

## Energy Insights -- Spring Update

### Briefing on New England Energy Issues and Trends

#### **After a winter of concern and projections of future shortages, ISO New England predicts adequate electricity supplies for summer**

Earlier in the year, ISO New England, the operator of the region's bulk power supply and wholesale electricity markets, was warning of fuel shortages, higher air emissions and higher costs in a report indicating that by the winter of 2024/2025 the region could see rolling blackouts (Operational Fuel-Security Analysis, January 17, 2018).

With warm weather ahead, the picture is very different. According to the ISO, New England is expected to have sufficient resources to meet peak demand for electricity this summer under normal weather conditions.

More than 32,000 MW of capacity will be available to meet the forecasted peak demand of 25,729 MW from electricity generating facilities, demand response resources and power imported into the region from New York and Canada. In addition, over 1,600 MW of new generating capacity is expected to be online this summer from two new natural-gas fired power plants, one new dual-fuel plant, five new grid-scale solar facilities, and two new wind farms.

Last summer, demand for electricity peaked at 23,968 - much lower than the all-time record for peak demand which was set in August 2006, when demand reached 28,130 MW after a prolonged heat wave. More recently, the Northeast has experienced a multi-year trend of declining summer forecast demand due to energy efficiency and conservation initiatives along with continued increase of "behind-the-meter" photovoltaic resources.

In the event tight supply margins develop from prolonged hot and humid weather, ISO New England has well-established operating procedures in place to maintain reliability including importing emergency power from neighboring regions, calling on reserves and asking businesses and households to voluntarily conserve electricity.

Source: "Adequate Power Supplies Expected to Be Available This Summer," ISO New England Media Release, May 1, 2018.

#### **ISO New England seeks to keep Mystic natural gas units from retirement to maintain fuel supplies**

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ISO NE seeks to keep Mystic natural gas units from retirement to maintain fuel supplies

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CT passes energy bill on 2018 energy strategy

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#### **Did you know:**

On April 21, 2018 for the first time, New Englanders used less grid electricity midday than at night.

The combination of sunshine and mild weather led to light consumer demand coupled with record-high output from more than 130,000 solar power installations in the region - resulting in midday demand that was below overnight demand for the first time ever in New England. This shows the large impact household solar photovoltaic systems

ISO New England's Operational Fuel-Security Analysis issued in January was followed by a surprise request in early May to the Federal Energy Regulatory Commission (FERC) for a waiver from its market rules to keep two natural gas fired units (units 8 and 9) of the Mystic Generating Station owned by Exelon from retirement, slated for 2022. ISO said closure of the units and an adjacent LNG facility would increase the risk of blackouts in coming winters due to a reduction in natural gas fuel supplies to the region.

ISO New England said retiring the 1,700 MW units would likely result in the closure of the Everett Maine Terminal, an adjacent liquefied natural gas (LNG) import facility, that is essential for fuel security. The LNG terminal is the sole source of fuel for the Mystic units and can also contribute 435 million cubic feet of gas per day to the region's pipelines and gas utilities.

Since ISO New England no longer enacts "reliability must run" designations, it must now ask FERC for approval to place a unit under cost recovery outside of its market tariffs which means ratepayers will pay to keep the units online.

This is the first time in the history of U.S. wholesale markets that a grid operator has requested cost recovery for fuel security purposes rather than for maintaining reliability due to closure of a specific generating unit. Critics say it could set a precedent for other large uneconomic plants to receive cost recovery based on fuel supply issues - and goes beyond ISO's authority. Instead, ISO New England should find a market-based solution to value fuel security.

Other critics say ISO's fuel security analysis, which its request is based on, is too conservative. A group of stakeholders commissioned Synapse Energy Economics to assess alternative scenarios. While ISO's analysis estimates rolling blackouts in 19 of 23 scenarios, the Synapse report identifies only one scenario in which there is insufficient generation to meet demand.

It is uncertain when FERC will rule on the request. In the meantime, it will add to the ongoing debate over fuel security and the reliability of the region's electricity markets.

Sources: "ISO-NE seeks to keep 1,600 MW of gas generation from retirement," Utility Dive, April 4, 2018; "ISO-NE cost recovery proposal opens new front in fuel security debate," Utility Dive, May 4, 2018; "Generators slam ISO-NE cost recovery proposal for Exelon," Utility Dive, May 24, 2018.

### **MA and RI Contract for 1,200 MW of Offshore Wind**

New England is moving into the forefront of offshore wind energy development with two recent decisions.

Massachusetts and Rhode Island have awarded 1,200 MW of contracts to build off-shore wind farms off of Martha's Vineyard. In Massachusetts, an 800 MW project by

are having on reducing the region's electricity demand.

Source: ISO New England, Inc.

Vineyard Wind was selected by the state's electric utilities as part of the offshore wind energy procurement authorized by An Act Relative to Energy Diversity signed by Governor Baker in 2016. The Act requires the state's utilities to acquire 1,600 MW of offshore wind capacity over the next decade. The Vineyard Wind project will represent the largest single procurement of offshore wind by any state in the nation and will supply up to 6% of Massachusetts' total annual electricity load. Construction on the wind farm to be located 15 miles off the coast is set to begin in 2019 and is expected to be operational by 2021.

