NEW ENGLAND ENERGY ALLIANCE

Energy Insights -- Fall Update

Briefing on New England Energy Issues and Trends

Just Released: MA Comprehensive Energy Plan
The Baker Administration released the first-ever Comprehensive Energy Plan which analyzes Massachusetts' energy supply and demand and outlines priorities and strategies for achieving a clean, affordable and resilient energy future. The plan was developed by the Department of Energy Resources with modelling support from Synapse Energy Economics. The plan looked at multiple scenarios for potential amounts of clean energy and energy efficiency between now and 2030 to evaluate the impact on cost, emissions and reliability. The analysis found that thermal and transportation sector energy efficiency policies as well as a clean electric grid are needed to reduce emissions, lower costs and ensure regional reliability.

Source: Massachusetts Comprehensive Energy Plan, MA DOER, December 12, 2018.

Adequate electricity supplies expected for winter amid potential challenges
ISO New England, the operator of the region's bulk power electricity supply system, expects the region to have adequate electricity resources to meet electricity demand this winter.

However, similar to last year's two-week cold snap that occurred over the holidays, system operations could become challenging under certain circumstances if: electricity demand is higher than projected; the region loses a large generator; electricity imports are affected; or during periods of fuel delivery constraints. In those instances, ISO New England could be required to implement emergency operating procedures to maintain reliability.

To enhance reliability this winter, ISO New England is implementing two new initiatives to better prepare for extreme weather conditions based on lessons learned from last year's cold snap. During that cold spell, due to supply constraints, much of the natural gas that is used to generate electricity was diverted to home heating. Many electricity generators were forced to burn oil or coal to generate electricity and fuel supplies began running dangerously low.

This year, to alleviate those concerns, ISO will publish a 21-day ahead forecast of the region's available inventories of oil, coal and natural gas at power plants as well as

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Did you know:
During extremely cold weather, natural gas pipeline constraints limit the availability of fuel for power plants. Weather can also affect oil and LNG deliveries to the region. A two-week holiday cold snap last winter:

identify situations that could limit their availability, such as emissions restrictions.

In addition, ISO New England, which also administers the region's wholesale electricity market, will implement a market mechanism in which electricity generators will be allowed to incorporate opportunity costs into their daily resource prices to help ensure that fuel supplies are preserved for when they are needed the most.

These near-term initiatives are in addition to others ISO New England has made since 2004, when a cold snap revealed serious fuel security risks that jeopardized electricity system reliability that year. For the longer-term, ISO is continuing to work with stakeholders to design a competitive market solution to address the region's winter energy security risks, which is due to be filed with the Federal Energy Regulatory Commission (FERC) by July 1, 2019.

Sources: ISO-NE is implementing near-term changes in both operations and markets to help address the risk of winter energy shortages, ISO Newswire November 2, 2018; 2018/2019 Winter Outlook: New England Expected to Have Adequate Resources, November 28, 2018.

Millstone participates in CT zero emissions auction

For the first time, the Millstone Nuclear Power Station was allowed to cast a bid for a long-term Connecticut utility contract - a process typically reserved for renewable energy sources. Last year, legislators passed a law to change the auction to a "zero-emissions" procurement process which is overseen by the CT Department of Energy and Environmental Protection (DEEP).

This enables Millstone, which generates no carbon emissions, to compete against solar, wind and other renewable resources for economically favorable utility contracts. This would help the plant financially as it is difficult to compete economically with electricity generated by cheaper natural gas. Similar to other nuclear plants across the country, Millstone is facing financial pressures due to competition from cheaper natural gas plants, with several nuclear plants in the U.S. shutting down or receiving state financial assistance to remain operating. In fact, a new report by the Union of Concerned Scientists finds that more than a third of the country's nuclear plants are either unprofitable or scheduled to retire.

Connecticut state regulators have agreed that Millstone is "at risk of retirement" if not allowed to participate in the zero emission energy auctions. According to DEEP, without Millstone in operation, CO2 emissions for the entire New England electricity sector would increase by 25% through 2035. In addition, replacing 100% of Millstone's output with hydropower, demand reduction, energy storage and zero-emission renewable energy would cost the state's ratepayers an estimated $5.5 billion. DEEP is expected to announce the winning bids for the utility contracts soon.

- Forced electricity generators to use twice the yearly average amount of oil in just a few weeks -- 2 million barrels.

- Drove up natural gas prices to the highest in the world.

- Could have resulted in rolling blackouts if there had been just one power supply disruption from a major power plant or transmission line.

Fortunately this year, the National Weather Service is predicting a milder winter. In addition, ISO New England has taken steps to enhance winter electricity reliability.

