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**Distribution Restriction:** None
Purpose

This procedure details the processes related to planned and forced outages of generation facilities that are connected to the ISO grid.

1. Responsibilities

<table>
<thead>
<tr>
<th>Scheduling Coordinators (SC)</th>
<th>Ensure that Outages of generation facilities are coordinated with the ISO in accordance with this ISO Operating Procedure and the BPM for Outage Management.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Generator (PG)</td>
<td>Ensure that Outages of generation facilities are coordinated with the ISO in accordance with this ISO Operating Procedure and the BPM for Outage Management.</td>
</tr>
<tr>
<td>ISO Real-Time Operations</td>
<td>Manages and coordinates generation Outages in Real-Time and ensures system reliability.</td>
</tr>
</tbody>
</table>

2. Scope/Applicability

2.1 Background

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

Describes the processes for managing Generation Outages within ISO’s jurisdiction, including the submission and approval of Outage Requests. This procedure is applicable to all Participating Generators with Participating Generator Agreements that require coordination of Outages with the ISO. Procedures for managing transmission Outage requests are covered in ISO Operating Procedure 3210 Transmission 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 Maintenance Outages or requests to change Approved Maintenance Outages must be submitted to the ISO at least seven (7) calendar 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) calendar 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.

3.1.2 Long Range Outage Plans

By October 15th of each year, Participating Generators shall provide the ISO with any proposed Outages for the following year via the ISO OMS. These proposed Outage submittals should also include any requested additions or changes to previously approved
Generation Outages

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.

3.1.3 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:

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

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

3.2 Planned Outage Scheduling of Resource Adequacy Resources

<table>
<thead>
<tr>
<th>Outage Type</th>
<th>Submittal Timeline</th>
<th>Approval Criteria</th>
<th>Replacement or Substitution Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA Maintenance Outage With Replacement</td>
<td>No more than 45 days prior to RA month and no less than eight days prior to outage start date</td>
<td>Outage not likely to have a detrimental effect on reliable operation of the grid or facilities of a connected entity</td>
<td>Replacement capacity no less than MW of capacity on outage</td>
</tr>
<tr>
<td>RA Maintenance Outage Without Replacement</td>
<td>No more than 45 days prior to RA month and no less than eight days prior to outage start date</td>
<td>Outage not likely to have a detrimental effect on reliable operation of the grid or facilities of a connected entity; and outage will not result in insufficient RA capacity during outage period</td>
<td>No</td>
</tr>
</tbody>
</table>

1 TOP-002-2.1b
2 Requires an ISO digital certificate to access.
## 3.3 Submittals of Outage Requests

Outage requests must be submitted for:

- Maintenance on any equipment (including Non-ISO controlled line Outages or generating units) which may affect the maximum output of:
  - A unit designated as Reliability Must Run/Regulatory Must Take.
  - A Participating Generator (PG) with a rated capacity of 10 MW or greater.
- Requests for Ancillary Service certification testing.
- Energization/Synchronization of new, re-rated or modified resources, identified as part of projects in the ISO Resource Interconnection Management System (RIMS). Refer to the [BPM Managing the Full Network Model](https://bpm.caiso.com) for more information on the RIMS process.
- RIG/ICCP equipment work.
- Any other outages resulting in curtailment of generation resources, as listed in Section 2 of the [BPM for Outage Management](https://bpm.caiso.com).
- Reliability Demand Response Resource dispatches performed in Real-Time by an entity other than the ISO.
### Operating Procedure

**Procedure No.** 3220  
**Version No.** 5.0  
**Effective Date** 7/01/2019

### Generation Outages

- **Failure of Interpersonal Communication capability**

At a minimum, all generation Outage requests must include the following information:

- Resource information
- Outage start date and time
- Outage end date and time
- Discovery date and time
- Emergency return time
- Nature of work (NoW)
- Short description of outage

Additional information such as Availability, Ancillary Service Availability and ramp rate information may be required depending on the NoW selected and the type of resource.

