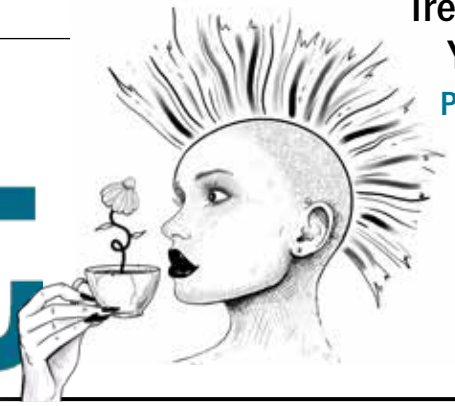


The HIGHLANDS Current



APRIL 30, 2021

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Vaccination Demand Falls

Local officials urge people to get shots to slow virus spread

By Leonard Sparks

They came in cars, Dutchess County Transit buses and vans.

At the former J.C. Penney space at the Poughkeepsie Galleria, one of two sites where the county regularly administers COVID-19 vaccines, a procession of adults — working people, some still in uniform; retired couples; seniors in wheelchairs pushed by caregivers — streamed through

the doors on Tuesday (April 27).

None of them needed to hear the message Rep. Sean Patrick Maloney and Dutchess County Executive Marc Molinaro delivered from a podium stationed to the right of the entrance. The two elected officials praised the progress in vaccinating people and the recent drop in infections. Then they got to the point — this one aimed at people slow to get vaccinated or outright opposed.

“We’ve got to do it now,” said Maloney. “We don’t have any time to waste.”

While New York State and Dutchess are

(Continued on Page 7)



Rep. Sean Patrick Maloney and Dutchess County Executive Marc Molinaro (at left) are urging people to get vaccinated as demand slows.

Photo by L. Sparks

Putnam Man Arrested in D.C. Riot

Charged after boasting he stormed Capitol

By Liz Schevtchuk Armstrong

A Putnam County man’s claims that he stormed the U.S. Capitol during the Jan. 6 riot turned off a potential date but apparently turned on a federal investigation, leading to his arrest.

Robert Chapman of Carmel appeared before a federal magistrate judge in White Plains on April 22 following his arrest by the FBI earlier that day on charges he participated in a riot that began as a protest of the election of Joe Biden as president.

He became at least the sixth area person charged in connection to the riot, including men from Beacon, Pawling, Newburgh

and Mahopac. As of Wednesday (April 28), 403 people had been charged from 43 states and D.C., based on a tally by the Program on Extremism at George Washington University.

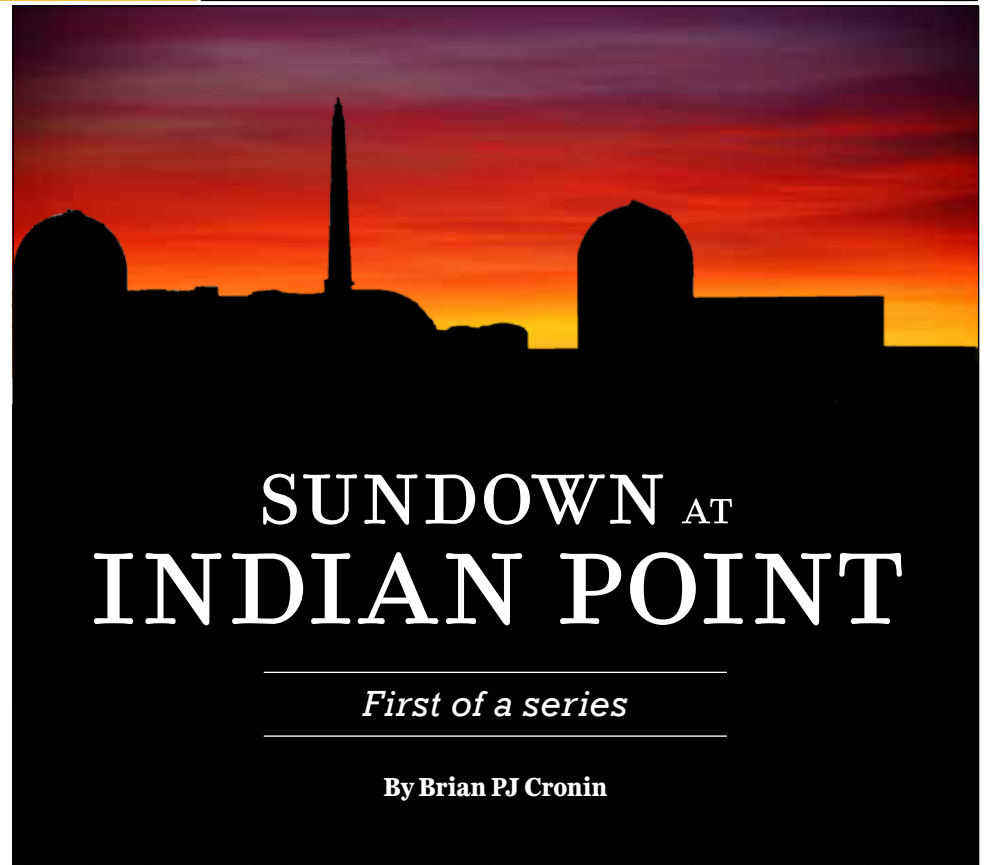
According to a federal criminal complaint and accompanying statement by an FBI agent, Chapman illegally entered the Capitol building and sought to disrupt government functions. The FBI also alleged that he violated laws prohibiting the use of loud, threatening or abusive language to impede actions by Congress.

When the riot began, the House of Repre-



Chapman

(Continued on Page 19)



SUNDOWN AT INDIAN POINT

First of a series

By Brian PJ Cronin

Tonight at 11 p.m., operators at the Indian Point Energy Center on the Hudson River south of the Highlands will do something that environmentalists have been trying to accomplish for nearly 60 years: They will shut down the nuclear plant.

The plant’s third and final nuclear reactor will be deactivated. (The first had to be shut down in 1974 for lack of an emergency cooling system; the second was shut down in April 2020.) In the following days, it will be opened and the fuel rods inside placed in the Unit 3 spent fuel pool.

