



Fresh Air

The Quarterly Newsletter of the Mid-Hudson Group of the Atlantic Chapter

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This newsletter will be posted to our website along with all previous newsletters.

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Chair's Corner by *Lalita Malik*

In January 2020, your Mid-Hudson Group's Executive Committee set goals for the year to advance the Sierra Club's climate protection and energy goals. As the year ends, it is time to reflect on our progress towards our goals and define new priorities for 2021. Our projects focused on preserving land, clean air and water and ensuring progress towards green energy.

For policy changes at any level, it is important to elect congressional candidates who commit to supporting Sierra Club goals. Towards this end, your Political Committee members evaluated candidates via questionnaires, interviews and voting history to endorse candidates for various offices. You exercised your constitutional rights and elected representatives who will support our goals. The results are summarized in the **Political Corner** report by Alison White and Nancy Severns.

In the Catskills, we continue to fight the proposed steel and concrete plant that is adjacent to the Bluestone Forest Preserve. The potential environmental impact of noise, dust, water runoff and damage to the pristine "Hemlock Bluestone Quarry Archaeological District" (which has been nominated to the National Register of Historic Places) are of great concern. We partnered with Catskill Mountainkeeper and the Woodstock Land Conservancy in reaching out to our elected representatives and are prepared to join them in litigation, if necessary. See the **Conservation Corner** report by Marie Caruso for the latest information.

Climate change, how we use our water and treat wastewater is affecting the quality and quantity of water available for human consumption and for the environment. In November, they found a harmful [Algal bloom on Lake George](#). The exact cause has not been determined but this type of bloom is known to be caused by human activity. Check out the story "Fresh Water Follies" by Bob Heinemann (which appears under the Conservation Corner banner below) to learn more about today's important water issues.

The **Energy Corner** by Nivo Rovedo discusses the state of Solar Power in the United States. Many states have enacted restraints on their citizen's abilities to go solar. Fortunately, New Yorkers do not have these issues. For us solar is an easy

option. We are fortunate to live in a state that is leading the country in combating climate change with aggressive goals towards reducing use of fossil fuel and moving us towards clean energy.

To achieve that goal we need to stop constructing electricity plants that use fossil fuels and we all need to switch to using electricity for all our energy needs. Sierra Club has joined the coalition to stop the proposed Danskammer power plant re-opening in Newburgh which will use fracked gas to generate electricity. This battle will continue next year. Check out the article by Alison White in **Conservation Corner**.

As individuals, we need to reduce our reliance on fossil fuels, make changes to vehicles we drive, how we heat our homes and water, how we power our homes. This seems like a daunting task, but there are many resources available to us as residents to make these goals achievable. One of our goals in 2021, will be to share information about technologies, products and options that are available to us.

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Political Corner by Alison White and Nancy Severns

2020 Election Results

We want to say thank you to all who voted! This year's turnout has been cited as the largest in 120 years and we thank you for exercising your Constitutional right.

Democrats are declaring that they clinched supermajority status in the NY state senate by securing 42 of the 63 seats in the legislature's upper chamber. Democrats also have a veto-proof majority in the 150-seat Assembly. By holding these chambers, the majority party sets the legislative agenda.

A supermajority has the power to override gubernatorial vetoes as well as approve special measures that require passage beyond a simple majority. In addition, when legislatures redraw districting maps after the 2020 census, the majority party controls the process. Governor Cuomo holds veto power.

Of the 9 NY State candidates recommended for endorsement by the Mid-Hudson Group of the Sierra Club, 5 won their races and 4 lost.

New York Assembly District results:

103 Kevin Cahill - won
104 Jonathan Jacobson - won
105 Laurette Giordino - lost
106 Didi Barrett - won

New York Senate District:

39 James Skoufis - won
41 Karen Smythe - lost
42 Jen Metzger - lost
46 Michelle Hinchey - won
51 Jim Barber - lost



The two local congressional candidates endorsed by the Sierra club both won re-election as did the Presidential ticket.

Congressional District:

NY18 Sean Patrick Maloney
NY19 Antonio Delgado

US President/Vice President:

Joe Biden/Kamala Harris

Our fellow Mid-Hudson Group Executive committee member, Bob Heinemann wrote an article for the Fall 2020 newsletter

citing many of the negative environmental actions executed by the Trump administration. [See the Mid-Hudson Group Fall Newsletter](#). On November 27th, Lisa Friedman of *The New York Times* reported on EPA staff resistance to additional deregulation being pushed in the final days of the current administration. Read the article: [E.P.A.'s Final Deregulatory Rush Runs Into Open Staff Resistance](#)

President elect Joe Biden staked out environmental positions that are the polar opposite of the current administration and plans to take steps to rollback environmental decisions taken by the Trump administration. It can't come soon enough.

