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# TERRA FIRMA

MAY - AUGUST 2018

PUBLISHED BY VOLUNTEERS FROM THE LOWER HUDSON GROUP SIERRA CLUB

## INDIAN POINT NEEDS REPLACEMENT? NOT REALLY!

*By Marilyn Elie, Indian Point Safe Energy Coalition*

### **Misguided Critics Say...**

*Closing a nuclear reactor means another gas plant will open to replace it. We need to keep nuclear plants open in order to hold greenhouse gases down. Why can't environmentalists understand that?*

### **The Truth Is...**

In the NY grid and in the neighboring PJM grid we have a surplus of electricity. That means the reactors can close and do not need to be "replaced" with any kind of new generation. Power plants are already producing more electricity than we need, which means closing Indian Point results in no additional greenhouse gas emissions. The NY Public Service Commission has been preparing for an Indian Point closure since 2012 (<http://tinyurl.com/nycenergy>) and over 5,000 megawatts of electricity has been added to the system through transmission upgrades, efficiency and demand reduction from distributed generation. Greenhouse gases from this mix have already been figured into our energy calculations. The results have been so successful that the PSC terminated their requests for new proposals, since additional generation was not necessary to replace Indian Point.

### **What Happens To All Of This Surplus Electricity? Where Does It Go?**

Much of the electricity currently produced is wasted and "goes to ground." Here is a useful analogy: Most everyone is familiar with the

*continued on page 3*

## Membership Meeting Schedule

For up-to-date meeting info, visit  
[SierraLowerHudson.org](http://SierraLowerHudson.org)  
[RocklandSierraClub.org](http://RocklandSierraClub.org)

**NON-MEMBERS WELCOME!**  
**MEETING DAYS AND PLACES VARY, PLEASE  
CHECK CAREFULLY BELOW**

*Light refreshments are served.  
Meetings are free and open to the public.*

**Wednesday, May 9, 2018 at 7:00pm**

**Greenburgh Nature Center**

**(See directions on page 2)**

**This is a handicapped-accessible location**

### **Introduction to Phenology**

Explore the changing trees and welcome the spring through a walk, talk, and paint celebration of the coming of spring! Phenology is the study of seasonal changes, especially in relation to climate, plant, and animal life. Join us for a Bronx River Alliance Ecology Team meeting following the guided walk. All attendees are welcome to bring their own drawing pad and creative materials; Alliance will provide additional supplies. Co-sponsored by the GNC. Refreshments by Sierra Club at 7:00, program starts at 7:30.

**Wednesday, June 13, 2018 at 7:00pm**

**Greenburgh Nature Center**

**(See directions on page 2)**

**This is a handicapped-accessible location**

### **Bag It! Is Your Life Too Plastic? Film Screening**

Join us for a screening of the documentary film *Bag It! Is Your Life Too Plastic?*, which exposes the impact of plastic bags and their effects on land ecosystems, marine life, and the human body. Learn about where the bags and other plastics end up. Co-sponsored by the GNC. Refreshments by Sierra Club at 7:00, program starts at 7:30.

## Join us to work on environmental issues in Rockland County!

Rockland Sierra Club was one of the groups leading the successful effort to defeat plans to desalinate Hudson River water for Rockland's drinking water. We are now helping the County craft a sustainable water management policy. We are also working to limit new fossil fuel infrastructure such as Pilgrim crude oil pipelines, and have partnered with 350.org on efforts to address climate change through divestment and through promoting Climate Smart/Clean Energy Communities programs for towns and villages.

Rockland Sierra Club usually meets during the first week of each month. Check [RocklandSierraClub.org](http://RocklandSierraClub.org) for dates and locations. For more information: [pkurtz9@gmail.com](mailto:pkurtz9@gmail.com) or [deby1012@gmail.com](mailto:deby1012@gmail.com). Or call 845-358-3386.



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### Directions to Greenburgh Nature Center

99 Dromore Road, Scarsdale, NY 10583

In bad weather, confirm meeting by calling (914) 723-3470

**From Rye & Southeast Westchester** Take I-287 West to Exit 5 (Route 100). Go left at the end of the ramp, go to traffic light and turn left again, and continue 0.5 miles to Central Avenue (Route 100). Turn right onto Central Avenue/Route 100 and go 2.5 miles. Pass a Getty station on the left, go about 100 yards and see on the right Tile Shop, then Scarsdale Plaza (3-story dark green glassed building) on the right, and Dromore Road is directly across the street on the left. (If you pass Burger King on left, you went too far.)

**From Northern Westchester** Take the Bronx River Parkway to Exit 22 (Westchester County Center), where you turn right. Cross Route 119 to Central Avenue (Route 100). Take Central Avenue for 2.5 miles. Pass a Getty station on the left, go about 100 yards and see on the right Tile Shop, then Scarsdale Plaza (3-story dark green glassed building) on the right, and Dromore Road is directly across the street on the left. (If you pass Burger King on left, you went too far.)

