

 <b>CALIFORNIA ISO</b> <small>California Independent System Operator</small>		<b>Procedure No.</b>	E-508
		<b>Version No.</b>	1.7
		<b>Effective Date</b>	1-1-01
<b>Electrical Emergency Plan</b>		<b>Distribution Restriction: NONE</b>	

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## PURPOSE

This Procedure describes the process used to address an imbalance between available system resources and system Demand during periods when an Operating Reserve shortage is imminent or already exists. Refer to ISO Operating Procedures E-504 and N-703 for information about the appropriate notifications before and during implementation of the ISO Electrical Emergency Plan (EEP). This EEP is designed to be implemented by the Independent System Operator (ISO) after consultation with the Utility Distribution Companies (UDC). Implementation of the ISO EEP may include curtailment of available Interruptible Load<sup>1</sup> and implementation of the respective UDC Electrical Emergency Plans. Additionally, the ISO EEP is designed to be compatible with and implemented in conjunction with the California Energy Commission's Energy Shortage Contingency Plan.

An operating capacity deficiency exists when the resources are inadequate to meet the Load Demand. Operating Reserve is the margin of operating capacity above the amount that is required to meet the Demand. This margin is necessary to maintain reliability, and to provide protection against the sudden loss of capacity. An Operating Reserve deficiency is oftentimes foreseeable in the Day-Ahead or Hour-Ahead markets and, if not corrected, may require significant ISO intervention in the real-time operation.

The elements of this ISO EEP are based on the need to:

- Determine necessary action during a shortage of Operating Reserve
- Notify appropriate personnel and designated regulatory agencies of the current situation and implementation of the ISO EEP
- Coordinate notification of the news media of the current situation, of any curtailment requests of end-use customers, of the expected duration of such curtailment, and of the evaluation of its effectiveness
- Minimize the adverse impact of a shortage in Operating Reserve by orderly implementation of UDC Electrical Emergency Plans for the curtailment of Demand, in ascending order of criticality.

## RESPONSIBILITIES

Party	Responsibility
<b>ISO Emergency</b>	The ISO Emergency Response Team, which is

<sup>1</sup> *Interruptible Load: Includes the Demand associated with the "Interruptible Service" and "Emergency Curtailment" programs of the Southern California Edison Company and the Pacific Gas & Electric Company, respectively. Contract and tariffs under the jurisdiction of the California Public Utilities Commission cover these programs. Also included is the Demand associated with the ISO Demand Relief Program, which has been made available for interruption by the various participants (see ISO Operating Procedure E-511).*

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<b>Response Team</b>	<p>comprised of an Executive in Charge, Shift Manager, Public Information Coordinator, and Emergency Response Coordinator, will coordinate the implementation of ISO EEP for the ISO Control Area. Additional ISO Personnel will be named to this team at the direction of the Executive in Charge.</p>
<b>Executive in Charge</b>	<p>Heads the team and has overall responsibility for coordination and implementation of the ISO EEP.</p>
<b>Participating Transmission Owners (PTO's)</b>	<p>Maintain a single point of contact with the ISO through their power grid operations centers, which are identified as follows:</p> <ul style="list-style-type: none"> <li>• “Transmission Operation Center”- Pacific Gas &amp; Electric</li> <li>• “Grid Control Center” - San Diego Gas &amp; Electric and Southern California Edison.</li> </ul> <p>Hereinafter these centers will be referred to as the PTO Control Centers.</p>
<b>Shift Manager</b>	<p>Directs the ISO to issue an Emergency Notice, and directs the notification of the following:</p> <ul style="list-style-type: none"> <li>• Operations and Communications management</li> <li>• PTO Control Centers (who will notify UDCs within their respective areas) Each PTO and UDC will complete their designated notification in accordance with their Electrical Emergency Plans. When each PTO Control Center is assured that all notifications have been completed, they will report to the ISO.</li> <li>• All Market Participants</li> <li>• California Office of Emergency Services (OES) Warning Center.</li> <li>• Electricity Oversight Board (EOB)</li> <li>• California Energy Commission (CEC)</li> <li>• California Public Utilities Commission (CPUC)</li> <li>• Western Systems Coordinating Council (WSCC)</li> <li>• U.S. Department of Energy (DOE) Emergency Operations Center</li> </ul> <p>Follow-up communications and liaison with these agencies will be as noted in ISO Operating Procedures E-507 and N-703, or as directed by the Executive in</p>

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Charge.

