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|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

Table of Contents

| | |
|--|-----------|
| PURPOSE | 1 |
| 1. RESPONSIBILITIES | 2 |
| 2. SCOPE/APPLICABILITY | 2 |
| 2.1. Background | 2 |
| 2.2. Scope/ Applicability..... | 2 |
| 3. PROCEDURE DETAIL | 3 |
| 3.1. Emergency Preparation and Mitigation | 3 |
| 3.1.1. Capacity and Energy Emergencies | 5 |
| 3.1.2. Adverse Operating Conditions | 7 |
| 3.1.3. Fuel Supply | 7 |
| 3.1.4. Environmental Constraints | 8 |
| 3.1.5. Notification Protocols | 8 |
| 3.2. Emergency Assistance | 9 |
| 3.3. Load Management Programs..... | 10 |
| 3.3.1. Public Appeals | 11 |
| 3.3.2. Government Energy Reductions | 11 |
| 3.3.3. Reduction of ISO Energy Use | 12 |
| 4. SUPPORTING INFORMATION | 12 |
| Operationally Affected Parties | 12 |
| References..... | 12 |
| Definitions | 13 |
| Version History..... | 13 |
| 5. PERIODIC REVIEW PROCEDURE | 14 |
| Review Criteria & Incorporation of Changes | 14 |
| Frequency | 15 |
| APPENDIX | 15 |

Purpose

This document describes the actions, roles, responsibilities, and communications for System Operator response to reasonably foreseeable emergency events.

| | | | |
|---|--------------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

1. Responsibilities

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| ISO System Operator | All ISO System Operators have dispatch authority for the ISO Balancing Authority and the Transmission Operating area, as delegated by the Executive Officers of the ISO, to take or direct timely and appropriate real-time actions necessary to ensure reliable operation of the ISO Controlled Grid, up to and including shedding of Firm Load to prevent or alleviate System Emergencies. These actions may be performed without obtaining approval from higher-level personnel within the ISO. (R1.1, R2.1) |
| Participating Transmission Owner (PTO) | In the context of this EOP-011-1 Emergency Plan, Participating Transmission Owners (PTOs) which are also NERC Registered Transmission Operators (TOPs) have agreed to certain responsibilities through a Coordinated Functional Registration (CFR) agreement with the ISO. In the CFR, the PTO is designated the Transmission Entity (TE). (R1.1) |


2. Scope/Applicability

2.1. Background

In accordance with NERC standard EOP-011-1, each Transmission Operator and Balancing Authority has developed Operating Plan(s) to mitigate operating emergencies and have coordinated these plans within the Reliability Coordinator area.

2.2. Scope/ Applicability

This document fulfills requirements specified by EOP-011-1, which must be included in an Emergency Operating Plan. Throughout this plan, actions contained in other ISO operating procedure documents may be cross-referenced. This has been done to fulfill the EOP-011-1 requirements in an overarching plan while minimizing duplication between procedure documents.

| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

In accordance with the Coordinated Functional Registration (CFR) agreements that the ISO has with several TOPs in its area, the Transmission Entities (TEs) LST, PG&E, SCE, SDG&E, TBC and VEA) and the ISO will each develop and maintain the EOP-011-1 requirements in their respective plans as follows:

- R1 - ISO and TE each have an operating plan, which shall include, to the extent applicable, the R1 sub-requirements.
 - R1.1 - ISO and TE each identify roles and responsibilities for activating the plan.
 - R1.2 - ISO and TE each have processes to prepare for and mitigate Emergencies.
 - R1.2.1 - ISO is solely responsible for notifying the RC when communications are normal. When communications at the ISO are unavailable, the TEs will communicate directly with the RC.
 - R1.2.2 - split - ISO and TE each have processes for cancellation or recall of transmission outages, the ISO has a process for cancellation or recall of generation outages.
 - R1.2.3 - ISO and TE each have processes to coordinate transmission system reconfiguration.
 - R1.2.4 - ISO is solely responsible for generation redispatch.
 - R1.2.5 - TEs are solely responsible for operator-controlled manual Load shedding.
 - R1.2.6 - ISO and TEs each have processes to address reliability impacts of extreme weather conditions.
- R2 - BA only, N/A to the TOPs under the CFR.
- R4 - ISO and TE each shall address RC feedback regarding their respective EOP-011-1 plans