**From Southern Westchester** Take Bronx River Parkway north to Exit 15 (Fenimore Road). Turn left onto Fenimore, cross over parkway and go through the town of Hartsdale to Central Avenue (Route 100), turn left there and go 1.2 miles. Pass a Getty station on the left, go about 100 yards and see on the right Tile Shop, then Scarsdale Plaza (3-story dark green glassed building) on the right, and Dromore Road is directly across the street on the left. (If you pass Burger King on left, you went too far.)

**From Rockland County** Take Tappan Zee Bridge, continue on Route I-287 east, get off at Exit 5. You should be on Route 119 east and Route 100 south, which share the pavement. Turn right onto Central Avenue/Route 100, and go 2.7 miles. Pass a Getty station on the left, go about 100 yards and see on the right Tile Shop, then Scarsdale Plaza (3-story dark green glassed building) on the right, and Dromore Road is directly across the street on the left. (If you pass Burger King on left, you went too far.)

three-pronged plugs that are in common use around our homes. The third prong is called the *ground* and is a safety feature to divert a sudden surge of electricity away from whatever device the plug is attached to. On a much larger scale it is similar to the third line on substations and transmissions lines, a safety feature that protects the system from large swings in voltage. If there is too much electricity in the system and it cannot be dispatched to a buyer – it goes to ground. It is actually discharged into the ground through the third wire and harmlessly dissipates rather than causing a huge surge in the system that could disrupt transmission. Since generators are currently producing too much electricity, some of them can drop out of the market and the net effect is that less power is wasted or goes to ground.

### **Declining Demand**

Another important factor is declining demand. Common knowledge has it that demand will always increase because of the proliferation of electronic devices and an expanding population. While common knowledge is flat out wrong, it is exploited by corporations, hedge funds, and politicians to sell the public on the need for additional electricity. Communities facing a job loss when a company closes are anxious to find a replacement and frequently will grant a tax write off for seven to ten years. Gas plants are relatively cheap to build and go in quickly. Even in a market with surplus energy, these plants can make a profit since they are not paying a tax bill. What happens when the tax breaks expire? Frequently the plant will close and the owners move on, having made their money back plus a handsome profit. This is a cynical business model that has nothing to do with supply and demand.

The myth of drastically increasing demand is not borne out by any statistics. The Electric Power Research Institute, the research arm of the industry, just released the US National Electrification Assessment for 2018. Nationally, from 1990 to 2000, demand grew by 2.7% annually. From 2000 to 2010 demand dropped to 0.82% annually, a third of what it had been. "How can this be?" a reasonable person might ask. The short answer is efficiency, conservation and demand response. Better design has resulted in more

efficient machines and large users of electricity are figuring out how to save money on their electricity bill by putting solar panels on their roof tops. Roof top solar on private homes and public buildings has also played a role in reducing the need for generation available from the grid.

### **Distributed Generation for the Future**

Our grid is moving away from the old fashioned model of big centralized power plants that generate electricity 24/7 and can't be turned off when the power is not needed. Smart planning dictates that we improve transmission, where appropriate, and at the same time move toward community distributed generation that allows the construction of small fossil free generators closer to where the power will be used. We need a mix of methods – one size does not fit all. That way we can have a solidly reliable system that produces the electricity we need with less to be wasted and to go to ground. That leaves nuclear power as an outdated technology which the market has passed by. Closing a reactor means no more high level radioactive waste being produced, no more insurance guarantees like the Price Anderson Act, no more damage to the Hudson River and fish populations, no more radioactive releases to the air and water, no more leaks, no more nuclear subsidies for failing reactors and no additional greenhouse gases since emissions from existing plants have already been figured into the state's energy mix.

In the *2017 Power Trends* the New York Independent System Operator, guardians of our grid, clearly laid out two scenarios for moving forward: one with gas generation and one without. **We must demand a sensible, green energy policy and take the road of fossil free generation for the sake of our children and our planet.** That is the goal of every environmentalist working hard to close nuclear power plants and all fossil fuel generation.

## ALL HANDS ON DECK!

The Lower Hudson Group needs your help this year to get political candidates elected who'll look out for the environment. We carefully vet these candidates and their opponents, and in selected races, endorse a candidate.

We help our endorsed candidates in several ways:

- Canvassing, which is walking in a group around neighborhoods, meeting citizens in their homes and informing them about an upcoming election. This can be a lot of fun.
- Making phone calls on behalf of the candidate, especially to our members.

Please contact George Klein at 914-772-3916 or [lowerhudson@gmail.com](mailto:lowerhudson@gmail.com) to help out.

