Grid and Emergency Communications

The California Independent System Operator (ISO) is constantly analyzing grid conditions to identify potential problems. Many issues are resolved without consumers ever seeing them. But when needed, the ISO will take steps to protect grid reliability.

Event severity determines the steps the ISO takes that includes calling for voluntary conservation to, under extreme conditions, requesting rotating power interruptions. This fact sheet explains the different types of actions the ISO can take.

WHAT TRIGGERS A NOTIFICATION?

- peak electricity demand forecast
- loss of generating or transmission facilities
- generation unavailability (fuel shortages)
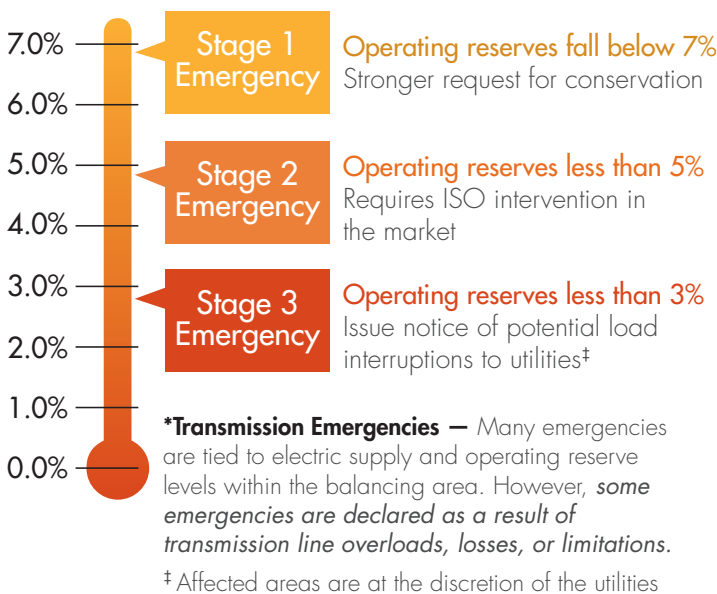- hot temperatures / prolonged heat waves

TYPES OF NOTIFICATIONS:

Emergency Notifications

Stages of Electrical Emergencies*

Stage Emergencies are triggered when immediate steps are required to protect the grid. A Stage Emergency can be issued in any order depending on events.

Operating Reserves

7.0% — **Stage 1 Emergency** — Operating reserves fall below 7%
Stronger request for conservation

6.0%

5.0% — **Stage 2 Emergency** — Operating reserves less than 5%
Requires ISO intervention in the market

4.0%

3.0% — **Stage 3 Emergency** — Operating reserves less than 3%
Issue notice of potential load interruptions to utilities‡

2.0%

1.0%

0.0%

*Transmission Emergencies — Many emergencies are tied to electric supply and operating reserve levels within the balancing area. However, *some emergencies are declared as a result of transmission line overloads, losses, or limitations.*

‡ Affected areas are at the discretion of the utilities

Conservation Notifications

Flex Alerts

During times when the grid is under stress, the ISO can issue a "Flex Alert." This conservation call occurs when ISO analysis shows that unless demand is reduced grid operators will have to start using **power reserves** to keep up with use, such as on a hot day when air conditioning use is high. It is possible as well that a particular area may have to reduce local use because **transmission limitations** hamper efforts to deliver enough power to meet demand.

Warnings

This is a stronger conservation notification than Flex Alerts in that ISO is predicting grid operators will have to start using reserves. Not only does a Warning call for conservation, but utilities may also activate their demand response programs to help ease back on power use. Warnings may be called before a Stage Emergency, but only if time allows for voluntary conservation to have an impact in reducing demand.

Go to www.caiso.com for the latest grid emergency information and to sign up for alerts.