Once the reactor has been emptied, Entergy, the company that has owned the plant for 20 years, will submit a letter to the federal Nuclear Regulatory Commission (NRC) known as a Certificate of Permanent Cessation of Operations. It will state that all reactors have been emptied of nuclear fuel, and that it would now be impossible for the plant to be restarted.

It will be the end of a facility that has provided thousands of jobs, millions in tax revenues and hundreds of millions of megawatt hours of power, including up to 25 percent of the power used by New York City and Westchester County.

It will not be the end of the controversies.

100,000 fish

The fate of Indian Point may have been sealed by a peace treaty.

In December 1980, an agreement was reached over the only power plant in the Hudson Valley more controversial than Indian Point: the unbuilt Con Edison plant that was proposed for the north face of Storm King Mountain. The decades-long fight to prevent the plant is credited with helping birth the modern American environmental movement and for providing the foundation of environmental law.

The treaty reached between the State of New York, Con Edison and environmental groups such as Scenic Hudson, Clearwater and Riverkeeper did more than bring the Storm King battle to an end. As part of dropping its plans to build a plant at Storm King, Con Edison won provisions for a plant that was already up and running: Indian Point, which had been in the crosshairs of the emboldened environmental groups. They had taken note of the operational troubles that were plaguing the young plant, how the American public’s appetite for nuclear power had soured in the wake of the partial meltdown in 1979 at Three Mile Island in Pennsylvania and the 100,000 fish that it estimated

(Continued on Page 20)

67 Years of Indian Point

1954

Consolidated Edison buys the 242-acre Indian Point Park — which had been a stop for the Hudson River Day Line and included beaches, trails and swimming pools — for \$300,000 to construct a nuclear power plant, with little opposition. By one estimate, once the plant is operating, property taxes in tiny Buchanan will be cut by 88 percent.

Indian Point Park Sold; May Be Con-Ed A-Plant
Indian Point Park, a 242-acre picnic and amusement area on the Hudson River near Peekskill, was bought yes-

1962

Con Ed announces that its newly completed reactor has achieved its first nuclear chain reaction. Six weeks later, it begins producing 15 megawatts of power for use by Buchanan residents.



1963

The reactor reaches full power, 275 megawatts.

1966

Con Ed receives federal approval to construct a second reactor with a capacity of 873 megawatts.

1969

Con Ed receives federal approval to build a third reactor with a capacity of 965 megawatts.

1972

The New York State Department of Environmental Conservation (DEC) orders Con Ed to temporarily shut down the intake system for Reactor 2 over “substantial fish kills” estimated at 100,000 during the previous week.

1974

The federal government orders Reactor 1 shut down because it lacks an emergency core cooling system. It is never restarted.

1975

The New York Power Authority announces it has purchased Reactor 3 for \$394 million.

Living History

Two years ago, while researching the nuclear power industry, Michael Conrad was surprised at how little



Conrad

had been done to document the duties and daily working life of plant workers. To counter that, he founded the Indian Point Heritage Project, which archives oral histories and photos.

Most studies of the nuclear industry focus on its defense applications or ongoing political battles rather than the civilians who operated and maintained the plants, Conrad writes at the project’s website (ipheritage.org). The project, he said, “aims to

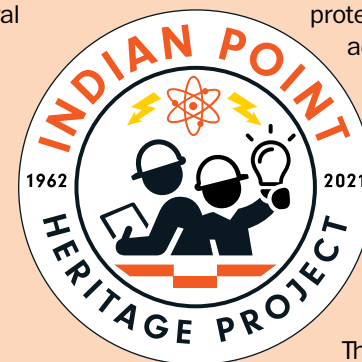
correct those research imbalances by centralizing the worker.”

Conrad, who is the executive officer in charge of business, accreditation and facility operations at Clarkson University-Beacon, says he was inspired to found the project while researching his doctoral thesis on the concrete aggregate industry of the Hudson Valley and Long Island. He discovered a collection of recorded interviews done with workers who labored during the 1930s to the 1970s.

“These priceless recordings are now our only vantage points into the work and life of aggregate workers,” he notes. The records that companies usually save “tend to

highlight management decisions and labor relations.”

With Indian Point about to be decommissioned, Conrad decided to undertake an oral history project with its workers, including those in operations, maintenance, radiation protection, engineering, administration, training and security. He is being assisted by Brian Vangor, who has worked at Indian Point since 1980, most recently as a supervisor in the Dry Cask Storage Group.



The project has posted 17 interviews, has another six scheduled and hopes to eventually complete 40, Conrad said on Wednesday (April 28). It is funded by Entergy, which owns the plant.

INDIAN POINT (from Page 1)

were being sucked into the plant and killed every week.

It was this fear of massive fish destruction that helped sink public support for another Hudson River plant that was never constructed: the Cementon Nuclear Power Plant that was proposed near Athens in Greene County in the 1970s. Residents heard about the decimated fish populations downriver at Buchanan and wanted no part of it.

The environmental groups demanded cooling towers be built at Indian Point to stop the intake of river water and aquatic life. Con Edison argued that it would be too costly. But as part of the treaty to save Storm King, the groups agreed to postpone the cooling tower fight.

“We agreed to allow additional information to be gathered on the Indian Point plant to determine the damage that was being done,” recalled Paul Gallay, executive director of Riverkeeper. “If that information showed that the plant was harming the Hudson, Riverkeeper, Scenic Hudson and Clearwater would be able to go back and object and try and force the plant to install the cooling towers.”

“Here is proof,” wrote *The New York Times*’ editorial board on the signing of the treaty, “that negotiation can produce better results than prolonged litigation.”

Twenty years later, the environmental groups thought they had the evidence they needed to again push for cooling towers at Indian Point. But the legal case took a back seat to sudden threats from above.

Terrorists, balloons

The groups were dealing with a new entity: Entergy, a Louisiana energy company that had purchased Indian Point from Con Ed, which owned the Reactor 1 (which was inoperative) and Reactor 2, and the New York Power Authority, which owned Reactor 3.

Entergy took down the fence that was separating Reactors 2 and 3 and worked on making the plant whole. They had not even owned the plant for a year when a hijacked commercial airliner flew overhead on Sept. 11, 2001, on course for the World Trade Center.

