

# ISO New England Overview of Emergency Procedures and Communications Processes

*Briefing for Government and Corporate Communications Contacts with New England's Local Control Centers and Transmission Companies*



**Matt Kakley**

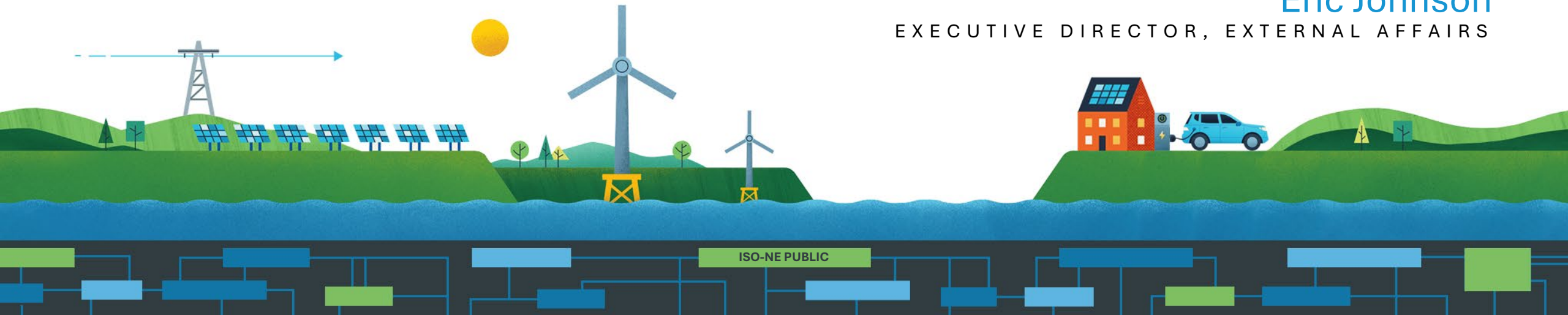
SUPERVISOR, MEDIA RELATIONS  
CORPORATE COMMUNICATIONS

**Steve Gould**

DIRECTOR, OPERATIONS

**Eric Johnson**

EXECUTIVE DIRECTOR, EXTERNAL AFFAIRS



# Technical Instructions for Today's WebEx

- Today's meeting is being recorded
- All attendee lines are muted
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- Questions and Answers will be addressed throughout the meeting

This meeting is being recorded for training purposes.



# Outline of Presentation

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# Key Takeaways

## *Pre-Winter Briefing 2025/2026*

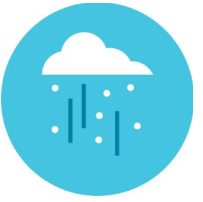


- New England expects to have sufficient electricity supplies this winter.
- ISO-NE anticipates demand for electricity will peak at **20,056 megawatts (MW)** under normal weather conditions. During extreme cold weather, demand is projected to peak at **21,125 MW**.
  - These demand forecasts are similar to last year's when demand peaked at 19,607 MW on January 22, 2025.
- National Oceanic and Atmospheric Administration (NOAA) is projecting **slightly warmer than average** temperatures in southern New England and **near-average** temperatures in the rest of New England, though a warmer than average season does not eliminate the threat of prolonged stretches of cold weather.

[Winter Seasonal Outlook Webpage](#) & [Press Release](#)

# Key Takeaways, cont.

*Pre-Winter Briefing 2025/2026*



- This season marks the first time ISO-NE used the [Probabilistic Energy Adequacy Tool](#) (PEAT) to assess energy shortfall risk against the recently defined [Regional Energy Shortfall Threshold](#) (REST). PEAT is designed to quantify potential energy shortfall risk due to extreme weather events.
  - Based on this analysis, ISO-NE projects that the region is well-positioned going into the winter season. No violations of the REST were identified in the forecast modeling.
- The ISO has a **rolling 21-day energy supply forecast** to identify potential energy shortfalls while there is time to prevent them or lessen their impact.
  - Identifying and publicizing possible energy shortfalls weeks in advance signals to the region's wholesale energy market participants the need to contract for **additional fuel deliveries**.



# ISO New England 2025/2026 Winter Outlook and Preparations



# One Goal Lies at the Heart of ISO New England's Mission: *Reliability*

ISO New England is:

- **Regulated** by the Federal Energy Regulatory Commission (FERC)
- **Reliability Coordinator** for New England under the North American Electric Reliability Corporation (NERC)
- **Independent** of companies in the marketplace and **neutral** on technology



# ISO-NE Is a Summer-Peaking System but Faces Particular Challenges in the Winter

Electricity use peaks in the summer, but energy constraints are a concern during the **winter peak**



- Region's all-time **winter** peak demand was **22,818 MW** on **January 15, 2004**
- Extended periods of extreme cold weather could pose challenges
- Natural gas pipeline constraints, coupled with global supply chain issues related to deliveries of oil and liquefied natural gas (LNG), are placing New England's power system at heightened risk under certain conditions

New England shifted from a winter-peaking system to a **summer-peaking** system in the early 1990s, largely because of the growth of air conditioning and a decline in electric heating

- Peak demand on a normal summer day has typically ranged from 17,500 MW to 22,000 MW
- Summer demand usually peaks on the hottest and **most humid** days and averaged roughly 25,600 MW since 2000
- Region's all-time peak demand was **28,130 MW** on **August 2, 2006**





# Preparations for Winter Peak Demand

- New England's winter peak demand period runs from December through February
- In preparation for the winter, ISO New England:
  - Forecasts New England's demand for electricity and reserves
  - Evaluates region's winter supply outlook
  - Exercises communication plan
  - Conducts Winter Readiness Seminar (10/29/25) and surveys
  - Conducts dual-fuel audits
  - Conducts Load Shed and Voltage Reduction Test (8/19/25)
  - Conducts transmission system assessments



# Preparations for Winter Peak Demand, *cont.*

- Ongoing coordination between electric and gas systems
- Short-term actions:
  - Survey fuel inventories of oil- and coal-fired generators every two weeks March – November and every week December – February
    - Surveys can be performed more often as needed
  - Confirm scheduled volumes with natural gas-fired generators daily
  - Forecast and report on expected energy availability over a 21-day look-ahead period
    - Reports published weekly during winter months (daily if Energy Alert or Energy Emergency is declared)



# Communications Overview



# The ISO Provides Information about Power System Emergencies to Various Stakeholders



- **External Affairs notifies:**
  - Governors' offices
  - State and federal regulators and staff
  - Emergency management agencies
  - Reliability councils
- **Corporate Communications notifies:**
  - Communication contacts from utilities
  - Public via the media and other channels
- **Control Room notifies:**
  - Local Control Centers
  - Generation station designated entities
  - Demand designated entities
- **Participant Support notifies:**
  - Market participants



# ISO New England Communications with Government Officials & Utility Communications Contacts During Power System Emergencies

## Who:

**ISO-NE** External Affairs conducts outreach to 100+ **Government Contacts** at state and federal offices and agencies and reliability organizations, and to dozens of utility communications contacts

## What:

**Communications are triggered by ISO procedures** that require notifications to emergency contacts and/or appeals to the public for conservation

## When:

- ISO implements **OP-4** or **OP-7** actions, or
- ISO declares an **Energy Alert** or **Energy Emergency** in the 21-day forecast, or
- During any other emergency affecting the reliability of the bulk power system

## How:

Automated alerts to emergency contacts via **phone, email and text message**, and **conference calls** to provide real-time updates on power system conditions; public updates via ISO website, Newswire, ISO to Go mobile app, X/Twitter and BlueSky

## Why:

To provide emergency contacts with **timely information** about system conditions

*Under the ISO Information Policy, we will share system-level information during emergency communications; however, we will not release unit-specific information*

# Take Action to Prevent Spam Diversion of ISOAlerts

ISO New England sends automated alerts to emergency contacts via **phone, email, and text message**, and may hold **conference calls** to provide real-time updates on power system conditions

Spam filters are blocking ISO alerts for some users

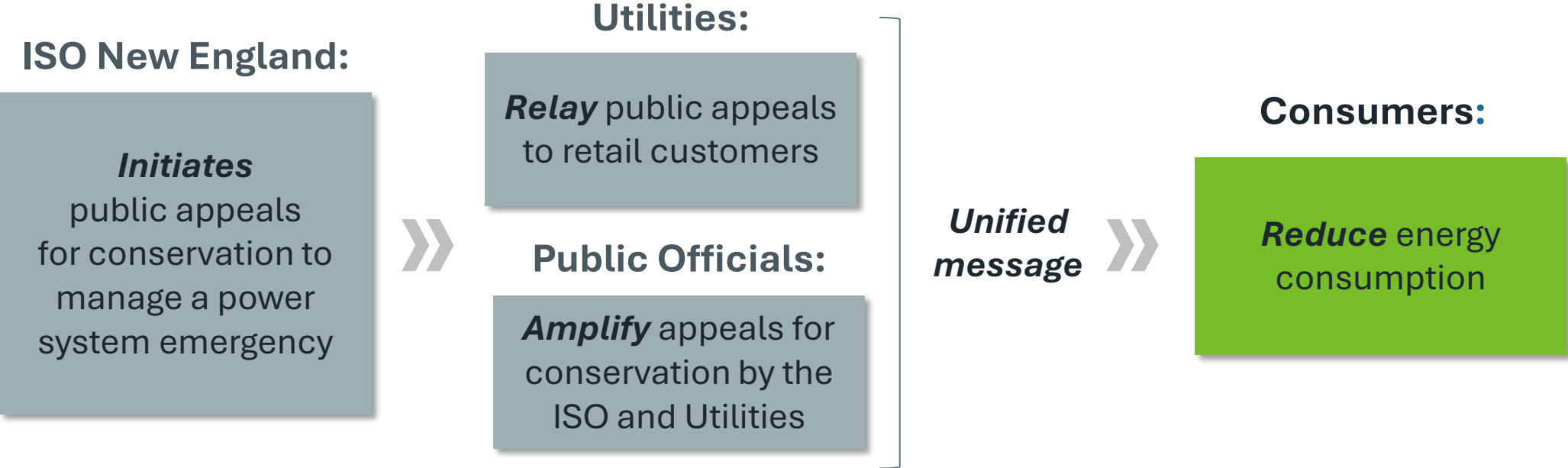
- Recent software updates to both Apple and Android devices may block calls and texts from unknown numbers, diverting them to spam filters
- Emails may not go through if recipients do not confirm their email address

## What you can do to ensure you receive alerts:



- Add RAVE's short code numbers to your contacts.
  - o 226787, 67283, 78015, and 77295
- Save the ISO's phone number to your device: 413-535-4000
- Ensure members of your team do the same
- If prompted by ISO-NE via RAVE, confirm your email address
- Add isone@email.getrave.com to your email safe list

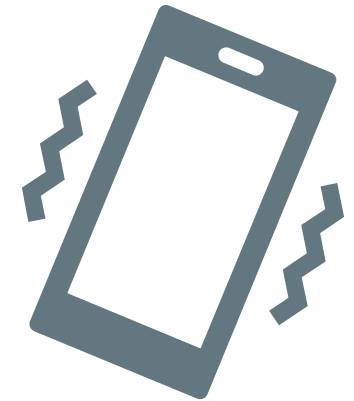
# What Roles Do Public Officials and Consumers Play When Conservation Is Needed During a Power System Emergency?



**Bottom line:** Consumers can lessen the *depth* and *duration* of emergency actions by reducing their energy use – such as by *turning off* non-essential lighting, *adjusting* thermostat settings, and *turning off* and *unplugging* all non-essential electronic devices.

# New Tool for Outreach to Consumers During Power System Emergencies

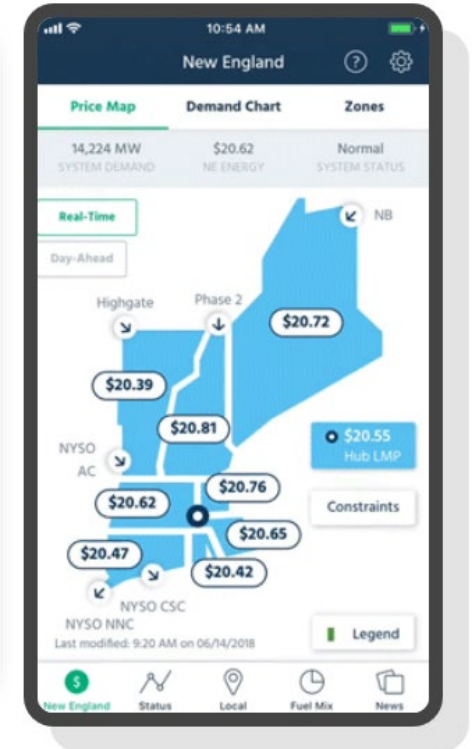
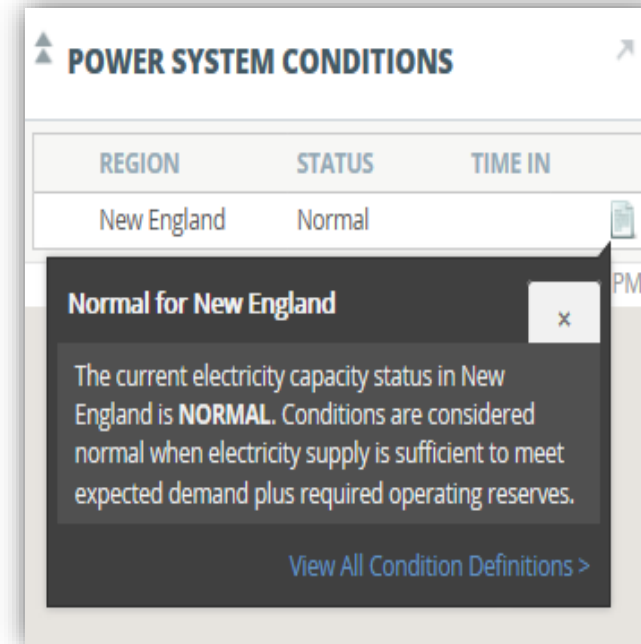
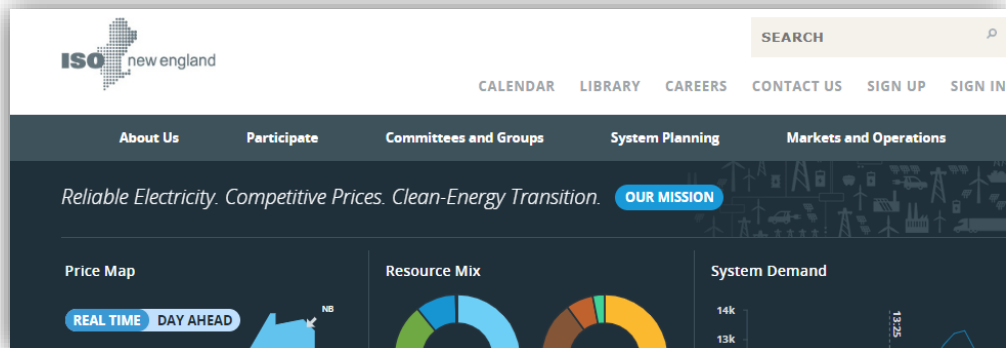
- **Wireless Emergency Alerts (WEAs)** are short communications, issued by designated alerting authorities, delivered directly to mobile phones
  - **Can be issued in English and Spanish**
- ISO-NE now has a process in place with the Massachusetts Emergency Management Agency (MEMA), allowing the ISO to request MEMA issue a WEA
  - ISO will explore similar arrangements with other New England states
- ISO-NE may request a WEA in certain emergency scenarios, such as impending or ongoing controlled power outages due to a regional electricity shortfall