## ANOTHER THING YOU CAN DO FOR OUR ENVIRONMENT

Make your voice heard by meeting with your state legislators in their district offices! Join with other Sierra Club members and local stakeholders to advocate, as a group, for key policies and bills. We will provide training and connect you with your Group and Chapter leaders.

Many good environmental provisions originally included in the state's Executive and Legislative budget proposals dropped out during negotiations before the budget was finally passed this April. We need to make sure our legislators and the governor know how important these measures are through our advocacy.

Some issues we are working on:

- We are close to achieving a comprehensive food waste plan to send excess food from supermarkets and restaurants to food pantries or make sure unusable food is composted rather than dumped in landfills.
- We ask the legislature to address the scourge of plastic bag waste. By 2050 there will be more plastic, by weight, in the oceans than fish!
- We must make sure the state's wetland maps, prepared back in 2005 and 2009 with taxpayer funds, are released so that we can protect our water quality and make New York more resistant to flooding.
- We need to address climate change by switching New York's energy sources to renewables and by advocating for efficiency and conservation.

To volunteer, apply online on the Chapter website, <http://newyork.sierraclub.org>, and click on the link on the right, "Volunteer with the Sierra Club". We will connect you to experienced volunteers who can help guide you in how to meet with your elected officials and can provide information about Sierra Club's lobby priorities.

Our strength lies in our numbers of volunteers who care enough to get involved. Be one of those volunteers and help protect our planet for future generations.

# HARVEST SQUARE DANCE!

**SAVE THE DATE -- SATURDAY, SEPTEMBER 22, 2018**

**FARAWAY FARM, YORKTOWN, NY**

Come to our fifth annual Harvest Square Dance fundraiser, to benefit our Sierra Club Lower Hudson Group. Past square dances showed we can pack a lot of fun into a fundraiser!

Our caller is Pat Cannon of Foot & Fiddle Dance Co., a pro who knows how to guide even dancers with two left feet!

The dance starts at 5pm at Faraway Farm Alpacas in Yorktown, and we get to meet baby alpacas. Faraway is donating 10% of proceeds from sales in the Alpaca Store during the event to the benefit pot.

Visit [harvestsquaredance.brownpapertickets.com](http://harvestsquaredance.brownpapertickets.com) for info and to buy tickets. Early buyers



## DEMAND GOVERNOR CUOMO SHUT DOWN ALL GAS AT INDIAN POINT NUCLEAR FACILITY!

On February 29, 2016, Governor Cuomo ordered a risk assessment to examine the hazards of the Algonquin gas pipelines that run under and alongside the Indian Point nuclear power plant.

The information from the risk assessment is critical to the safe operation and decommissioning of Indian Point. Elected officials\* have written letters requesting the risk assessment. Under Freedom of Information Law (FOIL), the risk assessment was requested by members of the community, a nuclear expert and others. Still, Governor Cuomo is withholding it.

Clearly, it is not safe to have gas pipelines at a nuclear facility. Independent experts warn that a spent fuel fire triggered by a pipeline rupture would be more devastating than Fukushima and render the region, including most of New York City, uninhabitable. Closing Indian Point will not reduce the risk because there are over 1,500 tons of highly irradiated spent fuel that will remain on-site. In addition, Indian Point is a known terrorist target and a cyber-security threat.

If the State's risk assessment had indicated it was safe to have gas pipelines at Indian Point, Governor Cuomo would have released it. Under New York State's FOIL law, the only relevant reason for withholding it is that "if disclosed (the information) would endanger the life or safety of any person." For over 15 months, since the AIM

pipeline became operational, Governor Cuomo has been subjecting New Yorkers to unacceptable risk. Because of the potential catastrophic danger of this co-location, **no gas can be allowed to flow at Indian Point.**

The concerned residents at the New York State Indian Point Closure Task Force meeting on April 12, 2018 recognize that the re-use study contracted by New York State is invalid if it does not address the risk associated with the co-location of the Algonquin pipelines and the Indian Point nuclear facility.

**Tell Governor Cuomo to stop enabling the oil and gas industry and take immediate steps to protect New York. He must rescind all State-issued permits and do anything else necessary to stop the flow of gas at Indian Point.**

**The phone # for the Governor is 518-474-8390**

**Webform (no email) is <https://www.governor.ny.gov/content/governor-contact-form>**

\*Congresswoman Nita Lowey, Assemblymembers Sandy Galef and David Buchwald, Cortlandt Town Supervisor Linda Puglisi, City of Peekskill Deputy Mayor and councilmembers, and Town of Philipstown Board

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# ANTARCTICA MELTING— WHAT DOES IT MEAN FOR US?

*By Gale Pisha*

Deep beneath the Antarctic ice lies a hidden world with a lake the size of New Jersey and water that runs uphill!