Source: ISO New England, Inc.

Source: Connecticut Likely to OK Millstone for Zero-carbon RFP, RTO Insider, November 25, 2018.

ME regulators delay decision on transmission line that will deliver hydropower from Quebec

Maine regulators are delaying until March their decision on whether to grant Central Maine Power a key permit needed to build a 145-mile transmission corridor that would deliver electricity from Quebec to southern New England.

The $950 million New England Clean Energy Connect (NECEC) project is needed to deliver hydropower to Massachusetts as required under a 2016 renewable energy law. Massachusetts utilities have signed contracts to purchase 9.45 million MWh of electricity from Hydro-Quebec each year in order to meet its clean energy goals.

The $1.5 billion Northern Pass transmission project was the first choice for the hydropower contract, but earlier this year, the New Hampshire Siting Committee voted 7-0 to deny the application to bring hydropower to southern new England because it would negatively affect the environment and tourism in the state. The decision was appealed in August and in October, the New Hampshire Supreme Court agreed to hear the appeal.

Both the Maine and New Hampshire transmission projects face stiff opposition from environmentalists who advocate for renewable electricity from local projects instead of importing hydropower from Canada. In addition, the New England Power Generators Association believes the cost of electricity from either transmission project would double or even triple the current rate of wholesale electric power in the region.

Source: NH Supreme Court Will Hear Northern Pass Appeal, INDEPTHNH.org, October 12, 2018.

2017 U.S. electric power outages doubled in duration; northern NE states hit the hardest

According to a new analysis by the U.S. Energy Information Administration, the average duration of electric power outages in the U.S. almost doubled between 2016 and 2017. The results show that electric customers experienced power outages of an average of 7.8 hours in 2017, compared with just over 4 hours in 2016.

For all the grid modernization efforts undertaken recently, the length of power outages spiked last year, as the U.S. was hit with several hurricanes and winter storms that disrupted the grid for extended periods of time.

According to the EIA report, the hardest hit states with outages last year were: Maine, Florida, New Hampshire, Georgia and Vermont. The average customer interruption time ranged from 15 hours in Vermont to 42 hours in Maine.

Rhode Island wind power RFP attracts over 40 proposals

National Grid and Rhode Island state regulators will review 41 proposals offering 2,500 MW of wind capacity submitted in response to a September request for proposals (RFP) seeking 400MW of renewable energy capacity. The proposals submitted by New England and New York bidders would provide 20 to 400MW of wind for 10 to 15-year contracts.

Developed in conjunction with the state's Office of Energy Resources and approved by the Rhode Island Public Utilities Commission, the RFP was issued to increase the state's clean energy portfolio ten-fold by 2020 as announced by Governor Gina Raimondo. The contracts will be executed by July 29.

Sources: Rhode Island Wind-Power RFP Attracts Six Times the Requested Demand, ENR, November 21, 2018; Rhode Island Issues RFP for 400 MW of renewable energy, Biomass Magazine, September 27, 2018.

U.S. coal consumption in 2018 expected to be lowest in 39 years

According to the U.S. Energy Information Administration, U.S. coal consumption in 2018 is projected to be the lowest since 1979, mainly driven by declines in coal use in the electric power sector.

The EIA reports that the electric power sector is the nation's largest consumer of coal, accounting for 93% of total U.S. coal consumption between 2007 and 2018. The decline in coal consumption since 2007 is the result of both the retirements of coal-fired power plants and the decreases in the capacity factors or utilization of coal plants as increased competition from natural gas and renewable resources have reduced coal's market share.

In New England, coal generated 1.6% of the region's electricity in 2017, down from 12% in 2000.

Changes at FERC

In late October, President Trump appointed Commissioner Neil Chatterjee as chairman of the Federal Energy Regulatory Commission (FERC). He replaced Kevin McIntyre who stepped down as the chair due to health issues but remains a FERC commissioner. Chatterjee was acting chairman of FERC last year before McIntyre was confirmed by the Senate and was a former staffer for Senate Majority Leader Mitch McConnell.

On December 6, the Senate confirmed Bernard McNamee to the Commission. The former head of the Department of Energy's Office of Policy, McNamee fills a seat vacated by former Commissioner Robert Powelson who stepped down in August to lead a water company trade group. McNamee will fill the remainder of Powelson's term which expires in June 2020. McNamee's confirmation restores the Commission to republican majority. In addition to Chatterjee and McIntyre, McNamee joins Democrat Commissioners Cheryl LaFleur and Richard Glick.

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 for more information on the Alliance. Follow on twitter @NEEAlliance