# Digital and Social Media Communications Provide Real Time System Updates

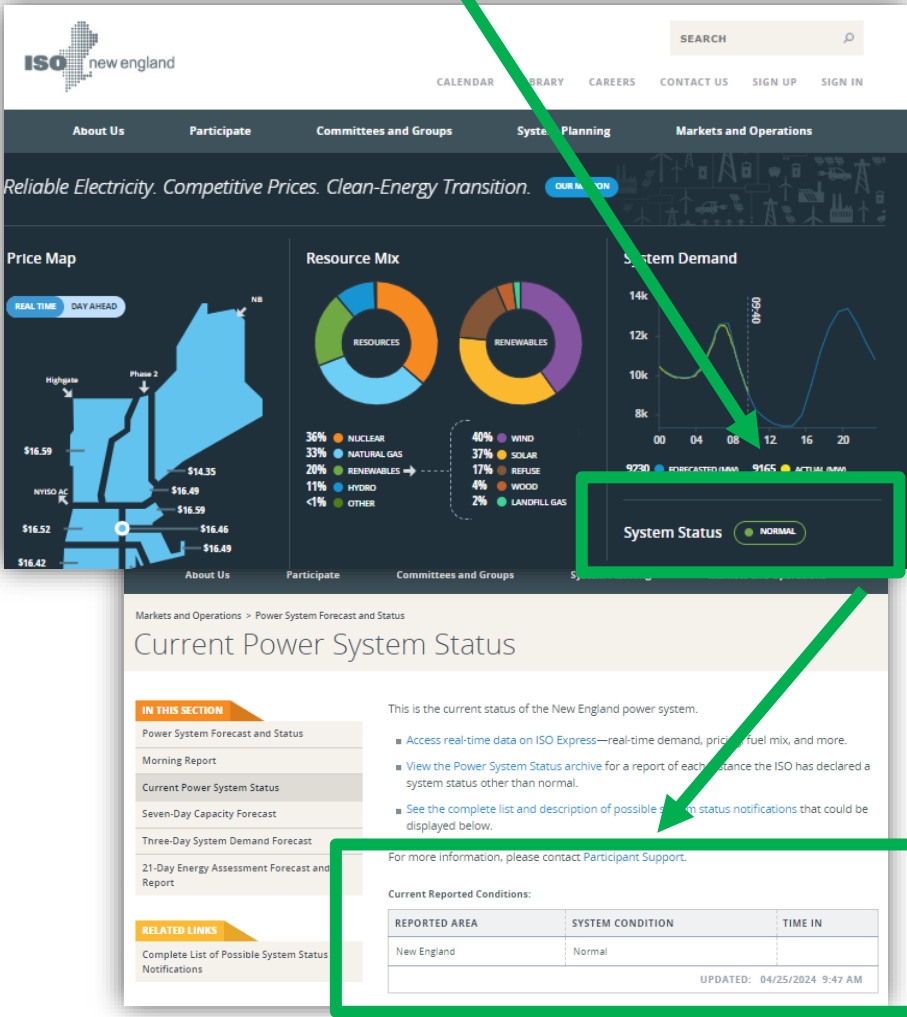
- Visit [ISO-NE](#) homepage
- Visit [ISO Newswire](#) blog
- Visit [ISO Express](#) dashboard
- Follow [@isonewengland](#) on social media
- Download the [ISO to Go App](#)



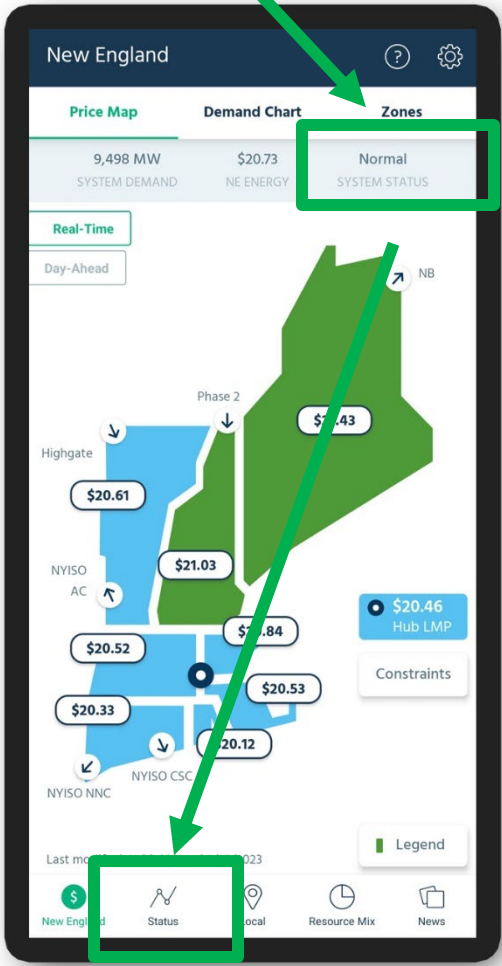
**ISO NEWSWIRE**  
*A Wholesale Electricity Industry Update*

# Two Easy Ways to View Power Systems Conditions

## Website Home Page



## ISO to Go Mobile App



# New Web Resource: Plain-Language Power System Status Explanations

[Current Power System Status >  
Power System Updates Explained](#)

The screenshot displays the ISO New England website. At the top left is the ISO New England logo. To the right is a search bar with the word 'SEARCH' and a magnifying glass icon. Below these are navigation links: CALENDAR, LIBRARY, CAREERS, CONTACT US, SIGN UP, and SIGN IN. A dark blue horizontal bar contains links: About Us, Participate, Committees and Groups, System Planning, and Markets and Operations. Below this bar, the breadcrumb trail reads: Markets and Operations > Power System Forecast and Status > Current Power System Status. The main heading is 'Power System Updates Explained'. On the left, an 'IN THIS SECTION' sidebar lists: Current Power System Status, Power System Status Descriptions, Power System Updates Explained (highlighted), Power System Status Archive, and OP 4 Implementation Summaries. The main content area explains that ISO New England operates the region's power grid every minute and lists five alert types, each with a brief description and a right-pointing arrow icon: Abnormal Conditions Alert, Cold Weather Alerts, Forecasted Energy Alert and Emergency, Reserve Shortage, and System Imbalance.

ISO new england

SEARCH

CALENDAR LIBRARY CAREERS CONTACT US SIGN UP SIGN IN

About Us Participate Committees and Groups System Planning Markets and Operations

Markets and Operations > Power System Forecast and Status > Current Power System Status

## Power System Updates Explained

**IN THIS SECTION**

- Current Power System Status
- Power System Status Descriptions
- Power System Updates Explained**
- Power System Status Archive
- OP 4 Implementation Summaries

ISO New England operates the region's power grid through all types of conditions every minute of every day. Certain conditions, like extreme weather or higher-than-normal consumer demand, can lead to a system status other than "normal." Learn more about what our highly trained teams are doing, and what the public may be able to do, during the different system statuses below.

- Abnormal Conditions Alert**  
A precautionary notification that provides information for those directly involved with the bulk electric power system.
- Cold Weather Alerts**  
We may issue these alerts if our Seven-Day Capacity Forecast indicates that upcoming extreme cold weather may affect our ability to reliably operate the region's power system.
- Forecasted Energy Alert and Emergency**  
Issued when our 21-Day Energy Assessment Forecast and Report indicates a capacity deficiency or controlled outages are likely within the next 21 days.
- Reserve Shortage**  
Reserves may be dispatched anytime a resource goes off line unexpectedly, or when consumer demand is higher than expected. If there are no other resources available to take over as reserves, the region may experience a reserve shortage.
- System Imbalance**  
These alerts are issued when there is an expected or actual mismatch between supply and demand.

## Cold Weather Alerts



### What ISO's Doing

Notifying power generators and other organizations with direct connections to the New England electrical grid and coordinating closely with operators of natural gas pipelines and natural-gas-fired resources, local control centers, and neighboring regional transmission organizations.



### What the Public Can Do

No action required.

See [Reference Materials > Other Information Resources](#) for details

## Forecasted Energy Alert and Emergency



### What ISO's Doing

Taking actions as necessary to mitigate forecasted energy shortfalls:

- Enhanced reporting and communication about system conditions
- Daily fuel inventory surveys and energy assessments
- Requesting generators use fuel that is not in short supply
- Appeals for voluntary conservation, including public appeals from the region's governors



### What the Public Can Do

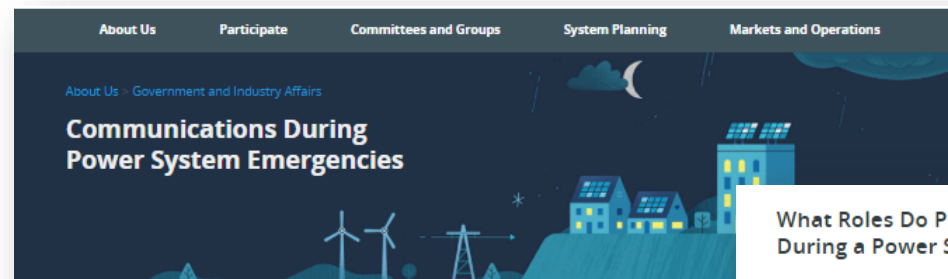
No immediate action required **unless** the ISO has made an appeal for voluntary conservation of electricity use.

# New Web Resource: Government Communication in Emergencies

[About Us > Government and Industry Affairs > Communications During Power System Emergencies](#)



# New Web Resource: Government Communication in Emergencies, *cont.*



ISO New England communicates with government officials and consumers during power system emergencies.

## Why:

To provide emergency contacts with timely information about system conditions

## What:

Communications triggered by ISO notifications to emergency contacts for conservation

## Who:

ISO-NE External Affairs conducts outreach to 100+ Government Contacts at state and federal offices and agencies, and reliability organizations and dozens of Utility Communications Contacts

## How:

- ISO communicates with emergency call, and/or text message
- Additional public updates via ISO mobile app and social media

## When:

- ISO implements certain operating procedures (e.g., capacity deficiency or controlled outages), or
- ISO declares an Energy Alert or Energy Emergency in the 21-day forecast, or
- During other emergencies affecting the reliability of the bulk power system

## What Roles Do Public Officials and Consumers Play When Conservation Is Needed During a Power System Emergency?

**ISO New England:**  
Initiates public appeals for conservation to manage a power system emergency



**Public Officials:**  
Amplify appeals for conservation by the ISO and Utilities



### Unified Message:

If the ISO makes an appeal to the public, it would happen via the following:

- State governor's offices
- Utilities
- ISO's webpage and social media channels

**Consumers:**

**Bottom Line:** Consumers have the power to lessen the depth and duration of emergency actions by the ISO by reducing their energy use — such as by turning off non-essential lighting, adjusting thermostat settings, and turning off and unplugging all non-essential electronic devices.

The communication process described in ISO New England's *Overview of Emergency Procedures and Communications Processes 2025 Pre-Summer Briefing* [page](#) is a guide for communicating power system emergencies with the ISO's government emergency contacts.

Under the ISO Information Policy we will not release unit-specific information during emergency communications.

## Relevant ISO New England Operating Procedures



**Abnormal Conditions Alert**  
A precautionary notification that provides information for those directly involved with the bulk electric power system.



**Cold Weather Alerts**  
We may issue these alerts if our Seven-Day Capacity Forecast indicates that upcoming extreme cold weather may affect our ability to reliably operate the region's power system.



**Forecasted Energy Alert and Emergency**  
Issued when our 21-Day Energy Assessment Forecast and Report indicates a capacity deficiency or controlled outages are likely within the next 21 days.



**Reserve Shortage**  
A reserve shortage (also known as a capacity deficiency) could occur if one or more resources go off line unexpectedly or if consumer demand is much higher than expected and there are insufficient resources to meet operating reserve requirements.



**System Imbalance**  
These alerts are issued when there is an expected or actual mismatch between supply and demand.

## Related Links:

- Conservation Can Reduce Power Demand during a Summer Capacity Shortfall
- Conservation Can Help Balance the Power System during a Winter Energy Emergency
- ISO Newswire: stay in-the-know with our regularly updated news blog
- What Is a Capacity Deficiency
- Seasonal System Outlook
- Government and Industry Affairs Contacts
- Media Contacts
- Follow @isonewengland on our social media channels

[About Us > Government and Industry Affairs > Communications During Power System Emergencies](#)

# Operations Overview





# Relevant ISO New England Operating Procedures



**Cold Weather  
Condition Operations**  
(SOP-RTMKTS.0050.0007)



**Action During a  
Capacity Deficiency**  
(OP-4)



**Operational  
Surveys, Energy  
Forecasting &  
Reporting and  
Actions During An  
Energy Emergency**  
(OP-21)



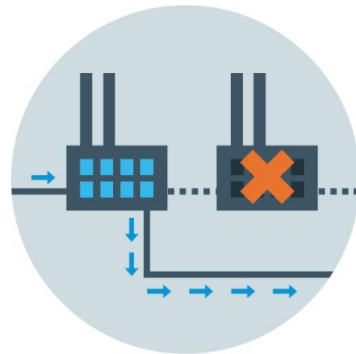
**Action in an  
Emergency**  
(OP-7)

Additional information can be found in the appendix



# Reserve Requirements

- ISO New England carries operating reserves to maintain **reliable** power system operations in the event of a contingency on the system\*
  - **Ten-Minute Reserve Requirement**
    - ISO maintains Ten-Minute Reserves adequate to recover from the loss of 120% of the largest source of supply
      - Normally 1,500 MW to 2,400 MW
  - **Thirty-Minute Reserve Requirement**
    - ISO maintains Thirty-Minute Reserves adequate to recover from the loss of 50% of the second largest source of supply
      - Normally 625 MW
- A contingency is an **unplanned disconnection** of a power system element, such as a transmission facility or a generator



\* Governed by Northeast Power Coordinating Council (NPCC) requirements and ISO New England procedures



# Forecasting Tools for Winter Operations



# ISO-NE Utilizes Forecasting Data to Inform System Operations

## Cold Weather Condition Operations

- SOP-RTMKTS.0050.0007
  - Coordination between ISO and natural gas pipelines to assess conditions that could affect availability of gas-fired generation during *extreme cold weather conditions*
  - Procedure assesses both weather and **capacity** thresholds

## Energy Inventory Accounting and Actions During an Energy Emergency

- Operating Procedure No. 21
  - ISO forecasts and reports on expected **energy** availability over a 21-day look-ahead period
  - ISO surveys generators about fuel supplies and emissions restrictions weekly during winter months (daily, if needed, based on 21-day forecast results)
  - Can address fuel shortages at any time, not just in winter
  - Involves implementation of operating procedures



# Cold Weather Condition Operations

*SOP-RTMKTS.0050.0007: Perform Cold Weather Condition Operations*

Link: [https://www.iso-ne.com/static-assets/documents/rules\\_proceeds/operating/sysop/rt\\_mkts/sop\\_rtmkts\\_0050\\_0007.pdf](https://www.iso-ne.com/static-assets/documents/rules_proceeds/operating/sysop/rt_mkts/sop_rtmkts_0050_0007.pdf)

# Electric/Gas Industry Coordination



- ISO confers with natural gas pipeline companies as needed during the winter
  - Review conditions for upcoming week:
    - Weather and temperature forecasts
    - Posted notices by pipeline operators
    - Equipment-related restrictions on delivery of gas supply
    - Overall capacity requirements to serve electric load in New England
- Generators are required to report their anticipated availability to ISO New England
  - Ability to procure fuel
  - Limitations that could reduce capacity or energy production



# Evaluating Conditions

- ISO develops a Seven-Day Capacity Margin Forecast each day
- For the winter period, ISO incorporates the following inputs:
  - Review gas pipeline notices and potential impact on gas unit availability
  - Review weather forecast and potential impact of extreme cold weather conditions on gas unit availability
- ISO will classify the next two days as:
  - No Cold Weather Conditions, Cold Weather Watch, Cold Weather Warning, or Cold Weather Event
- Classifications are posted under Notices and the Seven-Day Capacity Margin Forecast
  - Cold Weather Watch and Warning declared on only a few occasions
  - No Cold Weather Events declared to date

# Implementation Requires Conditions that Meet Weather *and* Capacity Thresholds

Threshold Categories	Cold Weather Watch**	Cold Weather Warning**	Cold Weather Event***
Cold Weather Conditions*	Extreme cold	Extreme cold	Extreme cold
Seven-Day Capacity Margin Forecast	$\geq 1,000$ MW	$< 1,000$ MW	$\leq$ zero MW

- \* Effective Temperature must be less than or equal to ( $\leq$ ) zero degrees F for any single on-peak hour and Total Effective Heating Degree Days (EDD) must be greater than or equal to ( $\geq$ ) 65.
- \*\* Declarations are made in advance for the following 7-day period and expire at the end of the day at midnight unless cancelled earlier by ISO.
- \*\*\* A Cold Weather Event will normally be declared one day prior to the Operating Day.

