California ISO | RC West	Reliability Coordinator Procedure	Procedure No.	RC0410
		Version No.	3.9
		Effective Date	5/01/25
System Emergencies		Distribution Restriction: None	

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Purpose

Provide guidance on mitigating transmission system operating Emergencies, Capacity and Energy Emergencies, and extreme weather and environmental Emergencies. Provide the RC's philosophy on load shedding.

1. Responsibilities

- Reliability Coordinator Operator
- Operations Compliance Support

2. Scope/Applicability

- Reliability Coordination during *Bulk Electric System* (*BES) Emergencies* or during conditions or events that could result in *Adverse Reliability Impact* on the BES.
  - As defined in the NERC Glossary, a BES Emergency is any abnormal system condition that requires automatic or immediate manual action to prevent or limit the failure of transmission facilities or generation supply that could adversely affect the reliability of the BES.
  - In addition, the NERC Glossary defines Adverse Reliability Impact as the impact of an event that results in frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that affects a widespread area of the Interconnection.

3. Procedure Detail

3.1. Capacity and Energy Emergencies

Each Balancing Authority (BA) shall develop, maintain, and implement an RC-reviewed Operating Plan to mitigate Capacity and Energy Emergencies within its Balancing Authority Area.[1] During a BA Capacity or Energy Emergency, the RC operator will declare an Energy Emergency Alert (EEA) for the affected entity. This may be at the request of the BA, or when deemed necessary in the judgment of the RC operator.

There are three levels of EEAs and an additional termination level.[2] It is not necessary to progress through the levels sequentially, and the RC operator should use good judgment in declaring the level best defined by the criteria. Public appeals for conservation or demand response programs under contractual agreements during normal operations do not qualify as EEA triggering events.

[1] EOP-011-4 R2
[2] Attachment 1-EOP-011-4 Section B

If a BA forecasts a potential energy or capacity deficiency one or more days prior to the operating day, the BA may request the RC operator to declare an *"EEA Watch"* before the operating day. A BA may also choose to request an EEA Watch during the operating day if the BA is concerned about potential energy or capacity issues in advance of the forecasted shortage; or if required to meet internal emergency notification requirements. E.g., for a forecasted shortage at 1300, a BA may request issuing an EEA Watch declaration during the morning hours. An EEA Watch declaration may be helpful to assist the BA procure additional energy or capacity.

Following the activation of Contingency Reserves, a BA or Reserve Sharing Group (RSG) must recover Contingency Reserves within 60 minutes following an event requiring activation. If there is an additional event that takes place during this recovery period, the 60-minute recovery period resets. The RC operator should not declare an EEA for a BA during this recovery period unless requested by the BA, or if the RC operator, after consultation with the BA, has reason to believe that the BA will not be able to recover their Contingency Reserves within the recovery period.

3.1.1. EEA Watch

A BA may request the RC operator to declare an "EEA Watch" one or more days prior to the operating day, or during the operating day, if the BA forecasts being in an EEA level; or if required to meet internal emergency notification requirements.

Reliability Coordinator Actions
• **Discuss** with the BA forecasting a potential energy or capacity deficiency, and **determine** whether an EEA Watch would be desired and the applicable day (date) and/or time period. • Upon request by the BA, **declare** an *EEA Watch* **via** a WECC-wide GMS message, **notifying** all BAs, TOPs and Western RCs (**See** Section 3.1.6 for templates). • **Notify** market participants in the RC Area **via** GMS. • **Cancel** EEA Watch **via** GMS, if conditions change, and the BA no longer forecasts being in an EEA.

3.1.2. EEA 1 – All Available Generation in Use

A BA is considered to be in EEA 1 when all available generation resources are in use and/or:

- The BA is experiencing conditions where all available generation resources are committed to meet firm Load, firm transactions, reserve commitments, and is concerned about sustaining its required Contingency Reserves.
- Non-firm wholesale energy sales (other than those that are recallable to meet reserve requirements) have been curtailed.[3]