## PROCEDURE

### 1. ISO ELECTRICAL EMERGENCY PLAN

The ISO EEP is divided into three (3) progressive Stages of Emergency. If it becomes necessary to bypass the first and/or consecutive stage(s) in order to immediately proceed to more progressive stages during the implementation of this ISO EEP, the action items under the bypassed phases and stages will be implemented, as is appropriate.

#### 1.1. Stage 1 Emergency Notice

The ISO Shift Manager will issue a Stage 1 Emergency Notice when, in his/her judgment, an Operating Reserve shortfall exists or is unavoidable, and available market and non-market resources will be insufficient to maintain Operating Reserves in compliance with WSCC MORC.

The following steps will be implemented, as necessary, in order:

##### 1.1.1. Notify Emergency Response Team

The ISO Operating Procedure E-507 - Emergency Response Team Procedure will be implemented.

##### 1.1.2. Notify Market Participants

The ISO will send notification to all Market Participants and to all PTO Control Centers, who in turn will notify UDCs within their operational areas to prepare for imminent implementation of the UDC Interruptible Load programs (as applicable) and their Electrical Emergency Plan for involuntary service interruptions as necessary. (The UDCs, through their respective PTOs, will provide the ISO an updated estimate of available Interruptible Service.)

##### 1.1.3. Notify appropriate regulatory and reliability agencies

The ISO will give notification of implementing Stage 1 of the ISO EEP to the appropriate regulatory and reliability agencies, (as described in the Responsibilities Section of this Procedure).

##### 1.1.4. Coordinate media announcements with UDCs

The ISO will coordinate media announcements with the affected UDCs, advising of potential power shortages and to announce measures that all end-use customers should take to reduce

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electrical Demand. Customers are to be told that the request for Demand reduction is not intended to disrupt employment or curtail industrial production or commerce, but voluntary action will help avoid involuntary service interruptions. However, if voluntary action is insufficient, involuntary service interruptions are probable.

**1.1.5. Utilize available supplemental energy and Replacement Reserve capacity**

The ISO will utilize any available supplemental energy and replacement reserve capacity as it becomes available in an amount sufficient to maintain minimum Operating Reserve for the ISO Control Area including the curtailment of Price-sensitive Curtailable Demand as per the merit Order stack.

**1.1.6. Acquire additional resources**

The ISO will attempt to acquire by any means, including non-competitive bid, additional resources in an Amount sufficient to maintain minimum Operating Reserve.

**1.1.7. Implement ISO Demand Relief Program**

The ISO will implement the Demand Relief Program in an Amount sufficient to maintain minimum Operating Reserve for the ISO Control Area as outlined in ISO Operating Procedure E-511 (Demand Relief Program). Participants will be notified that the Operating Reserve threshold has been met which warrants their reduction of load to prearranged levels as contracted for in the Demand Relief Program.

**1.1.8. Bypass Stage 1 Emergency if necessary**

It may be necessary to bypass Stage 1 entirely and proceed immediately to Stage 2. If necessary to bypass Stage 1, appropriate steps from Stage 1 Action Plan will be considered during implementation of Stage 2.

**1.2. Stage 2 Emergency Notice**

The ISO Shift Manager will issue a Stage 2 Emergency Notice when, in his/her judgment, an Operating Reserve shortfall (Operating Reserve is less than **5%**) exists or is unavoidable, and available market and non-market resources will be insufficient to maintain Operating Reserves in compliance with WSCC MORC.

The following steps will be implemented, as necessary, in order:

**1.2.1. Notify Emergency Response Team**

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The ISO Operating Procedure E-507 “Emergency Response Team Procedure” will be implemented.

**1.2.2. Notify appropriate regulatory and reliability agencies**

The ISO will give notification of implementing Stage 2 of the ISO EEP to the appropriate regulatory and reliability agencies (as described in the Responsibilities Section of this Procedure) to all Market Participants, and to all PTO Control Centers, who in turn will notify UDCs within their operational areas. Information included in this notification will conform to the requirements listed in ISO Operating Procedure E-506 – UDC Interruptible Service. UDCs are thereby advised that the Operating Reserve threshold has been met which warrants their implementation of Interruptible Load programs (as applicable). Additionally, UDCs are to prepare for imminent implementation of their Electrical Emergency Plan for involuntary service interruptions as necessary.

**1.2.3. Notify PTO Control Centers**

During the notification of Stage 2 Emergency the ISO will inform the PTO Control Centers of the approximate amount of deficiency (in megawatts) and will confirm the amount of Interruptible Load which is available to be shed in each of the PTO operational areas.

