PRESS RELEASE

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New England's Power Grid Prepared for Winter

Adequate electric supplies expected under mild, moderate weather; ISO New England has plans, tools in place for extreme weather conditions

Holyoke, MA—December 5, 2022—New England should have adequate electricity supplies under mild and moderate weather conditions this winter, according to ISO New England, operator of the region's electric grid. Prolonged periods of very cold weather continue to pose power system reliability risks, but ISO New England will use procedures and plans, including a rolling three-week energy supply forecast, with the goal of mitigating these conditions should they materialize.

"Based on seasonal weather forecasts and information provided by generators about their fuel arrangements, the region's power system is prepared for mild and moderate weather conditions," said Gordon van Welie, ISO New England's president and CEO. "If long periods of severely cold weather develop, we'll lean on our forecasting tools to identify potential problems early enough to take proactive measures, such as calling for increased fuel deliveries or asking for public conservation."

The ISO does not anticipate calling for controlled power outages this winter, and would resort to this drastic step only to prevent a collapse of the power system that would take days or weeks to repair. In the event controlled power outages are needed, the ISO would coordinate this action with local utilities, which would then take the necessary actions to lower electricity demand in their areas.

Pre-season training, weather forecasts inform system preparation

Each year, planning for the winter season begins months in advance. ISO New England works with generators to understand their fuel procurement plans, while offering a pre-winter training to discuss market and operational changes.

The ISO also consults seasonal weather forecasts. The National Oceanic and Atmospheric Administration (NOAA) is projecting above-average temperatures in New England this winter, though a warmer-than-average season does not eliminate the threat of prolonged stretches of cold weather. Climate change is making weather more volatile and harder to predict, while stimulating more severe weather.

ISO New England also holds pre-winter briefings with the region's utilities and government officials to discuss our expectations for the season and test emergency communication procedures. This year, the ISO hosted a tabletop exercise with these groups to dive deeper into how the region would respond under extreme conditions.

"Preparing for any season requires coordination," van Welie said. "By working together in advance, the ISO, the utilities, the energy industry, and government officials can ensure we're all on the same page should challenging conditions materialize."

A rolling 21-day forecast provides visibility, early warning

ISO New England uses sophisticated forecasts to identify potential energy shortfalls while there is time to prevent them or lessen their impact. The ISO routinely monitors weather forecasts and energy supplies, including the availability of pipeline natural gas and expected production from wind and behind-the-meter solar resources. In addition to closely monitoring inventories at regional liquefied natural gas (LNG) storage facilities, the ISO surveys oil-, coal-, and natural-gas-fired generators to monitor inventories and increase awareness of potential emissions or environmental limitations. The ISO combines this information with a 21-day forecast of consumer demand to assess regional energy supplies. Results of this assessment are published weekly to the ISO website.

By identifying and publicizing possible fuel supply shortfalls weeks in advance, the ISO wants to signal to the region's wholesale energy market participants the need to contract for additional fuel deliveries. The early warning also allows time for coordination among the ISO, the region's utilities, and government officials, especially if public conservation is needed.

Conservation requests are a tool among emergency procedures

ISO New England's system operators have many tools at their disposal if emergency conditions develop. These procedures include importing emergency power from neighboring regions, calling on power system reserves, and asking businesses and residents to voluntarily conserve energy. Only in the most severe events, if conservation and other measures were insufficient to balance energy supply and consumer demand, would the ISO call for controlled power outages.

The value of public conservation has been on display recently in other regions facing power system stress, including in September when a brutal heat wave sent electricity demand to record highs in California. ISO New England's emergency procedures prominently feature public appeals for conservation, though specific requests would likely be different from those used to reduce demand only during the peak afternoon and evening hours.

ISO New England anticipates that generators using stored fuels, such as oil and LNG, would operate around the clock during prolonged periods of extremely cold weather. Conservation requests during these periods would be made to extend these fuel supplies until either the weather warms or additional deliveries make it to the region. Rather than moving consumer demand into different parts of the day, the public may be asked to limit their energy use during all hours, perhaps for several days.

Projected winter electricity needs up slightly from last year

ISO New England anticipates demand for electricity will peak at 20,009 megawatts (MW) during average winter weather conditions of 10°F, and 20,695 MW if temperatures reach below-average conditions of 5°F. These projections are both about 2 percent higher than last year's forecasts. New England's all-time winter peak record was set during a January 2004 cold snap when electricity usage reached 22,818 MW.

Winter wholesale prices in New England follow global trends

Higher and volatile fuel costs typically lead to higher and volatile wholesale electricity prices, which, in turn, influence the retail supply rates paid by consumers. Increased global demand for LNG in response to war in Ukraine has created more volatility this winter, leading to higher prices. The impact of these higher wholesale prices on residential electricity supply rates can vary based on a utility's service territory, procurement practices, and state rules.

2022-2023 winter outlook by the numbers

- Winter peak forecast: 20,009 MW under normal weather conditions; 20,695 MW under below-average conditions
- Last winter's demand peaked at 19,756 MW on January 11, 2022, when temperatures averaged 10°F
- The all-time winter peak demand is 22,818 MW, set on January 15, 2004, during a cold snap
- Resources with a Forward Capacity Market (FCM) capacity supply obligation to be available: 30,145 MW
- Total resources, including both FCM obligations and capability without FCM obligations: 34,103 MW (a generator's maximum possible output may be greater than its FCM obligation)
- Natural-gas-fired generating capacity at risk of not being able to get fuel when needed: more than 4,100 MW
- All-time peak demand: 28,130 MW, on August 2, 2006

For more information, visit www.iso-ne.com/winter.