# ISO Actions and Communications with Government Contacts

	Cold Weather Watch	Cold Weather Warning	Cold Weather Event
<i>Does ISO forecast show sufficient <b>capacity</b> to meet demand + reserves?</i>	Yes	Sufficient capacity may <u>not</u> be available	No
Actions by <b>ISO Operations</b>	Post notice to ISO website	Request dual-fuel units to <i>prepare</i> to switch fuels (within permit limits)*	Review gas nominations to determine if gas units have confirmed supplies, and Request gas units that can burn oil to <i>switch</i> to oil*
Communications from <b>ISO External Affairs</b>	Email notice to government contacts	Convene conference call with government contacts and environmental regulators	Follow up notification and convene conference call with government contacts and environmental regulators

\* Dual-fuel units are not required to switch fuels.



# Seven-Day Capacity Forecast Sample

WEATHER	DAY 2 TUE 11/18	DAY 3 WED 11/19	DAY 4 THU 11/20	DAY 5 FRI 11/21	DAY 6 SAT 11/22	DAY 7 SUN 11/23
High Temperature - Boston	46	45	45	49	47	46
Dew Point - Boston	24	26	30	42	35	33
High Temperature - Hartford	46	46	45	51	48	47
Dew Point - Hartford	23	26	26	41	33	34

LOAD RELIEF ACTIONS ANTICIPATED						
Power Watch	N	N	N	N	N	N
Power Warning	N	N	N	N	N	N
Cold Weather Watch	N	N	-	-	-	-
Cold Weather Warning	N	N	-	-	-	-
Cold Weather Event	N	N	-	-	-	-

Link: <https://www.iso-ne.com> (Markets and Operations > Power System Forecast and Status > Seven-Day Capacity Forecast)

# Abnormal Conditions Alert

*Master/Local Control Center Procedure No. 2 (M/LCC 2)*

Link: <https://www.iso-ne.com/participate/rules-procedures/master-lcc-procedures>



# M/LCC 2 – Abnormal Conditions Alert

- What is an abnormal condition on the bulk power system?
  - Forecasted or actual deficiency of operating reserves requiring implementation of OP-4 and/or OP-7
  - Low transmission voltages and/or low reactive reserves
  - Inability to provide first contingency protection when an undesirable post-contingency condition might result (e.g., load shedding)
  - Geomagnetic Disturbance (GMD)
  - Cold Weather Event is declared
  - Operational staffing shortage impacting normal power system operations within New England
  - Any other credible threat to power system reliability and integrity (e.g., terrorism, sabotage, storms)



# M/LCC 2 – Abnormal Conditions Alert, *continued*

- The purpose of M/LCC 2:
  - Alerts power system personnel and market participants of abnormal system conditions
  - Outlines steps to be taken, including:
    - Cancellation of maintenance on power system resources
    - Delineates which outages can and cannot be allowed
- M/LCC 2 may be issued systemwide or locally
- M/LCC 2 may be skipped – the ISO may move straight into OP-4 and/or OP-7, if necessary
- Typically, EA does not send M/LCC 2 notices to OP-4 contacts



# Energy Inventory Accounting and Actions During An Energy Emergency

*Operating Procedure No. 21 (OP-21)*

Link: <https://www.iso-ne.com/participate/rules-procedures/operating-procedures>



# ISO New England Publishes 21-Day Energy Assessments on a Weekly Basis During Winter



- The **energy assessment** is based on New England generators' reports of their fuel inventories, emissions limitations, and other factors that could limit their availability
- Hourly forecast results compared against established thresholds to trigger the declaration of either:
  - **Normal Conditions**
  - **Energy Alerts** (declared in Day 6-21 timeframe), or
  - **Energy Emergencies** (declared in Day 1-5 timeframe)
- Energy assessments are published to the ISO website ([iso-ne.com](http://iso-ne.com))
  - **Weekly** (December – February)
  - **Bi-weekly** (March – November)
- During Energy Alert or Energy Emergency conditions, the ISO will publish energy assessments **daily**

# 21-Day Energy Assessment Raises Awareness About Energy Availability So Resources Can Take Action

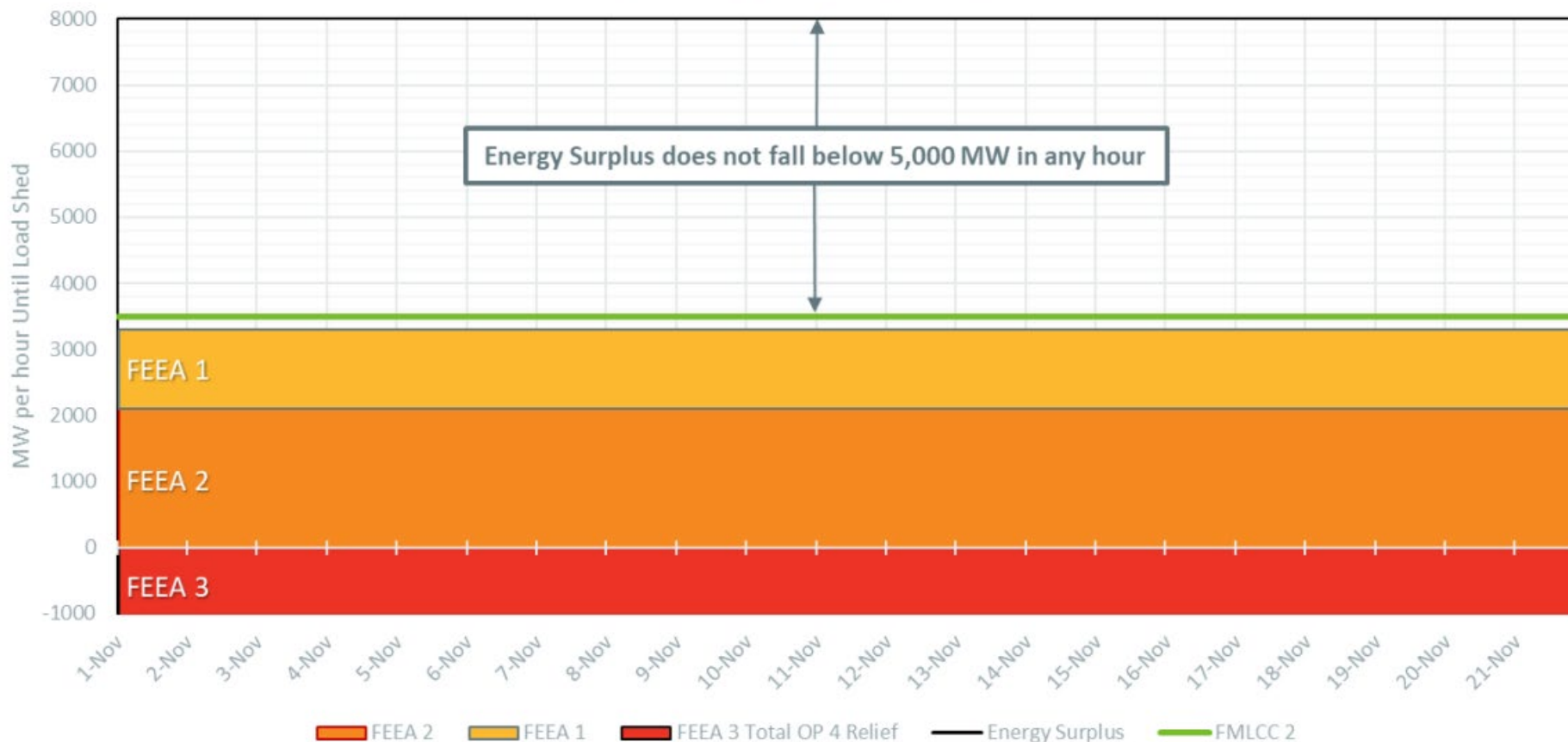


- Resource owners and other stakeholders, including regulatory and government entities, will be made aware of actual or anticipated near-term **energy deficiencies**
  - For example, when oil or other fuels start running low or emissions limitations are constraining resource availability
- With up to three weeks' notice, resource owners have time to **evaluate status** of their resources and **take action** as needed to increase their availability
  - For example, make arrangements to have more fuel delivered or reschedule maintenance to transmission facilities



# Sample: 21-Day Forecast Report

## 21 - Day Energy Emergency Forecast



### LEGEND:

**FEEA:** Forecasted Energy Emergency Alert  
**FMLCC-2:** Forecasted Abnormal Conditions Alert

**FMLCC-2:** Resources are forecasted to be <200 MW above the operating reserve requirement

**FEEA1:** Resources are forecasted to fall below the operating reserve requirement and **OP-4 actions 1–5** are forecasted

**FEEA2:** Resources are forecasted to fall below the operating reserve requirement and **OP-4 actions 6–11** are forecasted

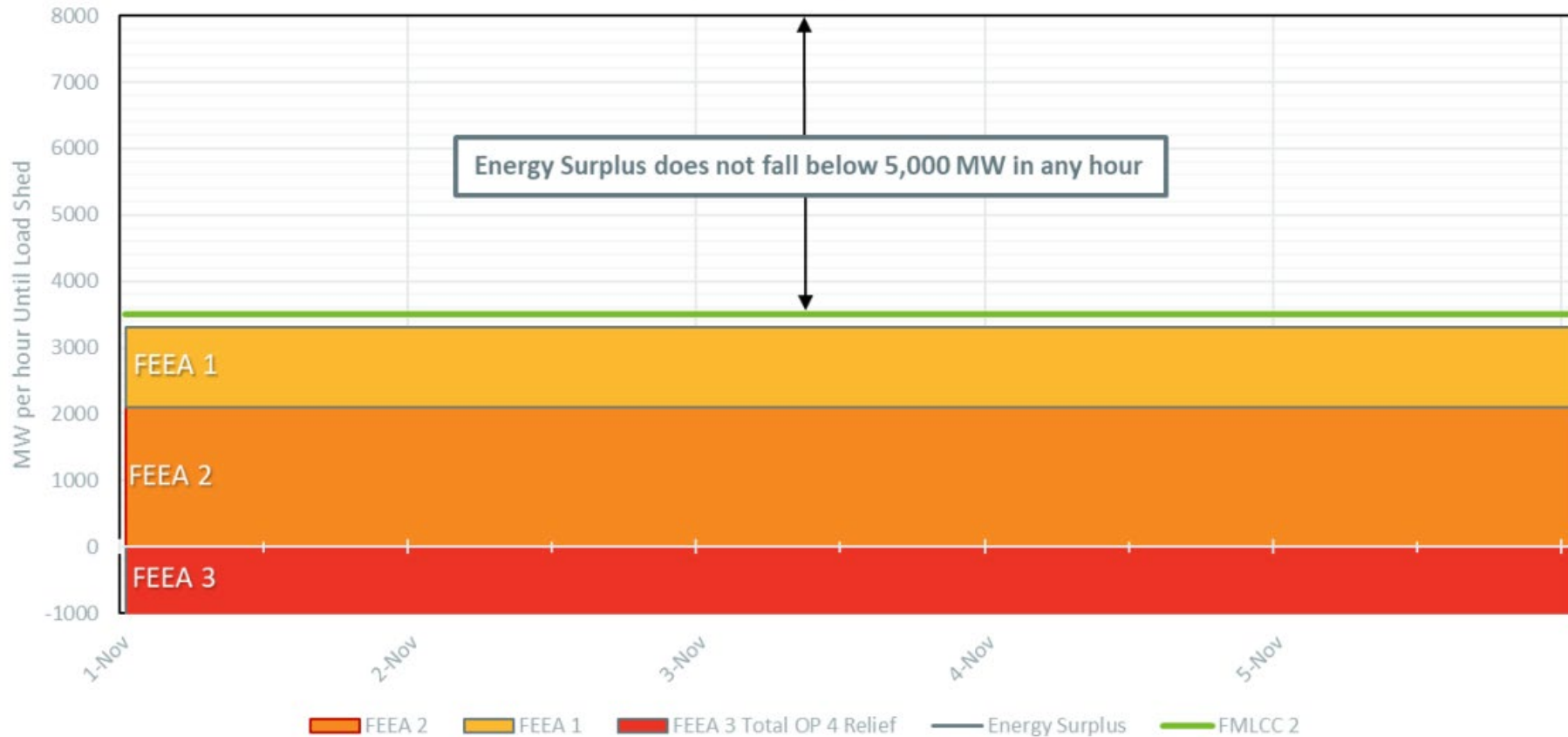
**FEEA3:** Resources are insufficient to meet firm load; **OP-7 actions** are forecasted

Note: EEA levels are described in Attachment 1 to NERC Reliability Standard [EOP-011 - Emergency Operations](#). These alerts do not trigger any additional communications with OP-4 contacts.



# Sample: 5-Day Forecast Report

## 5-Day Energy Emergency Forecast



### LEGEND:

**FEEA:** Forecasted Energy Emergency Alert  
**FMLCC-2:** Forecasted Abnormal Conditions Alert

**FMLCC-2:** Resources are forecasted to be <200 MW above the operating reserve requirement

**FEEA1:** Resources are forecasted to fall below the operating reserve requirement and **OP-4 actions 1–5** are forecasted

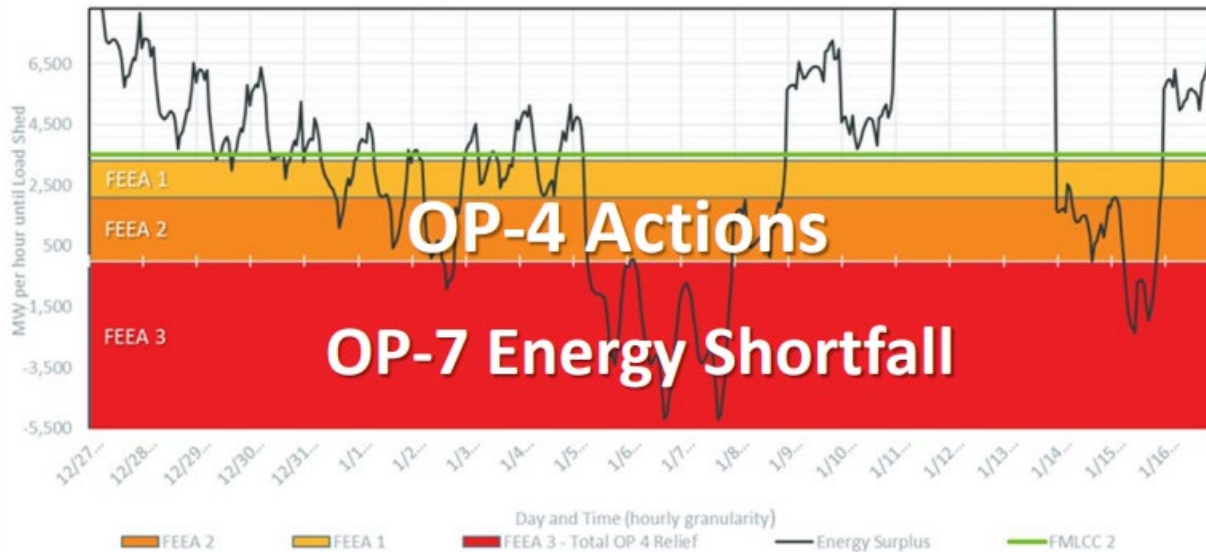
**FEEA2:** Resources are forecasted to fall below the operating reserve requirement and **OP-4 actions 6–11** are forecasted

**FEEA3:** Resources are insufficient to meet firm load; **OP-7 actions** are forecasted

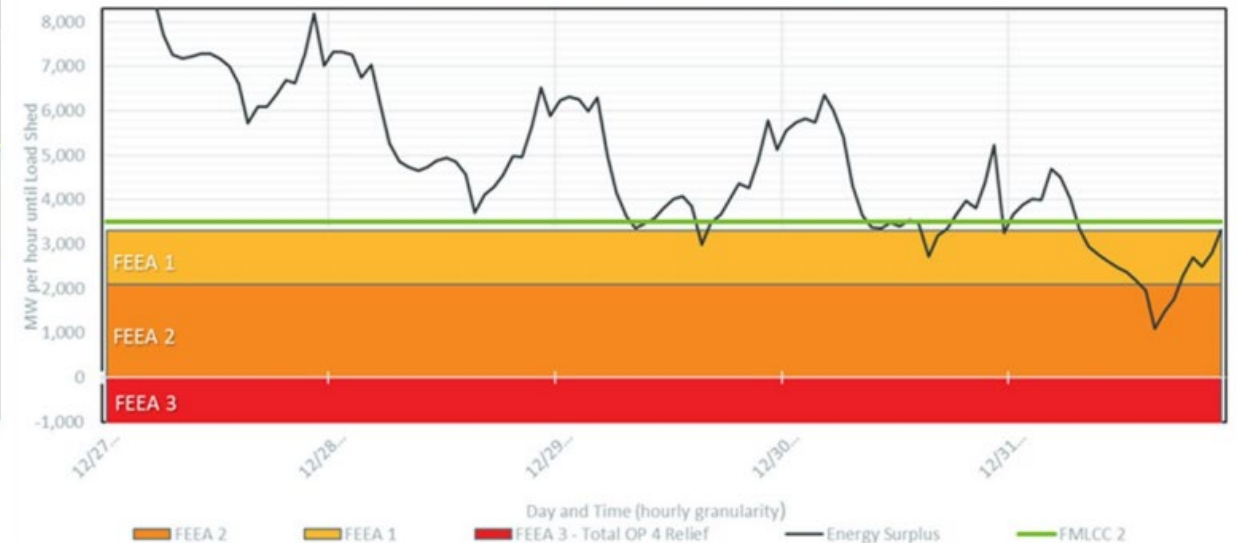
Note: EEA levels are described in Attachment 1 to NERC Reliability Standard [EOP-011 - Emergency Operations](#). These alerts do not trigger any additional communications with OP-4 contacts.