If the deficiency exceeds the estimated Interruptible Load available, the ISO will indicate all Interruptible Load should be shed, and will prepare to issue a Stage 3 Emergency Notice if necessary.

If the deficiency is less than the estimated available Interruptible Load, the ISO will indicate the amount of Interruptible Load, which should be shed within each PTO operational area. Refer to ISO Operating Procedure E-506 – UDC Interruptible Service.

**1.2.4. Evaluate need for Stage 3 Emergency Notice**

In the event that insufficient Interruptible Load is shed, or, if it is the judgement of the ISO Shift Manager that shedding available Interruptible Load will not be timely enough to meet system reliability requirements (e.g., due to the time required for interruption, Refer to ISO Operating Procedure E-506), the ISO will evaluate the need for issuing a Stage 3 Emergency Notice.

**1.2.5. Coordinate media announcements with UDCs**

The ISO will coordinate the issuance of media announcements with the affected UDCs. The announcements will advise customers of imminent power shortages, and will recommend measures that all

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end-use customers should take to reduce electrical Demand. Customers will be advised of the scope of potential shortages, and told that voluntary service interruptions have begun.

**1.2.6. Evaluate need for further market intervention**

The ISO will evaluate the need for further intervention in the market (including, as necessary, intervention in the Hour-Ahead, and/or Day-Ahead Markets) and establish an administrative price to maximize the available Generation.

**1.2.7. Order Load restoration as appropriate**

As Operating Reserve margins are restored to values which will allow restoration of Interruptible Load without falling below five percent Operating Reserve, the ISO will order the restoration of Interruptible Load. With the exception of the Air Conditioning Cycling Programs, the Load, which has been curtailed, will be restored in the order that it was shed (i.e., the first Load shed will be the first Load restored). Load associated with Air Conditioning Cycling Programs will be shed and/or restored as needed for system requirements.

**1.2.8. Terminate Stage 2 Emergency Notice**

Termination of the Stage 2 Emergency Notice will occur when all Interruptible Loads have been restored.

**1.2.9. Bypass Stage 2 Emergency as necessary**

It may be necessary to bypass Stage 2 entirely and proceed immediately to Stage 3. If necessary to bypass Stage 2, appropriate steps from Stage 2 Action Plan will be considered during implementation of Stage 3.

**1.3. Stage 3 Emergency Notice**

The ISO Shift Manager will issue a Stage 3 Emergency Notice when, in his/her judgment, an Operating Reserve shortfall (Operating Reserve of less than 1½%) exists or is unavoidable, and available market and non-market resources will be insufficient to maintain Operating Reserves in compliance with WSCC MORC. The following steps will be implemented, as necessary, in order.

**1.3.1. Notify Emergency Response Team**

The ISO Operating Procedure E-507 “ Emergency Response Team Procedure” will be implemented.

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**1.3.2. Notify appropriate regulatory and reliability agencies**

The ISO will give notification of implementing Stage 3 of the ISO EEP to the appropriate regulatory and reliability agencies, (as described in the Responsibilities Section of this Procedure), to all Market Participants, and to all PTO Control Centers, who in turn will notify UDCs within their operational areas to make ready for immediate implementation of their Electrical Emergency Plan for involuntary service interruptions as necessary.

**1.3.3. Coordinate media announcements with UDCs**

The ISO will coordinate the issuance of media announcements with the affected UDCs. The announcements will advise customers of imminent power shortages, and will recommend measures that all end-use customers should take to reduce electrical Demand. Customers will be advised of the scope of potential shortages, and told that involuntary service interruptions have begun.

**1.3.4. Order involuntary service interruptions**

The ISO will order involuntary service interruptions among UDCs on a pro-rata basis, if practical, in sufficient quantity to maintain one and one half percent (1½%) Operating Reserve based on their respective ratios of:

- Demand to the total Control Area
- Demand at the time of the Control Area annual peak
- Demand for the previous year

*For current- year percentages, see **Attachment A**.*

UDCs will implement their respective electrical emergency plans, and/or any other Load dropping programs available to them, taking the necessary actions to curtail the amount of Demand as ordered within the time frame ordered by the ISO. This time frame may be as short as ten minutes upon transmittal of this emergency order from the ISO.