3. Procedure Detail

3.1. Emergency Preparation and Mitigation

The ISO's Emergency planning includes preparing for and mitigating both system-wide and local emergencies. Actions include, but are not limited to, steps taken to prevent emergencies as well as minimize impacts, stabilize affected areas and recover. Emergencies may be sudden or progressive in nature. (EOP-011-1 R1.2, 2.2)

To prevent an emergency, and to maintain system reliability, the ISO may issue a notice in accordance with ISO Operating Procedure [4420 System Emergency](#) for its BA and/or TOP area or a local area. These notices may include Restricted Maintenance Operations (RMO), Transmission Emergency, Alert, Warning or a Stage 1, 2, or 3. The ISO may request the RC to issue an Energy Emergency Alert (EEA), and the RC may declare whatever alert level is necessary given the current or anticipated operating conditions.

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| | | | |
|---|--------------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

Emergencies by nature occur in real-time operations. However, it is possible for an anticipated or real-time event to affect next day and/or future operations. Operations are planned to assure that all transmission facilities follow the RC's SOL Methodology. Regardless of the time frame, if conditions call for it, action plans will be developed to minimize impacts and sufficiently mitigate to not cause a burden on the interconnection. The action plans will be shared with the RC and other affected parties via phone, the ISOs AWE notification system and/or the RC's Reliability messaging system. If needed, the ISO would make requests for Emergency Assistance, activate Load Management programs, and implement Emergency Manual Load Shedding as warranted to maintain reliability criteria.

To declare and implement emergency conditions for the ISO's BA and/or TOP area, the ISO System Operators shall follow a checklist related to the 4420 procedure called [4420B Alert/Warning/Emergency \(AWE\) Guide](#). This checklist details steps that may need to be taken to prevent and/or mitigate an emergency. The order of the actions taken may vary due to system conditions or other operational issues. It may be necessary to skip actions due to the severity of the situation. To the extent possible, and when prudent, actions that were skipped may be implemented at a later time or date. For example, the ISO may take one or more of the following actions in accordance with procedures 4420/ 4420B:

- Notify the RC when current or anticipated conditions could have/ have had significant impacts to Bulk Electric System operations, including a Capacity or Energy Emergency (R1.2.1, 2.2.1).
- Issue applicable notices via the ISO's AWE Notification System and the RC's Reliability messaging system.
- Cancel or recall outages, or reconfigure transmission system (R1.2.2, 1.2.3).
 - In anticipation of marginal system conditions, either system-wide or within local areas served by specific transmission or generation facilities, declare Restricted Maintenance Operations (RMO) periods to limit the risk to remaining Bulk Electric System facilities.
 - The ISO maintains the authority to cancel or postpone any or all or work to preserve overall System Reliability, both prior to Real-Time and during Real-Time operations.
 - The ISO will coordinate with PTOs to reconfigure the transmission system, if necessary.
- In addition to declaring RMO periods, the ISO will also manage generating resources through the follow types of activities: (R2.2.3)
 - Coordinating with Scheduling Coordinators and gas companies or manage fuel supply and inventory concerns, per ISO Operating Procedure [4120 Gas Transmission Pipeline Derates or Outages](#), and [4120C SoCalGas Service Area Limitations or Outages](#) (R2.2.3.2).

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| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |


- Redispatch generation (R1.2.4)
 - Exhaust available resources (except for Spin/Non-Spin) through the market.
 - Utilize Exceptional Dispatch (out of market) to mitigate as necessary.
 - Utilize Manual Dispatch on the Interties to mitigate as necessary.
 - Utilize Spinning and Non-Spinning Reserve resources.
 - Request effective available Energy from Metered Sub System (MSS) resources, if necessary.
- Utilize load management programs (R1.2.5)
 - Utilize Demand Response resources.
 - Utilize emergency Utility Distribution Company (UDC) Interruptible Load (Non-Firm) programs.
 - Reduce participating pump load as available.
 - If manual load shedding may be required, then request that the RC declare Energy Emergency Alert 3 (EEA 3) for the ISO, either 1) due to local Transmission Emergency or 2) ISO BA deficiency.
 - Utilize Firm Load interruption, if necessary.
- Request emergency assistance (R2.2.2)
 - If transmission is available to the affected area, request that the RC
 - Declare Energy Emergency Alert 2 (EEA 2) for the ISO due to either 1) local Transmission Emergency for the affected area or 2) the ISO BA, and
 - Issue a notice that Emergency Assistance may be required by the ISO to mitigate conditions in the affected area, and
 - Request that interconnected Balancing Authorities determine the amount of assistance they are able to provide to the affected area.
 - If transmission is available, request emergency assistance from adjacent Balancing Authority Areas as necessary to mitigate conditions in the affected area. Refer to ISO Operating Procedure [4410 Emergency Assistance](#) for appropriate steps.
- Maintain hourly updates to the RC until Alert 2 or 3 is terminated.
- When conditions stabilize, the ISO will back out of each step performed and notify the RC and other entities via the AWE notification system and/or Reliability messaging system.

3.1.1. Capacity and Energy Emergencies

The ISO maintains and, in case of deployment, restores Contingency Reserves to the levels specified in WECC Standard BAL-002-WECC-2a. Insufficient generating capacity may be experienced in real-time or recognized in the operations planning time frames. Regardless of the time frame, both require an action plan be developed with sufficient mitigation as to not cause a burden on the interconnection. **Additionally**, adequate reserves must be maintained to adhere to Control Performance Standard (CPS), while at the same time being prepared to adequately respond to loss of resources within the Disturbance Control Standard (DCS), and

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| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

while not overloading transmission elements or facilities. During a system emergency, the ISO System Operators shall immediately take action to restore the real and reactive power balance.


In accordance with ISO Operating Procedure [4420 System Emergency](#), in anticipation of marginal generating capacity, the ISO will take action to preclude insufficient generating capacity with declarations of Restricted Maintenance Operations periods, thereby limiting the activities that may put resources at greater risk. In the Day-Ahead timeframe by 1500, the ISO may issue an Alert notice to indicate Operating Reserve deficiencies for the next day.

The ISO may issue a Warning notice when the Real-Time Contingency Reserves are anticipated to be less than Contingency Reserve requirements and further actions are necessary to maintain the Contingency Reserve requirements. A Warning notice will also allow the ISO to trigger emergency demand response programs and other out-of-market programs. The RC may consider declaring an EEA 1 or 2, depending upon the circumstances.

The ISO may declare an Emergency Stage 1, to indicate that Contingency Reserve shortfalls exist or are forecast to occur, and available market and non-market resources are insufficient to maintain Contingency Reserve requirements. The ISO will take actions as detailed in ISO Operating Procedure [4420 System Emergency](#) and the checklist [4420B Alert/Warning/Emergency \(AWE\) Guide](#) to restore or maintain required Contingency Reserves. These actions include notifying the RC and affected parties. The RC will determine the EEA alert level depending upon the circumstances.

The ISO may declare an Emergency Stage 2 when it has taken all actions listed above and cannot maintain its Contingency Reserve Requirement as indicated by the EMS system. The ISO will take actions as detailed in Operating Procedure 4420 and in the checklist, 4420B AWE Guide to restore or maintain required Contingency Reserves. These actions include notifying the RC and affected parties. The RC will determine if the EEA alert level depending upon the circumstances. If an ISO Stage 3 is imminent, the RC may consider declaring an EEA 3.