# Example Reports with Energy Alerts and Emergencies

21-Day Energy Assessment Forecast



5 - Day Energy Assessment Forecast



# ISO Resources for OP-21 Information

For background on how to read the OP-21 report...

The screenshot shows the ISO New England website. The top navigation bar includes links for About Us, Participate, Committees and Groups, System Planning, and Markets and Operations. The main content area features an article titled "An Innovative Energy Supply Forecast" with a sub-header "System Health Slider". Below the article is a horizontal slider bar with a gradient from red to green. The red end is labeled "HIGHER RISK" and the green end is labeled "LOWER RISK". A grey slider handle is positioned towards the green end. Below the slider, text reads: "Example of the system health slider included in the 21-Day Forecast report" and "Source: ISO New England".

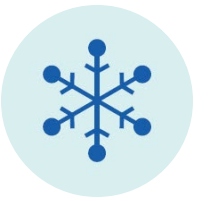
<https://www.iso-ne.com/about/what-we-do/21-day-forecast>

For updates on real-time issues...

The screenshot shows the ISO Newswire website. The top navigation bar includes links for About, Contact, Browse, and Search. The main content area features several articles. The first article is titled "ISO-NE's 2050 Transmission Study outlines potential costs, solutions to support reliability throughout the clean energy transition" with a date of November 5, 2023. The second article is titled "ISO-NE head of cybersecurity speaks at FERC reliability conference" with a date of November 17, 2023. The third article is titled "Now online: October FCM 101 training materials" with a date of November 16, 2023.

<https://isonewswire.com/>

# Winter Conservation Appeals: *Timing, Duration, and Coordination*



- Typically, ISO conservation appeals have been issued for a few hours of the afternoon to meet **peak** demand in the **summer**
- The ISO can also issue conservation appeals to help the region conserve **energy** in the **winter** during extended cold weather
  - These appeals would likely be to conserve energy *in all forms* (not just electricity), and for potentially *longer* periods than in summer
- **Early Notification to Emergency Communications Contacts:** If the ISO forecasts a *potential energy shortfall* in the 21-day forecast, and we anticipate making conservation appeals, we would plan to reach out to you before the forecast is posted (public), so you have a preview of the information and so we can coordinate *messages* and the *timing* of any appeal(s)
  - The forecast is posted **weekly** Dec-Feb, typically on Wednesday

# Action During a Capacity Deficiency

*Operating Procedure No. 4 (OP-4)*

Link: <https://www.iso-ne.com/participate/rules-procedures/operating-procedures>



# OP-4 Is Implemented When One or More of the Following Occur



- **Demand + reserves** cannot be met with available resources
- **Contingencies** (1 or more) result in an immediate deficiency in available capacity
- **Transmission** facilities in a subarea are loaded beyond established transfer limits
- **Manual load shedding** (OP-7) is needed, but OP-4 actions could avoid or reduce that need
- **Abnormal voltage** and/or **reactive conditions** in a subarea
- **Assist other NPCC control areas** that are experiencing a capacity deficiency (would reduce our reserves below required margin)
- **Other serious threat** to the bulk power system for which the ISO determines this procedure would mitigate the impact



# Key Takeaways: OP-4 Implementation



**11 actions** can be implemented...



...to cover the **affected area**:

- New England-wide
- State(s)
- LCC(s), or
- A specific area



...in any **order**



...or, **skipped** if emergency actions are needed...



...and declaration of any OP-4 actions **trigger notifications** on website and mobile app



# What Triggers OP-4 Notifications?



**Action 1:** Notice to market participants that an energy deficiency exists, but no public appeal for electricity conservation



**Action 4:** Public appeal for electricity conservation, if conditions warrant



**Action 10:** Urgent public appeal to immediately turn off all unnecessary power use



**Governors'  
Appeal**

**Action 11:** ISO requests Governors' support for Power Warning





# What Emergency Communications Contacts Can Expect



- Activation of **ISOAlert** if the ISO implements OP-4
  - Will create automated emails, phone calls, and/or text messages to all government and utility communications contacts\*
- Follow-up notification if the ISO implements additional OP-4 actions that trigger a **public appeal for conservation**
  - To streamline notifications, we do not plan to make separate notifications for all incremental OP-4 actions
  - If the ISO issues a public appeal for conservation, we will invite emergency contacts to a **conference call briefing** on system conditions
- **System status** updates on the ISO homepage and mobile app throughout an event
- Notification when actions are **cancelled**
- For **localized** events, ISO will prioritize notification for emergency contacts in the affected area

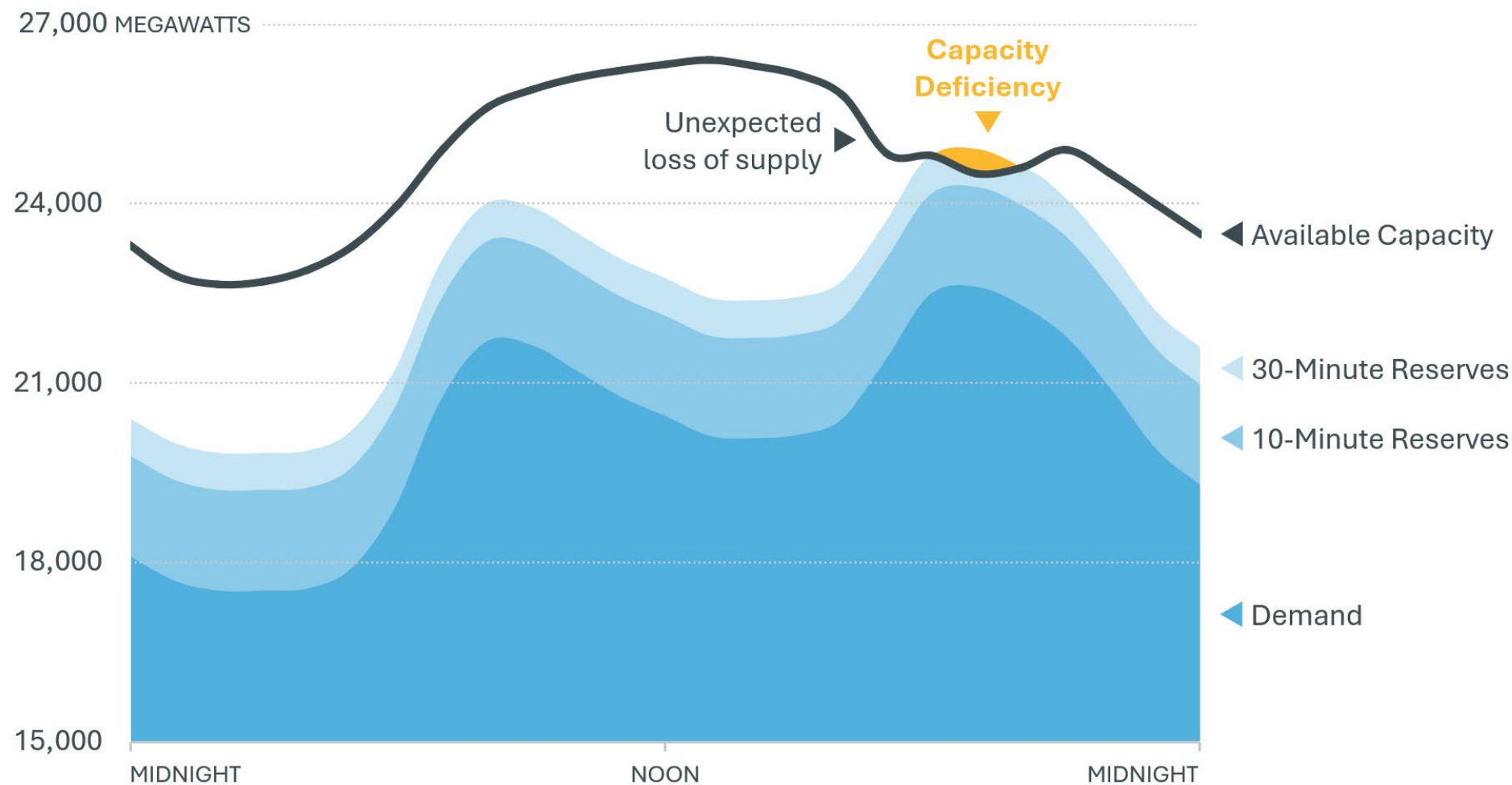
Steps Taken for Different OP-4 Actions

	Actions	Notification via email, text, or phone	Activate Conference call
Power Caution	1	●	
Power Watch	4	●	If ISO issues public appeal
Power Warning	10	●	●
Governors' Appeal	11	●	

\* ISO maintains three tiers of contacts for each organization: primary, secondary and alternate contacts. ISOAlert notifies all three tiers simultaneously. If ISO needs to bypass ISOAlert, we will reach out to primary contacts first and we will only call secondary and alternate contacts if the primary contact is unreachable.



# Example of a Contingency Affecting Operating Reserves



**Note:** Available Capacity includes scheduled resources and those with response times under 30 minutes.

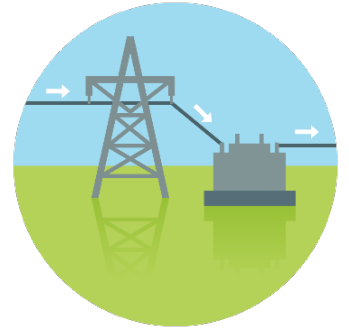


# Action in an Emergency

*Operating Procedure No. 7 (OP-7)*

Link: <https://www.iso-ne.com/participate/rules-procedures/operating-procedures>

# Action in an Emergency (OP-7)



- If OP-4 actions are not adequate to manage a capacity deficiency, ISO will implement OP-7
  - OP-4 can be skipped to move into OP-7 immediately, if necessary
- OP-7 allows system operators to order the **disconnection** of firm customer load—frequently referred to as manual load shedding, load curtailment, controlled power outages, or rolling blackouts—as a means of maintaining the integrity of the bulk power system
- OP-7, like OP-4, can be called region-wide or locally
- When OP-7 actions are required, transmission and/or distribution companies disconnect customers at the direction of the ISO or the Local Control Centers (LCC)
  - ISO system operators do not have the ability to disconnect customers



# Communications During OP-7



- Communications follow the **general framework** for OP-4 events
- Control Room will:
  - Notify LCCs, U.S. DOE, NERC, and NPCC
- Corporate Communications and External Affairs teams will:
  - Inform government officials and utility communications contacts of OP-7 implementation (prior to implementation, if possible)
  - Activate conference call and conduct regular conference call updates when time permits
  - Issue Controlled Power Outage notice and, if necessary, conservation appeal (prior to implementation, if possible)



# ISO Operating Procedures Are Designed to *Protect* System Reliability, *Avoid* Worsening Conditions, and *Expedite* Return to Normal System Conditions



Power System Conditions:	Normal	Shortage of Operating Reserves	Shortage of Energy	Systemwide Blackout
Operating Procedures and related actions:		Actions During a Capacity Deficiency (OP-4)*; load management	Actions in an Emergency (OP-7); controlled power outages	System Restoration Plan (M/LCC-18)
Objective:		Restore operating reserves	Avoid uncontrolled outages and a systemwide blackout	Restart electric grid

\* The ISO may also implement OP-4 actions if it could reduce the need for emergency actions under OP-7.

# Northeast Power Coordinating Council Winter Reliability Assessment

*Khatune Zannat, Manager  
Probabilistic Assessments*



# Next Steps

- ISOAlert Test scheduled for **Today, Monday Nov. 24** for government and utility contacts
- [Winter Seasonal Outlook Webpage](#) & [Press Release](#)
- Send updated contact information to the ISO:



## Government Contacts:

External Affairs Department:

- (413) 535-4138
- Gae Warman-Gold  
[gwarmangold@iso-ne.com](mailto:gwarmangold@iso-ne.com)



## Utility Communications Contacts:

Corporate Communications/  
Media Relations Department:

- (413) 535-3842
- Randy Burlingame  
[rburlingame@iso-ne.com](mailto:rburlingame@iso-ne.com)