“Had the plane gone down 60 seconds sooner [into Indian Point], it would have breached the fuel pools with all of their radioactive waste and could have caused a fuel-pool fire,” said Manna Jo Greene, Clearwater’s environmental director. She said the consequences could have resembled those of the 2011 disaster at Fukushima Daiichi in Japan, which led to the evacuation of more than 100,000 people, some of which have still not been allowed to return.

It was not an idle fear. The 9/11 Commission would later reveal that the hijackers had considered Indian Point as a target. Subsequent military operations in Afghanistan uncovered detailed plans of U.S. nuclear power plants in captured Al Qaeda strongholds, although for which plants has not been revealed.

By order of the NRC, Indian Point spent \$150 million on security improvements and began regular counterterrorism drills in which the plant’s security force repelled groups of attackers. Although the plant’s security overcame the simulated terrorist threat every time, it was less successful in thwarting a mylar balloon that got caught in the wires of a substation in 2015, which led to one of the reactors temporarily shutting down.

A review of the plant’s evacuation plans in 2003, ordered by then-Gov. George Pataki (a resident of Garrison) and overseen by former Federal Emergency Management Agency director James Witt, found the plant’s plans to be wildly improbable, failing to take into account increased terrorism risks, the high population density of the area, basic human behavior in the advent of a wide-scale threat and the feasibility of hundreds of thousands of people

being able to calmly evacuate via Route 9 during a nuclear emergency.

“That’s obvious to anyone who’s ever sat in traffic on Route 9,” said Gallay, calling the evacuation plan “a paper plan for a paper emergency.” Pataki refused to certify the evacuation plan unless significant changes were made.

Yet the plan, defended in court by former New York City Mayor Rudolph Giuliani, was approved on the federal level. Michael Brown, the director of FEMA at the time, who would rise to infamy a few years later for the role his agency played in mismanaging the response to Hurricane Katrina, defended the federal approval by noting that the high population density of the area “does not create additional challenges, other than an educational challenge of really communicating well to a denser population about what their role is.”

As the years wore on, so did the problems. There were corroded bolts on the reactors, radioactive groundwater contamination discovered on site and a transformer explosion in 2010 that sent oil into the Hudson.

The month before Reactor 3 was shut down by that wayward balloon, it was shut down by a transformer fire that jettisoned 3,000 gallons of cooling fluid into the river. The month after the balloon, Reactor 3 was shut down yet again after a water pump failure. A report by the NRC found that the nuclear power plant in the country that was most at-risk to earthquakes was not in California, but was Indian Point, which was built close to a fault line.

Then, in 2010, 30 years after the “Peace Treaty on the Hudson,” the state ruled that Indian Point was in violation of the Clean Water Act for its constant destruction of marine life and daily contamination of the river. Bringing the plant to compliance would have meant constructing large cooling towers, which were estimated to cost \$1 billion and would have closed the plant

(Continued on Page 21)



The Indian Point nuclear plant in Buchanan

Photo by Jeff Anzevino

(Continued from Page 20)
for nearly a year.

“That was not feasible from an economic perspective,” said Jerry Nappi, a spokesperson for Entergy. “No existing nuclear plant had ever been retrofit with cooling towers.”

But Nappi says it was not the Clean Water Act that ultimately did the plant in. The culprit lay to the west, underneath the ground in Pennsylvania. “The advent of fracked gas, which impacts this area, primarily from the Marcellus Shale in Pennsylvania, drove down wholesale electricity prices greatly and made the continued operation unsustainable from an economic perspective,” he said.

It was a bitter irony that fracked gas, which environmentalists had fought to keep out of New York because of the environmental damage that is done when the gas is extracted, was what drove Entergy to approach the state and Riverkeeper in 2016 to discuss closing the plant down. The announcement was made in January 2017.

Gallay notes that the four-year window has given the state, and the renewable energy sector, ample time to prepare. “There’s been careful plans made for the better part of the decade for the de-continuation of operations at Indian Point, for the replacement of Indian Point’s power generation and now, most recently, for the prompt and safe decommissioning of Indian Point,” he said.

“They made an economic decision,” said Assembly Member Sandy Galef, whose district includes both Indian Point, which is about 10 miles from her home, and the Highlands. “You can’t fault them for that.”

Galef has had an extensive knowledge of the inner workings at Indian Point for decades. Shortly after she was elected to the state Assembly in 1992, a steam

generator failure at Indian Point made her realize that part of her job was going to involve quickly becoming an expert on nuclear power plants. She began attending every NRC meeting she could, even after the NRC yelled at her for tape recording a meeting. “I still have a couple of inches of files in my basement that explain how steam generators work,” she said.

Galef said she was never someone who was in favor of shutting down the plant outright, even as the plant’s age required her ever-increasing scrutiny and oversight. “My focus was always on safety, whatever the problems were,” she said. “But we always knew, at some point it was going to close, because you can only replace so much.”

The shutdown is bittersweet for Galef, who emphasizes that the plant supplied thousands of people with well-paying, demanding and highly skilled jobs filled by many people who, like Galef, ultimately had enough faith in the plant’s overall safety that they chose to live near it, working long hours to keep its aging infrastructure operating as safely as they could. There were the tens of millions in annual tax revenue that sustained the surrounding communities. And she saw marked improvements in the plant when Entergy took over.

“They’ll be remembered as a very good neighbor,” she said of Entergy. “Some people won’t view them as a good neighbor, but they’ve been a good neighbor.”

She has a much different opinion of the company that is coming in to replace them. “I haven’t been a fan of Holtec,” she said.

Out of the frying pan

Greene, the environmental director at Clearwater, has an even blunter assessment.

“Holtec has a long history of bribery, malfeasance and lying to public officials,” she alleged about the company that is one

public hearing away from taking over the license at Indian Point to handle the decommissioning of the plant. “So much so that they were barred from doing business from the World Bank and the Tennessee Valley Authority.”

Greene has been a leader in the fight to shut down Indian Point for decades, but Holtec’s imminent takeover of the plant and its thousands of tons of radioactive fuel has meant that this day, which she had looked forward to for so long, brings little solace.

“If the license transfer was going to a reliable decommissioning company with a good history and long experience, I would feel more relieved,” she said.

Holtec may be new to decommissioning but that doesn’t mean it’s not qualified, says Patrick O’Brien, a Holtec representative. The company is decommissioning the Oyster Creek nuclear plant in New Jersey and the Pilgrim Energy plant in Massachusetts, and is also going through the license transfer process to decommission the Palisades nuclear power plant in Michigan.

