

## Nuclear retirements in Northeast expected to create gas demand

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Published on - Fri, 24 May 2019 16:09:06 EST | Modified on - Tue, 28 May 2019 15:18:36 EST

The retirement of several **nuclear power** plants in the Northeast over the next year and a half is expected to create an opportunity for **natural gas** - fired power generation.

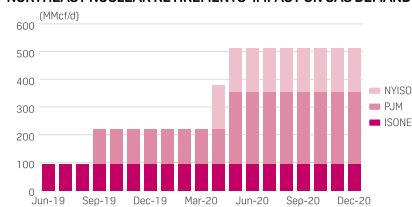
While several states in the region have passed legislation to safeguard the **nuclear power** industry from premature plant retirements, and other states have been debating similar bills, some nuclear generating facilities nonetheless are scheduled for permanent shutdown.

Two nuclear plants are slated for retirement within the next several months. Earlier this month, **Exelon** Generation said it would shut down the 890-MW **Three Mile Island** Generating Station Unit 1 in Middletown, **Pennsylvania**, by September 30, after state lawmakers ran out of time to pass a measure designed to provide financial support for that plant and other aging nuclear units.

**Entergy**'s 690-MW Pilgrim **Nuclear Power** Station **Massachusetts** has an even earlier closing date. The company plans to shutter the plant, which produces about 14% of the **electricity** generated in the state, by the end of May.

In recent days the Nuclear Regulatory Commission allowed the plant to return to operation, after a degraded cable on May 17 resulted in a rapid shutdown that lasted through the following weekend.

### NORTHEAST NUCLEAR RETIREMENTS' IMPACT ON GAS DEMAND



Source: S&P Global Platts Analytics

S&P Global Platts Analytics estimates that 16 GW of nuclear generation is at risk of early retirement across the **US** between today and 2025. Assuming this nuclear generation were to be replaced by **gas**-fired generation with an average heat rate of 7,000 BTU/kWh, an incremental 2.7 Bcf/d of **gas** demand from power generation would be required to replace these retiring generators, Platts Analytics estimates.

Across the **US** Northeast, largely in states with deregulated power markets, **nuclear power** plants are being slated for retirement as their owners contend with low to flat power demand and depressed wholesale power prices, partially as a result of low **gas** prices.

While states such as New **York**, **New Jersey** and **Illinois** have provided rate-payer funded support to keep certain nuclear plants open, the plants that do close can create opportunities for **natural gas**-fired generation to fill the gap.

## Indian Point nuclear plant in New York

For example, power from the roughly 2,000-MW **Indian Point** nuclear plant in New **York**, which is scheduled to close sometime in the 2020-2021 timeframe, will mostly be replaced with output from the newly constructed 1,100-MW Cricket Valley and 680-MW CPV Valley **gas**-fired power plants, according to Platts Analytics.

According to ISO **New England**, more than 5,200 MW of aging nuclear, oil and **coal**-fired power plants will have been retired from 2013 to 2022.

"These resources are likely to be replaced mainly by **wind** resources and more likely **natural gas**-fired resources," the ISO said in a recent statement.

"The retirements issue accelerated in March 2018 when **Exelon Corp.** announced its intention to retire the Mystic (**Massachusetts**) Generating Station in 2022, which is located in the region's largest load center."

Even as some nuclear units retire, new capacity is being added, including some substantial new capacity from **natural gas**, Stephen Leahy, a spokesman for the Northeast **Gas** Association, said in an email statement.

"The capacity situation is looking good for the regional power systems in the summer months over the next few years. In **New England** in particular, however, the winter remains challenging given current pipeline capacity constraints, he said.

New **gas**-fired, and often dual-fuel, plants are being built across the region, Leahy said.

For example, **PSEG Power's** **Bridgeport** Station 5, a 500-MW combined-cycle unit in **Bridgeport**, **Connecticut**, is expected to open in June. Two **gas**-fired peaker plants with a combined capacity of about 540 MW, are also expected to come online in **Massachusetts** in June: the Canal 3 unit in **Sandwich** and **Exelon's** **Medway** unit in **Medway**.

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