO Transmission Desk by phone.</li> <li>• If Outage designated as FAN: <ul style="list-style-type: none"> <li>• <b>Submit</b>, at the scheduled start time of the Outage, an “Out” notification and actual start time electronically in OMS or by contacting the ISO Transmission Desk by phone.</li> <li>• <b>Proceed</b> with the scheduled FAN Outage work.</li> </ul> </li> </ul> </li> </ol> <p><i><b>Note:</b> if the actual start time of a scheduled Outage deviates from the scheduled start time by more than 30 minutes, a request to change the scheduled start time must be submitted in OMS.</i></p>

ISO Transmission Desk
<ol style="list-style-type: none"> <li>1. <b>Ensure</b> that system conditions allow all Outages to proceed as scheduled.</li> <li>2. <b>Review</b> and <b>approve</b> “Out OK” requests to initiate FAR Outages electronically in OMS.</li> <li>3. If system conditions do not allow an Outage to proceed as scheduled, <b>cancel</b> the Outage and work with the PTO/TOP to <b>reschedule</b> the Outage.</li> </ol>

Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. For a FAR Outage, once an “Out OK” approval has been received, <b>submit</b> an actual start time for the Outage electronically in OMS.</li> <li>2. <b>Proceed</b> with the scheduled FAR Outage work.</li> </ol>

### 3.5.3. Ending an Outage

Participating Transmission Owner (PTO), Transmission Operator (TOP)
<ol style="list-style-type: none"> <li>1. Once the equipment is ready to be returned to service, <b>initiate</b> the end of the Outage in accordance with FAN/FAR Outage processing rules: <ul style="list-style-type: none"> <li>• If Outage designated as FAR, <b>request</b> to end the outage by submitting an “In OK” request electronically in OMS or by contacting the ISO Transmission Desk by phone.</li> </ul> </li> </ol>

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- If Outage designated as FAN, at the scheduled end time, **submit** an “Inservice” notification and the actual end time electronically in OMS or by **notifying** the ISO Transmission Desk by phone.


- | ISO Transmission Desk   |
|---|
| <ol style="list-style-type: none"> <li>1. <b>Ensure</b> that system conditions allow the Outage to end as scheduled.</li> <li>2. <b>Review</b> and <b>approve</b> “In OK” requests to end FAR Outages electronically in OMS.</li> </ol> |

- | Participating Transmission Owner (PTO), Transmission Operator (TOP)   |
|---|
| <ol style="list-style-type: none"> <li>1. For a FAR Outage, once an “In OK” approval has been received, <b>proceed</b> with returning the equipment to service.</li> <li>2. <b>Submit</b> the actual end time for the Outage electronically via OMS, and <b>transition</b> the Outage card to the Inservice Editable State.</li> <li>3. If needed, <b>provide</b> additional details to the Outage by making edits to the Outage card in OMS prior to the Outage card automatically transitioning to the Inservice State. <ul style="list-style-type: none"> <li>• <b>Note:</b> <i>The Outage Card will automatically transition to the Inservice State 24 hours after Inservice Editable State. The Outage card is locked from editing in the Inservice state. The PTO/TOP should contact the ISO Transmission Desk to make any additional changes to the card.</i></li> </ul> </li> </ol> |

### 3.5.4. ISO Notification of Real-Time Change to an Approved Outage

- | Participating Transmission Owner (PTO), Transmission Operator (TOP)   |
|---|
| <ol style="list-style-type: none"> <li>1. If there is a deviation from the scheduled outage times greater than 30 minutes, or scope of the work changes during or prior to its beginning, <b>submit</b> a change request to the Outage card in OMS or notify the ISO Transmission Desk immediately by phone.</li> </ol> |

- | ISO Transmission Desk   |
|---|
| <ol style="list-style-type: none"> <li>1. <b>Review</b> all real-time changes to the approved Outage in OMS for impacts to system reliability.</li> <li>2. <b>Re-evaluate</b> any future Approved Outages for reliability.</li> <li>3. <b>Request</b> Real-Time OE studies as needed.</li> <li>4. <b>Approve</b> the real-time changes if it is determined that system conditions allow and there are no adverse impacts to reliability.</li> </ol> |

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5. If the revised Outage extends into the next Outage day, **email** the Real-Time Outage Changes group.

### 3.5.5. Extending an Approved Outage without Issuing Forced Outage Designation


In accordance with the [BPM for Outage Management](#), the ISO Transmission Dispatcher may approve the extension of an Approved Outage without designating the Outage as a Forced Outage, if the following conditions are met:

- The ISO is notified no later than two hours before the scheduled return time.
- The Outage has no direct effect on a Generating Unit.
- No Branch Group is affected by Congestion due to the extended Outage.

### 3.6. Outage Types & Validation Rules

The following explains the outage type mapping logic between CAISO WebOMS and Reliability Coordinator Outage Management system.