Reliability Coordinator Actions

- **Discuss** with BA not meeting its Contingency Reserve requirements and **evaluate** mitigation options, based on guidelines provided in RC West Operating Procedure RC0210 Monitoring Frequency and Balancing Authority Performance.
  - **Determine** if the BA is part of an RSG, if Contingency Reserves are deliverable to the BA, and if the BA will require an EEA to get assistance from the RSG (***Refer*** *to Section 3.4.2 of* RC0210*).*
- **Evaluate** whether the criteria for EEA 1 is met, if the BA is not part of an RSG, or RSG reserves is not adequate or deliverable.
  - **Determine** status of generation in the BA and if all generation within the BA is committed to meet firm load, firm transactions, and reserve commitments.
  - **Determine** whether the BA is concerned about sustaining its required Contingency Reserves.
  - **Determine** whether the BA has curtailed non-firm wholesale energy sales (other than those that are recallable to meet reserve requirements).
- Upon discussion with the BA, **declare** an *EEA 1* for the BA if the criteria for EEA 1 is met, or if requested by the BA.
- **Issue** an *alert* to all impacted entities without delay, but not longer than within 30 minutes from time of the declaration:[4]
  - **Notify** all BAs, TOPs, and Western RCs **via** GMS WECC-Wide message.
  - **Notify** market participants in the RC Area **via** GMS.
  - **Send** RCIS message.

  Notification **should include** the name of the BA, the EEA level, and if necessary, contact information that other BAs can use to provide emergency assistance.
- **Update** RCIS and GMS with any changes in information.

[3] Attachment 1-EOP-011-4 Section B-1
[4] EOP-011-4 R5

3.1.3. EEA 2 – Load Management Procedures in Effect

A BA is considered to be in EEA 2 when load management procedures are in effect and/or:

- The Balancing Authority is no longer able to provide its expected energy requirements and is an energy-deficient Balancing Authority.
- An energy-deficient Balancing Authority has implemented its Operating Plan(s) to mitigate Emergencies.
- An energy-deficient BA is still able to maintain minimum Contingency Reserve requirements.[5]

Once an EEA 2 has been declared, the BA should provide periodic updates to the RC operator at a minimum of every hour until the EEA 2 has been terminated.[6]

Reliability Coordinator Actions

- **Discuss** with BA not meeting its Contingency Reserve requirements and **evaluate** mitigation options, based on guidelines provided in RC West Operating Procedure RC0210 Monitoring Frequency and Balancing Authority Performance.
  - **Determine** if the BA is part of an RSG, if Contingency Reserves are deliverable to the BA, and if the BA will require an EEA to get assistance from the RSG (***Refer** to Section 3.4.2 of RC0210)*.
- **Evaluate** whether the criteria for EEA 2 is met, if the BA is not part of an RSG, or RSG reserves is not adequate or deliverable.
  - **Determine** whether options available to the BA under the criteria for EEA 1 have been exhausted.
  - **Determine** whether the BA is implementing demand response or other load management procedures.
- Upon discussion with the BA, **declare** an *EEA 2* for the BA if the criteria for EEA 2 is met or if requested by the BA.
- **Issue** an *alert* to all impacted entities without delay, but not longer than within 30 minutes from time of the declaration:
  - **Notify** all BAs, TOPs, and Western RCs **via** GMS WECC-Wide message.
  - **Notify** market participants in the RC Area **via** GMS.
  - **Send** RCIS message.

  Notification **should include** the time of declaration, the BA name, the EEA level, and contact information that other BAs can use to provide emergency assistance.
- **Update** RCIS and GMS with any changes in information.
- **Review** Transmission *outages* and **work** with TOPs for viability of returning transmission elements that may relieve loading on SOLs or IROLs for the possibility of energy delivery.

[5] Attachment 1-EOP-011-4 Section B-2
[6] Attachment 1-EOP-011-4 Section B-2.2 (applicable to BA)

3.1.4. EA 3 – Firm Load Shedding Imminent or in Progress

A BA is considered to be in an EEA 3 condition when firm load interruption is imminent or in progress, and the energy-deficient BA is unable to meet minimum Contingency Reserve requirements.

