NEW ENGLAND ENERGY ALLIANCE

Energy Insights -- Nov/Dec Update

Briefing on New England Energy Issues and Trends

ISO New England expects adequate resources this winter

New England is expected to have the resources needed to meet consumer demand for electricity this winter, according to ISO New England, the region's independent operator of the electricity grid. Certain conditions, however, could present some reliability challenges. These include:

Higher than projected demand for electricity.
Total electricity consumption and peak demand have remained flat in New England in recent years as a result of energy efficiency programs and an increase in solar photovoltaic system installations on homes and businesses. At normal winter temperatures, a peak demand forecast of 21,197 megawatts (MW) is projected. Under extreme weather, the peak demand could increase to 21,895 MW - but would still be well below the 30,000+MW of total resources available to serve the load. Higher than projected demand would only become an issue if combined with other potential challenges below.

Unexpected generator or transmission line outages.
Should an unexpected generator or transmission line outage occur, ISO has procedures in place to maintain reliability including: calling on demand-response resources to reduce electricity use; importing emergency power from neighboring regions; and asking customers to voluntarily conserve electricity.

Fuel delivery constraints. A continuing concern involves the availability of natural gas to fuel electricity generating plants during extremely cold weather when pipeline constraints limit the availability of natural gas for power generation. Since about half the region's electricity is generated by natural gas, which competes with home heating during the winter months, steps have been taken to address potential shortages.

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Upcoming Alliance Event:
January 29,
A Conversation with FERC Commissioner Robert F. Powelson

ISO New England administers a Winter Reliability Program to help protect grid reliability during potential natural gas shortages. The program which runs from December 1st to February 28th, provides incentives for natural gas generators to store oil (dual-fueled units) or contract for liquified natural gas before winter begins to ensure fuel is available. The program also includes demand-side resources to be activated and available if there are natural gas shortages that decrease the amount of electricity that can be generated. This is the last winter this program will be implemented due to electricity market rule changes going into effect June 1, 2018, designed to address uncertainties associated with fuel availability.

Source: Reliable Power Grid Operations Expected This Winter in New England, ISO New England press release, November 30, 2017.

Region's demand for electricity projected to decline over the next decade

Over the next ten years, demand for electricity is expected to decline even in peak summer demand periods, according to ISO New England's 2017 Regional System Plan. The plan predicts total annual use of electricity will decline by 0.6 percent per year, with summer peak needs declining 0.1 percent annually by 2026 under normal weather conditions due to increasing solar photovoltaic installations at homes and businesses as well as energy efficiency resources.

The Plan also predicts that from 2010 to 2020, power plant retirements will total about 4,800 MW, mostly oil- and coal-fired and nuclear generators that are at risk of retirement due to economic and environmental pressures. These retirements are likely to be replaced by new natural gas-fired power plants and renewable energy resources such as wind and solar. Almost 13,000 MW of proposed new resources under development have applied to connect to the region's high voltage power system - though typically the interconnection queue has an attrition rate of 68% (which would be about 9,000 MW in this case).

Source: 2017 Regional System Plan (RSP17), ISO New England, Inc.

Massachusetts awards $20 million for storage projects

Massachusetts has selected more than two dozen energy storage projects as part of the state's efforts to modernize its electric grid - totaling $20 million in funding. The grants were awarded as part of the state's Energy Storage Initiative and are funded by

the Massachusetts Department of Energy Resources from payments made by electricity suppliers when they fail to attain state-mandated renewable energy targets. The state collected nearly $38 million in such payments last year. In addition to the $20 million in state funding, the projects will draw $32 million in matching funds from the private sector and will be located in 25 communities.

The projects are geographically diverse and include a residential project on Nantucket Island, three University of Massachusetts projects on different campuses and other commercial and utility sector installations. Technologies include batteries, flywheels, thermal storage and pumped hydroelectric storage.

Sources: Massachusetts awards $20M to storage projects, Utility Dive, December 11, 2017; Baker administration awards $20m in grants for energy storage, Boston Globe, December 8, 2017.

Rhode Island reports on grid modernization

In November, Rhode Island issued a report on a grid modernization to reduce system costs, provide customers additional energy choices and information, and build a more flexible grid that incorporates clean energy.

The report was prepared in response to Governor Raimondo's directive to the RI Division of Public Utilities and Carriers, Office of Energy Resources and Public Utilities Commission to collaborate in developing a more dynamic regulatory framework that will enable Rhode Island and its major investor-owned utility to advance a cleaner, more affordable and reliable energy system for the twenty-first century.

Key goals include granting electric customers greater access to commercial products capable of lowering energy bills and providing more cost control, while also developing 1,000 MW of clean energy by 2020, equal to roughly half of Rhode Island's peak demand.

A regulatory proceeding will evaluate four streams of change: utility business models, the distribution system, grid connection and functionality, and strategic electrification of transportation and heating systems. The state will work with stakeholders, regulators and the state's largest utility to advance Rhode Island's goal to control long-term system costs, enhance customer choice, unleash third-party innovation and integrate more clean energy into the electric grid.

Source: Rhode Island Power Sector Transformation, Phase One Report to Governor Gina M. Raimondo, November 2017.

DOE Grants FERC 30-day extension on grid resiliency proposal

On September 28, the US Department of Energy (DOE) issued a Notice of Proposed Rulemaking (NOPR) to enhance grid resilience, directing the Federal Energy Regulatory Commission (FERC) to make changes to wholesale electricity markets to provide full cost recovery to baseload electricity generating plants that have 90 days of onsite fuel storage.

While not mentioning specific electricity generation resources, the NOPR targets coal-fired and nuclear power plants that are at risk of premature retirement in deregulated electricity markets due to competition from lower cost natural gas generation.

The NOPR was issued after an August DOE grid reliability study recommended federal regulators boost compensation for baseload electricity generating plants to maintain grid reliability and resiliency during emergencies; extreme weather conditions; or natural or man-made disasters.

DOE directed FERC to act on the proposal by December 11. FERC solicited comments on the proposal and received more than 1,500. Supporters of the NOPR say the premature retirement of baseload nuclear and coal plants could pose a risk to long-term reliability and resiliency of the nation's electricity grid and market rules should be changed to compensate those plants so they can continue to operate. Many opponents, including eight former FERC officials and several energy and consumer groups say the ruling would distort existing competitive wholesale markets and would increase electricity costs to consumers to cover the costs of the baseload plants.

With two new FERC commissioners sworn in over the past few weeks (see below), FERC requested a 30-day extension which DOE granted. The extension provides FERC with more time to consider the proposal and assess potential alternatives.

Source: Perry grants FERC 30-day extension on cost recovery proposal, Utility Dive, December 8, 2017.

Senate confirms final two FERC Commissioners

The U.S. Senate confirmed Kevin McIntyre and Richard Glick to the Federal Energy Regulatory Commission in early November, filling the agency's five seats for the first time in over two years.

Kevin McIntyre, the co-leader of the energy practice at law firm Jones Day, will serve out the rest of a term that ends in June 2018, and then serve a full term until June 2023. Richard Glick, Democratic counsel on the Senate Energy and Natural Resources Committee will serve a term that ends in June 2022.

Kevin McIntyre now serves as chairman of the commission, taking the place of Neil Chatterjee who was named acting chairman in August.

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