The ISO may declare an Emergency Stage 3 when the Contingency Reserve depletes, or is anticipated to deplete below the Contingency Reserve requirement and cannot be restored, without shedding firm load. During a Stage 3, manual load shedding may be imminent or may already be underway. The ISO will take actions as detailed in Operating Procedure 4420 and in the checklist 4420B AWE Guide to mitigate or otherwise manage the Emergency. These actions include notifying the RC and affected parties. The RC may consider declaring an EEA 3, depending upon the circumstances. If time allows, the ISO will utilize a Load Shedding Tool to calculate pro rata load shedding shares across the entire ISO Balancing Authority or only for an affected area. The fixed pro rata percentages and calculation methodology are included in ISO Operating Procedure [4510A Load Shed Calculation Guideline](#).

| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

3.1.2. Adverse Operating Conditions

In accordance with ISO Operating Procedure [4110 Operations Emergency Preparation Notifications and Reporting](#), the ISO System Operators will take steps to prepare whenever a potential adverse operating condition exists. Preparation and actions related to extreme weather conditions are similar to those considered for other natural disasters such as fires, floods, earthquakes and tsunamis. (R1.2.6, 2.2.9)

In collaboration with appropriate personnel, the ISO System Operators will assess the potential risk to the Bulk Electric System based on the information available. During the assessment, they will consider the following:

- Lines or equipment that may be threatened
- Location impacted
- Estimated time the event will occur
- Ability to sustain the loss / recover
- Condition of the BES
- Damage to the BES
- Resource availability for dispatch, estimated time to return (ETR) for generation tripped or forced offline


The ISO will communicate with the RC and affected parties, and will prepare for credible BES failures identified in the risk evaluation or in response to a request or instructions from the RC. The ISO will monitor available information regarding the status of the event and continue to evaluate the risk and take appropriate actions as needed. The ISO will take mitigating actions as needed in accordance with ISO Operating Procedure [4420 System Emergency](#) by utilizing the checklist [4420B Alert/Warning/Emergency \(AWE\) Guide](#), and other area specific procedures as applicable.

3.1.3. Fuel Supply

The primary fuel supply and inventory concern in California is natural gas. Water for hydro-generation can also be a concern seasonally and during drought years.

Gas supplies and inventory are managed by the respective Generator Operator (GOP) and gas transmission operator, along with the Scheduling Coordinator (SC) in communication with the ISO. The ISO runs a Day-Ahead Market Analysis that helps predict fuel usage. The ISO shares the output of this hourly report to the respective gas transmission operators to manage burns in their pre-defined gas transmission zone. The ISO is in ongoing communication with the gas transmission operator concerning fuel supply or inventory. ISO Operating Procedure [4120 Gas Transmission Pipeline Derates or Outages](#) describes roles, communications and actions related to gas transmission reductions or curtailments and impacts to the electric system in planned and immediate timeframes.

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| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

Natural gas transmission pipelines are not subject to the jurisdiction or authority of ISO, but are primarily regulated by state and/or federal regulatory agencies. Therefore, Natural Gas System Operator cooperation with ISO procedures is voluntary, does not operate as a waiver or consent to ISO jurisdiction. In accordance with ISO Operating Procedures [4120 Gas Transmission Pipeline Derates or Outages](#) and [4120C SoCalGas Service Area Limitations or Outages](#), the ISO will coordinate with the applicable Natural Gas Transmission Pipeline System Operator concerning gas limitations imposed on generation resources to ensure both gas and electric reliability to the greatest extent possible.

Fuel for generators (either from normal or from remote sources) systems is the responsibility of and arranged by the GOP. The GOP, through coordination with their SC, is also responsible to advise the ISO should fuel availability become a concern. In that case, the ISO may assist in coordinating dispatch of resources to conserve fuel. When there is a natural-gas limitation in a region, which requires reduction of fuel supply generator resource(s), the Natural Gas Transmission Pipeline System Operator will communicate with the GOP. The Natural Gas Transmission Pipeline System Operator will normally also communicate with the ISO to provide the same information as well as availability of gas supply to the extent known. The ISO can work with SCs to determine if a different generation output pattern is necessary due to new gas limitations. If multiple resources are impacted in an area, and if specific generators may need to reduce gas consumption, then the ISO will take actions to redispatch generation in other areas. (R2.2.3.2)

Two generators in the ISO BA have dual fuel capabilities. They have the option to utilize this fuel switching ability in times of low fuel supply or inventory as defined by the GOP. A list of dual fuel capable units is maintained in ISO Operating Procedure attachment [4610A Blackstart, Dual Fuel Units and Generator Operator](#). (R2.2.3.3)