“The NRC does a very thorough process and they found that, with Pilgrim’s case, with Oyster’s case and now with Indian Point, that we have the technical and financial abilities to complete the decommissioning,” he said. “That’s why they allowed the license transfer. The key thing to note when you look at our projects that are underway: They’re both on schedule and under budget.”

The New York State attorney general was not convinced and sued the NRC in January. A few weeks ago, the state, the NRC, Entergy, Holtec and Riverkeeper announced a settlement that would allow the license transfer to go through. A public hearing on the settlement is scheduled for May 13.

(Continued on Page 22)

1980

More than 100,000 gallons of water flood Reactor 2, knocking it out of service.

1982

After a study claims that a core meltdown at Indian Point could cause 50,000 deaths from radiation poisoning and 14,000 long-term deaths from cancer, an official with the Nuclear Regulatory Commission (NRC) says an accident is about as likely as “a jumbo jet crashing into a football stadium during the Super Bowl.”

1993

The state shuts Reactor 3 for safety violations and the reactor is placed on an NRC “watch list” of troubled plants. The reactor remains inactive for two-and-a-half years.

2000

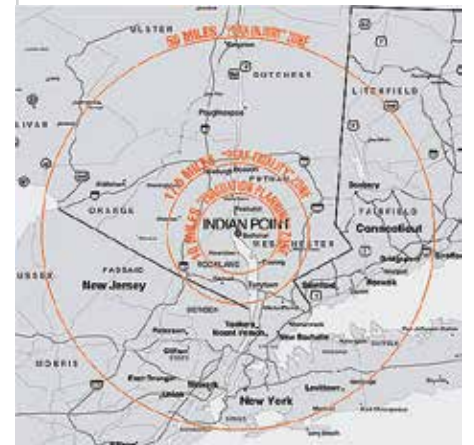
A leak inside a steam generator forces the shutdown of Reactor 2 for 10 months and the first emergency alert in the facility’s history.

2001

Entergy buys Indian Point from Con Ed for \$602 million. Organizations that oppose the plant create the Indian Point Safe Energy Coalition.

2002

The federal government creates a disaster evacuation plan but skeptical county executives refuse to sign off. The state says Entergy must do more to reduce the impact of its water-intake cooling system on aquatic life. Entergy renames the plant the Indian Point Energy Center, dropping “nuclear.” A union leader for the plant’s 600 employees complains that they are portrayed as “ignorant canaries going into the mines. In reality, we’re a well-educated, highly trained, professional workforce.”



2003

Entergy informs the NRC that it plans to store spent fuel at the site in dry casks made by Holtec.

2004

The commission investigating the 9/11 terrorist attacks reveals that Mohamed Atta, who flew a plane into the World Trade Center, “considered targeting a nuclear facility he had seen during familiarization flights” — almost certainly Indian Point, since the terrorists practiced along the Hudson River corridor. Another ringleader reportedly said the plan was abandoned for fear “it might get out of hand.”

2007

Gov. Eliot Spitzer and Attorney General Andrew Cuomo ask the NRC to deny a request from Entergy for 20-year extensions for its 40-year licenses to operate the plant. “We cannot continue to roll the dice with the operation of Indian Point — there is simply too much at stake,” Cuomo says.

**2010**

The DEC rules that Indian Point kills too many fish and consumes and contaminates so much water that it violates the federal Clean Water Act. The firm needs water quality certification for the NRC to approve its license renewals. An Entergy representative says upgrading the water-cooling system to meet state standards would require \$1.1 billion and a 42-week shutdown.

2011

Following a meltdown at the Fukushima Daiichi plant in Japan, the National Resources Defense Council estimates that, depending on which direction the wind carried the fallout, an accident of the same scale at Indian Point “could cause a swath of land down to the George Washington Bridge to be uninhabitable for generations.”

**2012**

The DEC fines Indian Point \$1.2 million for violating the Clean Water Act after a transformer explosion spills oil into the Hudson.



A photo from Ivy Meeropol's 2015 documentary, *Indian Point*

INDIAN POINT (from Page 21)

The settlement addresses many of that state's concerns with Holtec, including financial assurances that it will be able to complete the job by requiring a minimum balance of \$400 million in the decommissioning trust fund for the next 10 years, allowing more on-site scrutiny from the state's Department of Environmental Conservation to ensure the cleanup, including of the contaminated groundwater, is being done thoroughly, and the establishment of a Decommissioning Oversight Board.

“I would venture that the financial assurance is more than any other plant has,” said O'Brien.

The agreement does not address everything. Greene is still concerned about Holtec's plan to ship the radioactive waste to its storage facilities in New Mexico and Texas, in predominantly Native American and Latinx communities that have already borne the brunt of the atomic age by their proximity to nuclear testing and uranium mining.

“It's an environmental justice issue,” she said. It's also a logistical issue as she worried that local roads, bridges and overpasses won't be able to support the massive weight of the radioactive waste-filled casks as they're transported across the country. “It's a tractor-trailer in front, a tractor-trailer in the back and a large flatbed that can only go 3 to 5 mph,” she said, adding that she had urged Rep. Antonio Delgado, whose district includes the Catskills and parts of the Hudson Valley, to take these needs into account when working on President Joe Biden's infrastructure bill.

There are, however, mechanisms in place to make sure these concerns continue to be addressed. And they've been at it for years.

Everyone on board

As part of the 2017 agreement to shut down Indian Point, the state created an Indian Point Closure Task Force. Tom Congdon, the chair of the task force and the executive deputy of the state Department of Public Service, said that it has been meeting on a regular basis since 2017 and is staffed by representatives from almost every state department; every level of government, from the school boards

affected by Indian Point's closure to representatives from the offices of Sens. Charles Schumer and Kirsten Gillibrand; and even workers from the plant.

Many of the bills that have been passed in the past few years affecting Indian Point grew out of this task force, as members discussed needs to be met and problems on the horizon. It is thanks to the task force that about 300 of the plant's current staff of around 750 employees will be staying on to work with Holtec on the decommissioning. Another 170 will relocate down south to continue working with Entergy, and about 180 of the remaining employees are eligible for retirement.