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Conservation Corner

Update:

Bluestone Forest Concrete Plant Site Under Review by OPRHP

By Marie Caruso

Discussion about the impacts of the steel and concrete slab manufacturing facility, known as 850 Route 28, LLC, proposed to be built in the midst of the Bluestone Wild Forest, has recently shifted from the Town of Kingston Planning Board to the NYS Office of Parks, Recreation, and Historic Preservation (OPRHP). The Historic Preservation Division of that agency is in the process of determining the boundaries for the nomination of the Hemlock Bluestone Quarry Archaeological District" to the National Register of Historic Places.

The developer's archaeological consultant, Joseph Diamond, has submitted a report to OPRHP arguing that there are no historical features worthy of preservation on the 850 Route 28 site. This has been countered by a strongly-worded letter from Claudia Braymer, attorney for Catskill Mountainkeeper and the Woodstock Land Conservancy, as well as a new field study from Paul Rubin of Hydroquest, documenting in detail many historic features throughout the area associated with former bluestone quarries, including some that could be impacted by the proposed development at 850 Route 28.



Equipment and construction materials being stored at site of proposed industrial plant.

Rubin found artifacts such as building foundations, laid stone pillars, parts of metal-rimmed wagon wheels and their grooves cut deep into the bedrock, still visible today. He found remnants of 18 miles of wagon roads connecting various quarry sites, at least three of which extend onto the proposed industrial site, along with a well-preserved quarry face. All of these findings are important to inform public understanding of the bluestone quarry industry that was active 150 to 200 years ago and played such a significant role in the developmental history of Kingston and surrounding areas.

The Town of Kingston Planning Board has not had an open discussion of this project since June. The developer has not yet responded to several previous reports that document the adverse impacts of this plant upon forest habitats, wildlife, and recreational users. These studies, along with the recent submissions from Paul Rubin, further illustrate the need for a Positive

Declaration and a comprehensive Environmental Impact Statement which the Planning Board has yet to require. Should they allow the project to proceed without one, litigation may be the only way to try to ensure that the project is forced to undergo the rigorous environmental review required by the State Environmental Quality Review Act (SEQRA).

In possible anticipation of this, Alison White, our Group Vice-Chair and Chapter Delegate, made a presentation in October to the Atlantic Chapter Executive Committee which was very well-received. [Click here to see a copy of that report.](#)

There is also the question of whether this particular developer could be trusted to abide by any commitments made to mitigate the negative impacts of this project.

The developer, Thomas Auringer, is also the owner of US Crane and Rigging, the company whose crane was swinging out of control on a high-rise in Manhattan this past October, causing falling debris, danger to people below, and several street closures. This is only the latest in a long series of OSHA violations and hazardous working conditions associated with Auringer companies.

More details about this developer, this project, and most of the relevant documents can be found on the website saveonteoralake.org, where you can also sign up to receive regular updates on the issue.

Fresh Water Follies

by Bob Heinemann

We lose what we take for granted. That loss often is permanent and no replacement is possible. Fresh water all too often is taken for granted especially in North America.

There is an abundance of fresh water, or so it seems. The Great Lakes contain 84 percent of the fresh water in North America and more than 20 percent of the surface fresh water in the world. A number of significant problems nibble away at these seemingly limitless fresh water reserves. These problems include pollution by industry and agriculture, warming water temperatures, invasive species and stress from other human factors including urban pollution. These issues collectively degrade fresh water and disrupt the food web from zooplankton and phytoplankton to fish and to mammals, including humans.

Connected waterways whether between Great Lakes like Lake Michigan and Lake Huron or from streams and watersheds that connect into bigger rivers like the Hudson result in shared problems from invasive species and pollution. Water depth and volume and population numbers are factors which either lessen or increase water quality problems such as the shallow depth of Lake Erie and the population density near the shores of Lake Erie and Lake Ontario.

Another significant issue negatively effecting water quality is algal blooms. These blooms are seasonal during warmer weather months but also are caused and enhanced by sewage runoffs and storm surges which significantly increase contaminates in lakes and rivers.

Invasive species and the food chain

The disruption of the food chain due to invasive species, especially non-native invasive species, often is not fully realized until the problem has reached a critical level when ameliorative actions are too little and too late. A few statistics begin to frame the problem. The five Great Lakes collectively share at least 180 non-native invasive species, with Lake Erie having by far the most at 148. The Hudson river surprisingly also has a large number of aquatic invasive species which Riverkeeper counts as at least 50.

Some invasive species attack top predators such as lake trout, including rainbow trout. Others like invasive zebra mussels destroy the base of the food chain by carpeting lake beds thereby filtering phytoplankton from the water. Microorganisms are vital to sustain higher organisms. In the Hudson river, water chestnuts are a threat to the watershed. These non-native plants introduced in the 1800's are widely disbursed in the Hudson Valley, including in stream beds. Their roots produce leafy mats that choke waterways and block sunlight from native vegetation. This leads to the consumption of oxygen thereby suffocating fish and other aquatic life.