# Questions



# Reference Materials

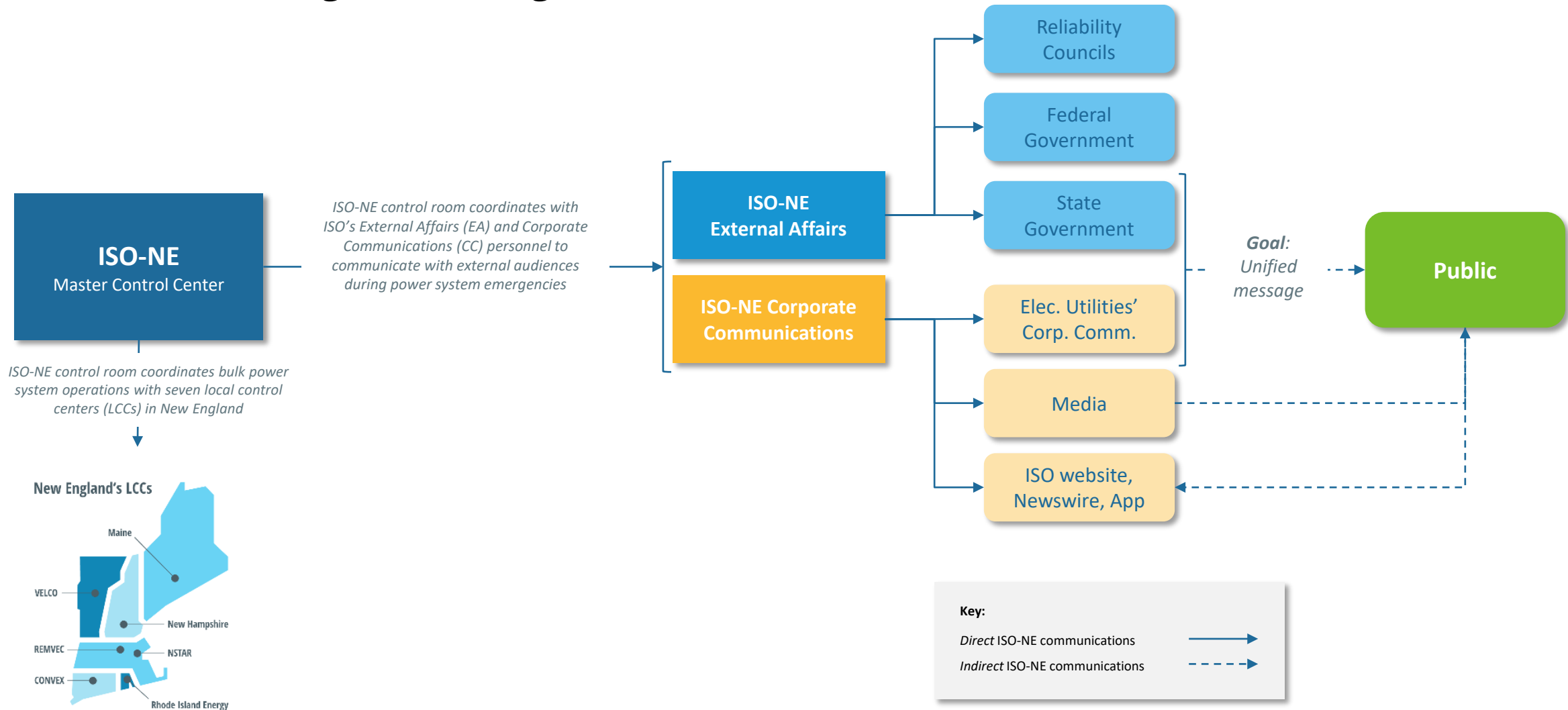


# Communications Quick References



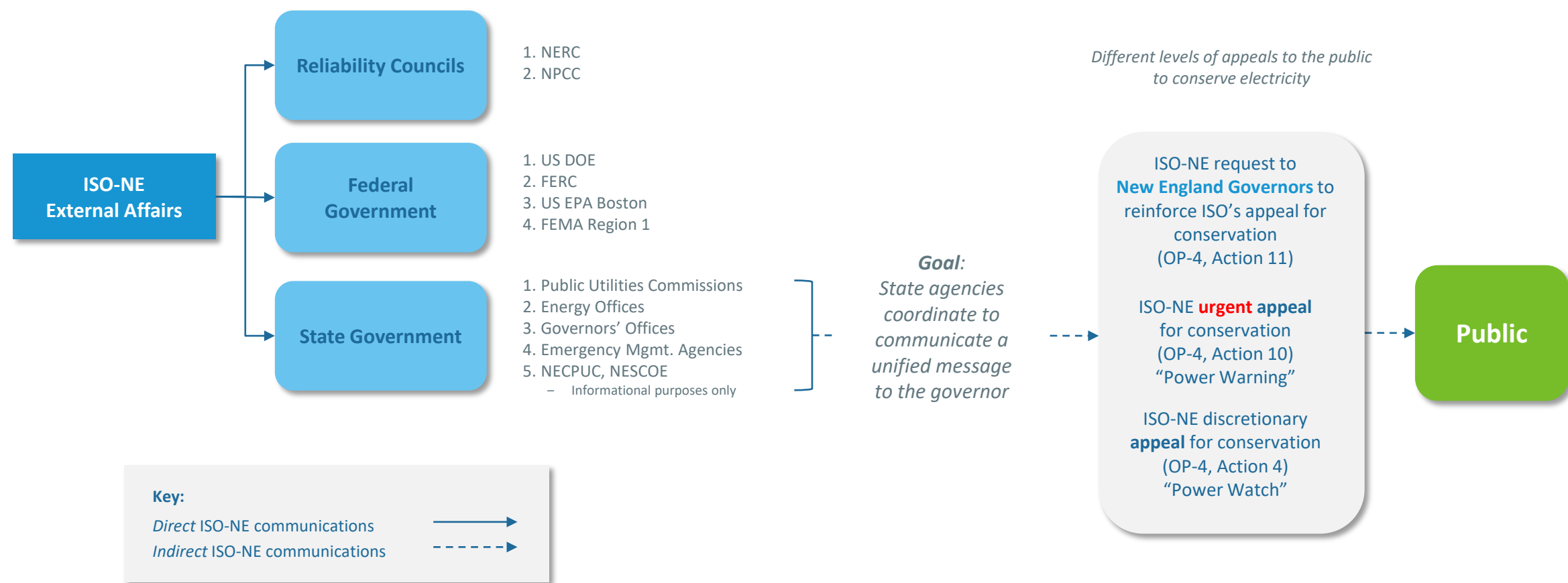
# Communications Paths During a Power System Emergency:

*From ISO New England through to the Public*

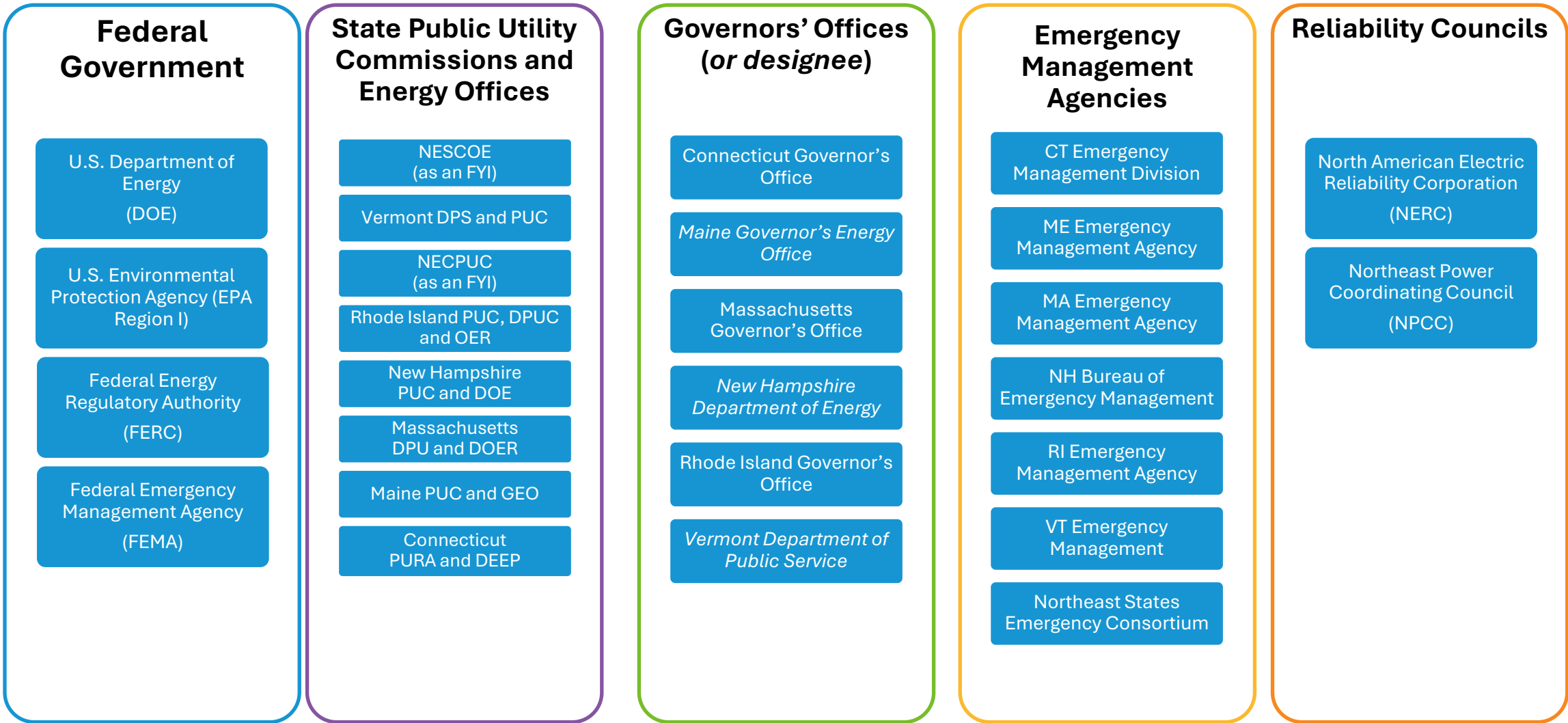


# Communications Paths During a Power System Emergency:

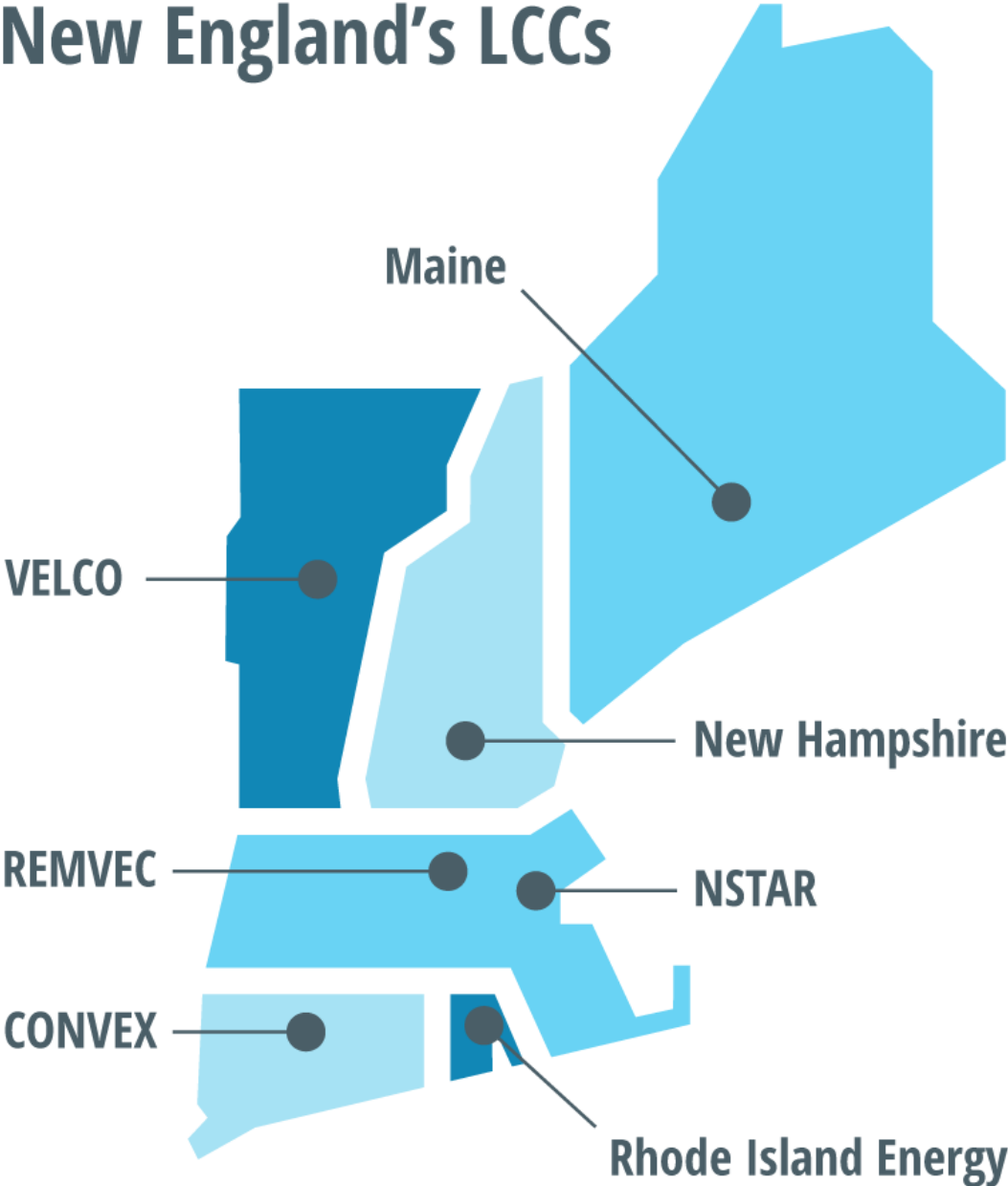
*From ISO-NE External Affairs to State Agencies and the New England Governors through to the Public*



# External Affairs (EA) Contacts



# Corporate Communications Utility Contacts



# Pre-Winter Energy Analysis

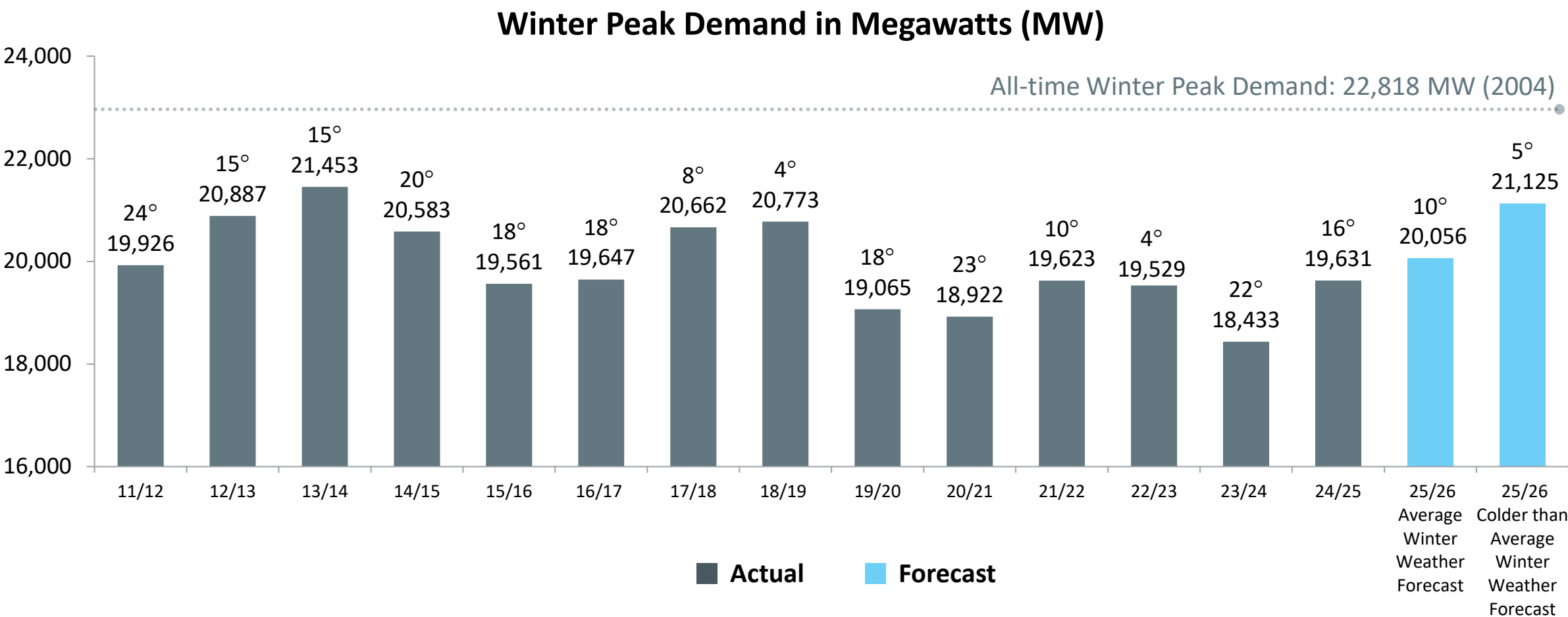
*2025-2026*





# Winter Peak Demand Corresponds to Temperature

*Colder temperatures produce higher demand; milder temperatures produce lower demand\**