#### 3.3.1 Nature of Work (NoW) Categories

**NoW and OMS**

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

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. Use of certain NoW categories will determine whether an Outage de-rate for an RA resource will be subject to Resource Adequacy Availability Incentive Mechanism (RAAIM) provisions in Section 40.9 of the Tariff. Refer to Section 9 of the [BPM for Reliability Requirements](https://www.ercot.com/bpm/reliability). Refer to Outage Management BPM for more details on NoW.

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). Refer to Section 3.5 for a description of how FAN and FAR outages are processed in real-time.

#### 3.3.2 Final Approval Required/ Not Required Designation

**FAR vs FAN**

All Outages submitted to the ISO OMS are automatically designated as FAR or FAN, based on specific criteria.

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*When downloaded or printed, this document becomes UNCONTROLLED.*

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Generation Outages in the following categories will be automatically designated as FAR:

- Outage with data defined in the Market Impacts portion of the outage.
- Resource is a Blackstart resource.
- NoW of Automatic Voltage Regulator (AVR)/Exciter, Power System Stabilizer (PSS) or Transmission Induced is specified.
- NoW that requires Ancillary Service (AS) Availability data to be entered has been specified.
- If the curtailment value is 50 MW or greater.
- 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). In addition, an ISO System Operator can manually group two (2) or more outages if it is determined that one outage impacts the other, or for other reliability reasons.

All other generation Outages will be designated as FAN. If the Outage is not automatically set to FAR, the designation can be manually entered by ISO Operations Planning or Real-Time Dispatcher. If the OMS designates the outage type as FAR, it cannot be manually changed to FAN.

### 3.3.3 Initiation of an Outage Request

<table>
<thead>
<tr>
<th>Scheduling Coordinator (SC, Participating Generator (PG))</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Submit</strong> Outage requests to the ISO OMS using the appropriate NoW category in Section 3.2.1.</td>
</tr>
<tr>
<td>2. If OMS is not available,</td>
</tr>
<tr>
<td>- <strong>Submit</strong> the Outage request to the ISO by electronic format (e.g., email or FTP file), voice communication or facsimile.</td>
</tr>
<tr>
<td>- Refer to <a href="#">3210F CAISO Outage Coordination Contact Information</a>.</td>
</tr>
<tr>
<td>3. If the request is for an equipment that affects a RAS,</td>
</tr>
<tr>
<td>- <strong>Select</strong> the “Affects RAS” attribute.</td>
</tr>
<tr>
<td>4. If the request is for an Outage Coordination long term planning:</td>
</tr>
<tr>
<td>- <strong>Select</strong> 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 months.</td>
</tr>
<tr>
<td>- <strong>Include</strong> 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).</td>
</tr>
<tr>
<td>- <strong>Include</strong> all information relative to the necessary Outage window:</td>
</tr>
<tr>
<td>- System equipment operating limits</td>
</tr>
<tr>
<td>- Emergency return time</td>
</tr>
</tbody>
</table>
3.3.4 Outage Request Submission Timelines

3.3.4.1 Long Range and Mid Range Outage Submission Timeline

Please refer to RC0630 Outage coordination procedure for details.

3.3.4.2 Short Range Outage Submission Timeline

The SCs are expected to submit five (5) business days prior to the 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 the RC urgent outage requirements. For additional details, please refer to BPM.

The RC OPA lock-down time is 8:00 a.m. PPT one (1) business day prior to the start date of the outage.
3.4 Review and **Confirmation** of Outage Requests

**Outage Request Review and Confirmation** and Outage Request Priority:

Outage Request Review and **Confirmation**

The ISO Operations Planning group (OP) reviews all Outages in accordance with the BPM for **Outage Management** to assess impact to reliability for the projected system conditions. Based on the results of the assessments, the ISO OP will either **confirm** or **deny** the Outage request.