Invasive species often start with small numbers released by individuals who intentionally release aquarium fish and vegetation, or unintentionally through recreational use by anglers, boaters and jet skiers. Once established an invasive species is often

difficult if not impossible to remove. Dead zones created by large carpets of algae result in completely dead smaller lakes and the significant loss of fish even in our largest lakes and rivers.

Closer to home: the Hudson River, lakes in the Catskills and Adirondacks

When rivers and lakes lose the building blocks of aquatic life, generally known as diatoms (which include microscopic organisms like phytoplankton that are consumed by microscopic animals like zooplankton), the effects reverberate up the food chain to the fish large and small that require these organisms to sustain life. Algal blooms that block sunlight affect the entire food chain.

Invasive species that attack and reduce the population of native fish like trout also negatively affect the food chain, as well as sports fishing and other recreational activities which mean economic vitality for communities that depend on lakes and rivers for tourism. Additionally, phosphorus in fertilizers dissolves in rain water and then runs off from plowed fields into lakes and rivers which also adds to the increasing severity of algal blooms.

The DEC tracks invasive species that threaten the Hudson river and its watershed. Similar threats effect the lakes of the Catskills and the Adirondacks. In addition to water chestnuts mentioned earlier, other invasive threats include hydrilla, a species of aquatic plants in many aquariums now prohibited in New York State. Hydrilla started in Orange County as recently as 2008 but now has spread to 11 other counties including Westchester. There are many hot spots” in the Croton River which runs into the Hudson. This still potential threat to the Hudson decreases dissolved oxygen required by fish and other aquatic life.

Other local invasive species threats include didymo, a microscopic algae that forms mats clinging to rocks in fresh water streams. It is spread by water-based recreation as didymo clings to boots, fishing tackle and boating equipment often used in different streams, lakes and rivers.

Zebra mussels are another problem. Introduced to the Great Lakes in ballast water from cargo ships in the 1980’s, the mussels reached the Hudson river by 1991. Zebra mussels have contributed to the decline of shad and herring as they consume 70 to 80 percent of the plankton that these fish feed on.

Last, but not least, among the five greatest invasive species threats to the Hudson is grass carp. Since 1963, when grass carp were introduced to Alabama and Arkansas, they eventually spread to 45 states and the Great Lakes. Grass carp have been in the Hudson since the 1980’s altering habitat and impacting plants and the species that depend on them.

What you can do

First and foremost, be aware of the problems caused by invasive species and do not add to the problem.

Simple things make a large difference. Clean your hiking and fishing gear after each use. Wash down kayaks, jet skis and other watercraft before putting them back into a new body of water. Fish using native bait when possible. Volunteer at removal efforts, and if you notice an invasive species report it to the New York DEC.

Stay informed, as this is a regional problem not confined to individual waterways. New York State has developed an Invasive Species Comprehensive Management Plan (ISCMP). Partnerships for Regional Invasive Species Management (PRISM) was also created. Consider subscribing to an email listserve of any of the ISCMP partners including the NYS Department of Environmental Conservation Bureau of Invasive Species and Ecosystem Health. A good place to start is New York State PRISMS.

Last, continue to push for legislation that strengthens fresh water protections. Congress passed the Clean Water Act in 1972 which among many other positives imposed strict regulations on sewage treatment plants, and caused phosphates to be removed from laundry detergents. This one piece of legislation significantly decreased algal blooms in the Great Lakes for a decade. Yet, the recent national political “leadership” has watered down the Clean Water Act at every turn. Stay informed and continue to vote only for politicians who will support and strengthen the protection of fresh water.

Fresh water only seems plentiful. Without our active attention, what appears limitless will be proven to be quite finite and all too easily lost.

Bibliography

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[Pollution: Hudson River](#)
[NY-DEC information on invasive species, with photos](#)
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[Spread of algae](#)
[Invasive species in the Hudson River](#)
[Field guide article](#)
[Invasive aquatic species](#)
[EPA information](#)
[Pollution in the Hudson River](#)
[Hudson River Contamination](#)
[Ways to Reduce Invasive Species in rivers and lakes](#)

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Energy Corner by *Nivo Rovedo*

Solar Wars: Citizens vs. Utilities and Fossil Fuel Companies

Recently, I watched a film in the PBS series “Independent Lens” that was on solar power. The title is “Jonathan Scott’s Power Trip”, hosted by Jonathan Scott, one of the two principals in the show “Property Brothers”. For those unfamiliar with the program (me included), Jonathan is the licensed contractor who plans renovations of somewhat neglected properties that his real estate agent brother ferrets out. In this documentary, Jonathan is having solar panels put on his house in Nevada, and starts to look into the regulations involved in solar power that hamper its adoption.

What follows is an exploration of the powerful entrenched business interests fighting widespread adoption of solar, and their cunning legal and public relations campaigns, which include disinformation. The perspective is from a slightly different angle than one may be expecting: instead of extolling the benefits of renewable solar power (which he does do) as the centerpiece of the show, Jonathan takes a more libertarian view: people are being denied the freedom to adopt solar power by large corporate interests who want to keep residents dependent on the fossil fuels that they provide through their monopoly positions.