In April, climate scientist Robin Bell from Lamont-Doherty Earth Observatory of Columbia University kept the audience in the packed room in Suffern Library spellbound with stories of her team's work on the Ross Ice Shelf and their exploration of the last unexplored mountain range on our planet. She also explained what their research means for us.

Bell, President-Elect of the American Geophysical Union, has led teams of scientists to explore the ice sheets of Greenland and the Antarctic. Evidence has shown that both are losing ice; it is moving faster, dropping in surface height and losing weight, all changes that show ice is being transferred into the oceans which will raise sea level, perhaps as much as 2 meters by 2100. In the Arctic, less ice in summer also contributes to winter extremes of weather such as we have seen this past year.

Ice shelves are vulnerable areas of Antarctic ice. These thick extensions of Antarctic land ice have flowed into the ocean and, though still connected to land, are floating. Water creates changes in the ice. Water that melts on the surface of an ice shelf can act as a jackhammer to create cracks that eventually cause chunks of the ice to break off and fall into the water. Water forming on the bottom of a land glacier acts as grease to move the ice along faster. While ice already in the water (such as icebergs) does not contribute to global sea level rise, new ice moving from land into the water will raise the level. Bell noted the effect from ice loss varies regionally, especially farther away from the ice sheets. Due to changes in gravitational attraction, Antarctic ice melting will impact our area more than Greenland melting.

However, the research of Bell and her team is important for more than just understanding sea level rise.

Evidence from various kinds of instruments and sensors show that underneath the flat Antarctic ice sheet, where the surface temperature is minus 40 degrees in the summer, is a mountain range of rock and a whole series of ponds and lakes, including Lake Vostok which is 3,000 feet deep in some places and the size of New Jersey. The water underneath 2 miles of ice is kept liquid by geothermal energy.

Bell described how scientists discovered that the weight of the ice above presses down on this water and causes it to run uphill. As it rises, it cools and refreezes underneath the glaciers, a surprising finding in light of the previous belief that the ice sheets are made of layers of snow piling up on top. This discovery means that some of the evidence about past climate usually gathered from ice cores may have been erased by this melting and reformation of ice from below.

Research about microbial life that might exist in Lake Vostok and in the Arctic may help us understand the possibility of life existing under ice sheets. This knowledge may be especially helpful when applied to considerations of life in outer space, since images of Jupiter's moon Europa show blocks of ice in a matrix of ice similar to that seen in the Arctic.

Understanding the past fluctuations in temperature of our planet and the action of polar ice now is important in helping to plan for our future, since human activity has clearly accelerated the process of warming. When asked what we should do to slow sea level rise, Dr. Bell had a definite answer: "Live sustainably."

For further reading, see Susan Hellauer's article in *Nyack News & Views* at <https://nyacknewsandviews.com/2018/04/earth-matters-arctic-ice-robin-bell/>

# NO NEWS ISN'T GOOD NEWS AT WESTCHESTER COUNTY AIRPORT

By Jonathan Wang

George Latimer's victory in the 2017 election for Westchester County Executive brought hope to our efforts to rein in the environmental harms caused by Westchester County Airport. Four months into his administration, however, have not led to any decisions on the airport master plan or the proposed privatization of the airport. The county government continues to deliberate on these topics. We are confident that Mr. Latimer will engage in an open process to involve the public as these policies are formulated. Mr. Latimer has repeated to us his deep skepticism about privatizing the airport. However, the county also has a budget deficit of tens of millions of dollars. Privatizing the airport would be an easy way to fill that hole.

Therefore, your Sierra Club Lower Hudson Group continues to lobby our government to advocate for environmentally friendly policies. Two victories have already come this year. We secured a verbal commitment to reinstate the airport's groundwater monitoring program. This is especially important as high levels of toxic PFOS & PFOA have been found in groundwater under the airport and has already affected some neighboring private wells. We also con-

vinced Mr. Latimer to reconsider a lease assignment, billed as routine, that contained a 13-word change that would have allowed the creation of a maintenance facility for corporate jets. We believe such a facility would be detrimental to the environment by increasing air & ground traffic and by increasing the risk of industrial spills. Unfortunately, we were also dealt a loss in our lawsuit to halt the planned construction of a 850 car airport parking garage in the Kensico Reservoir watershed.

Aviation interests continue to push for more development at our airport. We will continue to push back with your support. While donations are always useful, simply making your voice heard with our elected officials is invaluable. Mr. Latimer has suggested an increased role for the county's Airport Advisory Board, the Board of Legislators, and the public in formulating airport policy. We encourage interested members to contact your county legislator to express your concern about the environmental impact of the airport. We are also always looking for volunteers to help with our advocacy efforts.

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## SIERRA CLUB

WESTCHESTER, PUTNAM & ROCKLAND COUNTIES

*"To be without some of the things that  
you want is an indispensable part of happiness."  
-- Bertrand Russell*



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