The structures housing the spent fuel will now be taxed. And for the next several years the state will also be providing financial assistance to the jurisdictions who will no longer be collecting \$32 million in annual tax revenue from the plant, starting with 80 percent of the usual tax amount next year, and then decreasing by 10 percent each year. “It's a more gradual phase-out of the lost revenue,” said Congdon, and buys the municipalities time to come up with new sources of tax revenue.

But one of the first things the task force addressed in 2017 is the issue that will be on the minds of many New Yorkers today: Will the lights go off tonight at 11 p.m.?

They will not. In late 2017, the New York Independent System Operator, the state entity that manages the power grid, issued a Generator Deactivation Assessment, a report that NYISO is required to write whenever any power plant, no matter what source of energy it uses, announces its intention to shut down. The purpose of the report is to figure out if the retirement of a plant will result in any reliability issues to the grid. If NYISO determines that it would, they then have the authority to keep the plant open until the issues can be resolved.

As NYISO explained to the closure task force, as long as two out of three power projects that were then in the works (the upgrade of the Bayonne Energy Center in New Jersey; the construction of the Cricket Valley Energy Center in Dover, New York; and the CPV Valley Energy Plant in Middletown) were completed, there would be no reliability issues. As NYISO declared in subsequent reports, since all three projects

2015

After the NRC says it will allow Indian Point to operate under its expired licenses, protestors stretch “Caution” tape across the entrance of the facility. The documentary *Indian Point*, by Cold Spring filmmaker Ivy Meeropol, debuts at the Tribeca Film Festival.

2017

Cuomo, now governor, announces that, under an agreement with Entergy, Indian Point will shut down by 2021. He appoints a task force to oversee the closure that includes Assembly Member Sandy Galef, who represents Philipstown. In December, the New York Independent System Operator, which oversees the electricity grid, concludes the closure will not affect energy supplies.

2020

Reactor 2 is shut down. The NRC approves the sale of the plant to Holtec, which will decommission it.

2021

New York State Attorney General Letitia James sues the NRC, alleging the agency should have held a hearing before approving the sale to Holtec or the company's withdrawal of \$2.1 billion from a decommissioning fund. (The case has been settled.) The state Public Service Commission authorizes the distribution of \$12.5 million annually through 2029 to nearby municipalities, school districts and special districts for lost tax revenue. On April 30, the third and final reactor at Indian Point shuts down.

have since been completed, Indian Point was free to shut down.

However, all three plants burn natural gas, producing much more air pollution and greenhouse gasses than Indian Point ever did. And saying they “replaced” Indian Point isn't quite accurate. The grid is constantly in flux, and it's almost impossible at any point to say where the power in your home is coming from at that exact moment. Since 2017, New York has brought online enough renewable energy and efficiency savings to also “replace” Indian Point's power, with much more on the way. It's part of an ambitious plan to decarbonize 70 percent of New York's energy grid by 2030, and reach zero emissions by 2040.

The state will have to get there without the plant that had been producing nearly carbon-free energy for 60 years, even as it grapples with the damages the plant did to the river flowing by it and the soil underneath it. The sun may set tonight at Indian Point, but the Hudson Valley will be in its shadow for many years to come.

Next week:

Where will the energy come from?

The HIGHLANDS Current



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MAY 7, 2021

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Renters' Aid on the Way

Census data suggests a third of New Yorkers at risk

By Leonard Sparks

For the last year, many tenants and landlords have bailed to keep the boat they share from sinking.

Their hardships are not necessarily reflected in local and state data, whose tallies of eviction filings has been depressed by court system shutdowns and a series of moratoriums imposed by the state and federal governments. But Justin Haines, the attorney in charge of Legal Services of the Hudson Valley's Poughkeepsie office, said requests for help have come from renters with arrears as high as \$18,000.

Now, beleaguered tenants and their landlords may be able to stop bailing because

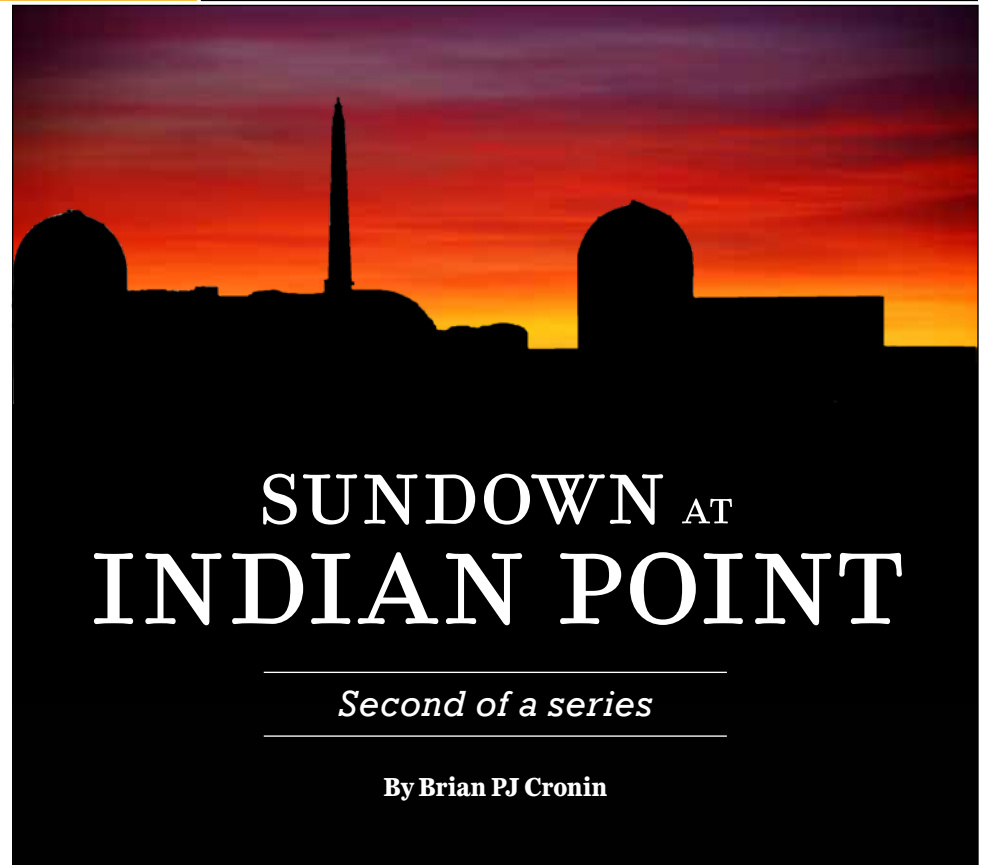
of a bailout.