He does bring up the benefits of renewable solar power, from greenhouse gas reduction in the fight against climate change to economic benefits of these green jobs to the social justice issues involved. He interviews church leaders who have struggled to be allowed to go solar and Native American communities without a grid connection. But the core theme is that we are being denied, or at least legally and economically discouraged from a benefit that should be a right. His examination of how this has come about is very informative.

The film starts out with the day Jonathan had solar installed on his roof (in which he participates in the actual work), and he remarks



on the upbeat vibe and high spirits of the installers. He sees solar power as a great idea and asks the central question of the program: “What’s preventing everyone from having this?” But his enthusiasm turns to frustration, despite his plummeting electric bill, as he says “...when it comes to choosing how we power our lives and truly having energy freedom, this country has a long, long, long way to go.”

The first segment is the 2016 Nevada Public Utilities Commission’s (PUC) decision to phase out net metering for solar installations. Net metering is the term for the right of solar owners to be reimbursed at retail rates (what a consumer pays the utility for power) for the excess power their installations send back into the grid for others to use. It is a big incentive for solar adoption, as many homeowners can actually make some net profit, especially in very sunny locals.

With net metering and the vastly reduced costs of solar installations, the demand for rooftop solar in Nevada skyrocketed; people could now choose what electricity they use and from where. Then the utilities struck back, and, despite large vehement protests at public hearings, the Nevada PUC voted to phase out net metering. In one particularly resonant segment, the actor Mark Ruffalo (a celebrity known for his environmental activism) berates the PUC at a hearing: “The actions you are taking today are taking from the mouths of the people and giving it to a single monopoly utility. You’re stealing from the people and giving to the rich. You’re like the anti-Robin Hoods!”

Jonathan then points the finger at utilities as those who would benefit from this move: “virtually all are private companies and they are definitely built for profit.” One public relations ad for the utility states that they live in Nevada and want what the people want; Jonathan retorts that nothing could be further from the truth.



Jonathan then begins a trip to assess if the situation is similar in other parts of the country. First stop is Georgia, where he speaks with farmers in a land with plentiful sunshine and ever increasing utility bills from the electrical monopoly. With no solar incentives from the legislature, grass-root pro-solar movements have started. The documentary profiles a surprising leader of this endeavor: a gun-loving, vocal, tough, conservative woman who co-founded the Tea Party; she says the people are being denied the freedom to choose a better power source, “We don’t want the government telling us what we must do. The customer’s voice is drowned out by the voice of big money. Individual liberty, energy choice, and jobs. Those are the messages that resonate with conservatives.”

Another conservative-minded activist for solar expresses the belief that solar can help farmers be profitable and keep young people from leaving the small rural communities. The business model of most utilities in the country (but not in NYS, where deregulation in the ’90s divorced power distribution from generation) is a government-mandated legal monopoly, in which generation, long distance transmission and distribution are owned by one company.

This arrangement came about early in the last century, where governments struck a deal with utilities to get electricity to everyone, especially the far-flung farmers. But Jonathan points out that this agreement is not needed now; we have come a long way since then. In one egregious abuse of monopoly power, it is explained that in 2012 Georgia Power (the utility) convinced the utility commission to approve two nuclear power plants; the cost has gone from \$7B to \$27B, Georgians pay an extra \$100 a year to foot the bill, and the plants would not start generating until 2021.

The utility mismanaged the project yet doubled its profit. Their monopoly deal also guarantees the utility “a 10% profit on anything that generates revenue,” including the cost to build and maintain their publicly-funded infrastructure, As Jonathan narrates, “For utilities, bad business is good business”.



The documentary next examines the Edison Electric Institute, a utilities trade group that lobbies our politicians vigorously. The group published a white paper in 2011 that stated utilities would see a “death spiral” if customers were allowed unbridled rooftop solar power; the disruption would cause the power companies to go bankrupt. As expected, the self-serving utilities then pushed politicians “to convince you [the customer] that their problem is

your problem.”

The next stop is Kentucky, coal country. Coal was a major part of the power generation infrastructure from the start of electrification and for many decades since. Coal and the coal miners kept the lights on across the country, and built the many small towns in Kentucky. Utilities found allies in the coal companies, who have seen their business dwindle. Suddenly, the Obama administration was engaged in a “War on Coal” when it tried to push for clean, renewable energy, according to the coal industry and the elected officials it controls.

The truth is that the coal industry is failing because of market forces, and Trump’s and his enabler’s promises of coal’s comeback only prolong the anguish of coal country by raising false hopes and preventing new economic strength to develop.