If, upon issuing a Stage 3 Emergency Notice, any UDC has not yet requested the curtailment of all available Interruptible Load, curtailment of that Load will be requested as soon as possible, and will be in addition to curtailments of firm Load requested by the ISO in accordance with the Stage 3 Emergency Notice.

**1.3.5. Order the restoration of firm Load**

As Operating Reserve margins are restored to values which will allow restoration of firm Load without causing the Operating

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Reserve to fall below 1½ %, the ISO will order the restoration of firm Load in the order that it was shed (i.e., the first Load shed will be the first Load restored). All firm Load will be restored prior to restoration of any Interruptible Load. Termination of the Stage 3 Emergency will occur when all firm Load has been restored.

## 2. MESSAGES

### 2.1. Initiating Message to PTO Control Centers, Market Participants and Appropriate State Agencies

#### STAGE 1 EMERGENCY NOTICE

The California Independent System Operator is implementing Stage 1 of the Electrical Emergency Plan for the period {date & time} through {date & time}.

The CAISO is continuing to request additional Supplemental Energy bids during this period.

The Plan has been implemented for the following reason(s):

{reason}

Participating Transmission Owners are to notify the Utility Distribution Companies within their operational areas.

Stage 1: Operating reserves are currently, or forecast to be, less than minimum. Advise the Utility Distribution Company of potential power shortages and request the UDC to advise end-use customers to reduce demand to minimum requirements without disruption of employment or curtailment of industrial production or commerce. Advise the UDC to prepare for possible implementation of interruptible load programs and/or electrical emergency plan.

This message is from Market Operations at the California ISO.

#### STAGE 2 EMERGENCY NOTICE

The California Independent System Operator is implementing Stage 2 of the Electrical Emergency Plan for the period {date & time} through {date & time}.

The CAISO is continuing to request additional Supplemental Energy bids during this period.

The Plan has been implemented for the following reason(s):

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{reason}

Participating Transmission Owners are to notify the Utility Distribution Companies within their operational areas.

Stage 2: Operating reserves are currently, or forecast to be, below 5%.

The UDC will implement interruptible service programs AS DIRECTED BY THE ISO, and will take all additional actions necessary in preparation for immediate implementation of electrical emergency plans and await further orders from the ISO. Advise the UDC to prepare for possible implementation of involuntary firm demand reductions.

This message is from Market Operations at the California ISO.

### STAGE 3 EMERGENCY NOTICE

The California Independent System Operator is implementing Stage 3 of the Electrical Emergency Plan for the period {date & time} through {date & time}.

The CAISO is continuing to request additional Supplemental Energy bids during this period.

The Plan has been implemented for the following reason(s):

{reason}

Participating Transmission Owners are to notify the Utility Distribution Companies within their operational areas.

Stage 3: Operating reserves are currently, or forecast to be, below 1-1/2%.

The UDC will implement their electrical emergency plan and/or other load dropping to effect involuntary firm demand reductions, in addition to ALL Interruptible Service reductions AS DIRECTED BY THE CAISO.

This message is from Market Operations at the California ISO.

## **2.2. Termination Message to PTO Control Centers, Market Participants and Appropriate State Agencies**

### STAGE {1, 2, OR 3} CANCELLATION NOTICE

Effective {date & time} the California Independent System

Operator has terminated Stage {1, 2, or 3} of the Electrical Emergency Plan.

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Stage {1, 2, or 3} has been in effect since [[Prior Notice Info]].

{blank text box for additional information, including lesser State of Emergency now in effect}

This message is from Market Operations at the California ISO.

**2.3. Extension Message to PTO Control Centers, Market Participants and Appropriate State Agencies**

**STAGE 1 EMERGENCY EXTENSION**

The California Independent System Operator is extending the Stage 1 Emergency through {date & time}.

The CAISO is continuing to request additional Supplemental Energy bids during this period.

The Plan has been extended for the following reason(s):

{reason}

Participating Transmission Owners are to notify the Utility Distribution Companies within their operational areas.

Stage 1: Operating reserves are currently, or forecast to be, less than minimum. Advise the Utility Distribution Company of potential power shortages and request the UDC to advise end-use customers to reduce demand to minimum requirements without disruption of employment or curtailment of industrial production or commerce. Advise the UDC to prepare for possible implementation of interruptible load programs and/or electrical emergency plan.

This message is from Market Operations at the California ISO.

**STAGE 2 EMERGENCY EXTENSION**

The California Independent System Operator is extending the Stage 2 Emergency through {date & time}.

The CAISO is continuing to request additional Supplemental Energy bids during this period.