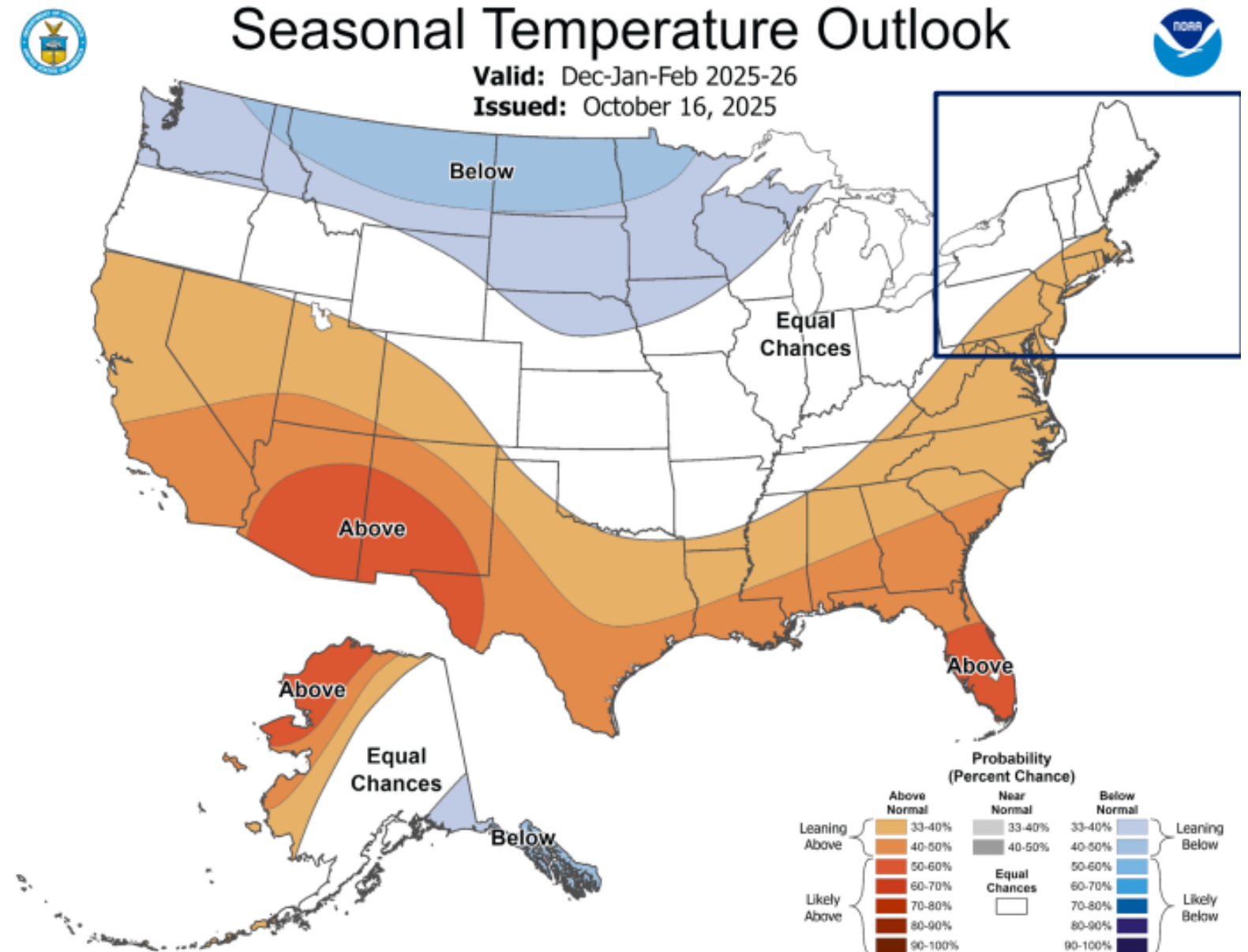
Sources: [ISO-NE Seasonal Peaks Since 1980](#), [2025-2026 Winter Generator Readiness Seminar](#), [2025 CELT Forecast](#)

\*Temperature is dry-bulb temperature in degrees Fahrenheit based on weighted average of eight New England weather stations.



# Winter Temperature Outlook

*Warmer than normal temperatures are forecast for Southern New England, and equal chances for either above or below normal in Northern New England.*



# Abnormal Conditions Alert

*Master/Local Control Center Procedure No. 2 (M/LCC 2)*

Link: <https://www.iso-ne.com/participate/rules-procedures/master-lcc-procedures>



# M/LCC 2 – Abnormal Conditions Alert

- What is an abnormal condition on the bulk power system?
  - Forecasted or actual deficiency of operating reserves requiring implementation of OP-4 and/or OP-7
  - Low transmission voltages and/or low reactive reserves
  - Inability to provide first contingency protection when an undesirable post-contingency condition might result (e.g., load shedding)
  - Geomagnetic Disturbance (GMD)
  - Cold Weather Event is declared
  - Operational staffing shortage impacting normal power system operations within New England
  - Any other credible threat to power system reliability and integrity (e.g., terrorism, sabotage, storms)



## M/LCC 2 – Abnormal Conditions Alert, *continued*

- The purpose of M/LCC 2:
  - Alerts power system personnel and market participants of abnormal system conditions
  - Outlines steps to be taken, including:
    - Cancellation of maintenance on power system resources
    - Delineates which outages can and cannot be allowed
- M/LCC 2 may be issued systemwide or locally
- M/LCC 2 may be skipped – the ISO may move straight into OP-4 and/or OP-7, if necessary
- Typically, the ISO does not send M/LCC 2 notices to OP-4 contacts



# Action During a Capacity Deficiency

*Operating Procedure No. 4 (OP-4)*

Link: <http://www.iso-ne.com/participate/rules-procedures/operating-procedures>



# Action 1



- Inform all resources that a capacity deficiency exists
  - Each resource with a Capacity Supply Obligation (CSO) should prepare to provide capability
  - “Settlement-Only” Resources with real-time obligations and CSOs need to monitor the status of reserve pricing and meet their obligations under “Capacity Scarcity Condition” definitions in the Tariff
- Begin to allow depletion of 30-minute operating reserve
- Implement a **Power Caution**
  - Notify government official and utility communications contacts
  - Does not involve public appeals for conservation

# Action 2

- Declare Energy Emergency Alert (EEA) Level 1
- EEA levels are described in Attachment 1 to NERC Reliability Standard EOP-011-4  
Emergency Operations:
  - <https://www.nerc.com/standards/reliability-standards/eop/eop-011-4>



## Action 3

- Request voluntary load curtailment of Market Participants' facilities in New England

## Action 4



- Implement a **Power Watch**
  - Notify government official and utility communications contacts
    - Communicate that additional OP-4 actions may be taken
- If conditions warrant, issue a public appeal for voluntary conservation
  - Activate conference call and conduct regular conference call updates if public appeal is issued
  - Publicize conservation appeal



## Action 5

- Implement Actions 5 and above to maintain 10-minute reserves
- Arrange to purchase available emergency capacity and energy, or energy only (if capacity backing is not available), from Market Participants or neighboring regions

\*Note: EEA levels are described in Attachment 1 to NERC Reliability Standard EOP-011-4 - Emergency Operations (<https://www.nerc.com/standards/reliability-standards/eop/eop-011-4>).

## Action 6

- Declare Energy Emergency Alert (EEA) Level 2\*
- Implement a voltage reduction of 5% of normal operating voltage requiring more than 10 minutes to implement
  - Local Control Centers (LCCs) implement voltage reduction on distribution and sub-transmission systems
- Alert NYISO that sharing of reserves within Northeast Power Coordinating Council (NPCC) may be required



## Action 7

- Request generators and demand response resources not subject to a CSO to voluntarily provide energy for reliability purposes
  - Either on a forecast basis or in real time when ISO anticipates it will be unable to maintain 10-minute reserves

\*Note: EEA levels are described in Attachment 1 to NERC Reliability Standard EOP-011-4 - Emergency Operations (<https://www.nerc.com/standards/reliability-standards/eop/eop-011-4>).

## Action 8

- Implement a voltage reduction of 5% of normal operating voltage that is attainable within 10 minutes
  - LCCs implement voltage reduction on distribution and sub-transmission systems
- Declare Energy Emergency Alert (EEA) Level 2 if not already performed under an earlier action\*



## Action 9

- Request activation of all customer generation not contractually available to Market Participants
- Request voluntary load curtailment by large industrial and commercial customers
- Request is made through Transmission and Distribution owners



## Action 10



- Initiate appeals for voluntary load curtailment
  - Publicize conservation appeal via ISO-NE home page, Newswire, Mobile app, X/Twitter
- Implement a **Power Warning**
  - Notify government official and utility communications contacts via conference call brideline
  - Public appeals made when an immediate reduction in power usage is necessary to avert overload of the electrical system
  - Public appeals made when other efforts (e.g., emergency purchases, voluntary curtailment, contracted curtailment and voltage reductions) have been unsuccessful in bringing supply and demand back into balance
  - Conduct conference call updates
- Declare Energy Emergency Alert (EEA) Level 2 if not already performed under an earlier action\*

## Action 11



- Request New England governors to reinforce **Power Warning** appeals initiated in Action 10
  - Notify government official contacts
  - Request governors to make an urgent public appeal for conservation
- Declare Energy Emergency Alert (EEA) Level 2 if not already performed under an earlier action\*

\*Note: EEA levels are described in Attachment 1 to NERC Reliability Standard EOP-011-4 - Emergency Operations (<https://www.nerc.com/standards/reliability-standards/eop/eop-011-4>).

# Potential Relief Under OP-4

*Roughly 1,145 – 4,020 MW of potential relief systemwide from 11 actions*

OP-4 Action	Action Description (Page 1 of 3)	Possible Relief (MW)
1	Implement <b>Power Caution</b> and advise resources with a capacity supply obligation (CSO) to prepare to provide capacity and notify “Settlement-Only” generators with a CSO to monitor reserve pricing to meet those obligations  Begin to allow depletion of 30-minute reserves	0 <sup>1</sup>  600
2	Declare Energy Emergency Alert (EEA) Level 1	0 <sup>4</sup>
3	Request voluntary load curtailment of Market Participants’ facilities	40 <sup>2</sup>
4	Implement <b>Power Watch</b> , a notification that further steps to manage capacity could affect the public	0
5	Schedule Emergency Energy Transactions and arrange to purchase Control-Area-to-Control-Area Emergency Capacity and Energy	Variable 0 – 1,000

Source: [OP-4, Action During A Capacity Deficiency, Appendix A](#)



# Potential Relief Under OP-4, *continued*

*Roughly 1,145 – 4,020 MW of potential relief systemwide from 11 actions*

OP-4 Action	Action Description (Page 2 of 3)	Possible Relief (MW)
6	Implement a voltage reduction of 5% of normal operating voltage requiring more than 10 minutes  Declare Energy Emergency Alert (EEA) Level 2	Variable 0 – 125 <sup>3</sup>  0 <sup>4</sup>
7	Request resources without a CSO to provide energy for reliability purposes	Variable 0 – 1,500
8	Implement a voltage reduction of 5% of normal operating voltage requiring 10 minutes or less  Declare Energy Emergency Alert (EEA) Level 2 (if not already declared)	Variable 0 – 250 <sup>3</sup>  0 <sup>4</sup>
9	Request activation of transmission customer generation not contractually available to Market Participants during a capacity deficiency  Request voluntary load curtailment by large industrial and commercial customers	5  200 <sup>2</sup>

Source: [OP-4, Action During A Capacity Deficiency, Appendix A](#)

# Potential Relief Under OP-4, *continued*

*Roughly 1,145 – 4,020 MW of potential relief systemwide from 11 actions*

OP-4 Action	Action Description (Page 3 of 3)	Possible Relief (MW)
10	Implement <b>Power Warning</b> and issue urgent public appeal for voluntary conservation  Declare Energy Emergency Alert (EEA) Level 2 (if not already declared)	200 <sup>2</sup>  0 <sup>4</sup>
11	Request state governors' support for ISO appeals for conservation  Declare Energy Emergency Alert (EEA) Level 2 (if not already declared)	100 <sup>2</sup>  0 <sup>4</sup>
	<b>Total Relief (MW)</b>	1,145 – 4,020

## NOTES:

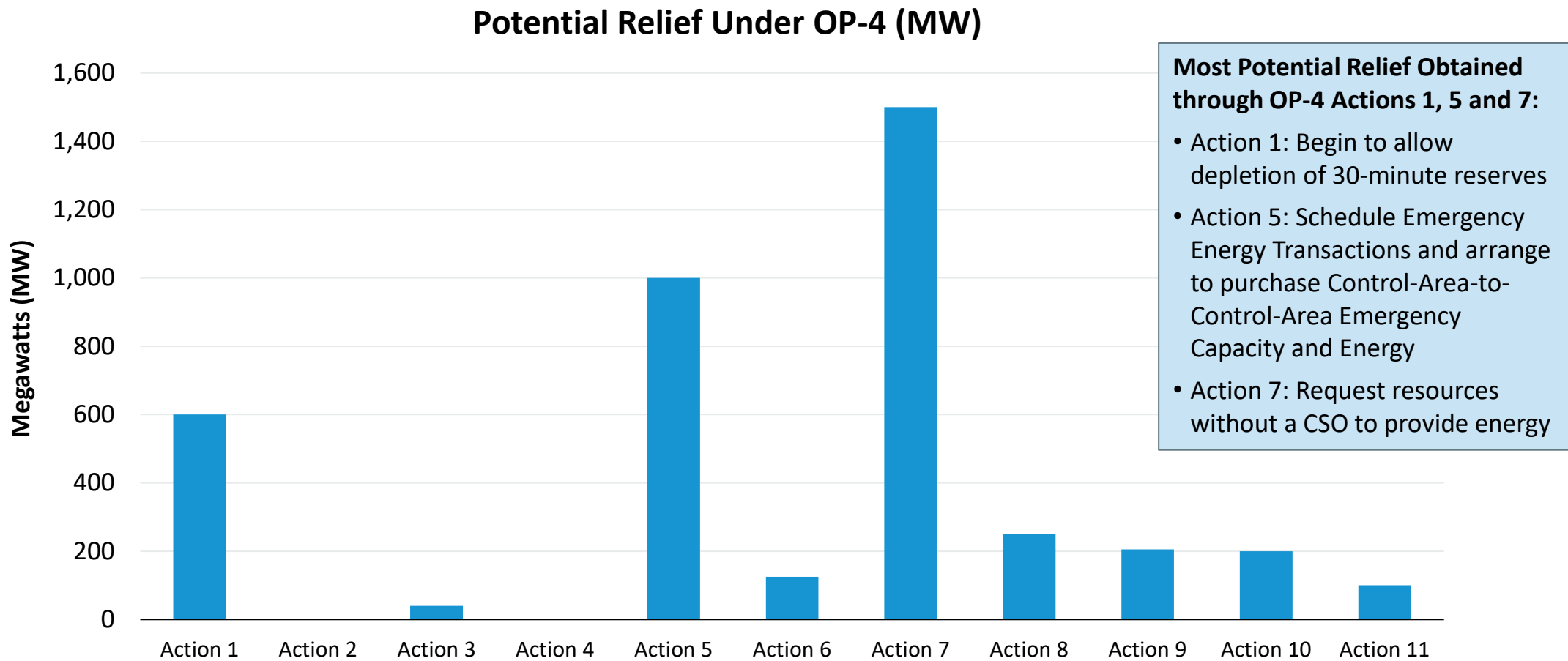
1. Based on Summer Ratings. Assumes 25% of total MW Settlement-Only units <5 MW will be available and respond.
2. The actual load relief obtained is highly dependent on circumstances surrounding the appeals, including timing and the amount of advanced notice that can be given.
3. The MW values are based on a 25,000 MW system load and verified by the most recent voltage reduction test.
4. EEA levels are described in Attachment 1 to NERC Reliability Standard EOP-011-4 - Emergency Operations (<https://www.nerc.com/standards/reliability-standards/eop/eop-011-4>) and do not trigger additional communications with OP-4 contacts.