3.1.4. Environmental Constraints

During emergencies, including insufficient generating capacity, regional reserve deficiencies, or other system emergencies, Real-Time Operations will issue Emergency Operating Instructions to generator(s) as needed to maintain system reliability. The following business day, the appropriate ISO Government Affairs representatives will communicate with environmental agencies, such as air quality districts, air boards, and water boards to request relaxation or waiver of applicable environmental constraints for generators. Some of these generators have specific conditions that are stipulated in their permits that allow such relaxation. (R2.2.3.4)

3.1.5. Notification Protocols

Information regarding current or anticipated emergency operations will be disseminated as soon as practicable to the RC, affected parties, adjacent BAs, and TOPs. Notifications should not delay the urgent stabilization of dynamic conditions. Therefore, in extreme circumstances,

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| | | | |
|---|--------------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

actions required due to the nature and extent of the emergency may dictate how quickly notification can be made. (R1.2.1, 2.2.1).

Notifications to applicable operating entities may be made through various methods:

- The ISO AWE Messaging System notifies all subscribing entities simultaneously of emergency declarations through email and a mobile application.
- Notifications may also be made through the Market Notification System (MNS) in the form of System Operating Messages, which are posted on OASIS.
- The Reliability messaging system may be used to send applicable emergency communications to adjacent BAs and TOPs.
- Notifications may also be made directly by telephone.

Within the ISO BA and TOP area, Participating Transmission Owners (PTO), Utility Distribution Companies (UDC), and Metered Sub-Systems (MSS) maintain a single point of contact with the ISO through which routine and emergency communications will take place. The single point of contact for the UDC is through the responsible Transmission Operator (TOP). Unless specifically indicated otherwise, emergency communications between the ISO and the UDC will be through the TOP. Routine and emergency contact with Generator Operators (GOP) is through their assigned Scheduling Coordinators (SC). In emergencies, in instances when communication cannot be established through the SC, the ISO may contact the GOP directly.

Notification to the North American Electric Reliability Corporation (NERC), Federal Energy Regulatory Commission (FERC), Department of Energy (DOE), and other interested parties will be accomplished within defined timelines as per ISO Operating Procedure [4110 Operations Emergency Preparation Notifications and Reporting](#).

3.2. Emergency Assistance


At times, the need to supply or receive emergency assistance may arise. After assuring sufficient energy and capacity is available for current and forecasted loads, reserve margins, and mitigation efforts the ISO shall make every attempt to supply Emergency Assistance to energy deficient entities. Likewise, after exhausting all possible internal resources the ISO shall request Emergency Assistance from adjacent Balancing Authorities (BA).

To facilitate Emergency Assistance, the ISO and adjacent BAs have mutually agreed upon and signed agreements called Interconnected Control Area Operating Agreements (ICAOAs) or Adjacent Balancing Authority Operating Agreements (ABAOA).

A list of these agreements is located on the ISO's public website at:

http://www.caiso.com/Documents/Guide-InterconnectedControlAreaorInterconnectedBalancingAuthorityAreaOperatingAgreements_ICAOAorIBAOA.pdf

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| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

To implement Emergency Assistance the ISO System Operators will follow Operating Procedure [4410 Emergency Assistance](#), which contains detailed provisions for how the ISO provides Emergency Assistance to other BAs, and for how the ISO receives Emergency Assistance from other BAs.

3.3. Load Management Programs

The PTOs each have the responsibility to plan for operator-controlled manual Load shedding within their areas that minimizes the overlap with automatic Load shedding and is capable of being implemented in a timeframe adequate for mitigating an Emergency. The ISO coordinates with the PTOs to plan and implement Load shedding.

Load shedding may occur automatically or manually. Automatic load shedding may be further categorized as underfrequency or undervoltage, while manual load shedding may include interruptible or firm load. Automatic Load shedding may occur, and depending on the severity of the conditions, additional manual load shedding may be required. The nature and magnitude of the event causing the load shed, manually or automatically, may greatly influence additional load shedding and subsequent restoration actions.

Automatic Load Shedding


For underfrequency Load shedding, the ISO subscribes to the WECC Off-Nominal Frequency Load Shedding and Restoration Plan specifications. The ISO will coordinate and facilitate development of undervoltage load shedding for identified load pockets within the ISO BA as needed.

