

## Energy Insights -- September Update

### Briefing on New England Energy Issues and Trends

#### **ISO NE's draft 10-year plan projects energy efficiency and solar resources to reduce electricity demand growth**

At a recent public forum on its draft 2017 Regional System Plan, ISO New England reported that growing energy efficiency and behind-the-meter solar generation will more than offset electricity load growth over the next 10 years. Below are the plan highlights:

- **Electricity Demand** - While planners forecast peak summer electricity demand to grow by 1% annually over the 10-year planning horizon, energy efficiency and solar generation resources are expected to double which will reduce peak electricity demand by about 0.6% per year.
- **Resources** - Despite flat or declining peak demand projections (see above), the region will continue to need new electricity generation resources due to planned retirements of aging oil, coal and nuclear power plants. There are currently 76 active projects planned including 6,400 MW of natural gas generation, 5,400 MW of wind generation and 77 MW of battery storage.
- **Transmission** - Since 2002, \$12.4 billion has been invested in more than 700 transmission projects throughout New England to improve reliability. Going forward, the need for additional reliability-based transmission projects is expected to decline given the significant investment to date combined with stagnant electricity demand. Future transmission projects will be needed to integrate large-scale renewable resources, add interchange capability with neighboring systems, and ensure compliance with any new industry reliability standards.

The 2017 Regional System Plan was developed through a multi-year collaborative process with input from New England state regulators and policymakers, energy companies, consumer organizations and

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New England's reliance on natural gas expected to grow

August wholesale electricity prices were down 40% compared to last summer

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FERC update: Kevin McIntyre and Richard Glick confirmation advances

#### **Did You Know:**

For the seventh year in a row, MA has been named the most energy efficient state in the country by the American Council for an Energy Efficient Economy (ACEEE)?

RI, VT and CT were also ranked among the top 10 most efficient states.

According to ACEEE, U.S. electric and gas utilities spent \$7.6 billion on energy efficiency programs in 2016.

Source: [2017 State Energy Efficiency Scorecard](#), American Council for an Energy Efficient Economy

stakeholders. The plan is expected to be finalized by November.

Source: "ISO-NE Forecast Sees Flat Loads, More Solar, No Congestion", RTO Insider, September 18, 2017.

### **New England's reliance on natural gas expected to grow**

Even though electricity demand is forecast to remain stagnant over the next decade in the region as noted above, New England is expected to increase its reliance on natural gas for electricity generation.

Natural gas-fired plants currently represent about 45% of the region's total electricity generating capacity, a percentage projected to increase to 56% by 2026, as natural gas plants are expected to replace aging coal, oil and nuclear plants.

With no new pipelines planned for the region, ISO New England has raised concerns about fuel reliability concerns during winter months when existing pipelines are at near capacity when natural gas supplies are needed for both electricity generation and space heating. ISO plans to release a fuel security study later this fall which will address these reliability concerns.

Source: "Reliance on natural gas expected to grow," Commonwealth Magazine, September 14, 2017.

### **August wholesale electricity prices were down 40% compared to last summer**

According to ISO New England, the average wholesale electricity price in August was \$23.77 per megawatt-hour (MWh), down 40% from August 2016, when the average wholesale price was \$40.19/MWh.

This dramatic price decrease is attributed to the two main drivers of wholesale electricity prices - the cost of fuel used to produce electricity, and consumer demand for electricity - both of which were down substantially from last summer.

The biggest factor in the price drop was consumer electricity demand, which was the lowest of any August in New England since 2000. Summer electricity usage, primarily driven by cooler weather was down 12.5% compared to August 2016. Also contributing to declining wholesale prices was the fact that the average price of natural gas in New England dropped by 25% in August.

Wholesale electricity costs are just one component of retail electricity prices paid by consumers which also include the cost of delivering electricity as well as other line items that help fund the advancement of state public policy goals such as energy efficiency, renewable energy and other charges that vary by state. In New England, despite the substantially lower wholesale electricity prices this summer, retail prices on average still increased slightly compared to last summer.

Sources: Monthly wholesale electricity prices and demand in New England August 2017, ISO New England, September 25, 2017; U.S. Energy Information Administration electricity cost data.

### **Study finds a diverse, balanced electricity generation portfolio saves U.S. over \$100 billion a year**

A study conducted by HIS Markit commissioned by the U.S. Chamber of Commerce, Edison Electric Institute and Nuclear Energy Institute has found that the U.S. power grid is becoming less cost-effective, less reliable and less resilient due to lack of harmonization between federal and state policies and wholesale electricity market operations.

This conclusion was arrived at by modelling what the price of electricity would have been from 2014 and 2016 if 24/7 baseload resources such as nuclear and coal were removed from the mix and replaced with more natural gas and intermittent renewables (wind, solar) driven by state and federal policies.

The comparison between the two portfolios showed the electric supply portfolio with the 24/7 baseload resources such as nuclear and coal:

- Lowers the cost of electricity production by \$114 billion per year
- Lowers the average retail price of electricity by 27%
- Reduces the variability of monthly consumer electricity bills by about 22%

The study also found that removing nuclear and coal from the mix likely results in little to no reduction in the level of electric sector carbon emissions (since nuclear plants do not produce carbon dioxide).

The Edison Electric Institute noted that competitive electricity market rules should promote a balanced energy mix and recognize the role that all generation sources play in maintaining the reliability and

resilience of the electric grid - including both traditional and renewable resources.

Source: Ensuring Resilient and Efficient Electricity Generation: The Value of the Current Diverse U.S. Power Supply Portfolio, HIS Markit, September 2017.

**FERC Update: Kevin McIntyre and Richard Glick confirmation advances**

The Senate Energy and Natural Resources Committee advanced FERC nominees Kevin McIntyre and Richard Glick. Richard Glick, currently serves as the Democratic General Counsel for the Senate Committee on Energy and Natural Resources, and Kevin McIntyre, is a Republican who leads the energy practice at Jones Day, a Cleveland law firm. If confirmed, McIntyre would serve as FERC Chairman.

Their nominations were advanced on a voice vote and will now head to the full Senate for confirmation. While no date has been set for the Senate action, they are expected to be confirmed by a comfortable margin. Their confirmation would fill the remaining Commission vacancies.

**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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