Interviews with former coal miners (who are ill with deadly black lung disease from their years digging coal) show that they still cling to the promise of coal — one says that given the choice for his town of opening a new coal mine or developing wind and solar, he would open a mine, stating the town needs the jobs and “use what we got”. Yet he later hesitatingly admits after some thought that he would not want his children to have jobs as coal miners.

The fact is that today, coal is not dug in underground mines but comes from ultra-destructive mountaintop removal and strip mines; and a great deal of the labor is done by machines at low cost. The clean energy economy produces three to five times more jobs than the fossil fuel economy according to Daniel Kammen, a UC Berkeley professor of energy studies. As he puts it, this comes about because when you invest in fossil fuels, you are putting your money into an oil well or a coal mine as most money goes into the extraction; but investing in renewables puts the investment “in people and companies and hardware.”

An interview with a solar installer and a solar construction supervisor provides context on the arc the industry took in Nevada: initially there was no opposition, then came the PUC’s devastating edict, which caused a near total collapse for rooftop solar, resulting in widespread layoffs.

Jonathan details NV Energy’s (the Nevada utility) playbook that killed the fast-growing, thriving industry. First, the claim was spread that regular customers were subsidizing the solar owners because the latter did not pay for sharing in the grid infrastructure; pundits and even Warren Buffet (whose company Berkshire Hathaway owns NV Energy) and the Nevada’s governor touted this line.

The truth was that every utility customer was charged for maintaining the grid through various fees; rooftop solar owners were not being subsidized. But the film circles back to Nevada two years later, when attitudes in the general voting public toward solar and net metering had become more supportive, and the economic impact of the lost solar jobs was felt state-wide.

The governor sensed the changing solar political wind; he sacked the 3 person PUC that removed net metering, replacing them with new commissioners who reinstate net metering within 12 months. Further, the Nevada legislature passed a bill enshrining the right of homeowners to net metering. The law is essentially an energy bill of rights for the consumer. However, it’s not a completely happy ending. NV Energy later poured over \$60M into a campaign to fight Question 3, which would grant consumers choice for their power provider, thus ending the monopoly; the utility won.

Then there is the heartening tale of how rooftop solar came to Washington, DC. Through a neighborhood campaign that enticed solar installers to come to the city at a reasonable price by getting enough homeowners to sign up for solar. After a three year effort of fighting the utility, DC got its first rooftop solar installations; and this business continues to thrive in the 12 years since the campaign started.

It has expanded into community solar projects (in which residents buy a stake in power produced by a large scale solar installation, rather than their rooftops, which is good for renters or others who do not have an available roof. In a sense, DC was fortunate not to be “inside a state” like all other cities, which usually face restrictions imposed by the utility through lobbying at the state government level.

Social justice aspects are tied into the documentary when Jonathan visits the Faith Community Church in North Carolina. Its pastor emeritus, Nelson N. Johnson, who has been a lifelong fighter for



civil rights, says “Light has a biblical anchoring to it. It said ‘Let there be light, and there was light’. And there was light for everybody. It was for the good of the whole. Why should one company get a monopoly on that and say ‘Nobody can do this but us.’?”

He saw how some parishioners had to choose between paying for their medications or the electric bill. Seeing that many Black churches had land available, he got the idea that installing solar farms would not only lower power bills but they might also provide jobs for the impoverished communities.

But in North Carolina, as in many states, it is illegal for residents to buy power from a third party. Standing in the way of his vision were the policies of Duke energy (the utility) and the regulations of the state utility commission.

Teaming up with an environmental law firm, the church decided to challenge Duke and put solar panels on the roof. Duke felt so threatened that Duke demanded damages of one million dollars a day. But the church would not be intimidated and went head-to-head with Duke at the State’s Supreme Court. Sadly, the court ruled against the church.

Jonathan interviewed a Duke spokesperson who said the church was seeking publicity and testing the law by doing something illegal. Jonathan then asks if there is a bigger context in which the law upholds a broken system. The response is that this is the way it has always been — at which Jonathan retorts “That is the worst explanation... We used to enslave people; that’s just always the way it’s been.” He later muses. “It’s just so frustrating when you see how rigged the game is, ‘You know, we just have to follow the rules.’ ... Yeah, you set the rules! You put in the politicians that were going to do your bidding. And all these people here ... are the ones being manipulated.”



Another social justice aspect brought up is that many power plants are located in poor neighborhoods, which are demographically mostly minority. Wealthier, better politically-connected neighborhoods have the clout to avoid the toxic pollution from coal plants; so those plants were placed where the complaints could fall on deaf ears. Asthma rates and cancer rates are higher there. The coal ash residue from the burning pollutes the soil and groundwater with carcinogens where it is dumped. Solar energy production eliminates these drawbacks to the community.