Manual Load Shedding

Interruptible Loads

Reliability Demand Response Resources (RDRR) are use-limited demand resources that can participate economically in the Day-Ahead market and as emergency demand response resources in the Real-Time Energy market. RDRR resources that participate economically in the Day-Ahead must make any remaining capacity not committed in the Day-Ahead available to the ISO in real-time to alleviate System Emergencies. Once the System Emergency has been resolved, RDRRs are deactivated from real-time participation in the market (until the next emergency), and can only participate economically in the Day-Ahead until then.

The UDC Interruptible Load programs were developed through arrangements with subscribing end-use customers taking service under special UDC tariffs approved by the California Public Utilities Commission (CPUC). These programs may be called by the UDCs per their retail program rules or by ISO System Operators in the Day-Ahead, and/or in Real-Time upon issuing a Warning Notice, an Emergency Stage 2, or a Transmission Emergency. UDC

| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

Interruptible Load programs may require 30 minutes or more to fully implement, and therefore are most effective when their anticipated use is coordinated with the UDC in advance.

Operator Controlled Manual Load Shedding

If an IROL is exceeded, the ISO will coordinate with the RC. The ISO System Operators will dispatch sufficient effective generation resources to prevent SOL exceedances. During an emergency, if there are not sufficient resources available to mitigate the identified IROL, the ISO System Operators will implement a load reduction plan in sufficient amount and time before system separation or collapse occurs. Depending on the time available to act, the ISO will implement Interruptible load reduction programs and/or Emergency Manual Load Shedding to prevent an IROL violation.

ISO Operating Procedure [4510 Load Management Programs and Underfrequency Load Shedding](#) provides more background information about these programs. If underfrequency load shedding has occurred or when system conditions require manual load shedding, the ISO System Operators will take actions in accordance with Operating Procedure [4420 System Emergency](#) and utilize the checklist [4420B Alert/Warning/Emergency \(AWE\) Guide](#).

3.3.1. Public Appeals


Flex Alerts are part of an educational and alert program that informs consumers about how and when to conserve electricity during heat waves and other challenging grid conditions. A Flex Alert is most effective when issued a day in advance of when conservation is needed so consumers can adjust their electricity usage ahead of time such as adjusting thermostats before leaving for work.

However, grid emergencies can happen suddenly, so if conservation is needed, the ISO will issue a Flex Alert with little or no advance notification. When possible, Flex Alerts are targeted to the local areas where the system is stressed. The ISO Corporate Communications will coordinate with the ISO Emergency Response Coordinator and Real-Time Operations in order to determine if a Flex Alert would be a useful mechanism given the planned or current operating conditions. If needed, the ISO will issue a “Flex Alert” notice using available communications channels (AWE Notification System, social media, website, email, etc.) (R2.2.4)

3.3.2. Government Energy Reductions

When a Flex Alert is called, state governmental agencies have a plan in place to reduce energy consumption in facilities. The ISO will issue a Flex Alert notice as per ISO Operating Procedure [4420B Alert/Warning/Emergency \(AWE\) Guide](#), which is consistent with its parent procedure [4420 System Emergency](#). In turn, the Emergency Response Coordinator, External Affairs Joint Information Center Lead, Public Information Officer and Government Affairs

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| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

representatives will coordinate with government agencies to notify the public through the media.

In addition, during certain energy emergency conditions, the California State government, through the Department of General Services, has plans in place to reduce electrical usage **in state offices and facilities** to a minimum, including dimming lights, reducing heating and cooling load, reducing pumping, curbing various electrical processes, and reducing nonessential computer use. (R2.2.5)

3.3.3. Reduction of ISO Energy Use

During operations of insufficient generating capacity, the ISO facilities will reduce electrical usage to a minimum including dimming lights, reducing heating and cooling load, and reducing nonessential computer use. (R2.2.6).

4. Supporting Information

Operationally Affected Parties


Shared with **the** Public.