Rule	Peak Outage Type
If (NoW = Communications or Relay_Work or Energized_Work or RIMS outages) And affectsRASSPS = 'N'	Informational
If (NoW != Communications or Relay_Work or Energized_Work or RIMS outages) OR affectsRASSPS = 'Y' And (Submit Time-Start Time <= 0)	Forced Automatic
If (NoW != Communications or Relay Work or Energized_Work or RIMS outages) or affects RASSPS = 'Y' And (0 < Submit Time-Start Time < 24 hrs and Emergency Return Time < 60 Minutes)	Operational Transmission
If (NoW != Communications or Relay_Work or Energized_Work or RIMS outages) or affects RASSPS = 'Y' And (0 < Submit Time-Start Time < 24 hrs)	Forced Emergency

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If (NoW != Communications or Relay_Work or Energized_Work or RIMS outages) OR affects RASSPS = 'Y' And (24hrs <= Submit Time-Start Time < 17d)	Urgent
If (NoW != Communications or Relay_Work or Energized_Work or RIMS outages) OR affects RASSPS = 'Y' And (Submit Time-Start Time >= 17d)	Planned

## 4. Supporting Information

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**Operationally Affected Parties**      Shared with Peak RC and Public


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**References**      Resources studied in the development of this procedure and that may have an effect upon some steps taken herein include but are not limited to:

CAISO Tariff	Section 9
CAISO Operating Procedure	
NERC Requirements	NUC-001-3 R6
WECC Criterion	
Other References	<a href="#">Business Practice Manual (BPM) for Outage Management</a>

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## Definitions

Unless the context otherwise indicates, any word or expression defined in the Master Definitions Supplement to the CAISO Tariff shall have that meaning when capitalized in this Operating Procedure.

The following additional terms are capitalized in this Operating Procedure when used as defined below:


<b>Approved Outage</b>	An Outage request that has been reviewed and approved by the ISO.
<b>Approved State</b>	An Outage state in OMS that identifies an Outage as approved by the ISO. An Outage that has been approved by the ISO, will be clearly identified with the label “Approved” in the OMS Outage record.
<b>Disapproved State</b>	An Outage state in OMS that identifies an Outage as disapproved by the ISO. An Outage that has been disapproved by the ISO, will be clearly identified with the label “Disapproved” in the OMS Outage record.
<b>Inservice Editable State</b>	An Outage state in OMS that indicates that the actual end time for the Outage has been submitted and the OMS Outage record can still be edited.
<b>Inservice State</b>	An Outage state in OMS that indicates that the actual end time for the Outage has been submitted and the OMS Outage record has been locked from editing.
<b>Late to End State</b>	An Outage state in OMS that indicates a request to end an Outage (i.e. an In OK request) has not been submitted by the planned end time.
<b>NoW</b>	Nature of work.
<b>Late to Start State</b>	An Outage state in OMS that indicates a request to start an Outage (i.e. an Out OK request) has not been submitted by the planned start time.
<b>Long Range Outage</b>	According to the <a href="#">BPM for Outage Management</a> , this refers to all outage requests with a start date of 46 days or greater from date of submittal.
<b>OE Not Recommended State</b>	An Outage state in OMS that indicates that the Outage record has been reviewed by an ISO Operations Engineer, and that the Outage request has been recommended for disapproval.
<b>OE Recommended State</b>	An Outage state in OMS that indicates that the Outage record has been reviewed by an ISO Operations Engineer, and that the Outage request has been recommended for approval.
<b>OMS</b>	Outage Management System.

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<b>Outage Coordination Timeframe</b>	As applied to Outage processing, Outages submitted outside the Real-Time timeframe are considered to be within the Outage Coordination Timeframe.
<b>Pre-Approved State</b>	An Outage state in OMS that indicates that an Outage has been granted preliminary approval by the ISO.
<b>Real-Time Timeframe</b>	As applied to Outage processing, Outages submitted after 1500 PPT with a start time up until the end of the next day are considered to be within the Real-Time Timeframe.
<b>RIMS</b>	Resource Interconnection Management System: A web application used by the ISO to track transmission and generation projects.
<b>Short Range Outage</b>	According to the <a href="#">BPM for Outage Management</a> , this refers to all outage requests with a start date of less than 46 days from date of submittal.
<b>Study State</b>	An Outage state in OMS that identifies an Outage as under review by an ISO Operations Engineer.

## Version History


Version	Change	Date
12.0	Added NERC standards to the References Section and Added Section 5.1	12/19/2011
13.0	<ul style="list-style-type: none"> <li>Section 2.1 - Market Participant Actions: Added clarification for to section 2.1 regarding all transmission Outages that may affect the transfer capability of any part of the ISO Controlled Grid. The current policy says that transmission outage request submitted in less than three business days will not be accepted.</li> <li>Section 5.6 NEW – CAISO Generation dispatcher Actions: added new section now labeled 5.6 Unplanned Outage request in Real-Time that lists actions for the CAISO Generation dispatcher</li> <li>Fixed links to other procedures</li> </ul>	2/22/2012
13.1	Section 2.0 Changed Outage information shall be available by 10:00 (from 12:00) Pacific Prevailing Time (PPT) for the next day. Reference Section: Added cross reference to IRO-010-1a.	7/24/2012