Before requesting an EEA 3, the energy-deficient BA must make use of all available resources; this includes, but is not limited to:

- Ensuring all available generation units are online and all generation capable of being on line within the time frame of the Emergency is on line.
- Activating Demand-Side Management within provisions of any applicable agreements.[7]

The energy-deficient BA is responsible for updating the RC operator at a minimum of every hour until the EEA 3 is terminated.[8]

Reliability Coordinator Actions

- **Discuss** with BA not meeting its Contingency Reserve requirements and **evaluate** mitigation options, based on guidelines provided in RC West Operating Procedure RC0210 Monitoring Frequency and Balancing Authority Performance.
  - **Determine** if the BA is part of an RSG, if Contingency Reserves are deliverable to the BA, and if the BA will require an EEA to get assistance from the RSG (***Refer** to Section 3.4.2 of RC0210*)
- **Evaluate** whether the criteria for EEA 3 is met, if the BA is not part of an RSG, or RSG reserves is not adequate or deliverable.
  - **Determine** whether options available to the BA under the criteria for EEA 1 and EEA 2 have been exhausted.
  - **Verify** all available generation in the BA are committed to meet firm load, firm transactions, and meet reserves.
  - **Verify** all available demand-side management have been activated.
- Upon discussion with the BA, **declare** an *EEA 3* for the BA if the criteria for EEA 3 is met or if requested by the BA.
- **Continue** *actions* initiated during the *EEA 2*.
- **Issue** an *alert* to all impacted entities without delay, but not longer than 30 minutes from time of the declaration:
  - **Notify** all BAs, TOPs, and Western RCs **via** GMS WECC-Wide message.
  - **Notify** market participants in the RC Area **via** GMS.

[7] Attachment 1-EOP-011-4 Section B-2.5
[8] Attachment 1-EOP-011-4 Section B-3.2 (applicable to BA)

Reliability Coordinator Actions
○ **Send** RCIS message. Notification **should include** the name of the BA, the EEA level, and contact information that other BAs can use to provide emergency assistance. • **Update** RCIS and GMS with any changes in information. • **Evaluate** the risks of *revising SOLs* and *IROLs* for the possibility of delivery of energy to the energy-deficient BA. ***Note:*** *This must be coordinated with other RCs with agreement from the responsible TOP.* • **Request** the BA to provide updates at a minimum every hour until the EEA 3 is terminated. • **Notify** internal parties to ensure the appropriate report is submitted, per RC West Operating Procedure RC0420 Event Reporting.

3.1.5. EEA 0 – Termination

When the energy-deficient BA is able to meet its Load and Operating Reserve requirements, it shall request the Reliability Coordinator Operator to terminate the EEA.

Reliability Coordinator Actions
• **Confirm** with BA that it meets the criteria for EEA Termination. • **Notify** all applicable entities of the termination. ○ **Notify** all BAs, TOPs, and Western RCs **via** GMS WECC-Wide message. ○ **Notify** market participants in the RC Area **via** GMS. ○ **Send** RCIS message.

3.1.6. EEA Templates

When declaring an EEA, the RC operator may use the following templates. Include any additional information, as necessary.

- Subject: EEA [1,2, or 3] Declaration
  - Effective XXXX PPT, RC West has declared an EEA [1, 2, or 3] for [entity and/or entity area (if applicable)]. Please contact them at (XXX) XXX-XXXX if you can provide them with emergency assistance.
- Subject: EEA 0 Declaration
  - Effective XXXX PPT, RC West has declared an EEA 0 for [entity and/or entity area (if applicable)].

- Subject: EEA Watch Declaration
  - Effective XXXX PPT, [Entity] is forecasting being in EEA [#] from [XX] PPT to [YY] PPT on [Date]. Please contact the entity at (XXX) XXX-XXXX if you can provide assistance.
- Subject: EEA Watch Cancellation
  - Effective XXXX PPT, EEA Watch for [Entity] has been cancelled.

3.2. Transmission System Emergencies

TOPs are expected to have Operating Plans reviewed by the RC entity to mitigate transmission system Emergencies in their area, and to notify the RC operator in real-time when the TOP is experiencing an Emergency.[9] A Transmission system Emergency may include, but is not limited to:

- An actual or potential IROL exceedance,
- An actual or potential SOL exceedance with potential Adverse Reliability Impact,
- Unacceptable voltage levels with potential Adverse Reliability Impact,
- Loss of reactive reserves with potential Adverse Reliability Impact,
- Loss or potential loss of transmission elements due to fires, earthquakes, storms, physical attacks, vandalism or other reasons with potential Adverse Reliability Impact,
- A single or credible multiple Contingency will result in instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the BES,
- RC Real-time Assessment indicate unplanned loss of 300 MW of load or greater for the next credible contingency,
- System separation, islanding, or open loop,
- Extraordinary Contingency, and
- Any other transmission event that results in an Adverse Reliability Impact.