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 | Tariff Section 7 |
|-------------------------|---|
| ISO Operating Procedure | 4110 Operations Emergency Preparation Notifications and Reporting 4120 Gas Transmission Pipeline Derates or Outages 4120C SoCalGas Service Area Limitations or Outages 4410 Emergency Assistance 4420 System Emergency 4420B Alert/Warning/Emergency (AWE) Guide 4610A Blackstart, Dual Fuel Units and Generator Operator |

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| | | | |
|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

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|-------------------|---|
| NERC Requirements | EOP-011-1 R1, R2, R4 and all sub requirements TOP-001-1 R8 |
| WECC Criterion | |
| Other References | |

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:

None.

Version History

| Version | Change | Date |
|---------|---|-----------|
| 5.0 | Periodic Review - Minor changes for clarification. Updated version of last update should have been 5.0 and not 4.1. | 6/29/2015 |
| 5.1 | Revised Section 16 to better align it with 4120 and 4120C, as well as the current process. | 8/11/2015 |
| 5.2 | Replaced CFE with CENACE under Operationally Affected Parties. Removed references to WECCNet and added new tool Reliability Messaging Tool (RMT). | 6/24/2016 |
| 6.0 | Annual Review: <ul style="list-style-type: none"> • Replaced Shift Supervisor with Shift Manager. • Replaced System Operations Coordinator with Emergency Response Coordinator. • Various other edits. | 9/23/2016 |
| 6.1 | <ul style="list-style-type: none"> • Updated titles/roles throughout • Replaced CAISO with ISO in most instances throughout • Minor formatting and grammar updates throughout • Moved content from Responsibilities section to Scope • Added content from NERC EOP-001 to Background section | 11/1/2016 |
| 7.0 | Complete re-write due to new NERC standard EOP-011-1. Content also updated due to retirement of EOP-001- | 4/1/2017 |

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| | | | |
|---|--------------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

| Version | Change | Date |
|---------|---|-----------|
| | 2.1b, EOP-002-3.1, and EOP-003-2. Changed distribution restriction to "None". | |
| 7.1 | <ul style="list-style-type: none"> • Minor updates made to Sections 3.1 and 3.3 due to retirement of WECC TOP-007. • Replaced additional references of CAISO with ISO. • Replaced reference of PG&E with PG&E. • Updated all references of the RC to the Peak RC. | 10/1/2017 |
| 8.0 | Annual Review: Section 3.1.4: Replaced entire paragraph. Minor grammar and format updates. Updated references of Peak RC to RC. | 8/20/2018 |
| 9.0 | Annual Review: Section 3.3.3: In last paragraph, replaced WECC Operating Reserve requirement with ISO Spinning Reserve requirement. Replaced all instances of RMT with Reliability messaging system. Minor format and grammar updates. Added document control statement in footer. | 7/18/2019 |
| 10.0 | Annual Review - Section 2.2: Added LST to list of TEs under CFR. Section 3.1.1: Updated for consistency with OP 4420B. Section 3.3.1: Updated Flex Alert coordination. References: Clarified NERC requirements. | 7/07/2020 |
| 10.1 | Section 3.3.2: Minor updates made for State plans to reduce. Minor format and grammar updates. | 8/10/2020 |


5. Periodic Review Procedure

Review Criteria & Incorporation of Changes

This Plan is reviewed no less frequently than once per calendar year, no later than 15 months from last update. The review may be conducted through a collaborative process including Operationally Affected Parties. The process includes an appropriate review of the NERC and WECC Mandatory Reliability standards.

- In accordance with EOP-011-1 R1 and R2, the ISO must submit this plan to the RC for review whenever it is updated.
- Per R3, the RC shall review the plan within 30 calendar days of receipt. The RC will notify the ISO of the results of the review, specifying any time frame for resubmittal if revisions are identified.

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|---|----------------------------|---|-----------|
|  California ISO | Operating Procedure | Procedure No. | 4100 |
| | | Version No. | 10.1 |
| | | Effective Date | 8/10/2020 |
| System Operations Emergency Plan | | Distribution Restriction: None | |

- Per R4, the ISO shall address any revisions identified by the RC pursuant to R3 and resubmit the plan to the RC within the specified time period.

Frequency

Annual

Appendix

No references at this time.