The Plan has been implemented for the following reason(s):

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{reason}

Participating Transmission Owners are to notify the Utility Distribution Companies within their operational areas.

Stage 2: Operating reserves are currently, or forecast to be, below 5%.

The UDC will implement interruptible service programs AS DIRECTED BY THE ISO and will take all additional actions necessary in preparation for immediate implementation of electrical plans and await further orders from the ISO. Advise the UDC to prepare for possible implementation of involuntary firm demand reductions.

This message is from Market Operations at the California ISO.

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### Stage 3 Emergency Extension

The California Independent System Operator is extending the Stage 3 Emergency through {date & time}.

The CAISO is continuing to request additional Supplemental Energy bids during this period.

The Plan has been implemented for the following reason(s):  
{reason}

Participating Transmission Owners are to notify the Utility Distribution Companies within their operational areas.

Stage 3: Operating reserves are currently, or forecast to be, below 1-1/2%.

The UDC will implement their electrical emergency plan and/or other load dropping to effect involuntary firm demand reductions, in addition to ALL Interruptible Service reductions AS DIRECTED BY THE CAISO.

This message is from Market Operations at the California ISO.

### **3. COMMUNICATIONS ACTION PLAN – PUBLIC APPEAL**

#### **3.1. First Notify Governmental Agencies**

When media contact for public appeal is to be made, the following governmental agencies will be notified as soon as possible, preferably prior to contacting the media:

- Electricity Oversight Board (EOB)
- California Energy Commission (CEC)
- State of California Governor’s Office of Emergency Services (OES)
- California Utilities Emergency Association (CUEA)
- California Public Utilities Commission (CPUC)
- Western Systems Coordinating Council (WSCC)
- Department of Energy (DOE)

#### **3.2. Media Public Announcements**

Public announcements of anticipated electric Power shortages and the need for end-use customers to make extra conservation efforts at the time of the anticipated Demand will be coordinated with UDCs and will be made through mass media (i.e., radio, television and newspapers, as appropriate). Such communications will begin

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when a Stage 1 Emergency Notice is anticipated to be issued and will continue, as appropriate, throughout the duration of the shortage.

### 3.3. Advising End-Use Customers

ISO Communications personnel will coordinate with UDCs to implement a multi-stage communications plan to advise End-Use Customers of the electric supply situation and actions which the end-users should take. This multi-stage plan will include the following:

#### 3.3.1. For Stage 1 Emergency Notice

Upon issuing a **Stage 1 Emergency Notice**, the following action will be taken by the Communications Department:

The ISO Communications Department will coordinate with Utility Distribution Companies (UDC) to release an approved news story to all appropriate internal and external agencies, calling attention to the anticipated critical supply level of electric energy to all, requesting voluntary reductions in Demand, and noting that the ISO is making use of reserve energy supplies.

The ISO Communications Department will serve as Communications Headquarters and will arrange to have a spokesman on hand to answer telephoned inquiries from the press or respond to requests from radio or TV stations for interviews.

The ISO Communications Department representative will coordinate with the Communications representatives of the PTO/UDCs to begin preliminary notification to the public through the media of potential system problems that could affect service.

#### 3.3.2. For Stage 2 Emergency Notice

Upon issuing a **Stage 2 Emergency Notice**, the following action will be taken by the Communications Department:

Action to be the same as Stage 1, except story would have urgent "news bulletin" tone and would advise customers that service interruptions are scheduled to begin or have begun.

#### 3.3.3. For Stage 3 Emergency Notice

Upon issuing a **Stage 3 Emergency Notice**, the following action will be taken by the Communications Department:

Action to be the same as Stage 2, except story would advise customers that service interruptions will continue until sufficient energy supplies become available or the overall Demand is reduced.

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### 3.3.4. For End of Emergency

An **End of Emergency Notice** is issued when service interruptions have been discontinued and all curtailed Load has been restored.

Action to be the same as Stage 1, except story would announce end of service interruptions, thank customers for cooperation, apologize for inconvenience, and advise customers regarding recommended future action to be taken for the next day.

## SUPPORTING INFORMATION

### Affected Parties

- California ISO
  - Grid Operations
  - Market Operations
  - Scheduling
  - Operations Support and Training
  - Operations Engineering and Maintenance
  - Outage Coordination
  - Client Relations
- Market Participants
  - Scheduling Coordinators
  - Resource owners
  - Participating Transmission Owners (PTO)
    - PG&E
    - SCE
    - SDG&E
- Adjacent Control Area Operators

During a shortage in Operating Reserves, close coordination and effective communications will be required between ISO and the PTO Control Centers.