Florida is another case in point for fossil fuel interests (in particular, Koch Industries) and utilities trying to mislead the public. They spent many millions in ads to advance legislation called “Amendment 1” which was touted as allowing homeowners to put up solar panels (which was already legal); the other parts of this legislation, however, allowed for the removal of solar incentives like net metering and third party leasing. That’s right, it would actually gut the rooftop solar industry in Florida. To say the legislation was confusing to voters was an understatement; and that was the goal. The truth came out when an audio recording surfaced of this “jiu jitsu” tactic being bluntly touted by a Koch Brothers think-tank operative. The public outrage at being misled caused Amendment 1’s defeat.

Although solar has many advantages, Jonathan does not turn a blind eye to some of its problems (intermittency, the space it occupies, the harmful aspects of the manufacture of its hardware, and how little of its hardware is recycled). Nonetheless, he sounds an optimistic note, saying that technological advances we thought impossible a few years ago have become commonplace; solar technology

is making progress steadily.

The documentary details how the deep investments of Berkshire Hathaway, BlackRock, and Koch Industries in fossil fuel extraction, refinement, transportation, insurance, and use in utilities come to outweigh any interest in changing the system, even at the price of public and planetary health. The potential financial losses motivate their titanic, hell-bent fight against renewable energy.

Jonathan indicts elected leaders who are supposed to be there to help their constituents but who support the utilities and fossil fuel companies to the detriment of the people. Leadership that genuinely wants to do good for others is a key ingredient in making progress with solar. It takes a great deal of strength, courage and energy to make things happen.

He finds hope in the Navajo Nation which acted for the good of its people by establishing a solar farm for them in Arizona. The leadership works for the people, bringing electricity to those without it, reducing the costs of it, plowing money back into the community, providing jobs, and helping to keep the younger generation living locally. A second solar farm is in the works.

The closing points to the strides and advantages of solar. The people who worked to advance it in their communities and that the energy revolution is not coming—it is already here. “It starts with you. And look, if you’re not quite there yet, just ask yourself a simple question: where does my power come from? Or, is this the right option for me and my family? And if not, you can fix it.”

[Click Here to see the program.](#)

I think you will find it informative, interesting, and at times, frustrating.

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Update:

Danskammer Claims of Adherence to New York Climate Change Goals are Shaky

by Alison White

In prior newsletters we have written about the proposed Danskammer project. Danskammer Energy has applied to the Public Service Commission (PSC) to build a new natural gas power plant to replace the existing plant along the Hudson River in Newburgh. The new plant would run continuously, replacing the current peaker plant which runs just a few hours per week. Danskammer’s application to build the plant has not been approved and is held up by incomplete and/or inaccurate information included in their Article 10 application. Most recently, Danskammer has responded to the PSC’s request to demonstrate how building such a plant would contribute to the Climate Leadership and Community Protection Act (CLCPA) goal of achieving 100% carbon-free electricity by the year 2040.



In its response to the PSC, Danskammer claims that the project is consistent with the CLCPA, that it will reduce greenhouse



gas emissions and will in the future be consistent with CLCPA 2040 targets through various proposed approaches. Specifically, Danskammer claims that it will support the goals of the CLCPA:

1. “until 2040, by installing a more efficient energy generation resource that reduces carbon emissions in the region”
2. “transitioning the Danskammer plant to zero emissions fuels, allowing the facility to operate well beyond 2040”
3. “in 2040, ceasing operations on natural gas unless the Public Service Commission determines that it is still needed”

So let’s examine these claims.

First, Danskammer says that building the plant would reduce carbon emissions in the Northeast region. However, the information in Danskammer’s application (found in Exhibit 8 and the Supplemental Greenhouse Gas Analysis of the application) shows that the proposed plant actually **increases** CO2 emissions in New York state while providing a negligible (.03% - .07%) decrease in the rest of the Northeast region. Despite the increased efficiency of the proposed new plant, it will still run continuously, producing a constant stream of emissions.

Second, Danskammer proposes to meet CLCPA 2040 goals by claiming that if they are allowed to build the plant, they can later convert the plant to use either green hydrogen or renewable natural gas (RNG). Specifically, they claim that to meet the Climate Leadership and Community Protection Act targets, “the most cost-effective solution to meet the CLCPA [zero carbon emissions] target is to build large amounts of new offshore wind, solar and battery storage capacity and retain some thermal resources, such as the [proposed Danskammer facility] and convert them to renewable gas [RNG] or hydrogen”.

Green hydrogen is hydrogen fuel produced from excess renewable energy generation through the process of electrolysis, which incurs no carbon cost. The fact that the hydrogen is produced from excess renewable energy is what makes it “green”. Renewable energy sources, especially wind, produce energy irregularly – when there’s a lot of wind, more energy is produced than consumed. That energy can be captured through electrolysis and stored as green hydrogen.

The promise of green hydrogen is that it may be an answer to some of the thornier technical problems facing a transition to 100% renewable energy. Intermittency and storage are two challenges facing a grid that relies on wind and solar power. Green hydrogen has the potential for solving these problems by providing increased reliability and flexibility and helping to meet adequacy requirements.

