

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 emergencies¹

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

Stage 1 Emergency	Operating reserve shortfalls exist or are forecast to occur, and available resources are insufficient to maintain the operating reserve requirement Strong request for conservation
Stage 2 Emergency	Non-spinning reserve² requirement cannot be maintained Requires ISO intervention in the market
Stage 3 Emergency	Spinning reserve³ is depleted or is anticipated to fall below minimum requirement Issue notice of potential load interruptions to utilities ⁴

¹ Transmission emergencies are declared as a result of transmission line overloads, instantaneous/forced outages, or limitations.

² Non-spinning resources are capable of synchronizing to the grid and delivering energy within 10 minutes.

³ Spinning resources are synchronized to the grid and can deliver power in 10 minutes.

⁴ Affected areas are at the discretion of the utilities

Operational notifications

Restricted Maintenance Operations

This notice requires transmission and generator operators to postpone planned routine maintenance outages until further notice. This ensures that all available grid assets are available for use to manage grid reliability during challenging grid conditions, such as heat waves.

Conservation notifications

Flex Alerts

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. For more information visit www.flexalert.org.

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.