Source: [OP-4, Action During A Capacity Deficiency, Appendix A](#)



# Potential Relief Under OP-4

*Roughly 1,145 – 4,020 MW of potential relief systemwide from 11 actions*



[OP-4, Action During A Capacity Deficiency, Appendix A](#)





# OP-4 Actions 2015-2025

Action	1	2	3	4	5	6	7	8	9	10	11
Date	Power Caution			Power Watch						Power Warning	Governor s' Appeal
9/9/2015	•										
8/11/2016	•	•									
9/3/2018	•	•	•	•	•						
12/24/2022	•	•	•		•						
7/5/2023	•	•									
6/18/2024	•	•									
8/1/2024	•	•									
6/27/2025	•	•	•		•						
11/23/2025	•	•									

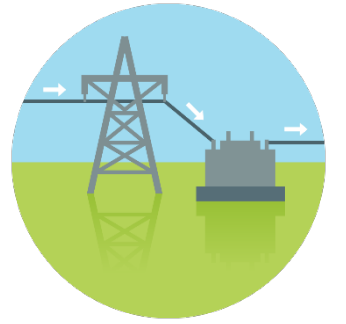
[OP 4 Implementation Summaries](#)

# Action in an Emergency

*Operating Procedure No. 7 (OP-7)*

Link: <http://www.iso-ne.com/participate/rules-procedures/operating-procedures>

# Action in an Emergency (OP-7)



- If OP-4 actions are not adequate to manage a capacity deficiency, the ISO will implement OP-7
  - OP-4 can be skipped to move into OP-7 immediately, if necessary
- OP-7 allows system operators to order the **disconnection** of firm customer load—frequently referred to as manual load shedding, load curtailment, controlled power outages, or rolling blackouts—as a means of maintaining the integrity of the bulk power system
- OP-7, like OP-4, can be called region-wide or locally
- When OP-7 actions are required, transmission and/or distribution companies disconnect customers at the direction of the ISO or the Local Control Centers (LCC)
  - ISO system operators do not have the ability to disconnect customers



# Communications During OP-7

*Communications follow the general framework for OP-4 events*



- Control Room will:
  - Notify LCCs, U.S. DOE, NERC, and NPCC within the times prescribed by the various agencies
- CC and EA will:
  - Inform government officials and utility communications contacts of OP-7 implementation (prior to implementation, if possible)
    - Notification by phone and email
  - Activate conference call “bridge-line” and conduct regular conference call updates when time permits
  - Issue *Controlled Power Outage* notice and, if necessary, conservation appeal (prior to implementation, if possible)



# Background Information on OP-21

Link: <http://www.iso-ne.com/participate/rules-procedures/operating-procedures>



# Background on OP-21

- **Purpose:** OP-21 documents the processes and establishes the associated requirements to:
  - Collect fuel availability and environmental limitation information from each coal, oil, and natural gas-fired generator in the region, and any other resource that the ISO determines to be necessary
  - Forecast and report on expected energy availability over a 21-day look-ahead period
  - Declare Energy Alerts and Energy Emergencies based on forecasted or real-time system conditions
  - Take appropriate action in anticipation of, or during, an Energy Alert or Energy Emergency
  - Communicate with interstate natural gas pipelines, LNG import facilities, local gas distribution companies, generating resources, and all other regional stakeholders regarding matters related to resource fuel availability and environmental limitations



# Background on OP-21

- **Applicability:** Energy Emergencies may occur at any time as a result of sustained national or regional shortages in fuel availability or deliverability to New England's generating resources
  - Shortages of fuel may come in many forms, including, but **not** limited to: severe drought, interruption to availability or transportation of natural gas, LNG, oil, or coal
- Because fuel shortages and/or environmental limitations may impact New England's ability to fully meet system load and ten-minute operating reserve requirements for days, weeks, or months at a time, the ISO may need to take action **in advance of** a projected Energy Emergency to manage and preserve fuel supplies within the region
  - Changes to OP-21 are intended to improve **situational awareness** and encourage **proactive measures** to avoid forecasted energy deficiencies



# OP-21: PEAT and REST Threshold

- ISO's study results from the **Probabilistic Energy Adequacy Tool (PEAT)** helped inform the development of a **Regional Energy Shortfall Threshold (REST)**, a reliability-based threshold that reflects the region's level of risk tolerance with respect to energy shortfalls during extreme weather
- REST is only violated if both **magnitude *and* duration** exceed their thresholds
  - **Magnitude**—If the shortfall occurs, the region can tolerate up to either about 3% of customers being without power for 72 hours, or approximately every customer being without power for 3% of 72 hours (2.16 hours)
  - **Duration**—If the shortfall occurs, the region can tolerate up to about 18 hours of cumulative shortfall over a 21-day period

Learn more about the [Operational Impacts of Extreme Weather Events Key Project](#)





# OP-21: Seasonal Analysis

- Each year, prior to the winter and summer seasons, ISO conducts and reports the results of a probabilistic energy assessment using **PEAT**
- ISO will screen high-risk weather events for further evaluation
  - The high-risk weather events are then simulated by considering a wide range of uncertainties (e.g., fuel oil levels, LNG inventory levels, imports, etc.) associated with them to assess energy shortfall risk
- Assessment results will be conveyed in terms of energy shortfall magnitude and duration, at a minimum, using the same parameters as the **REST**



# OP-21: Long-Term Analysis

- Each year, ISO conducts and report the results of a probabilistic energy assessment using **PEAT** for 5 years and 10 years in the future using the most recent CELT
- ISO will screen high-risk weather events for further evaluation
  - The high-risk weather events are then simulated by considering a wide range of uncertainties (e.g., fuel oil levels, LNG inventory levels, imports, etc.) associated with them to assess energy shortfall risk
- Assessment results will be conveyed in terms of energy shortfall magnitude and duration, at a minimum, using the same parameters as the **REST**



# ISO Developed Enhanced Operating Procedures as Risks Shift from *Capacity* to *Energy* Shortages

## Then and Now...

### *In the past:*

The ISO has implemented operating procedures to manage relatively short-duration *capacity deficiencies* (operating-reserve shortages) during the peak hour of the day, typically summertime

### *Going forward:*

The ISO may need to implement more severe operating procedures to manage longer-duration *energy shortages* spanning days or weeks if extreme cold weather persists

## Tools to Assess System Conditions during Cold Weather Periods

ISO developed an Energy Forecasting and Reporting Procedure (OP-21) after winter 2017/18 to help manage the region's energy security risks during extreme cold weather

If the ISO forecasts a **capacity deficiency** (operating-reserve shortage)

If the ISO forecasts an **energy shortage**



## Tools to Protect System Reliability if Shortages Occur

ISO has longstanding operating procedures to manage capacity and energy shortages; *energy conservation by the public* is an essential tool during extreme cold weather

The ISO can implement 11 actions to restore operating reserves (OP-4)\*

The ISO can direct controlled power outages to avoid uncontrolled system outages (OP-7)

\* The ISO may also implement OP-4 actions if it could reduce the need for emergency actions under OP-7.

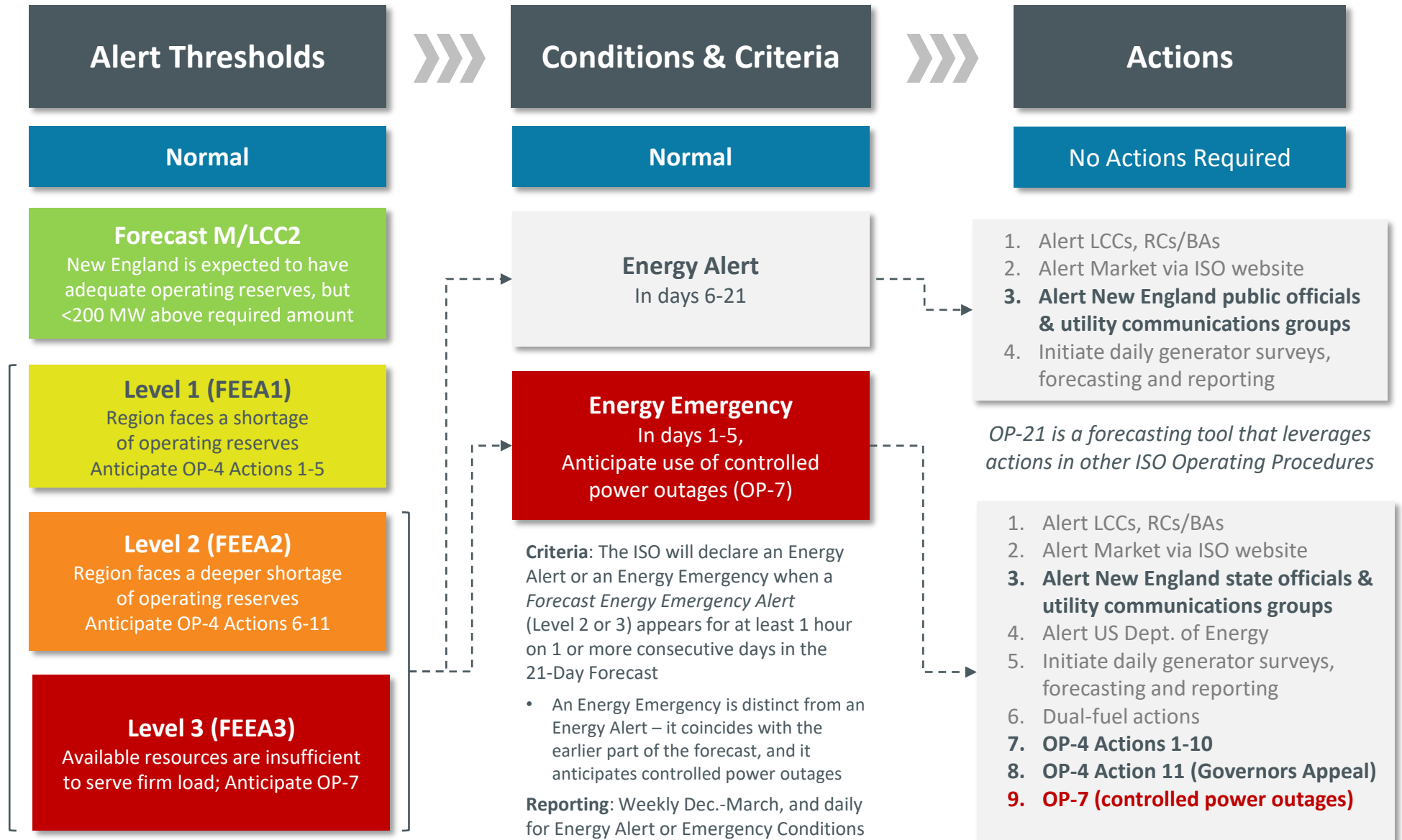
**Communications to support ISO New England Operating Procedure No. 21 (OP-21): Operational Surveys, Energy Forecasting & Reporting and Actions During an Energy Emergency**

**Forecast Energy Emergency Alert (FEEA) Levels 1-3:**

**Discretionary Appeals:**  
The ISO may issue public appeals for conservation that are not triggered by these operating procedures if it determines that actions by the public to conserve energy could lessen the need for emergency actions.

**Information Sources:**

- **OP-21:** [https://www.iso-ne.com/static-assets/documents/rules\\_procds/operating/isone/op21/op21\\_rto\\_final.pdf](https://www.iso-ne.com/static-assets/documents/rules_procds/operating/isone/op21/op21_rto_final.pdf)
- **21-Day Forecast:** <https://www.iso-ne.com/isoexpress/web/reports/operations/-/tree/21-Day-Energy-Assessment-Forecast-and-Report-Results>
- **All ISO Operating Procedures:** <https://www.iso-ne.com/participate/rules-procedures>
- **FEEA Levels** are based on NERC EOP-011-1: Emergency Operations; <https://www.nerc.com/pa/Stand/Reliability%20Standards/EOP-011-1.pdf>



**Note:** ISO uses OP-4 actions to manage *capacity* deficiencies and OP-7 actions for *energy* deficiencies, but may also implement OP-4 if it could reduce the need for emergency actions under OP-7.

# 21-Day Energy Assessments Are Posted to the ISO's Operations Reports Webpage



The screenshot shows the ISO New England website. The top navigation bar includes links for CALENDAR, LIBRARY, CAREERS, CONTACT US, SIGN UP, and SIGN IN. A search bar is located on the right. The main navigation bar has links for About Us, Participate, Committees and Groups, System Planning, and Markets and Operations. The breadcrumb trail indicates the path: Markets and Operations > ISO Express > Operations Reports.

## Operations Reports

**IN THIS SECTION**

- Transmission**
  - Short-Term Outage Report
  - Long-Term Outage Report
  - Transmission Element Derates
  - Single-Source Contingency
  - TTC Tables
- Generation**
  - Seasonal Claimed Capability
  - Daily Capacity Status
  - Daily Regulation Requirement
  - Annual Maintenance Schedule
  - Annual Maintenance Schedule Archive
  - Net Energy and Peak Load
  - Aggregate Monthly DDG Undelivered Energy
  - Operator Initiated Commitments
- System**
  - Seven-Day Capacity Forecast
  - Seven-Day Wind Power Forecast
  - Seven-Day Wind Power Forecast Archive
  - Wind Forecast MAE and Bias
  - Seven-Day Solar Power Forecast
  - Solar Forecast MAE and Bias
  - Morning Report

### 21-Day Energy Assessment Forecast and Report

View the 21-Day Energy Assessment Forecast and resulting forecasted system conditions: Normal, FEEA1, FEEA2, FEEA3. The forecast is based on current system conditions, forecasted weather, load, generators' reports of stored-fuel inventories and emissions limitations, and status of fuel delivery systems. These forecasts are non-binding as forecasted and expected conditions utilized in the forecasts can change. Hourly forecast results are compared against established thresholds to trigger the declaration of Energy Alerts (declared in Day 6-21 timeframe), or Energy Emergencies (declared in Day 1-5 timeframe).

ISO New England has developed a [walkthrough](#) of the report to assist users in better understanding the assessment and forecast.