**Note:** Planned Outages should not be considered “Confirmed” until an assessment has been completed by ISO OP personnel and RC. In addition, final **confirmation** by an ISO Real-time Dispatcher is needed on the day of the outage prior to commencing or ending an Outage designated as a FAR Outage.

**Outage Request Priority**

Outage requests are generally considered on a first-come first-serve basis with additional consideration given to the following factors:

1. Uncontrollable limitations.
2. Regulatory or other legal constraints.
4. Warranty requirements.
5. Facilitation of additional (new) system resources.
6. Seasonal constraints (restricted access due to weather or protected areas for migratory birds, protected species, etc.).
7. Linkage to other outages (overlapping equipment, required to enable return of other equipment, etc.).
8. Other environmental benefits.

**3.4.1 Review and **Confirmation** of Long-Range and Mid-Range Outage Requests**

<table>
<thead>
<tr>
<th>ISO Operations Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Coordinate</strong> annual maintenance plan submitted by participants to the ISO by October 15th of the prior year.</td>
</tr>
<tr>
<td>2. <strong>Coordinate</strong> with SC any modifications and additions expected to annual maintenance plan.</td>
</tr>
<tr>
<td>3. <strong>Determine</strong> if the requested Outage affects Nuclear Plant Interface Requirements (NPIR).⁴</td>
</tr>
<tr>
<td>• If the requested Outage does not affect NPIR,</td>
</tr>
<tr>
<td>o <strong>Go to Step 6 to review and confirm</strong> the outage prior to the RC long range outage submission timeline.</td>
</tr>
</tbody>
</table>

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⁴ NUC-001-3
ISO Operations Planning

- If the requested Outage affects NPIR,
  - Contact the requesting SC and
  - Inform them that due to NPIR being affected, they must communicate and coordinate the outage between the PTO, ISO and the Nuclear Plant Operator.

4. Confirm the Outage plan via OMS, by mark the “BA/TOP confirm” check box, if there are no reliability concerns.
   - Otherwise, deny the Outage by transitioning the Outage to the Denied State.

5. If a change is requested,
   - Assign that Outage request on a first come first serve basis. (The Outage no longer has priority associated with the previous ISO coordinated Outage plan.)
   - Offer any additional Outage opportunity (based on adjusted assumptions or rescheduled Outages or de-rates).
   - If the Outage opportunity is refused,
     - Remove the requester from further consideration or the affected Outage.

6. If there is a need to cancel a Planned Outage due to system reliability concern,
   - Request volunteers via phone or email to reschedule their Outage without loss of their priority status.
   - If insufficient volunteers are identified,
     - Cancel and re-schedule Outages or de-rates starting with the lowest prioritized Outage listed for that start date.

3.4.2 Review and Confirmation of Short-Range Outage Requests

ISO Operations Planning

1. Review all new requests and modifications to existing Outage requests.
   Note: Outages must be reviewed and confirmed prior to the RC short range submission timeline.

2. Determine if the Outage is for an RA resource and if a replacement is required.
   - If the Outage is for an RA resource with replacement:
     - Verify RA replacement for the resource in the CIRA tool, using the replacement ID number provided in the Outage card notes.
     - Verify that the Outage will not result in insufficient available RA Capacity during the outage period.
   - If the Outage will result into insufficient available RA Capacity,
     - Reject the request.
### ISO Operations Planning

- If the Outage is an Off-Peak Opportunity RA Maintenance Outage,
  - Verify that the Outage is being requested for an off-peak period in accordance with the requirements in the BPM for Outage Management.
- If the Outage is a Short-Notice Opportunity RA Outage,
  - Verify that the Outage will not result in insufficient available RA Capacity during the outage period.
- If the Outage will result into insufficient available RA Capacity,
  - Reject the request.
- If the request was submitted three (3) calendar days or less prior to the start date of the outage,
  - Verify that the repairs are necessary to maintain system or resource reliability and require immediate attention to prevent equipment damage or failure.

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

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

5. Confirm or deny Outages in OMS based on engineering study by checking BA/TOP confirmation box or Denied State respectively.

