Gordon van Welie, the CEO of ISO New England. (Photo courtesy of ISO New England)

ENERGY

Grid operator dials back electricity concerns

Growth in solar power eases concerns through 2027
AFTER YEARS of cautionary warnings about the risk of winter-time electricity shortages and possible brownouts, the operator of the New England power grid is putting that message on hold for several years.

An analysis by ISO New England indicates supply and demand for electricity should roughly balance out in the region through 2027. The analysis credits stronger than expected growth in solar power, fewer retirements of existing power plants, and flat demand for electricity.

At an all-day conference of the Federal Energy Regulatory Commission in Portland, Maine, on Tuesday, the analysis stunned many participants and prompted outright skepticism from many of them.

The analysis also triggered a major policy shift by the grid operator in regard to a liquefied natural gas facility in Everett, which is located next to two power plants scheduled to shut down next year. ISO New England, based on its latest analysis, said it believes the liquefied natural gas facility import facility is no longer needed to keep the grid working smoothly.

“We were here last August and the message was slightly different, some would say dramatically different,” said Willie Phillips, the chair of the Federal Energy Regulatory Commission. “It was sort of laid out that we must retain Everett to maintain viability of the system in New England. Today, with some big ifs, there is probably a different path.”
ISO officials for years have cautioned about the reliability of the power grid during the winter months, when demand for natural gas for heat and electricity can outpace supply under severe weather conditions.

But the new analysis said energy efficiency efforts are holding electricity demand down and solar is growing faster than expected. Officials said solar power was a nonfactor in the region in 2010, but it contributed 5,500 megawatts by the end of 2022 and is expected to double to 11,923 megawatts by 2032.

“We didn’t see that until we did this analysis,” said Gordon van Welie, the president and CEO of ISO New England.

ISO officials said the latest forecast assesses risk levels out through 2027. The grid operator is now working on a second part of the study looking out to 2032.

Van Weie said the 2027 forecast doesn’t mean risks associated with the grid have disappeared for the next two years. “I’m not feeling sanguine about the risks,” van Welie said. “In the short run, I’m feeling a little more relaxed but in the long run I’m as concerned as I’ve ever been.”

He noted demand for electricity is expected to spike in the early 2030s as cars, homes, and businesses are electrified to address to reduce carbon emissions.

Even though ISO New England doesn’t think the Everett liquefied natural gas facility is needed currently to maintain reliability on the electric power grid, van Welie said it would make sense to support the continued operation of the facility because such infrastructure is so hard to get built.

ISO officials also acknowledged their knowledge of the natural gas industry is limited and there has been no study evaluating what impact the Everett shutdown would have on the region’s natural gas utilities.
Ron Gerwatowski, the chair of the Rhode Island Public Utilities Commission, recalled a 2019 event in Newport when a large part of the system had to shut down for a week during the winter because of low-pressure conditions on the gas delivery network.

Gerwatowski said restoring gas service required an army of technicians to make two visits to every home in the area – one to turn burners off and a second to turn them on.

Gerwatowski said he worries the same could happen again if the Everett liquefied natural gas facility is shut down.

“In the absence of Everett, the gas utilities serving the Cambridge and Boston areas may force a low-pressure condition on their system that could create a Newport-on-steroids type of event,” he said.

“The probabilities of the risk may be low but the severity of the risk is high,” he added.

Several participants at the conference said that Boston-area gas utilities and Constellation Energy, the owner of the Everett liquefied natural gas terminal, are in talks on an agreement to provide funding to keep the facility running after the adjacent power plants shut down next year. The money-losing plants have been kept open the last few years under an arrangement designed to keep the liquefied natural gas terminal operational in the event of winter-time shortages of natural gas.

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