However, green hydrogen as an energy source faces obstacles. It would require massive expansion of renewable energy generation to power the electrolysis plants that split water into hydrogen and oxygen. Green hydrogen is also hard to store and transport without a pipeline, and it can’t be transported through existing pipelines due to its corrosive effect. New hydrogen-dedicated infrastructure would need to be constructed in order for widespread use to be possible. Also, hydrogen must be stored at 700 times atmospheric pressure, and it’s explosive. Using green hydrogen on a large scale basis would require substantial amounts of newly installed renewable energy and infrastructure. Given the technical and infrastructure challenges, using green hydrogen as the fuel source for the Danskammer plant by 2040 does not seem likely.

Danskammer is asking that the project be approved and promises that after the plant is built it will work on a Pilot Study to assess the feasibility of producing green hydrogen in a way that could be utilized by the project. One has to wonder what could possibly go wrong? Not only are there significant challenges to developing green hydrogen as a fuel source, but a promise to work on a pilot project after the plant is already built is no guarantee that it will ever be realized.

The other possibility that Danskammer proposes as a way to meet CLCPA goals is to use renewable natural gas (RNG) as a fuel for the plant. So far, RNG has not been deemed a zero-emissions fuel source by the CLCPA.

RNG is a renewable fuel designed to be nearly indistinguishable from natural gas. Natural gas is almost pure methane. The main sources of methane used to make RNG today are landfills, wastewater treatment plants, food waste and dairy farms. The methane from these sources can be collected, cleaned and conditioned to make RNG.

Although RNG has lower climate impact than its fossil counterpart, it’s likely that high demand and methane leakage mean that it will still contribute to climate change. And in theory, there’s only enough of this climate-friendly methane available to replace about 1% of the energy that the current natural gas system provides. Creating a large RNG system would also require building mostly new production infrastructure, since RNG comes from different sources than fossil natural gas. It is far from being usable to replace our current use of natural gas, and there aren’t many signs that RNG will take off as a viable alternative

in the near future, if ever.

The proposal that the Danskammer plant would be converted to use renewable energy sometime in the future seems shaky at best. But one of the strongest arguments against rebuilding the Danskammer plant is that it simply isn't needed. In 2012, Governor Cuomo directed the PSC to develop a plan for the closing of Indian Point. Around this time the current Danskammer plant was refurbished (it had been offline due to extensive damage during Hurricane Sandy) and brought online, adding 1,650 MW of power to the existing supply. The PSC determined that the construction of new power plants was not necessary in order to replace Indian Point. It should be noted that demand for electricity has not increased at anticipated rates due to efficiency, conservation, and demand response, which allows large users of electricity to be paid to reduce use during peak times. The conclusion is that even after the closure of Indian Point, we actually have a surplus of energy.

Danskammer's proposal to build a new natural gas plant in Newburgh is ill-formed. The energy isn't needed, it will increase CO2 emissions in New York and be especially detrimental to Newburgh, which will bear the brunt of the pollution. Plans to eventually convert the plant to use renewable energy sources are based on technology (in the case of green hydrogen) which is yet to be developed, and infrastructure which is not in place or planned. New York has four large-scale renewable energy projects already permitted, and there are dozens more in the queue. With New York moving toward 100% carbon-free electricity by 2040, it makes no sense to add new natural gas infrastructure.

We can all help prevent this project from going forward. Danskammer's application has not been approved by the PSC, and it is open for public comment. You can add your voice to the opposition by [going to the PSC website entry for the Danskammer plant and submitting a comment](#). Let the PSC know that permitting this project, which uses fossil fuel and produces CO2 and other emissions, is a bad idea that will move New York in the opposite direction of our carbon-free goals.

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Outings Corner by Andy Moss

I have some news that is not outings related but I was happy to accept the assignment to write something about our Group Treasurer, Ralph Pollard, who is stepping down. I have known him since 2010 when I joined the ExCom and I want everyone to know what an outstanding job he has done as Treasurer, but that is only part of his story. Read on!

We recently celebrated our long-time Treasurer, Ralph Pollard, who is leaving his position with us at the end of the year. On November 20th we honored Ralph at Bob Shephard Highland Landing Park which is located on the Hudson River.

Remarkably, he has been with the Sierra Club and the Mid-Hudson Group since 1970. Not long after becoming a member, he joined the ExCom as Membership Chair whose responsibilities included member recruitment, welcoming new members, keeping member records and more. It is interesting to note that back then ExCom meetings were held in member homes which allowed spouses (including Ralph's) to sit in. This created strong social bonds between board member families. Additionally Ralph and his wife Charyl often joined Group outings, or led them.

A few years later Ralph's wife Charyl became the Membership Chair while Ralph continued to participate in Group activities. This changed as family responsibilities led them both to leave the Executive Committee, but they did continue to be involved in Group activities.

You may recall our annual Tag Sale that was an important fund raiser for many years. From the beginning Ralph (along with ExCom members and Group volunteers) helped make the Tag Sale the success it was.