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## References

- ISO Tariff Dispatch Protocol (DP)
- ISO Tariff Ancillary Services Requirements Protocol (ASRP)
- ISO Operating Procedure E-504: Alert, Warning, and Emergency Notices
- ISO Operating Procedure E-506: UDC Interruptible Service
- ISO Operating Procedure E-507: Emergency Response Team Procedure
- ISO Operating Procedure E-511: Demand Relief Program
- ISO Operating Procedure N-703: Event Reporting and Notifications
- ISO Operating Procedure G-201: Operating Reserve
- UDC Electrical Emergency Plans

## Policy

The purpose of this policy statement is not to define the implementation of the procedure, but rather to assure that the procedure is in compliance with the cited Articles and Sections of the ISO Tariff.<sup>2</sup>

The **ISO Minimum Operating Reserve** will be as described in the Western Systems Coordinating Council (WSCC) Minimum Operating Reliability Criteria (MORC). As necessary, the ISO will request UDCs to dispatch their Interruptible Service. As a last resort, the ISO will order implementation of UDC Electrical Emergency Plans to involuntarily curtail Demand in order to maintain the minimum Operating Reserve. Accordingly, forecast deficiencies of Operating Reserve warrant the issuance by the ISO of an Alert or a Warning Notice (refer to ISO Operating procedure E-504). In extreme cases where Demand curtailment and/or market intervention is anticipated, it may be necessary for the ISO to issue an Emergency Notice.

It must be understood that, while generally considered to be sequential, the ISO EEP may be implemented at advanced levels (i.e., even at the Stage 3 Emergency) due to the sudden and unforeseeable loss of resources. The ISO EEP specifies action to be taken in an effort to preclude successive decline in system conditions and/or more stringent stages of the EEP. The specific action outlined in each stage is based on the nature of the emergency and is designed to minimize the adverse impact on end-use customers.

## Definitions

Unless the context otherwise indicates, any word or expression defined in the Master Definitions Supplement to the ISO Tariff shall have the same meaning wherever capitalized in this procedure.

<sup>2</sup> In the development of an Operating Procedure, the actual compliance Article(s) and Section(s) of the ISO Tariff for that procedure will be cited in References.

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		<b>Effective Date</b>	1-1-01
<b>Electrical Emergency Plan</b>		<b>Distribution Restriction:</b> <b>NONE</b>	

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

<b>Alert and/or Warning Notice</b>	A notice issued by the ISO when the Operating Reserve is forecast to be less than minimum. Alerts and Warnings are covered in ISO Operating Procedure E-504.
<b>Emergency Notice</b>	A notice issued by the ISO any time it is clear that an Operating Reserve shortfall is unavoidable or, when in real-time operations, the Operating Reserve is forecast to be less than the ISO minimum. Emergency Notices (due to inadequate Operating Reserve) are categorized into stages as follows:
<b>Stage 1 Emergency Notice</b>	A notice issued at any time it is clear that an Operating Reserve shortfall (when Operating Reserve is less than MORC minimum) is unavoidable or, when in real-time operations, the Operating Reserve is forecast to be less than minimum after utilizing available reserves. A Stage 1 Emergency Notice is accompanied by a public appeal to reduce electric energy consumption, a request to PTO's to acquire resources within their contractual control (e.g. municipals, special districts, etc), and the implementation of the ISO Demand Relief Program.
<b>Stage 2 Emergency Notice</b>	A notice issued any time it is clear that an Operating Reserve shortfall (i.e., Operating Reserve is less than <b>5%</b> ) is unavoidable or, when in real-time operations, the Operating Reserve is <i>forecast</i> to be less than five percent ( <b>5%</b> ) after dispatching all resources available. A Stage 2 Emergency Notice will be accompanied by a request to UDC's to implement curtailment of interruptible Load.
<b>Stage 3 Emergency Notice</b>	A notice issued any time it is clear that an Operating Reserve shortfall (i.e., Operating Reserve is less than <b>1½%</b> ) is unavoidable or, when in real-time operations, the Operating Reserve is <i>forecast</i> to be less than one and one half percent ( <b>1½%</b> ) after dispatching all resources available. A Stage 3 Emergency Notice will be accompanied by curtailment of firm Load.

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## APPENDIX

Attachment A: Current-Year Percentages