ISO New England Highlights Winter Readiness

Holyoke, MA—December 3, 2024—ISO New England, the region's electric grid operator, anticipates having sufficient resources to meet consumer demand for electricity this winter.

Weather is the largest driver of energy use, and the ISO conducts seasonal weather forecasts to estimate the impact weather may have on the grid. This winter, the National Oceanic and Atmospheric Administration (NOAA) is projecting slightly above average temperatures in New England, with normal precipitation.



Step into ISO New England's control room and discover the preparations for winter power system operations in this ISO Minute video.

Forecasting ahead of winter

New England's power system uses a collection of resources to meet the electric demand of the region's homes and businesses. These resources include generators that produce electricity using fuels such as natural gas, nuclear, oil, hydro, biomass, wind, and solar energy; demand-response resources that reduce energy use when dispatched; and power imported into New England from New York and Canada.

Heading into each winter, ISO New England calculates available capacity by assessing the expected contributions from all generation resources, imports available from neighboring regions, and resource additions and retirements, while accounting for potential unplanned resource outages.

ISO planners compare this available capacity to anticipated consumer demand under both normal weather conditions and periods of colder than normal temperatures in order to determine if the region has the capacity needed to meet consumer demand and maintain required operating reserves.

The ISO also looks to determine whether these resources would be available to provide energy under extreme weather scenarios (i.e. does a generator have the fuel it needs to run). This year, the ISO conducted this analysis through the use of a new, sophisticated tool that allows for the modeling of thousands of scenarios at once, assessing the probability and impact of each.

The results of the ISO's capacity analyses and energy assessments show the region is well-positioned heading into the 2024-2025 winter.

Forecasting during winter

Since 2018, ISO New England has utilized <u>a rolling three-week energy supply forecast</u>, incorporating a variety of factors to provide an early warning to the region of possible energy supply constraints. The forecast incorporates various factors like weather, availability of pipeline natural gas, and expected production from renewable resources.



The 21-day forecast provides an early warning sign of potential energy shortages, such as inadequate fuel supplies, that could impact reliable grid operations. The rolling forecast gives resource owners the opportunity to take stock of their resources' fuel supplies, reschedule maintenance, or arrange for additional fuel deliveries.

The 21-day forecasts are <u>published weekly</u>. For additional information, watch <u>this video</u>.

Operating the grid and maintaining reliability

While short- and long-term forecasts help the region prepare, unexpected situations may arise, and ISO New England's system operators are well-prepared when these events happen.

ISO system operators undergo rigorous training to ensure the reliability of the grid in New England. They participate in 200 hours of continuing education every three years to maintain their certification. This training includes hands-on simulations, which prepare them for handling various scenarios during all types of weather conditions, including times of heavy consumer demand during the winter months.

System operators have a number of tools at their disposal in the event of unexpected real-time issues, such as generation or transmission outages. These tools include requesting maintenance be deferred, increasing imported energy, or calling on reserve resources.

Depending on the severity of the issues, the expected duration of the event, and the level of risk to the power system, system operators can use additional tools such as requesting public conservation or implementing controlled power outages. ISO New England does not anticipate public conservation or controlled outages to be needed this winter.

2024-2025 winter outlook by the numbers

- Winter peak forecast: 20,308 MW under normal weather conditions; 21,089 MW under below-average temperatures.
- Total resources available: 30,030 MW
- Last winter's demand peaked at 18,299 MW on January 17, 2024, when temperatures averaged 20°F.
- The all-time winter peak demand is 22,818 MW, set on January 15, 2004, during a cold snap.
- All-time peak demand: 28,130 MW, on August 2, 2006.

Click here for more information.

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Created in 1997, ISO New England Inc. is the independent, not-for-profit corporation responsible for the reliable operation of New England's electric power generation and transmission system, overseeing and ensuring the fair administration of the region's wholesale electricity markets, and managing comprehensive regional electric power planning.









