NEW ENGLAND ENERGY ALLIANCE

Energy Insights -- February 2014

Briefing on Energy Issues and Trends

Power Plant Retirements Contribute to Slight Shortfall in Latest Auction to Secure Resources for Region

ISO New England's auction earlier this month to acquire electricity resources to meet consumer electricity demand for the 2017-2018 timeframe resulted in a slight shortfall. The region's grid operator acquired 33,700 megawatts (MW) out of the 33,855 MW of capacity needed. (One MW powers about 1,000 homes.)

This deficit is a first for New England which has had a surplus each year since the capacity market auction was initiated in 2006. The shortfall resulted in higher capacity market prices - a total of about $3.05 billion. To put this in comparison, the total capacity price from previous years ranged from a low of $1.06 billion in 2013, to a high of $1.77 billion in 2009.

The price of capacity is one component of wholesale electricity prices. It is yet unknown how much the higher capacity prices will impact retail electricity rates. The higher capacity costs provide incentives to attract investment in new and existing resources.

The annual auction is held three years in advance to provide time for new resources to be developed. Capacity resources can include traditional power generation or demand-side resources such as load management or energy efficiency. Resources that clear in the auction are committed to provide power or curtail demand when called upon by the ISO.

According to ISO New England CEO Gordon van Welie, "the large number of resource retirements - nearly 10 percent of the region's total capacity - announced in just the past few months has caused a dramatic shift in the region's power landscape," that contributed to the auction shortfall.

Major generating plants planning to retire by mid-2017 include Brayton Point, a 1,535 MW coal-fired plant in Massachusetts, the 600 MW Vermont Yankee nuclear plant, Salem Harbor, a 750 MW coal-fired plant in Massachusetts and the 350 MW oil-fired Norwalk Harbor plant in Connecticut.

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Did You Know:

The typical U.S. home now has on average at least 25 electronic products which must be plugged in or recharged.

Source: Edison Electric Institute (www.eei.org)

Auctions in the next three years are expected to close the gap between electricity demand and supply. However, according to ISO New England, the slim capacity deficit and resulting higher prices are a clear signal that New England needs more power generation resources as well as more efforts to reduce electricity demand.

Source: "Auction Ends with Slight Shortfall in Power System Resources Needed for 2017-2018 in New England," ISO New England, press release, February 5, 2014.

Group Finds New England Governors' Natural Gas Pipeline Expansion Plan Inadequate

In December, the six New England governors signed an agreement to advance energy infrastructure including a recommendation to expand the region's natural gas pipeline capacity by up to 1 billion cubic feet per day of capacity through the construction of new pipelines or the expansion of existing ones.

According to a consultant for the Industrial Energy Consumer Group, which represents large-scale electricity users in New England, the governors' infrastructure plan does not go far enough to bring lower cost natural gas supplies into the region.

An analysis prepared by Competitive Energy Services concluded that while the governors' recommended addition of one billion cubic feet of natural gas pipeline capacity will lower prices, New England will still pay $600 million more for natural gas annually because pipeline capacity would still be inadequate.

Using 2013 data to estimate future trends, Competitive Energy Services concluded that New England needs two billion cubic feet of new natural gas pipeline capacity - twice what the governors are calling for.

The Industrial Energy Consumer Group reported that in neighboring New York and Pennsylvania, natural gas is available at prices often below $3 per million BTU, but because New England lacks adequate natural gas pipeline capacity, natural gas prices in cold weather have routinely been over $20 per million BTU.

New England is currently served by five interstate natural gas pipelines - some owners of which have indicated a willingness to invest in gas line expansion into New England if long-term contracts can be guaranteed at fixed prices for the capacity.

Because the governors have proposed to levy a new tariff on power plants to help fund the construction of new pipelines and the expansion of existing lines into the region, some pipeline construction appears likely, although no new capacity is likely to go online before 2018.