### 3.4.3 Review and Approval of Forced Outage Requests

**ISO Operations Planning / ISO Operations Engineer**

1. Review all new requests and modifications to existing Outage requests.
   
   Note: Outages must be reviewed and approved prior to the RC OPA submission timeline from Outage Management BPM and per GOT-010, Internal Coordination of Outage Tasks.

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

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

4. Confirm or deny Outages in OMS based on engineering study by checking BA/TOP confirmation box or Denied State respectively.
3.4.4 Rejection Notification

**ISO Operations Planning**

1. If an Outage cannot be approved as requested,
   • **Identify** the reliability and security concerns that initiated the rejection.
   • **Request** additional information (if required) to prioritize the Outage and/or
   • **Identify** scheduling opportunities; and
   • **Suggest** possible remedies or schedule revisions, as available, to mitigate reliability concerns.

2. If adjustments cannot be exercised to remedy the Outage conflict,
   • **Deny** the request.
   • The only exception applies to Outages of an immediate nature that threaten public safety, personnel or equipment.

3.4.5 Modifications and Cancellations of **Confirmed** Outages

**Scheduling Coordinator (SC)**

1. **Submit** changes or cancellations to **Confirmed** Outages in the ISO OMS.

2. If modifying an Approved Outage,
   • **Submit** a request to modify the OMS Outage record 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.

   **Note:** Outage priority will change if the Outage is rescheduled to a timeframe that is outside the timeframe of the original request.

3. If cancelling an Approved Outage,
   • **Submit** the cancellation request at any time prior to actual initiation of the Outage. Best efforts should be made to provide at least 4.5 hours cancellation notice for outages with market impacts.

**ISO Operations Planning**

1. If a change is requested for an Outage within the Outage Coordination Timeframe,
   • **Review** the request for any reliability issues before making the decision to confirm or deny the change.
ISO Generation Desk

1. If a change is requested for an Outage within the Real-time Timeframe,
   • **Make** the decision to **confirm**, reschedule, or cancel the Outage.
   • For any questions, Real-Time Generation Dispatcher may **consult** Operations Planning or on-call Operations Planning representative.

2. If a change is requested for an Outage for the current day, which extends through multiple business days,
   • **Evaluate** if a conflict would arise from an extension based on expected conditions and Outages in the requested extension period.

3.4.6 Deferred Planned Outages

ISO Operations Planning

1. If the ISO defers a Planned Outage due to system reliability requirements, and during that deferral period, the affected facility has a failure, which is directly related to the deferred Planned Outage:
   • **Designate** the Outage as a Planned Outage.
   • **Conduct** a review, as appropriate, to **determine** the nature and circumstances of the failure.
   • If such a review is conducted,
     o **Report** the results of that review (including the Forced or Planned designation of the Outage) to the facility owner and the RC.

3.5 Forced Outage Submissions

3.5.1 Immediate Forced Outages

**Scheduling Coordinator (SC), Participating Generator (PG)**

1. If a situation is likely to occur that results in a Forced Outage within the next twenty-four (24) hours unless immediate corrective action is taken, by any of the following situations:
   • Removing generation facilities from service, or
   • Causing RAS to be disabled or lose redundancy,
     o **Submit** an outage request through OMS with as much notice as possible, and within 60 minutes of the discovery of the Outage.
ISO Generation Desk

1. **Look** for conflicts to current forced outages and active planned outages as well as any near term upcoming outages (next 12-24 hrs.).
2. **Request** Operations Engineer studies as needed to validate reliability impacts.
3. **Cancel/reschedule** conflicting Outages if deemed necessary to ensure reliability.

### 3.5.2 Imminent Forced Outages

#### Scheduling Coordinator (SC), Participating Generator (PG)

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,
   - **Submit** an Outage entry via OMS in accordance with the requirements in Section 3.1 and 3.2.
   - **Attach** any special procedures to outage card.