On Tuesday (May 4), Gov. Andrew Cuomo signed another extension of the state's months-long moratorium on residential and commercial evictions, which had expired on May 1. But a big motivation for the extension, to Aug. 31, is to give local municipalities and New York State more time to distribute \$1.2 billion in federal funding that could erase a year's worth of unpaid rent.

State Sen. Sue Serino, a Republican who represents the Highlands, voted against the extension, which was also opposed by groups such as the Hudson Gateway Association of Realtors, whose territory includes the Highlands.

Assembly Member Sandy Galef, a Democrat whose district includes Philipstown, and Assembly Member Jonathan Jacob-

(Continued on Page 9)



SUNDOWN AT INDIAN POINT

Second of a series

By Brian PJ Cronin

It was supposed to usher in a golden age for nuclear power in New York, and initially had little opposition. But eventually a network of environmental groups as well as everyday citizens who were wary of nuclear power in the wake of Three Mile Island, and then Chernobyl, turned against it. The public questioned the wisdom of building a nuclear power plant so close to New York City. Activists led protests, serenaded by folk singer Pete Seeger, a resident of Beacon. The evacuation plan the plant created was deemed to be unrealistic, and state officials refused to certify it. Finally, after many tumultuous years, Gov. Cuomo announced the decommissioning of the plant.

The year was 1988.

The facility was the Shoreham Nuclear Power Plant on the north shore of Long Island, which was originally planned to be the first of many nuclear plants on Long Island. But when Gov. Mario Cuomo — father of New York's current governor, Andrew Cuomo — announced its closure, it had never been in operation. The plant had conducted low-power tests after its reactors had come online a few years earlier but the approval to go to full power never came.

Shoreham was supposed to open

in 1973 and cost \$65 million. Instead it was completed in 1985 and cost \$6 billion. The overruns would be comical if not for the fact that the people of Long Island were charged an extra 3 percent on their power bills for the next 30 years to help pay for a plant that never supplied them with a single watt of power. It was the last nuclear plant built in New York while simultaneously being the first nuclear plant decommissioned in the U.S.

In 2004, the Long Island Power Authority built two 100-foot-tall wind turbines at the site of Shoreham. At a public ceremony, LIPA Chair Richard Kessel declared: "We stand in the shadow of a modern-day Stonehenge, a multibillion-dollar monument to a failed energy policy, to formally commission the operation of a renewable energy technology that will harness the power of the wind for the benefit of Long Island's environment."

And with that, the turbines whirred to life, generating 200,000 kilowatt-hours of power a year — or 1/35,000th of the power that Shoreham would have created.

The next generation

In the wake of another nuclear plant in New York closing — Indian Point,

(Continued on Page 20)



The Star of Bethlehem Baptist Church has occupied a former bank building on Main Street in Beacon for six decades.

Photo by L. Sparks

Historic Church May Leave Beacon

Developer to buy former bank building

By Leonard Sparks

The Star of Bethlehem Baptist Church, a historic Black congregation in Beacon born in 1900 when its founders began worshipping in a private home on North Avenue, is selling the former bank building on Main Street that has been its home for six decades.

The big problem? Parking.

The Rev. Daniel Blackburn, who was hired as pastor in 2019, estimates that half of the church's members live outside

of Beacon, some as far away as Sullivan County. On Sundays they must compete for parking spaces with day-trippers, especially during the summer, said Blackburn.

"Everybody up from the city is coming, and with the restaurants having spots blocked, it's just worse and worse for parking," he said. "Come June and July, it's really tough."

The building, located at 139 Main St., is being purchased by Hudson Todd LLC, one of two firms run by Joe Donovan and his wife, who own a dozen other commercial properties along Beacon's west end. It was built in 1929 for Mechanics Savings

(Continued on Page 7)

INDIAN POINT *(from Page 1)*

which shut down on April 30 — the state is again turning to wind power on Long Island. But a lot has changed in 17 years. The era of symbolic renewable energy, of ineffectual wind turbines at shuttered nuclear plants and solar panels erected on the roof of Jimmy Carter's White House that barely generated enough electricity to heat water for the laundry room, is over.

By the end of 2022, more than 30 miles off the coast of Montauk, 130 megawatts of offshore wind energy will be in operation, 1,300 times more power than the energy created by the original Shoreham turbines. That 130-megawatt output gets less impressive when one compares it to the 2,000 megawatts that Indian Point generated when Reactor 2 (which shut down last year,) and Reactor 3 (which shut down last week) were operational.

There's more on the way, including about 4,170 megawatts of offshore wind that the state has in development off the south coast of Long Island. By 2035, the total amount of offshore wind coming from Long Island is targeted at 9,000 megawatts, 4.5 times the amount of energy Indian Point was generating at its peak.

The state will need every last one of those watts if it wants to hit its target of 70 percent renewable energy by 2030 and a zero-emission grid by 2040.

According to a report issued this week by the New York Independent System Operator (NYISO), the agency that manages the power grid, the state is already getting more than half of its power from renewable sources. But 25 percent of its total power comes from three remaining nuclear plants located upstate. The remaining renewables consist of hydroelectric (24 percent) and wind (4 percent). Solar is lumped in the "other" category that makes up the remaining 2 percent.

Paul Gallay, the executive director of Riverkeeper, the environmental advocacy organization that in 2017 helped negotiate the shutdown of Indian Point between its owner, Entergy, and New York State, expects the percentages from wind and solar to be rising soon. "We've had a huge head start with the four years since the [Indian Point] agreement was struck," he said, noting that



The Shoreham nuclear plant on Long Island was decommissioned in 1994.

Photo by Paul Searing

the state has put out more than 80 contracts for large-scale solar and wind projects.

Some of the changes that will allow the state to hit its targets are not about generating more power, but using less of it. The state passed a law in 2017 requiring suppliers to increase efficiency by at least 3 percent annually through 2025. "Energy efficiency alone is going to replace Indian Point," Gallay said. "It's kind of the unsung hero of this story."