When the RC operator receives a notification from a TOP of a BES Emergency on the transmission system, or if RC west analysis indicates that an Emergency condition exists,

Reliability Coordinator Actions
• **Confirm** the *Emergency condition* **in collaboration with** the affected TOPs. • Actively **evaluate** system *conditions* and **determine** *mitigation* options **in coordination with** TOPs contributing to and/or affected by the condition. TOP Operating Plans include (but not limited to) mitigation options,[10] such as: ○ Cancelling or recalling transmission and generation outages, ○ Reconfiguring transmission system,

[9] EOP-011-4 R1 (applicable to TOP)
[10] EOP-011-4 R1.2 (applicable to TOP)

Reliability Coordinator Actions
○ Redispatching generation, and ○ Operator-controlled manual load shedding that minimizes overlap with automatic load shedding, and is capable of being implemented in a timeframe for mitigating the Emergency. • **Refer** to RC West Operating Procedure RC0460 Reliability Coordinator Area Restoration Plan if electrical *islanding* has occurred. • **Determine** if there are any *SOL* or *IROL exceedances*. • **Refer** to RC West Operating Procedure RC0310 Mitigating SOL and IROL Exceedances. • **Declare** a *BES Emergency* **via** a WECC-wide GMS message *without delay* (within 30 minutes),[11] **notifying** all BAs, TOPs, and Western RCs. • **Consider initiating** a *conference* call if the condition affects multiple entities and if a conference call will expedite coordination efforts. • **Coordinate** *mitigation* activities with affected TOPs and **determine** if an *Operating Instruction* is needed. • **Coordinate** with BAs, TOPs, and neighboring RCs that may be able to provide *assistance.* • **Issue** *Operating Instructions* immediately, **in accordance with** Section 3.4: Operating Instructions and Section 3.5: Load Shedding Instructions. • **Monitor** system *conditions* to **determine** if the instructed *actions* were implemented, and whether the transmission Emergency will be resolved in a timely manner. • **Issue** *additional Operating Instructions*, if needed. • **Issue** *notification* to all BAs, TOPs, and Western RCs once Emergency condition has been mitigated and the system is stable **via** a WECC-wide GMS message. • **Log** a summary of all *communications* and *actions*.

3.3. Extreme Weather Emergencies

BAs and TOPs are expected to have Operating Plans (reviewed by the RC entity) that address the reliability impacts of extreme weather in their area. They are also required to notify the RC operator in Real-time when experiencing such an Emergency.[12] Extreme weather Emergencies may include, but are not limited to:

- Unanticipated high loading due to high or low temperatures,
- Wind/rain storms,
- Thunderstorms,
- Tsunamis,

[11] EOP-011-4 R5
[12] EOP-011-4 R1.2.6, R2.2.9 (applicable to TOP and BA respectively)

- Hurricanes,
- Floods,
- Snow, and
- GMDs (**See** RC West Operating Procedure RC0430 GMD Operating Plan).

When the RC operator receives a notification from a BA or TOP of an Emergency due to extreme weather:

Reliability Coordinator Actions

• **Issue** an *alert without delay* to all impacted entities, but no longer than within 30 minutes.[13]
  ○ **Notify** all BAs and TOPs in the RC Area and neighboring RCs **via** GMS.
• **Actively evaluate** system *conditions* and **determine** *mitigation* options **in coordination with** the affected BAs/TOPs. BA/TOP Operating Plans include (but not limited to) mitigation options,[14] such as:
  ○ Cancelling or recalling transmission and generation outages,
  ○ Reconfiguring transmission system,
  ○ Redispatching generation,
  ○ Shedding operator-controlled manual load that minimizes overlap with automatic load shedding, and is capable of being implemented in a timeframe for mitigating the Emergency,
  ○ Requesting EEAs (**Refer** to Section 3.1: Capacity and Energy Emergencies),
  ○ Managing generation to address capability and availability, fuel and inventory concerns, fuel and switching capabilities, and environmental constraints,
  ○ Submitting public appeals for voluntary load reductions,
  ○ Requesting government agencies to implement their programs to achieve necessary energy reductions,
  ○ Instructing a reduction of internal utility energy use, and
  ○ Using interruptible load, curtailable load, and demand response.
• **Refer** to Section 3.2: Transmission System Emergencies if the weather Emergency is affecting the transmission system.
• **Refer** to Section 3.1: Capacity and Energy Emergencies if the weather Emergency creates capacity or energy issues.
• **Monitor** *weather* and *forecast* tools to **determine** the effect of current and projected conditions.