Source: Solomon, Dave (February 18, 2014). Report: Gas Pipeline Not Enough to Avert New England Energy Crisis, *The New Hampshire Union Leader.*

U.S. Energy Secretary to Review New England's Natural Gas Shortage

U.S. Energy Secretary Ernest Moniz is calling for a review of New England's natural gas shortage which has led to higher electricity prices and concerns that the region's electric grid is overly dependent on the fuel. Currently, the region gets over half of its electricity from natural gas-fired generation which has raised concerns about fuel diversity as the Northeast is also reliant on this fuel for home heating and has limited pipeline capacity.

In a letter to New England senators, Secretary Moniz said that the issue of tight natural gas supplies will be one of the first raised in a broad federal review of the country's energy system, requested by President Obama.

While there is an ample U.S. supply of natural gas because of new drilling techniques like hydraulic fracturing or "fracking", it has become costly to transport it to New England. Pipelines into the region are constrained, as cold weather raises demand for heating and the region's power plants have increased their reliance on the fuel in recent years.

With supply into the region tight, electricity prices have increased and some industrial and commercial gas customers have been called on to temporarily switch fuels in order to maintain adequate supply.

New England's senators wrote to Secretary Moniz in late December expressing their concerns about "the natural gas and energy market challenges facing the New England region and the effect that high energy prices are having on consumers and businesses".

A stakeholder meeting is expected to be scheduled over the next few months to initiate the review. In

December, the six New England governors signed a pact agreeing to address these and other issues in concert. It is expected that the regional stakeholder meeting will explore how the federal government can support the New England governors' efforts to alleviate the natural gas shortage.

According to Moniz, the goal of the review is "to identify the threats, risks, and opportunities to energy infrastructure and to develop a roadmap of policy recommendations to enhance the economic, environmental, and national security benefits provided by these vast networks".

Source: Dowling, Brian (January 31, 2014). U.S. Energy Secretary Plans to Review New England's Natural Gas Shortage. *The Hartford Courant.*

Massachusetts Ranks 4th in the Nation on Solar Jobs

According to a national Solar Jobs Census released by The Solar Foundation, Massachusetts ranks 4th in the nation with 6,400 jobs in the solar industry. The number of people employed manufacturing and installing solar energy grew by 1,900 in 2013 - a 42% increase. This job growth coincided with a doubling of the Commonwealth's solar capacity in 2013 to 425 megawatts (MW).

Massachusetts officials are currently considering changes to solar programs including a quadrupling of the state's solar standard to 1,600 MW and improvements to the net-metering program that enables local governments and business customers to be compensated for solar energy provided to the grid.

It has been estimated that the state's plan to quadruple solar energy will increase electricity costs to Massachusetts utility customers by $1 billion over twenty years - which is expected to cost residential customers $1 to $1.50 more per month for electricity.

Source: "Massachusetts Ranks 4th in the Nation on Solar Jobs". February 12, 2014.
Targeted News Service.

White House Nominates FERC Enforcement Chief to Chair Commission

The White House has nominated Norman Bay, the director of the Federal Energy Regulatory Commission's

Office of Enforcement to chair the Commission. Upon confirmation by the Senate, he would take over from Cheryl LaFleur, who has served as acting chairman since November 25 and would remain on the commission until her term expires in June.

Bay has been the head of FERC's enforcement office since 2009. Prior to joining FERC, Bay was a professor of law at the University of Mexico from 2002 to 2009. From 2000 to 2001 he was the U.S. attorney for the District of New Mexico after serving as an assistant U.S. attorney from 1989 to 2000 and an attorney-advisor at the Department of State from 1988 to 1989. He was a law clerk for Judge Otto R. Skopil Jr. of the U.S. Court of Appeals for the Ninth Circuit from 1986 to 1987. Bay earned a B.A. from Dartmouth College and a J.D. from Harvard Law School.

Source: Federal Energy Regulatory Commission, www.ferc.gov

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.