While the state waits for the next wave of renewables and efficiency upgrades, other sources of power will have to pick up the slack downstate. When the Indian Point closure was announced, NYISO conducted a study and concluded it would have no negative effect on the grid, primarily because of two new natural-gas plants in the Hudson Valley: Cricket Valley Energy Center in Dover and the CPV Valley Energy Plant in Middletown.

So did renewables and efficiency upgrades replace Indian Point? Or natural gas? It depends on what you mean by *replace*.

The 10 percent problem

The grid is constantly in flux, so it's

nearly impossible to say what kind of energy is powering the lights in any particular house at this moment. "There's no 1-to-1" where the power generated by Reactor 3 at Indian Point will now come from another single source, explained Hayley Carlock, the director of environmental advocacy and legal affairs at Scenic Hudson. "That's not the way that the grid works."

It can be said that Indian Point did not provide power to the Highlands; its megawatts went to Westchester and New York City. But what the shutdown may mean is that Cricket Valley and CPV Valley will have to provide more power over the next few years until renewable projects hit the grid, which could mean, in a worst-case scenario, slightly more local air pollution and carbon emissions, Carlock said.

Neither Cricket Valley nor the CPV Valley plants is outputting at full capacity. Tom Rumsey, a CPV representative, said the plant did not have to increase its production in the wake of the shutdown last year of Indian Point's Reactor 2 and doesn't foresee an increase without Reactor 3.

In Rumsey's view, Cricket Valley and CPV didn't "replace" Indian Point, they replaced older fossil fuel sources, to the benefit of the region. "We are displacing much older generation due to better economics, less fuel and lower emissions," he said. "This advantage was realized with or without Indian Point. By displacing older generation, CPV Valley has reduced regional CO2 emissions by nearly half a million tons per year."

Improvements to the grid will also play a role. Officials at NYISO often refer to "the tale of two grids": The upstate grid has a surplus of renewable energy and the downstate grid has a deficit. Improvements to the section where the two grids connect, expected to be completed within 18 months, will allow more upstate energy to reach the Hudson Valley and points south.

Scenic Hudson and other environmental groups argue that, with grid improvements, more renewables and CPV Valley and Cricket Valley, there's no need for a

proposed expansion of the Danskammer plant on the Hudson River near Beacon. Before the two gas plants opened, Danskammer was in operation only on high-demand days. New owners hope to turn it into a year-round natural gas plant.

Danskammer's owners say they could convert the plant to a hydrogen plant in the near future to contribute to the state's renewable energy goals, but Carlock sees that as farfetched because there are no hydrogen power plants operating in the U.S. outside of pilot projects "to see whether this may be a viable technology."

“We're agnostic about what the fuel is or what those resources are.

~Rich Dewey,

the chief executive officer of NYISO

If Danskammer is developed as a hydrogen plant, it could play a vital role on the grid. NYISO's breakdown of what a zero-emission grid would look like in 2040 contains 10 percent "dispatchable emissions-free resources," or DEFRs. These are renewable sources of energy that are not reliant on weather conditions but could be applied during high-demand periods. Even with expected improvements in battery technology that will allow wind and solar to store more power, the grid will need a source of dependable renewable energy that can be deployed at a moment's notice the way natural gas can.

The only problem with DEFRs is that they don't exist. Researchers refer to this as "the 10 percent problem." We only currently have the technology to meet 90 percent of the nation's energy needs with renewables.

"We're agnostic about what the fuel is or what those resources are," said Rich Dewey, the chief executive officer of NYISO, at a

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The Indian Point nuclear plant was shut down on April 30.

File photo by B. Cronin

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news conference this week, “But it’s going to be extremely challenging, if not impossible, to hit the 2040 goal without the development of newer technologies.”

Hydrogen, should it work, could answer that question. Another unproven technology that would capture carbon dioxide emitted by natural gas plants, and either reuse or store it, is another theoretical solution. But there’s another renewable that could be adapted for the 10 percent, and it’s been in operation in New York state for decades.

Bright future

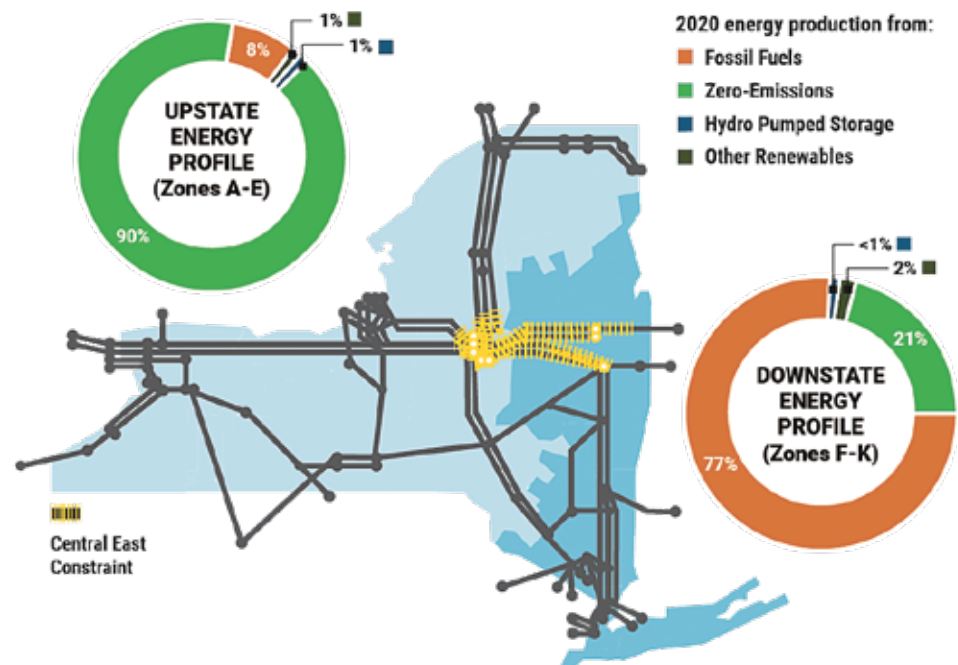
Like most climate activists, Eric Meyer is worried about global warming and believes the U.S. needs to transition to 100 percent renewable power as soon as possible. But he also calls the closing of Indian Point “the greatest environmental tragedy of the last few years.”

