



## WINTER RELIABILITY

JANUARY 2023

Rhode Island has been actively preparing for the possibility of electricity shortages for the 2022-23 winter season.<sup>1</sup> The risk is heightened by the effects of extreme-cold temperatures over an extended period, which is expected to result in heavy demand for power across the New England region and thereby deplete natural gas supplies available through pipelines and liquefied natural gas (LNG) facilities. Currently, natural gas-fired power plants produce more than 50% of the electricity consumed by residents and businesses in Rhode Island and across the five other New England states. Gas pipelines that serve New England operate at maximum capacity during the winter months. Pipeline gas first supplies home heating customers and often there is not enough pipeline gas to supply electric power plants during the winter. These facilities depend on imports of LNG or alternatively resort to burning oil, if the specific power plant maintains dual fuel capability.<sup>2</sup>

National, regional and international economic conditions associated with the Ukraine crisis are driving higher prices for natural gas, particularly with respect to LNG, which remains in high demand across Europe in response to Russia's decision to terminate pipeline deliveries of gas to European nations. For New England, LNG is a vital energy source to fill the gap in natural gas pipeline supplies during cold weather events, and the higher prices for both domestic natural gas and LNG are driving this winter's spike in electric bills.

While Rhode Island and other states are investing heavily in clean energy resources such as wind and solar, those resources operate intermittently (when the sun shines and the wind blows) and thus cannot always be relied upon to generate electricity when energy demand is highest. Rhode Island and neighboring states are investing in large-scale clean energy resources that will reduce dependency on natural gas, LNG and oil. However, many of these projects will not be completed for years.<sup>3</sup>

For this winter season, natural gas supplies are expected to be adequate for customers who heat with gas; however, those customers would still be affected by the potential need to reduce electric demand in the event ISO New England, the region's electric grid operator, issues an urgent appeal for conservation during a sustained period of extremely cold weather. In the worst possible scenario, ISO New England could issue a directive to local utilities across the region to shed a specified percentage of electric load on a geographical basis in locations where the risk posed by a disruption in electric service is deemed to be

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<sup>1</sup> ISO-New England, the Federal Energy Regulatory Commission, and the North American Electric Reliability Corporation have each warned that an extended cold weather event in New England could result in an energy shortfall. See [https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\\_WRA\\_2022.pdf](https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_WRA_2022.pdf).

<sup>2</sup> Recently, New England experienced an unexpected capacity shortage on December 23, 2022, when the region experienced colder than normal weather at the same time when a number of generation resources were unavailable. During a two-week period that encompassed the holidays, dual-fuel generators burned an estimated 31.5 million gallons of oil.

<sup>3</sup> Revolution Wind received approval from state regulators to construct a 400 MW offshore wind project off the coast of Rhode Island. Additionally, Rhode Island Energy released a competitive solicitation for offshore wind projects ranging between 600 and 1,000 MW. Bidder responses will be evaluated in early 2023.

lower, such as areas without hospitals, public safety or critical facilities. Load shedding would be achieved by rotating controlled power outages across Rhode Island Energy's electric distribution system for brief periods until power supplies are adequate to meet electric demand.

The Division of Public Utilities and Carriers continues to plan and work cooperatively with ISO New England, state emergency management officials and regulated utilities in Rhode Island to remain prepared for the possibility of weather-induced reliability challenges this winter season. For more information, please contact Tom Kogut, Chief Information Officer, at (401) 780-2105.