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13.2	<ul style="list-style-type: none"> <li>Updated sections 2.1, 3.1.2 and 3.1.3 to reflect 7 day outage requirement for new and updated transmission outage requests</li> <li>Updated sections 3.1.3 and 3.2.1 to include communications outages that may impact the CAISO's ability to assess operations affecting the NPIR.</li> </ul>	8/6/2012
13.3	Replaced 4220A with 4420E. Added 4420E to References.	8/27/2012
14.0	Added Section 3.2.3 Coordination of Outages of RA Resources.	10/31/2012
14.1	Section 3.2.3.2: Changed "11:00 p.m. and 7:00 a.m." to "HE 23 and HE 06" (7:00 a.m. was incorrect; also, employed same time nomenclature as used in the BPM for Outage Management). Deleted reference to on-peak hours (not consistent with BPM).	1/8/2013
14.2	Section 3.6, Table 2: Added SLIC Cause Code 10010 QF CHP Host Load Required Derate.	2/4/2013
15.0	<ul style="list-style-type: none"> <li>Changed title to "Transmission Outages". Completely rewrote the procedure due to changes resulting from the replacement of the SLIC system with OMS, and changes to tariff Section 9 and the Outage Management BPM. Incorporated applicable transmission outage related content from former 3230 "Reporting Outages to CAISO", and retired 3230.</li> <li>Separated procedures for managing transmission and generation outages into distinct Operating Procedures – Transmission Outages procedure is 3210, while Generation Outages procedure is now 3220.</li> <li>Revised 3210B and removed PG&amp;E delegation authority and critical facilities list.</li> <li>Revised 3210C and removed SCE delegation authority and critical facilities list.</li> <li>Revised 3210D and removed SDG&amp;E delegation authority and critical facilities list.</li> <li>Retired 3230 "Reporting Outages to CAISO".</li> </ul>	2/27/2015

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	<ul style="list-style-type: none"> <li>Retired 3210G "Notification to CAISO of New Equipment Release, Re-rated Equipment, or Existing Equipment Removal".</li> <li>Former Procedure 3230A "Transmission Outage Request Form" assigned procedure ID: 3210A.</li> <li>Former Procedure 3230C "Outages to Connect New or Re-Arranged Facilities" assigned procedure ID: 3210G.</li> </ul>	
16.0	<ul style="list-style-type: none"> <li>Added sections 3.3.2 and 3.4.3 regarding "Transmission Induced" outages in the Operations Planning and Real-Time time frames.</li> <li>Updated section 3.2.1 to add additional detail associated with each specific Nature of Work, and added a screenshot of the Equipment Picker entry field in OMS as reference data.</li> <li>Replaced CAISO Outage Coordination and Outage Coordination Office (OCO) and OCO with CAISO when applicable. Replaced Outage Coordinator with Operations Planning.</li> <li>Revised Section 3.3.1 actions for Operations Planning.</li> <li>Included Hyperlink for 3210G Attachment in Appendix Section.</li> <li>Reference Section: Added TOP-001-1a R7, R7.2.</li> </ul>	10/1/2015
16.1	<ul style="list-style-type: none"> <li>Changed all references of CAISO to ISO</li> <li>Updated title/role names</li> <li>Updated applicable NERC Standards and Requirements</li> </ul>	9/30/2016
16.2	Correction to procedure to add Affected Parties entity, Peak RC, which was inadvertently missed.	1/27/2017
16.3	<ul style="list-style-type: none"> <li>Updates throughout relating to IRO-017.</li> <li>Section 3.1.4: Replaced "Directive" with "Operating Instruction" pursuant to IRO-001-4.</li> <li>Section 3.1.2: Added "for CRR" to section title.</li> <li>Section 3.2.1: Updated table</li> </ul>	4/1/2017

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	<ul style="list-style-type: none"> <li>Section 3.2.3: Minor edits and updated Step 6 to include RIMS NoW.</li> <li>Section 3.2.4: New Section added</li> <li>Section 3.3: Minor updates</li> <li>Renumbered Sections 3.3.1 - 3.3.7</li> <li>Section 3.6: New Section Added</li> </ul>	
16.4	Section 3.3.3: Added ISO Transmission Desk to the list of roles for actions noted.	6/15/2017
16.5	Removed Transmission Dispatcher step from Section 3.3.6, as this step is already covered under Step 3.5.4 within this procedure. Added back into procedure "images" inadvertently left out from last publish dated 6/15/2017, version 16.4 - Section 3.2.4.1 Long Range Outage Submission Timeline and Section 3.2.4.2 Short Range Outage Submission Timeline.	7/07/2017

## 5. Periodic Review Procedure

### Review Criteria & Incorporation of Changes

There are no specific criteria for reviewing or changing this document, follow instructions in Procedures 5510 and 5520.

### Frequency

Every 3 Years

## Appendix

3210A Transmission Outage Request  
 3210B PG&E Equipment Significant to CRRs  
 3210C SCE Equipment Significant to CRRs  
 3210D SDG&E Equipment Significant to CRRs  
 3210E WAPA-WASN 500 kV Outage Management  
 3210F CAISO Outage Coordination Contact Information  
 3210G Outages to Connect New or Re-Arranged Facilities