**Download Selected Files**

21-DAY ENERGY ASSESSMENT FORECAST AND REPORT			
<input type="checkbox"/>	DESCRIPTION	▼ TIMESTAMP	DOWNLOAD
<input type="checkbox"/>	2025-11-04 21-Day Energy Emergency Forecast and Report	11/05/2025 01:56 PM EST	<a href="#">PDF</a>
<input type="checkbox"/>	2025-10-21 21-Day Energy Emergency Forecast and Report	10/22/2025 10:29 AM EDT	<a href="#">PDF</a>

Link: <https://www.iso-ne.com> (Markets and Operations > ISO Express > Operations Reports > 21-Day Energy Assessment Forecast and Report Results)

# Potential Initiating Conditions for an Energy Emergency Include, *But Are Not Limited to*:



- One or more pipeline Operational Flow Orders (OFOs) have been declared
- Significant reductions in resource capability due to natural gas-related issues
- Weather forecast for an extended period of cold or hot weather
- Fuel delivery to fossil fuel-fired generating resources is, or may be, impaired
- Prolonged drought
- Adverse weather conditions within the Gulf of Mexico, Western Canada, or regional shale gas basins
- Abnormal conditions at regional LNG import, satellite storage, or LNG trucking facilities
- Extremely cold regional, national, or international weather conditions
- Extreme storm conditions offshore in the Maritimes
- Any viable threat to one or more of the pipelines or LDCs supplying the region
- Sustained environmental limitation on some, or several, regional resources
- Any other serious threat to the integrity of the bulk electric system for which the ISO determines that this procedure may mitigate the impact

# Forecasting and Reporting Framework Has Been Added to OP-21 to Encourage Proactive Measures

- ISO New England performs Energy Emergency forecasting and reporting using an **hourly 21-day energy assessment** and comparing the results of that assessment with Energy Emergency **forecast alert thresholds** in order to identify and communicate potential reliability issues to regional stakeholders
- Forecasting and reporting framework:
  - Alerts stakeholders to the potential for near-term forecasted energy deficiencies
  - Allows resources in short supply of fuel to take action to replenish fuel supplies
  - Allows resources with potential environmental limitations to purchase additional credits or pursue regulatory relief to mitigate the limitation
  - Allows participants to take action to shorten or reschedule maintenance or repair to transmission facilities or resources throughout the region
  - Informs regulatory and government entities of potential energy deficiencies



# Forecasted and Real-Time Energy Emergency Alerts

Forecast Alert Thresholds	Established Real-Time Alert Thresholds
<b>Forecast M/LCC-2 (FMLCC2)</b> <ul style="list-style-type: none"> <li>Resources during any hour are forecasted to be less than 200 MW above operating reserve requirements</li> </ul>	<b>M/LCC-2</b> <ul style="list-style-type: none"> <li>Resources are less than 200 MW above operating reserve requirements</li> </ul>
<b>Forecast Energy Emergency Alert Level 1 (FEEA1)</b> <ul style="list-style-type: none"> <li>Resources during any hour are forecasted to be less than operating reserve requirements and implementation of OP-4 Actions 1 – 5 is being forecasted (deficiency in 30-minute operating reserves)</li> </ul>	<b>Energy Emergency Alert Level 1 (EEA1)</b> <ul style="list-style-type: none"> <li>OP-4 Action 2 implementation</li> </ul>
<b>Forecast Energy Emergency Alert Level 2 (FEEA2)</b> <ul style="list-style-type: none"> <li>Resources during any hour are forecasted to be less than operating reserve requirements and implementation of OP-4 Actions 6 – 11 is being forecasted (deficiency in 10-minute operating reserves)</li> </ul>	<b>Energy Emergency Alert Level 2 (EEA2)</b> <ul style="list-style-type: none"> <li>OP-4 Actions 6, 8, 10, or 11 implementation</li> </ul>
<b>Forecast Energy Emergency Alert Level 3 (FEEA3)</b> <ul style="list-style-type: none"> <li>Resources during any hour are forecasted to be insufficient to serve firm load and implementation of controlled power outages under OP-7 is being forecasted</li> </ul>	<b>Energy Emergency Alert Level 3 (EEA3)</b> <ul style="list-style-type: none"> <li>OP-7 implementation</li> </ul>



# Energy Alert Declarations and Actions

- An **Energy Alert** is declared when:
  - FEEA2 or 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**, or
  - Any other reason for which the ISO Chief Operating Officer, or designee, determines that the actions described below may mitigate the impact of an actual or forecasted energy deficiency
- Once an **Energy Alert** has been declared, the ISO must take the following actions:
  - Alert each Local Control Center (LCC) and surrounding Reliability Coordinator/Balancing Authority of the Energy Alert
  - Alert all market participants of the Energy Alert by posting to the ISO website
  - Alert New England state regulators and officials of the Energy Alert
  - Initiate daily data collection using OP-21 survey forms, and daily Energy Emergency forecasting and reporting

# Energy Alert Declarations and Actions, *continued*

- Once an **Energy Alert** has been declared:
  - Each lead market participant must evaluate actual and anticipated fuel supplies and environmental limitations and should consider taking action as necessary to replenish fuel supplies and/or mitigate environmental limitations
  - Each lead market participant and Local Control Center must evaluate scheduled maintenance or repair to transmission facilities or resources in the region that reduces the capability of a facility or resource to supply energy to the region and should consider taking action, if possible, to maximize availability of those facilities or resources



# Energy Emergency Declarations

- An **Energy Emergency** is declared when:
  - FEEA2 or 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**, or
  - Shedding of firm load under OP-7 is occurring or is anticipated to occur due to an actual energy deficiency resulting from a sustained shortage of fuel availability or deliverability to, or sustained environmental limitations on, some or several of New England's resources, or
  - Any other reason for which the ISO Chief Operating Officer, or designee, determines that the actions described below may mitigate the impact of an actual or forecasted energy deficiency

# Energy Emergency Actions

- Once an **Energy Emergency** has been declared, the ISO must take the following actions:
  1. Alert each Local Control Center (LCC) and surrounding Reliability Coordinator/Balancing Authority of the Energy Emergency
  2. Alert all market participants of the Energy Emergency by posting to the ISO website
  3. Alert New England state regulators and officials of the Energy Emergency
  4. Report the Energy Emergency to the U.S. Department of Energy
  5. Initiate daily data collection using OP-21 survey forms, and daily Energy Emergency forecasting and reporting
  6. Request that each dual-fuel generator scheduled to operate voluntarily switch to operation on the fuel source that is not in short supply
  7. Implement specific capacity and load relief measures available through actions of OP-4, **excluding** requesting the New England State Governors to reinforce appeals for voluntary load curtailment (Action 11)



# Energy Emergency Actions, *continued*

- If the seven actions described on the previous slide do not result in the necessary relief from the Energy Emergency, or if there is insufficient time for those measures to provide relief, the following actions may be taken:
  8. Implement Action 11 of OP-4: Request the New England state governors to reinforce appeals for voluntary electrical load curtailment through Power Warning implementation
  9. Under extreme conditions, the ISO must seek reliability relief through controlled power outages available through implementation of OP-7





# Forecasting and Reporting

- During Normal Conditions, ISO New England performs Energy Emergency forecasting and reporting:
  - **Weekly** (December through March)
  - **Bi-weekly** (April through November)
- During Energy Alert or Energy Emergency conditions, the ISO performs Energy Emergency forecasting and reporting on a **daily** basis, until such time as the conditions no longer exist
- Reports are posted to the **ISO website** and include:
  - A summary, by operating day, detailing whether conditions are expected to be Normal, Forecast M/LCC-2, Forecast Energy Emergency Alert 1, Forecast Energy Emergency Alert 2, or Forecast Energy Emergency Alert 3
  - A determination of whether the threshold for declaring an Energy Alert or Energy Emergency has been met
  - To the extent possible, the reasons why the threshold was met

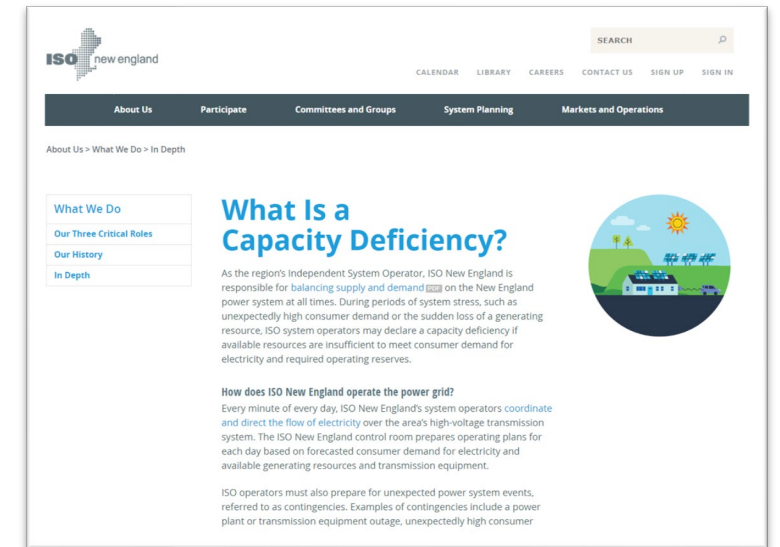


# Other Information Resources

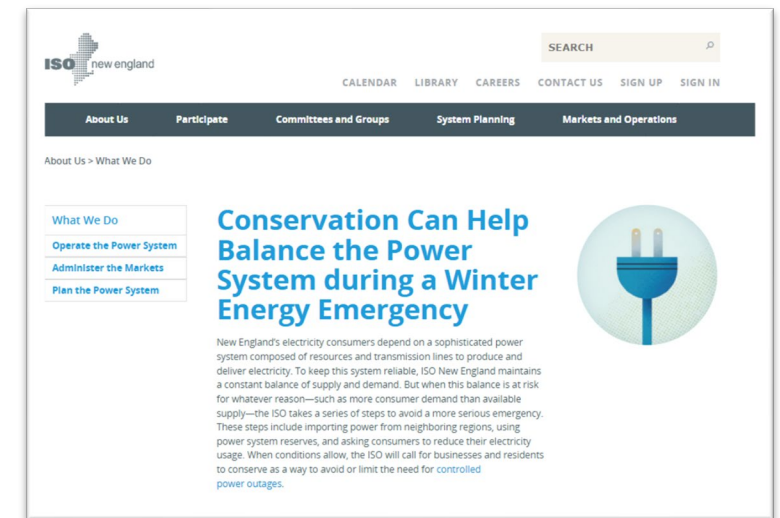


# Related Web Content

- Web pages to assist in the event emergency communications are needed:
  - ["What Is a Capacity Deficiency?"](https://www.iso-ne.com/about/what-we-do/capacity-deficiency)
    - A high-level explainer of a capacity deficiencies and the steps ISO New England will take to manage them
  - ["Conservation Can Help Balance the Power System during a Winter Energy Emergency"](https://www.iso-ne.com/about/what-we-do/winter-conservation)
    - An overview of the role of conservation in a capacity deficiency, including tips for consumers to reduce their energy use



<https://www.iso-ne.com/about/what-we-do/capacity-deficiency>



<https://www.iso-ne.com/about/what-we-do/winter-conservation>




*Visit the System Monitor on ISO Express*



# Options to Subscribe to ISO New England Email Lists

*Subscribe to receive All Notices, Emergency Operating System Notices, and others*

Subscribe here: <http://www.iso-ne.com/participate/support/mailing-lists>



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Mailing Lists

Web Feeds

Web Conferencing Support

User Guides

Glossary and Acronyms

Web Browser Support

Web Services Data

Library of Participant Support Forms

Upload and Download File Format Protocols

FAQs

Website Help

RELATED LINKS

Contact Participant Support

ISO New England offers several subscription-based email lists to notify market participants and other stakeholders of ISO and industry developments. Subscriptions to these notifications are organized through the [Ask ISO system](#) (with a couple of noted exceptions).

Please read the Ask ISO knowledge article, [How to Manage Your Mailing Lists](#), for instructions and related subscribe/unsubscribe links.

If you are a market participant that is looking to receive company specific notices and communications (i.e., Billing or Financial Assurance Contact), please reach out to your company's Security Administrator who will be able to alter related Contact Types.

Descriptions of the mailing lists and helpful resources are provided below.

### General ISO and Industry Information

**ISO Newswire** (subscribe via email)  
Recent articles from the ISO's news blog, [ISO Newswire](#)

**ISO Training** (subscribe via email)  
Announcements of training courses offered by the ISO

### Participant Readiness

Notification of updates to the [Participant Readiness Project Outlook](#) webpage or the near-term project pages listed therein, which discuss major upcoming ISO projects

### Notices

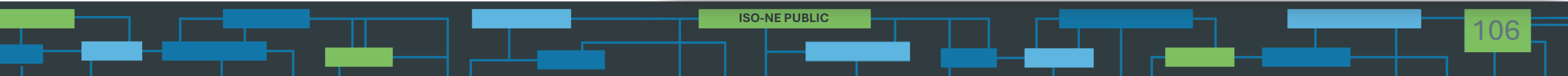
Subscribe to **All Notices** to receive all of the below notifications. Or, select only the specific mailing lists you'd like.

### Participant Issues

Notices of miscellaneous reports, changes in policy issues, and other general matters related to our customers

### Emergency Operating System Notices

Alerts on abnormal operating system conditions, including:



# New Web Resource: Plain-Language Power System Status Explanations

[Current Power System Status >  
Power System Updates Explained](#)

The screenshot displays the ISO New England website. At the top left is the ISO New England logo. To the right is a search bar with the word 'SEARCH' and a magnifying glass icon. Below these are navigation links: CALENDAR, LIBRARY, CAREERS, CONTACT US, SIGN UP, and SIGN IN. A dark blue horizontal bar contains the main navigation menu: About Us, Participate, Committees and Groups, System Planning, and Markets and Operations. Below this bar, a breadcrumb trail reads: Markets and Operations > Power System Forecast and Status > Current Power System Status. The main heading is 'Power System Updates Explained'. On the left side, there is a sidebar titled 'IN THIS SECTION' with a list of links: Current Power System Status, Power System Status Descriptions, Power System Updates Explained (highlighted), Power System Status Archive, and OP 4 Implementation Summaries. The main content area on the right contains an introductory paragraph about the power grid and a list of five alert types, each with a brief description and a right-pointing arrow icon: Abnormal Conditions Alert, Cold Weather Alerts, Forecasted Energy Alert and Emergency, Reserve Shortage, and System Imbalance.

ISO new england

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About Us Participate Committees and Groups System Planning Markets and Operations

Markets and Operations > Power System Forecast and Status > Current Power System Status

## Power System Updates Explained

**IN THIS SECTION**

- Current Power System Status
- Power System Status Descriptions
- Power System Updates Explained**
- Power System Status Archive
- OP 4 Implementation Summaries

ISO New England operates the region's power grid through all types of conditions every minute of every day. Certain conditions, like extreme weather or higher-than-normal consumer demand, can lead to a system status other than "normal." Learn more about what our highly trained teams are doing, and what the public may be able to do, during the different system statuses below.

- Abnormal Conditions Alert**  
A precautionary notification that provides information for those directly involved with the bulk electric power system.
- Cold Weather Alerts**  
We may issue these alerts if our Seven-Day Capacity Forecast indicates that upcoming extreme cold weather may affect our ability to reliably operate the region's power system.
- Forecasted Energy Alert and Emergency**  
Issued when our 21-Day Energy Assessment Forecast and Report indicates a capacity deficiency or controlled outages are likely within the next 21 days.
- Reserve Shortage**  
Reserves may be dispatched anytime a resource goes off line unexpectedly, or when consumer demand is higher than expected. If there are no other resources available to take over as reserves, the region may experience a reserve shortage.
- System Imbalance**  
These alerts are issued when there is an expected or actual mismatch between supply and demand.

# Abnormal Conditions Alert

*Master/Local Control Center Procedure No. 2 (M/LCC 2)*



## What We're Doing

Alerting power system personnel and wholesale electricity market participants of potential system operating issues and asking them to suspend any testing or maintenance on their resources that could affect grid reliability.



## What the Public Can Do

No action required.

[Power System Updates Explained > Abnormal Conditions Alert](#)



# Cold Weather Alerts



## What We're Doing

Notifying power generators and other organizations with direct connections to the New England electrical grid and coordinating closely with operators of natural gas pipelines and natural-gas-fired resources, local control centers, and neighboring regional transmission organizations.



## What the Public Can Do

No immediate action required **unless** the ISO has made an appeal for voluntary conservation of electricity use.

[Power System Updates Explained > Cold Weather Alerts](#)



# Forecasted Energy Alert and Emergency



## What We're Doing

Taking actions as necessary to mitigate forecasted energy shortfalls:

- Enhanced reporting and communication about system conditions
- Daily fuel inventory surveys and energy assessments
- Requesting generators use fuel that is not in short supply
- Appeals for voluntary conservation, including public appeals from the region's governors



## What the Public Can Do

No immediate action required **unless** the ISO has made an appeal for voluntary conservation of electricity use.

[Power System Updates Explained > Forecasted Energy Alert and Emergency](#)

# Reserve Shortage/ Capacity Deficiency



## What We're Doing

System operators are alerting power system personnel and market participants about the system conditions. ISO operators are taking additional actions, including using reserve resources, to maintain system reliability.



## What the Public Can Do

No immediate action required **unless** the ISO has made an appeal for voluntary conservation of electricity use.

[Power System Updates Explained > Reserve Shortage](#)



# System Imbalance



## What We're Doing

Notifying power generators and other organizations with direct connections to the New England electrical grid to take actions to reduce output, imports, or otherwise balance the system.



## What the Public Can Do

No action required.

[Power System Updates Explained > System Imbalance](#)





# For More Information



## Subscribe to *ISO Newswire*

[ISO Newswire](#) is your source for regular news about ISO New England and the wholesale electricity industry within the six-state region



## Log on to ISO Express

[ISO Express](#) provides real-time data on New England's wholesale electricity markets and power system operations



## Follow the ISO on Social Media

[www.iso-ne.com/social](http://www.iso-ne.com/social)

## Download the ISO to Go App

[ISO to Go](#) is a free mobile application that puts real-time wholesale electricity pricing and power grid information in the palm of your hand