“We were losing clean energy by closing down nuclear plants as fast as we’re adding it to the grid with wind and solar, and we thought there needs to be a grassroots, pro-nuclear movement,” said Meyer, who is executive director of Generation Atomic, which was founded in 2016. The group organizes demonstrations, posts pro-nuclear memes and pro-nuclear swag on Instagram, and has even made a “peer-reviewed” rap video:

“So here we go, yo / What’s the, what’s the, what’s the scenario? / The carbon footprint is low in France and Ontario. / The way they chose to carry the load is scary to folks. / But the result in quality of life there is very dope.”

Considering the Indian Point shutdown, Meyer said, “if you put it in the context of losing over 80 percent of downstate’s carbon-free electricity, that’s not a good thing. When you dig a little bit deeper, and you see that Cuomo’s campaign aides were connected to the natural-gas deal to replace the plant, then it starts to check out why all of this went down.”

In 2018 Joe Percoco, a former longtime Cuomo aide, was sentenced to six years in prison for, among other things, soliciting \$287,000 in bribes from CPV while the plant’s permits were awaiting approval. CPV denies that it obtained its permits in



The “tale of two grids” illustrates the differences in upstate and downstate power generation. The yellow represents the bottleneck that prevents excess renewable energy from coming south.

NYISO

any improper way.

New York’s three remaining nuclear plants are receiving \$7.6 billion in subsidies over 12 years to ensure they don’t meet the same fate as Indian Point, which Entergy says couldn’t compete with the flood of cheap fracked natural gas from Pennsylvania.

The state considers the plants a necessary component of its clean energy goals, but Clearwater, which was founded by Seeger and is based in Beacon, was among the environmental groups that sued to stop the subsidies.

“We felt that those funds would be much better invested in a rapid transition to renewable energy with storage and efficiency,” said Manna Jo Greene, its environmental director. “Nuclear is not a climate solution.”

Despite the competition from cheaper fracked gas and renewable sources, the nuclear industry’s economic woes may largely be its own doing. A study published last year by researchers at the Massachusetts Institute of Technology found that construction of new nuclear plants in the U.S. since 1970 has cost, on average, more than three and a half times the estimates, and that productivity in the

construction was 13 times lower than industry projections.

The most recent nuclear plant built in the U.S. is Watts Bar in Tennessee. Construction began in 1973 but the first reactor didn’t come online until 1996 and the second in 2016. The plant was projected to cost \$2.5 billion; it ended up costing \$12 billion.

Watts Bar, however, is producing power. That hasn’t been the case in South Carolina, where the construction of two reactors announced in 2008 was eventually abandoned after an investment of \$9 billion. Much like at Shoreham, taxpayers got stuck with the bill.

There is also the unresolved issue of what to do with the ever-increasing amount of nuclear waste from plants, including Indian Point, where it is stored in dry casks waiting for transport to a federal depository that doesn’t exist. The most recent attempt to build one inside Yucca Mountain, in Nevada, has been stopped and restarted several times since 1987, at a cost so far of \$7.5 billion.

Meyer believes these challenges are all solvable for nuclear. A permanent waste site — Meyer said the current amount of spent fuel would fit inside a Walmart — could be found if the government would put the time and effort into finding it. New plants could be built more efficiently by mass producing the parts rather than building them on-site. Existing technologies that can create cheaper, smaller, meltdown-proof plants could be utilized.

“The industry has to do better at articulating their value and delivering projects on time and on budget,” he said. “There’s plenty of viable solutions. It’s the political solutions that have been elusive.”

Dewey, at NYISO, said that when it comes to the technology required to achieve a zero-emissions grid, everything is on the table, including smaller, modular nuclear units “that are achieving some success in other countries. That could fill this need if it could be sited and developed in a way that people could be comfortable with.”

Far more than technological challenges, the greatest barrier to creating a zero-

emissions grid by 2040 may be convincing people to embrace the infrastructure required over the next 20 years. Nuclear and natural-gas aren’t the only plants that people don’t want in their backyards.

Sunrise

Coxsackie, a bucolic river town in Greene County, is home to acres of sunny fields, as well as two major transmission lines. It appears to be the perfect place for solar panels.

Unless you live in Coxsackie.

“How much solar is Coxsackie expected to take for the team?” said Kim Rose, a representative of Saving Greene: Citizens for Sensible Solar. The group formed after locals learned that more than 3,000 acres secured by developers would be used for solar farms that would produce 180 megawatts — more energy than every planned solar project in the rest of the Hudson Valley combined.

The group’s concerns include a decrease in home values, the destruction of the town’s character, a decrease in tourism, the degradation of potential farmland and ecological damage. Its logo is the short-eared owl, an endangered species whose winter habitat could be destroyed by the solar farms.

These concerns are familiar to the environmental groups who have cited similar concerns in the Hudson Valley for the past 60 years when trying to stop the construction of nuclear and fossil-fuel plants. But some groups now find themselves on the other side of the table when advocating renewable infrastructure against residents who want no part of it.

“The pace of renewable deployment that the state has hoped to see isn’t happening,” said Carlock at Scenic Hudson. “And it’s not because the developers aren’t proposing projects, or for economic reasons. It’s because projects are being strongly opposed.”

Carlock said that Scenic Hudson has created online tools to help communities figure out where the best spots for solar and other renewable projects could be. But an early lesson has been that it may take decades to convince some communities.

“It’s an unfortunate truism that in a lot of ways it’s much easier to site a dirty, polluting gas plant that produces 300 megawatts of electricity than it is to site a clean solar farm that produces the same amount, simply because of the physical footprint,” she said. “You can stick a gas plant in the back corner of a heavily industrialized area and it’s out of sight, out-of-mind, even though their air is being polluted and it’s contributing to climate change and negative health outcomes.”

By contrast, “the land requirements for solar and wind mean that it’s going to be a little bit more visible, and it’s going to necessarily be outside of highly developed industrial areas,” she said. “They don’t want to have to see it.”

Yet without large solar, wind and other renewable-energy facilities in the Hudson Valley, Carlock said, a zero-emission future will be impossible. If Coxsackie is any indication, the fight to close Indian Point may pale in comparison to the fight for what comes after it.



“How much solar is Coxsackie expected to take for the team?” said Kim Rose of Saving Greene, which envisions its sunny fields covered by panels.