ISO Generation Desk

1. **Review** and **confirm** the request at the earliest opportunity, if system conditions allow.
2. **Request** Operations Engineer to review as needed.
3. **Email** the Real-Time Outage Changes group.

ISO Operations Planning

1. **Review** and **confirm** the requests for Imminent Forced Outages within the Outage Coordination timeframe.

### 3.5.3 Submission of Reliability Demand Response Resource Outages

#### Scheduling Coordinator (SC), Participating Generator (PG)

1. If an entity other than the ISO dispatches a Reliability Demand Response Resource in Real-Time in order to mitigate a local transmission or distribution system emergency, or perform a test,
   - **SC must submit** an Outage entry via OMS in accordance with the requirements in Section 3.2.
### ISO Generation Desk

1. If the request is for an Outage within the Real-Time Timeframe,
   - **Review and confirm** the request at the earliest opportunity, if system conditions allow.
   - **Request** Operations Engineer to review as needed.
   - **Email** the Real-Time Outage Changes group.

2. If the request is for an Outage outside the Real-Time Timeframe,
   - **Forward** the request to Operations Planning for review.

### ISO Operations Planning, ISO Operations Engineer

1. **Review and confirm** the requests for Imminent Forced Outages within the Outage Coordination timeframe, per ISO Desktop Procedure **GOT-010 Internal Coordination of Outage Tasks**.

### 3.6 Real-Time Outage Processing

#### 3.6.1 Final Approval

**ISO Final Approval**

In accordance with the **BPM for Outage Management**, an SC or PG within the ISO controlled grid must not initiate an Outage without receiving final approval of the Outage, unless the ISO determined that final approval is not required.

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.

Prior to the start of the Outages for the day, the ISO Generation Dispatcher **is to**:

- Review all scheduled Outages for the day to ensure no reliability issues exist.
- Review any applicable nomograms, procedures, and/or historical data relating to the Outage.
- And during the Outage, periodically verifies to ensure no reliability issues exist.

**Reliability Coordinator Final Approval**

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.
3.6.2 Starting an Approved Outage

**Scheduling Coordinator (SC), Participating Generator (PG)**

1. Prior to the scheduled Start time,
   - **Request** to start the outage by submitting an “OUT OK” request electronically via OMS or by contacting the ISO Generation Dispatcher by phone.

   *Note: The Outage card will automatically transition to the OUT State at the Scheduled start time, if the Generation Dispatcher has approved the OUT OK request prior to the scheduled start time.*

**ISO Generation Desk**

1. **Ensure** that system conditions allow all Outages to proceed as scheduled.
2. **Review and approve** “OUT OK” requests to initiate FAN and FAR Outages electronically via OMS.
3. If system conditions do not allow an Outage to proceed as scheduled,
   - **Cancel** the Outage and **work with** the SC to reschedule the Outage.

**Scheduling Coordinator (SC), Participating Generator (PG)**

1. At the scheduled start time,
   - **Verify** that the Outage card has automatically transitioned to the OUT state.
   - **Proceed** with the scheduled Outage work, once it is confirmed that the Outage card has transitioned to the OUT state.

3.6.3 Ending an Outage

**Scheduling Coordinator (SC), Participating Generator (PG)**

1. Prior to the scheduled end time,
   - **Request** to end the outage by
     - **Submitting** an “IN OK” request electronically via OMS or by
     - **Contacting** the ISO Generation Dispatcher by phone.

   *Note: The Outage card will automatically transition to the Inservice State at the scheduled end time, if the ISO Generation Dispatcher has approved the IN OK request prior to the scheduled end time.*

**ISO Generation Desk**

1. **Ensure** that system conditions allow all Outages to end as scheduled.
2. **Review and confirm** “IN OK” requests to end FAN and FAR Outages electronically via OMS.
3.6.4 ISO Notification of Real-Time Change to an Approved Outage

**Scheduling Coordinator (SC), Participating Generator (PG)**

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:
   - **Submit** a change request to the Outage card via OMS or
   - **Notify** the ISO Generation Dispatcher immediately by phone.