[13] EOP-011-4 R5
[14] EOP-011-4 R1.2 (applicable to TOP)

Reliability Coordinator Actions
• **Coordinate** *mitigation* activities with affected BAs and TOPs and **determine** if an *Operating Instruction* is needed. • **Issue** *Operating Instructions* immediately, **in accordance with** Section 3.4: Operating Instructions, and Section 3.5: Load Shedding Instructions. • **Issue** *notification* to all impacted entities when the Emergency condition has been mitigated and the system is back to normal: ○ **Notify** all BAs and TOPs in the RC Area and neighboring RCs **via** GMS. • **Log** a summary of all communications and actions.

3.4. Operating Instructions

During system Emergencies, the RC operator will actively evaluate system conditions, coordinate mitigation activities with the affected BAs/TOPs and determine if there is a need to issue an Operating Instruction.

During a system Emergency, take the following actions:

Reliability Coordinator Actions

• **Actively evaluate** system *conditions* and **determine** possible *mitigation* options.
• **Coordinate** with affected *BA/TOP* to **determine** if the potential *mitigation* is viable.
  ○ If not, **advise** the BA/TOP of *alternate* or additional *mitigation* options.
• **Evaluate** the *mitigation* in *progress* to **determine** if the Emergency condition will be resolved in a timely manner.
• **Issue** an *Operating Instruction* without delay if the actions being taken are not adequate or will not resolve the condition in a timely manner (**Refer** to RC West Operating Procedure RC0110 Communications Protocols).
  ○ If load shedding is required, **refer** to Section 3.5: Load Shedding Instructions.
• **Monitor** system *conditions* to **determine** if the instructed *actions* were implemented and whether the issues will be resolved in a timely manner.
• **Issue** *additional Operating Instructions*, if needed.
• **Log** a summary of all *communications* and *actions*.

3.5. Load Shedding Instructions

Load shedding should be considered a last resort to mitigate reliability issues that occur in Real-time. All appropriate mitigation options should first be explored as time allows, including timely demand-side management or load transfer, before issuing an Operating Instruction to shed firm load. However, during Emergency situations or during situations or events with the potential to result in Adverse Reliability Impact, the RC operator may determine that other mitigation actions will not be adequate, or would not resolve the issue in a timely manner. In such cases, the RC operator should consider issuing an Operating Instruction to shed firm load.

3.5.1. Situations that May Require Load Shedding

The RC operator should consider issuing an Operating Instruction to shed load, when:

- A single or credible multiple Contingency will result in cascading outages, instability or voltage collapse,
- An IROL exceedance is unlikely to be mitigated within 30 minutes or T_V,
- Potential Adverse Reliability Impact due to generation/load imbalance caused by large sustained ACE or frequency excursion, EEA, etc., or
- Following Real-time Assessment, it is unclear whether the system can sustain the next single or credible multiple Contingency.

When the RC operator determines that one of the above Emergency conditions exists and load shedding is being considered as an option:

Reliability Coordinator Actions
• **Perform** Real-time *Assessments* **in collaboration with** the *RTOE* to ***validate*** the reliability *issue*, if time allows. • **Confirm** results with the affected BAs, TOPs and neighboring RCs. • **Operate** *conservatively* if there is disagreement in study results between entities.   ○ If there is disagreement with a neighboring RC on the IROL or T_V for a shared facility, **operate** to most limiting IROL or T_V.[15] • **Discuss** mitigation *options* with the affected BAs/TOPs and **determine** if those options can resolve the issue in a timely manner. • **Evaluate** *effectiveness* of mitigation in progress to **determine** if the condition will be resolved in timely manner. • **Determine** whether *post-Contingency* automatic or manual mitigation *actions* are available or acceptable.

[15] IRO-009-2 R4

Reliability Coordinator Actions
• **Issue** an *Operating Instruction* to shed load if other mitigation actions will not resolve the issue in a timely manner (**Refer** to RC West Operating Procedure RC0110 Communications Protocols). • **Log** a summary of all *communications* and *actions*.

