Energy Matters

Turning off Indian Point And Keeping the Subways Running

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By Roger Witherspoon

For the past decade, Entergy and supporters have proclaimed that its twin Indian Point reactors are all that keeps the trains running, the street lights on and school buildings operating throughout New York City and neighboring Westchester County.

Entergy, which actually provides about 5 percent of the electricity used in the area, can get away with its misleading advertising for only one more year. The New York Power Authority, which provides all of the 1,900 megawatts of electricity used to run the subways, power the street lights, schools, municipal buildings, public housing, LaGuardia and Westchester County airports, is ending its relationship with Indian Point and will get its electricity elsewhere.



After Sept 28, 2013, "we will not be extending the Entergy Contract," said Paul DiMichelle, NYPA spokesman. "If the contract expired tomorrow we would walk away and purchase the power elsewhere because there is an excess supply. When that contract was first put into place it was on behalf of our governmental customers in New York City and Westchester County who came to us and said we want you to secure this amount of power. What we did was lock in that price.

"The current contract won't be extended. Energy prices are so low that we would go into the marketplace and purchase power as needed. There is an excess supply out there, and that would be the most cost effective way to handle power needs on behalf of our customers."

The decision by NYPA to stop using electricity from Indian Point to fulfill its municipal contracts in the New York City/Westchester County section of the state's energy grid ends a 50 year relationship with the nuclear plants. It is also a testimonial to the work of the New York Independent System Operator in developing the state's power grid since deregulation in 1998 and nurturing the electricity commodities market.

The system is connected with the six-state New England ISO and the 13-state, Mid-Atlantic PJM Interconnection, providing a marketplace stretching from Main to Ohio. And it allows power generators such as Indian Point to sell electricity to a wide variety of large users and, in turn, allows these users to seek the best prices available.

NYPA's conclusion that the nuclear plants on the Hudson River are not necessary are in line with the latest Reliability Needs Assessment (http://bit.ly/TD5rSf) from the ISO that there is more than enough electricity available in the near future .

"If Indian Point 2 closed at the end of 2012 (when its license expires) it would not be a problem," said ISO vice president Tom Rumsey. "Between 2013 and 2016 if one reactor went away we don't foresee a megawatt shortage. We believe there would be adequate resources.

"Beginning in 2017 there would be a gap of 250 megawatts and that gap would continue to increase by 250 megawatts annually thereafter."



There are two caveats in the ISO report, however. First, the projected shortfall in 2017 develops only if the economy has picked up and electric use increases at a rapid pace. A sluggish economy would not produce a shortfall until 2022. Secondly, the shortfall could be made up by a combination of new generation, conservation, or new transmission.

NYPA was created by the State to provide lower cost electricity to municipal governments and businesses in designated economic development areas. In the early 1970s, the agency was pressured by the state to take over the construction of Indian Point 3 because cost overruns were threatening the financial health of Consolidated Edison. NYPA gets 80 percent of its electricity from several hydroelectric plants upstate and most of the remainder from gas plants. It provides electricity through regional transmission companies including ConEd. Owning Indian Point 3 provided local generation of a bit more than half the 1,900 megawatts NYPA needed to serve its New York City/Westchester County municipal customers.

When Entergy sought to buy Indian Point 2 from ConEd and Indian Point 3 from NYPA in 2000, the deregulated marketplace was only a year old and it was not clear how well it would work. And it was uncertain if the newly formed ISO could improve the state's power transmission network, which limited the amount of upstate electricity that could flow to the downstate region. Because of that uncertainty, the plants were sold with the stipulation that ConEd and NYPA could purchase – at a contracted price – the full output of each plant.

While the plants each produce 1,000 megawatts of electricity around the clock, not all of it is needed to fill the needs of either the municipal customers served by NYPA or ConEd's 3.1 million residential and 200,000 commercial customers. Electricity usage varies depending on the weather, time of day and time of year, and the contracts allowed Entergy to sell electricity generated at Indian Point when it was not needed in the local area.

But as the electricity market evolved and the ISO oversaw major improvements in the state's transmission system and an increase in power generation, both ConEd and NYPA began to look to other providers. The original NYPA contract with Entergy expired in 2007, and the

new contract, which expires next year, reduced Entergy's contribution to just 200 megawatts. ConEd's contract, which expires at the end of 2012, called for only 350 MW from Indian Point. ConEd will increase that to 500 megawatts in the contract expiring in 2017. The NYPA and ConEd agreements mean the twin nuclear power plants have only been contributing 5 percent of the regions' electricity and selling the rest through the ISO's marketplace.



ConEd transmits all of the electricity used in the area, which requires about 9,000 megawatts in the winter, and nearly 13,000 in the summer. On July 18, during the height of this summer's heat wave, ConEd transmitted a peak load of 12,836 megawatts to homes, businesses and the third rail in the subway system. ISO records show the region started that day using about 8,700 megawatts, and climbed to its peak electric load racing through ConEd's extensive network by 1PM.

NYPA started that day by sending just 1,365 Megawatts through the ConEd transmission system. But that quickly climbed as rush hour trains were pressed into service, reaching a high for that day of 1,915 Megawatts by 8 AM, and then falling back to just 1,270 megawatts by midnight.

Indian Point's contracted 200 megawatts would have contributed almost 10% of NYPA's peak electricity need for that day. But NYPA may not have used the small contribution from the nuclear plants towards the end of the day if cheaper electricity was available from its own plants or natural gas facilities available through the marketplace.

The changing contracts and the reality of power usage in the region stand in stark contrast to the widespread belief that the two Indian Point nuclear plants are the major power source for New York City and Westchester County. The plants are variously portrayed as providing either 30 percent, or 25 percent of the electricity used in the region. The higher figure was apparently fabricated by the New York Times, the latter by the Wall Street Journal and New York Post. Both figures have been widely plagiarized by media outlets from Newsday and the Associated Press to Bloomberg News, NPR, Frontline, and the major broadcast stations.

When asked to explain the 30 percent figure used in a story, for example, a Bloomberg News reporter said "I Googled it and got two hits on the New York Times. As far as I'm concerned, that is reporting."

The ISO's projected power needs and NYPA's decision to let the free market replace the electricity provided by Indian Point 2 and 3 may trigger a change in the strategy of a coalition of environmental groups working in tandem with New York Attorney General Eric Schneiderman to close the two plants when their licenses expire in 2012 and 2015, respectively.

"It certainly could change our approach," said Gary Shaw, a member of the steering committee of the Indian Point Safe Energy Coalition. "Let's get rid of one plant as soon as we can and then deal with Indian Point 3.

"Our objective is zero nuclear plants in the New York City metropolitan area. Getting rid of half the nuclear plants would be a healthy first step."



And Manna Jo Greene of Clearwater (<u>www.Clearwater.org</u>), who joined Shaw and other environmentalists at a briefing last month at the ISO's Schenectady offices, said Rumsey's statement that Indian Point 2 would not be missed if it closed on schedule "did not come as a surprise. Indian Point 2 shut downs for 11 months in 2000 and wasn't missed. If you look at the ISO's current numbers, it is clear that we can do without Indian Point 2.

"We can actually do without Indian Point 3. But it is wise to put replacement energy in place first. There are more than enough projects in the pipeline that are coming on board. But whether they will be in place by 2016 remains to be seen."