**ISO Generation Desk**

1. **Review** all Real-Time changes to the Approved Outage in OMS for impacts to system reliability.
2. **Re-evaluate** any future approved Outages for reliability.
3. **Request** Operations Engineer studies as needed.
4. **Confirm** the Real-Time changes if it is determined that system conditions allow and there are no adverse impacts to reliability.
5. If the revised Outage extends into the next Outage day,
   - **Email** the Real-Time Outage Changes group.

3.6.5 Extending an Approved Outage without Issuing Forced Outage Designation

In accordance with the [BPM for Outage Management](#), the ISO Generation 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 (2) 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.
3.7 Outage Types & Validation Rules

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

<table>
<thead>
<tr>
<th>Rule</th>
<th>RC Outage Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>If (NoW ! = ICCP or RTU_RIG or Unit Testing or RIMS Testing or RIMS outages or New Generator Test Energy or Metering/Telemetry)</td>
<td>Informational</td>
</tr>
<tr>
<td>If (NoW ! = ICCP or RTU_RIG or Unit Testing or RIMS Testing or RIMS outages or New Generator Test Energy or Metering/Telemetry) And (Submit Time-Start Time &lt;= 0)</td>
<td>Forced Automatic</td>
</tr>
<tr>
<td>If (NoW ! = ICCP or RTU_RIG or Unit Testing or RIMS Testing or RIMS outages or New Generator Test Energy or Metering/Telemetry) And (Short Notice Opportunity OR Off Peak Opportunity ! = 'Y') And (0 &lt; Submit Time-Start Time &lt; 24 hrs)</td>
<td>Forced Emergency</td>
</tr>
<tr>
<td>If (NoW ! = ICCP or RTU_RIG or Unit Testing or RIMS Testing or RIMS outages or New Generator Test Energy or Metering/Telemetry) And (Short Notice Opportunity OR Off Peak Opportunity ! = 'Y') And (24hrs &lt;= Submit Time-Start Time &lt; 17d)</td>
<td>Urgent</td>
</tr>
<tr>
<td>If (NoW ! = ICCP or RTU_RIG or Unit_Testing or RIMS Testing or RIMS outages or New Generator Test Energy or Metering/Telemetry) And (Submit Time-Start Time &gt;= 17d)</td>
<td>Planned</td>
</tr>
</tbody>
</table>

4. Supporting Information

Operationally Affected Parties

Shared with Public and the RC.
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:

<table>
<thead>
<tr>
<th>CAISO Tariff</th>
<th>Section 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO Operating Procedure</td>
<td></td>
</tr>
<tr>
<td>NERC Standards</td>
<td>NUC-001-3 R9.1</td>
</tr>
<tr>
<td>WECC Criterion</td>
<td></td>
</tr>
</tbody>
</table>
| Other References | BPM for Outage Management  
Business Practice Manual for Reliability Requirements  
RAAM User Guide |

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:

| Approved Outage | An Outage request that has been reviewed and approved by the RC. |
| Approved State | An Outage state in OMS that identifies an Outage as approved by the RC. An Outage that has been approved by the RC will be clearly identified with the label “Approved” in the OMS Outage record. |
| Denied State | An Outage state in OMS that identifies an Outage as disapproved by the ISO/RC. An Outage that has been disapproved by the ISO will be clearly identified with the label “Denied” in the OMS Outage record. |
| Inservice Editable State | 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. |
| Inservice State | 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. |
| Late to End State | 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. |
### Generation Outages