3.5.2. When Load Shedding Instruction May Not Be Viable

Generally, an Operating Instruction to shed firm load may not be viable, when:

- The reliability issue can be mitigated in a timely manner using other mitigation actions.
- Shedding firm load will violate safety, equipment, regulatory or statutory requirements.
- A load shed instruction cannot be physically implemented.
- Studies show that the risk to the system will be contained within a defined area.
- Load at risk is not sufficiently more than the load that would have to be shed pre-Contingency.

3.6. Event Reporting

Certain BES Emergencies, such as IROL violations, system separation (islanding), firm load shedding, etc., require filing a NERC EOP-004 or a DOE OE-417 report. The RC operator will ensure that the appropriate internal parties are notified to ensure that the proper reports are submitted.

Reliability Coordinator Actions
• **Notify** Manager, Real-Time Operations of the BES Emergency **in accordance with** RC West Operating Procedure RC0420 Event Reporting.

3.7. BA and TOP EOP-011 Plan Submissions and Review

The CAISO Operations Compliance team shall work in conjunction with the RC to facilitate reviews of the Emergency Operating Plan(s) submitted by BAs and TOPs.[16]

The EOP-011 plans can be submitted to RC West each time the plan(s) are updated. RC West does not have an annual or periodic update requirement for EOP-011 plans.

The Plan Review Submissions library on the RC West secure website shall be used by the BAs and TOPs to upload Emergency Operating Plan(s) for RC review. The BAs and TOPs shall upload the plan document(s) with a completed RC0410A EOP-011 Plan Review Checklist.

[16] EOP-011-4 R3, R3.1 and sub requirements

Within 30 calendar days of receipt, RC West shall:

- Review each submitted Operating Plan(s) on the basis of compatibility and inter-dependency with other BAs' and TOPs' Operating Plans,
- Review each submitted Operating Plan(s) for coordination, to avoid risk to Wide Area reliability, and
- Notify each BA and TOP of the results of its review, specifying any time frame for resubmittal of its Operating Plan(s) if revisions are identified.

Each TOP and BA shall address any reliability risks identified by RC West, and resubmit its Operating Plan(s) to RC West within the specified time period.

Upon RC West's completion of the review process, the RC will post a review letter to the secure site and notify the submitting entity.

4. Supporting Information

Operationally Affected Parties

Shared with the Public and AESO, BCRC, SPP RC and RC West BAs and TOPs.

References

NERC Requirements	COM-002-4; EOP-011-4 R3, R5, R6; IRO-009-2 R2, R3, R4; IRO-014-3.
BA/TOP Operating Procedure	
RC West Operating Procedures	RC0110 Communications Protocols RC0310 Mitigating SOL and IROL Exceedances RC0420 Event Reporting RC0430 GMD Operating Plan RC0460 Reliability Coordinator Area Restoration Plan

Definitions

The following terms capitalized in this Operating Procedure are in accordance with the NERC Glossary, and/or otherwise when used are as defined below:

Term	Description
Emergency or BES Emergency	Any abnormal system condition that requires automatic or immediate manual action to prevent or limit the failure of transmission facilities, or generation supply that could adversely affect the reliability of the Bulk Electric System.
Adverse Reliability Impact	The impact of an event that results in frequency-related instability; unplanned tripping of load or generation; or uncontrolled separation or cascading outages that affects a widespread area of the Interconnection.
Extraordinary Contingency	Shall have the meaning set out in Excuse of Performance, Section B.4.c.language in Section B.4.c: Means any act of God, actions by a non-affiliated third party, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, earthquake, explosion, accident to or breakage, failure or malfunction of machinery or equipment, or any other cause beyond the Reliability Entity's reasonable control; provided that prudent industry standards (e.g., maintenance, design, operation) have been employed; and provided further that no act or cause shall be considered an Extraordinary Contingency if such act or cause results in any contingency contemplated in any WECC Reliability Standard (e.g., the "Most Severe Single Contingency" as defined in the WECC Reliability Criteria or any lesser contingency).
System Operating Limit (SOL)	The value (such as MW, Mvar, amperes, frequency or volts) that satisfies the most limiting of the prescribed operating criteria for a specified system configuration to ensure operation within acceptable reliability criteria. System Operating Limits are based upon certain operating criteria. These include, but are not limited to: • Facility Ratings (applicable pre- and post-Contingency Equipment Ratings or Facility Ratings), • Transient stability ratings (applicable pre- and post-Contingency stability limits), • Voltage stability ratings (applicable pre- and post-Contingency voltage stability), and • System voltage limits (applicable pre- and post-Contingency voltage limits).