Rhode Island officials selected Providence based Deepwater Wind to build a 400 MW wind farm northwest of the Vineyard Wind project. Deepwater Wind operates an existing 30MW wind farm off Block Island. The new project, Revolution Wind, will be 13 times larger than the Block Island project with up to 50 turbines and is expected to be operational by 2023. The project will help meet Rhode Island's goal to increase the state's clean energy resource portfolio to 1,000 MW by 2020.

Both projects will rely on European wind technology that has reduced the price of offshore wind development.

Source: "Massachusetts, Rhode Island Sign Offshore Wind Deals," Kallanish Energy, Daily News & Analysis, May 25, 2018; Massachusetts & Rhode Island Contract for 1200 MW of off-shore wind, Greentech Media, May 23, 2018.

### **CT Passes Energy Bill on 2018 Comprehensive Energy Strategy**

On May 9, Connecticut lawmakers passed a wide-ranging energy policy bill that ramps up the state's clean energy initiatives. It implements the state's Comprehensive Energy Strategy with a strong focus on renewables. Among other initiatives, the energy bill increases the state's Renewable Portfolio Standard (RPS) to 40% by 2030. The prior mandate required 20% of the state's electricity to be generated by renewables by 2020.

The bill also changes the state's solar net metering program and replaces it with a "buy-all-sell-all" incentive in which a solar household sells electricity back to the grid at a tariff to be set by the state's Public Utilities Regulatory Authority (lower than the retail rate currently offered). Solar panel owners will also have to buy back-up electricity from the grid at retail rates, making solar more expensive which, many say, will harm the state's rooftop solar market. Existing households that have solar panels, however, would be grandfathered for about 20 years.

The bill also allows for a full shared-solar program for those who cannot put solar on their own roofs or property but can still share in solar benefits. In addition, the legislation reconfigures funding for energy efficiency programs and expands opportunities for municipalities, state agencies and agricultural customers to deploy renewables under an auction structure. The energy legislation, considered the most consequential since

2011, required significant compromise from energy and environmental groups that vowed to build the state's clean energy future going forward.

Source: "After near derailment, energy bill heads to governor as fence-mending begins", The CT Mirror, May 9, 2018.

### **New England publishes 10-year forecast of capacity, energy loads and transmission**

The latest ISO New England 10-year electricity outlook of capacity, energy, loads and transmission shows that energy usage and peak electricity demand will decline slightly in New England over the next decade. The assessment incorporates energy efficiency and behind-the-meter photovoltaic forecasts. Key findings include:

- Overall electricity use is expected to decline by 0.9% annually over the 10-year period
- Peak demand under normal summer weather conditions is expected to fall slightly by 0.4% over the period
- Winter peak demand under normal weather conditions is expected to decline an average of about 0.7% annually.

The forecast could change, however, if a more aggressive approach to electrification of transportation and building systems occurs in the region in response to climate concerns.

A look at actual 2017 data shows that electricity usage dropped 2.5% last year. The demand peak of 23,968 MW occurred on June 13, 2017. Without energy efficiency measures installed in New England as well as reductions by demand-response resources and behind the meter solar resources, the peak would have been about 27,000 MW. A summer peak in June is unusual as the summer peak more typically occurs in July or August but those months were relatively mild last year. According to ISO New England, had the heat and humidity occurred in July or August, the actual peak demand would have been about 2,000 MW higher.

Source: 2018 Forecast of Capacity, Energy, Loads, and Transmission, ISO New England, May 8, 2018.

### **NH Court Rules that Electricity Ratepayers Can Help Finance New Natural Gas Pipelines**

Massachusetts and New Hampshire are heading in different directions on potential funding of natural gas pipeline expansions. On May 22, the New Hampshire Supreme Court ruled that electric utilities in New Hampshire can use ratepayer funds to finance new natural gas pipelines through long-term natural gas contracts - a funding mechanism promoted by the Baker Administration until the Massachusetts Supreme court ruled against it. The Massachusetts court ruled that the state's Department of Public Utilities must regulate gas and electric industries separately and that the purchase of long-term natural gas contracts by electric utilities would make them participants in the electricity generation business - which they were

barred from doing so under the 1997 electricity industry restructuring law.

As a result, utilities in Massachusetts are not allowed to help finance a new pipeline into the region using ratepayer funds to alleviate constraints during periods of intense cold weather when demand for natural gas for heat and electricity exceeds supply. This past winter, for example, extreme low temperatures over a 15-day period resulted in natural gas supply constraints which caused some electricity generators to switch from natural gas to oil and coal. The New Hampshire ruling is unlikely to result in a new pipeline without support from Massachusetts ratepayers - the largest consumers of electricity in the region.

Source: "NH Court Ok's Novel Pipeline Financing Approach," *Commonwealth Magazine*, May 22, 2018.

### **About the New England Energy Alliance, Inc.**

The New England Energy Alliance is a coalition of energy companies advocating to ensure the availability, reliability and affordability of future energy supplies which are vital to the region's economic growth and prosperity. Formed in 2005, the Alliance works to balance public debate about solutions to New England's energy infrastructure by providing information on the region's energy needs and the resources, technologies and policies needed to meet those needs.

**Please visit [www.newenglandenergyalliance.org](http://www.newenglandenergyalliance.org) for more information on the Alliance. Follow on twitter @NEEAlliance**

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