<table>
<thead>
<tr>
<th>Long Range Outage</th>
<th>According to the BPM for Outage Management, this refers to all outage requests with a start date of 46 days or greater from date of submittal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOW</td>
<td>Nature of Work.</td>
</tr>
<tr>
<td>Late to Start State</td>
<td>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.</td>
</tr>
<tr>
<td>OMS</td>
<td>Outage management system.</td>
</tr>
<tr>
<td>Outage Coordination Timeframe</td>
<td>As applied to Outage processing, Outages submitted outside the Real-time Timeframe are considered to be within the Outage Coordination Timeframe.</td>
</tr>
<tr>
<td>Real-Time Timeframe</td>
<td>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.</td>
</tr>
<tr>
<td>RIMS</td>
<td>Resource Interconnection Management System: A web application used by the ISO to track transmission and generation projects.</td>
</tr>
</tbody>
</table>

### Version History

<table>
<thead>
<tr>
<th>Version</th>
<th>Change</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2</td>
<td>Section 3.2: Added “Reliability Demand Resource dispatches performed in Real-Time by an entity other than the CAISO. Added Section 3.4.3</td>
<td>6/16/15</td>
</tr>
<tr>
<td>4.3</td>
<td>Section 1: Replaced CAISO Outage Coordinator and CAISO Operations Engineer with CAISO Operations Planning. Replaced Outage Coordinator with Operations Planning throughout. Replaced CAISO Outage Coordination Office (OCO) with CAISO throughout. Reference Section: Added TOP-001-1a R7, R7.1 under NERC Standards.</td>
<td>10/01/15</td>
</tr>
<tr>
<td>4.4</td>
<td>Section 3.3.2: Updated to include long term outage approval process (60 days ahead of time outage review and approval). Changed verbiage of Step 4, as suggested.</td>
<td>6/02/16</td>
</tr>
<tr>
<td>4.5</td>
<td>Changed all references to CAISO to ISO. Updated formatting and grammar. Updated NERC References. Removed 3220C from Appendix.</td>
<td>12/08/16</td>
</tr>
<tr>
<td>4.6</td>
<td>- Updates throughout relating to IRO-017. - Section 3.1.3: Replaced “Directive” with “Operating Instruction” pursuant to IRO-001-4.</td>
<td>4/01/17</td>
</tr>
</tbody>
</table>
### Version Change Date

<table>
<thead>
<tr>
<th>Version</th>
<th>Change</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.9</td>
<td>Updated due to the implementation of Resource Adequacy Availability Incentive Mechanism (RAAIM), which was missed with last update. Minor formatting changes.</td>
<td>4/14/17</td>
</tr>
<tr>
<td></td>
<td><strong>Errata Change:</strong> The above noted version 4.9 should have been published as version 4.7 on 4/14/17.</td>
<td>4/14/17</td>
</tr>
<tr>
<td>4.9</td>
<td>Updated this procedure to remove and retire 3220A and 3220B as of August 10, 2017 (3220A was inadvertently not retired as directed to be back in February 2015.</td>
<td>8/10/17</td>
</tr>
<tr>
<td></td>
<td><strong>Errata Change:</strong> The above noted version 4.9 should have been published as version 4.8 on 8/10/17.</td>
<td>8/10/17</td>
</tr>
<tr>
<td>5.0</td>
<td>Noted Errata changes (Highlighted above) to version history for previous two updates. Section 3.3: Added last bullet (Generation Outage type Failure of Interpersonal Communication capability) and reference/footnote. Section 3.6.1: Spelled out Reliability Coordinator and not RC. Section 3.7: Updated right column title to RC Outage Type and added missing &quot;!&quot; in first row under &quot;Rule&quot; column. Replaced Real-Time Operations Engineer &amp; Real-Time OE with Operations Engineer throughout. Replaced Peak RC with the RC throughout. Added back reference of 3220A that was left off from past few versions. Removed version history prior to 5-years. Minor format and grammar updates throughout.</td>
<td>7/01/19</td>
</tr>
</tbody>
</table>
5. 5. Periodic Review Procedure

Review Criteria & Incorporation of Changes

There are no specific review criteria identified for this procedure, follow instructions in Procedure 5510.

Frequency

Every 3 Years.

Appendix

3220A CDWR-SWP System Outage