

Power System Status Descriptions

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ISO New England strives to keep all stakeholders informed about conditions on the region's power system. Here are explanations of different notifications you may see in [the power system status report](#) or in the [Seven-Day Capacity Forecast](#).

Normal

Conditions are considered normal when electricity supply is sufficient to meet expected demand plus required operating reserves.

Master/Local Control Center Procedure

A [Master/Local Control Center Procedure No. 2 \(M/LCC 2\)](#) alert is issued either for the entire region or for a local area to notify power system personnel and wholesale electricity market participants when abnormal conditions on the region's power system exist or are anticipated. M/LCC 2 is not a request for conservation.

OP 4

The ISO implements [ISO Operating Procedure No. 4: Action During a Capacity Deficiency \(OP 4\)](#) when available resources are insufficient to meet anticipated electricity demand plus required operating reserves.

The procedure includes 11 actions that the operators can take to either *increase* the available supply of electricity for the region or *reduce* the actual real-time demand for electricity.

These actions can be implemented in any order depending on the circumstances of the capacity deficiency. In addition, some of the actions can be implemented in advance of an anticipated capacity deficiency situation.

OP 4 can be implemented New England-wide, by local control center area, by state, or targeted to specific area.

OP 4 is an implicit part of the reliability design of the power grid in New England. It was envisioned that instances would occur when required operating reserves could not be maintained and that appropriate contingency measures needed to be in place.

Action 1, Power Caution: This is an advisory that available capacity resources are insufficient to meet anticipated demand plus operating reserve

requirements, and ISO New England has implemented OP 4. *This is not a request for electricity conservation.*

Action 2 ISO New England is declaring an Energy Emergency Alert (EEA) Level 1.

Action 3 ISO New England is requesting voluntary load curtailment of market participants' facilities in New England.

Action 4, Power Watch: This is a notification that additional OP 4 actions may be implemented. In addition, if conditions warrant, ISO New England may issue a public appeal for voluntary electricity conservation. If the ISO asks for voluntary conservation through this action, the public can conserve electricity at home and at work by turning off unnecessary lights, equipment, and appliances, and minimizing the use of air conditioning. People who require air conditioning and other electrical appliances for health and safety reasons should not restrict their use.

The ISO will issue a follow-up notification after the appeal is lifted and conservation is no longer needed.

Action 5 ISO New England is arranging to purchase available emergency capacity and energy, or energy only, (if capacity backing is not available) from market participants or neighboring regions. Control Area to Control Area transactions will normally be used as a last resort, when market-based emergency energy transactions are not available, or not available in a timely fashion.

Action 6 [Local Control Centers \(LCCs\)](#) are implementing a voltage reduction of 5% of normal operating voltage requiring more than 10 minutes to implement. ISO New England is alerting the New York Independent System Operator (NYISO) that sharing of reserves within Northeast Power Coordinating Council (NPCC) may be required. ISO New England is declaring Energy Emergency Alert (EEA) Level 2.

Action 7 ISO New England is requesting generators and demand response resources (DRRs) not subject to a capacity supply obligation (CSO) to voluntarily provide energy for reliability purposes.

Action 8 ISO New England and [LCCs](#) are implementing a voltage reduction of 5% of normal operating voltage that is attainable within 10 minutes. ISO New England is declaring Energy Emergency Alert (EEA) Level 2, if not previously declared.

Action 9 [LCCs](#) are requesting all of the customer generation not contractually available to market participants and voluntary load curtailment by large industrial and commercial customers.

Action 10, Power Warning: This is a public notification that immediate reduction in power usage is needed to help protect the region's electricity system. The public is urged to reduce electricity use immediately. The public can conserve electricity at home and at work by turning off unnecessary lights, equipment, and appliances, and minimizing the use of air

conditioning. People who require air conditioning and other electrical appliances for health and safety reasons should not restrict their use.

The ISO will issue a follow-up notification once the **Power Warning** has been lifted and conservation is no longer needed.

ISO New England is declaring Energy Emergency Alert (EEA) Level 2, if not previously declared.

Action 11 ISO New England is requesting each New England state governor reinforce Power Warning appeals, as initiated in Action 10. ISO New England is declaring Energy Emergency Alert (EEA) Level 2, if not previously declared.

Minimum Generation Emergency

ISO New England declares a [Minimum Generation Emergency \(CROP.25005\)](#) for one of the following reasons:

1. ISO forecast projects a potential minimum generation condition
2. Potential high frequency due to load and generation mismatch in ISO New England
3. Next hour external transactions will, or possibly will, place the system in minimum generation warning or emergency condition
4. Real-time event occurs that could cause Minimum Generation Emergency conditions if real-time only megawatts are not curtailed

Cold Weather Watch, Cold Weather Warning, or Cold Weather Event

As part of its [Seven-Day Capacity Forecast](#), the ISO issues these alerts to notify wholesale electricity market participants and government regulators, including both utility and air regulators, when the combination of forecasted cold weather conditions and anticipated capacity outlook could impact reliable operation of New England's power system. They are not requests for public conservation.

A **Cold Weather Watch** means that extreme cold weather conditions and a capacity margin of greater than or equal to 1,000 megawatts is forecasted. Sufficient capacity is available to meet the forecasted demand and reserve requirements.

A **Cold Weather Warning** means that extreme cold weather conditions and a capacity margin of less than 1,000 megawatts is forecasted. Sufficient capacity may not be available to meet the forecasted demand and reserve requirements.

A **Cold Weather Event** means that extreme cold weather conditions and a capacity margin of less than or equal to 0 megawatts is forecasted. Sufficient capacity will not be available and [OP 4](#) actions may be taken to address an anticipated capacity deficiency.

For details, see [SOP-RTMKTS.0050.0007: Perform Cold Weather Condition Operations](#).

Energy Alert and Emergency

These alerts are declared based on results of the [21-Day Energy Assessment](#) forecast process. These alerts notify regional market participants, government regulators, reliability organizations, and electricity consumers when specific events are forecasted to occur on the power system over the coming 21 days.

Energy Alert

An Energy Alert is declared when OP 4 Actions 6 through 11 (FEEA2) or OP 7, Load Shed (FEEA3) is forecasted to occur in at least one hour on one or more consecutive days in **days 6 through 21** of the [21-Day Energy Assessment](#). ISO New England will request daily generator surveys (OP 21A) during an Energy Alert.

Energy Emergency

An Energy Emergency is declared when OP 4 Actions 6 through 11 (FEEA2) or OP 7 Load Shed (FEEA3) is forecasted to occur in at least one hour on one or more consecutive days in **days 1 through 5** of the [21-Day Energy Assessment](#). ISO New England will request daily generator surveys (OP 21A) during an Energy Emergency.

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