Term	Description
Interconnection Reliability Operating Limit (IROL)	A System Operating Limit that, if violated, could lead to instability, uncontrolled separation, or Cascading outages that adversely impact the reliability of the Bulk Electric System.
Contingency Reserve	The provision of capacity that may be deployed by the Balancing Authority to respond to a Balancing Contingency Event and other contingency requirements (such as Energy Emergency Alerts, as specified in the associated EOP standard). A Balancing Authority may include in its restoration of Contingency Reserve readiness to reduce Firm Demand and include it if, and only if, the Balancing Authority: • Is experiencing a Reliability Coordinator declared Energy Emergency Alert level, and is utilizing its Contingency Reserve to mitigate an operating emergency, in accordance with its Emergency Operating Plan, or • Is utilizing its Contingency Reserve to mitigate an operating emergency, in accordance with its Emergency Operating Plan.
Reliability Coordinator (RC) Area	The collection of generation, transmission, and loads within the boundaries of the Reliability Coordinator. Its boundary coincides with one or more Balancing Authority Areas.
Capacity Emergency	A capacity emergency exists when a Balancing Authority Area's operating capacity plus firm purchases from other systems, to the extent available or limited by transfer capability, is inadequate to meet its demand plus its regulating requirements.
Cascading	The uncontrolled successive loss of System Elements triggered by an incident at any location. Cascading results in widespread electric service interruption that cannot be restrained from sequentially spreading beyond an area predetermined by studies.
Contingency	The unexpected failure or outage of a system component, such as a generator, transmission line, circuit breaker switch, or other electrical element.
Energy Emergency	A condition when a Load-Serving Entity or Balancing Authority has exhausted all other resource options, and can no longer meet its expected Load obligations.

Version History

Version	Change	Date
2.0	Annual Review: Section 3.3: Updated notification information and removed RCIS as a form of notification for extreme weather only. Section 3.7: Clarified plan submission requirements Replaced CAISO RC with RC West and updated to RC West logo. Minor grammar and format updates.	4/21/20
3.0	Annual Review: Updated criteria for issuing EEAs in Section 3.1, and clarified references to RC0210. Updated all RC West procedure references and updated procedure review frequency to "Annual". Approved by Real-Time Working Group (RTWG).	2/04/21
3.1	Added Section 3.1.1 for EEA Watch. Added EEA Watch templates to Section 3.1.6. Clarified criteria and steps for RC declaring a "BES Emergency" in Section 3.2. Minor format and grammar updates. Reviewed and approved by the Real-Time Working Group.	4/15/21
3.2	Section 3.1: Updates made related to EEA Watch based on received feedback.	6/21/21
3.3	Annual Review: Minor format and grammar updates throughout.	2/01/22
3.4	Annual Review: Updated references of EOP-011; minor formatting and grammar updates.	4/01/23
3.5	Section 3.1.6: Minor update to EEA Watch template. Section 3.6: Replaced ERC reference with JIC Lead.	9/05/23
3.6	Section 3.1: Clarified requirements for EEA Watch declaration. Section 3.6: Replaced External Affairs Joint Information Center (JIC) Lead with Manager, Real-Time Operations.	10/26/23
3.7	Annual Review: Minor formatting throughout. Section 3.1.2: Added "non-firm for wholesale energy sales.	5/02/24
3.8	Section 3.2: Additional criteria for RC declaration of transmission emergency – unplanned load loss for next contingency.	6/15/24
3.9	Annual Review: Updated NERC Standard EOP-011 references due to version update. Minor formatting and grammar edits and removed history prior to five years.	5/01/25

5. Periodic Review Procedure

Review Criteria & Incorporation of Changes

There are no specific review criteria identified for this document.

Frequency

Annual.

Appendix

RC0410A EOP-011 Plan Review Checklist

RC0410B Transmission Emergencies Due to Wildfire