In 2003 Ralph rejoined the ExCom and became our Treasurer. In addition he also spent some time on the Chapter Finance Committee. A few years ago he stepped down from the ExCom but has continued to support our Group as its Treasurer.

He recently said:



"I feel very fortunate to have known so many good and talented people involved in the Sierra Club over the years. A few have become very close friends."

Now that he has decided to step down from the Treasurer's position and move in a new direction we want to thank him for his outstanding contribution to the Mid-Hudson Group and the Sierra Club.

We are all fortunate to have known Ralph and wish him all the best now and in the future.



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Book Review by Sarah Kennedy



Andrea Wulf wrote *The Invention of Nature: Alexander von Humboldt's New World*. This is an engrossing biography. Humboldt lived from 1769-1859. He is perhaps best remembered as a fearless explorer and an endlessly curious naturalist. It is a bit of a shock to learn that it was Humboldt who first recognized human-induced climate change as an issue of deep concern

back in 1800. We struggle mightily with the profound implications of this concept today. Humboldt also came to understand that flora and fauna are connected in a web of life; he thereby developed the concept of ecology which we use as a framework today.

Humboldt was a true polymath, and was thereby able to think about things from many perspectives. As a writer and a lecturer, Humboldt “wanted to excite a ‘love of nature’”. In addition to his prescient views of nature, he had other ideas which remain deeply relevant in this time. For example, he understood colonialism as having a negative impact on the natural world, and spoke out against slavery.

Humboldt possessed a tremendous energy. His explorations of South and Central America as a young man, and of Siberia in his later years are detailed in this book. He seemed to have had no fear. He carried out strange scientific experiments on himself, taking measurements and conducting experiments under extreme conditions after hiking on treacherous paths in order to reach the tops of mountains, or while traveling along rivers in tropical jungles.

This book is full of surprises, for one fascinating historical figure after another entered Humboldt’s world. His friends and acquaintances included writers, scientists, artists, poets, political figures and revolutionaries. In addition to those he personally met and spent time with, he provided inspiration to many who studied and read his books.

There is an interesting local connection to the story of Humboldt’s life. Those who have visited Olana, Frederick Church’s home in the Hudson Valley, and are familiar with Church’s paintings, will appreciate the following anecdote:

“More than any other painter Church had answered Humboldt’s appeal to unite art and science. He admired Humboldt so much that he had followed his hero’s route through South America on foot and mules.

The Heart of the Andes combined beauty with the most meticulous geological, botanical and scientific detail — it was Humboldt’s concept of interconnectedness writ large on canvas. The painting transported the viewer into the wilderness of South America. Church was, *The New York Times* declared, the ‘artistic Humboldt of the new world.’ On 9 May, and unaware that Humboldt had died three days earlier, Church wrote to a friend that he planned to send the painting to Berlin to show the old man the ‘scenery which delighted his eyes sixty years ago.’”

Then, there is this. All of us as members of the Sierra Club owe a debt of gratitude to Humboldt, and will find his biography particularly relevant. The book concludes with a chapter entitled Preservation and Nature: John Muir and Humboldt”. This chapter tells the story of how John Muir was deeply influenced by Humboldt’s books and by Humboldt’s love of the natural world. We are reminded of Muir’s work to advocate for the protection of Yosemite as this nation’s second national park, followed by his co-founding the Sierra Club in 1892. Muir was greatly influenced by Humboldt’s story, following in his footsteps to the end of his own life.

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Letters from our Members

Editor’s note: Send us a letter about issues that are important to you—whether local, state or national. Please submit your letter to our Newsletter Editor: Andy Moss, at and@hvi.net. Our submission schedule is posted at the bottom of our website’s [Newsletters](#) page. We will consider letters of up to 250 words. Your letter will be published in the next newsletter upon review and acceptance by the editor. Subjects should focus on Sierra Club areas of



This book reviewer is not so brave as Humboldt was. Glacier National Park



Olana, Frederick Church’s home

interest: conservation, environmental protection, political action, climate change, getting outdoors, etc. Visit the [Sierra Club](#), [Atlantic Chapter](#), or [Mid-Hudson Group](#) website to learn more about where we stand.

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Fundraising by David Friedman

Make A Gift - Make A Difference

Our local group depends on the support of volunteers and the generosity of our membership. The work of the group takes Sierra Club volunteer effort, and of course funds. We hope that you will consider making a gift to the Mid-Hudson group of the Sierra Club. In these turbulent times it's vital that we all do what we can to speak out and work for the protection of our environment and the future of our world. We welcome and appreciate your support, and encourage you to consider providing financial support for our efforts. Our mailing address is at the bottom of this newsletter.

To speak about specific opportunities, or with any questions, please contact David Friedman, Friedman_David@msn.com or our Treasurer Ralph Pollard, ralphpollard@verizon.net.

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[Visit our Mid-Hudson Group Website](#)
[Visit our Facebook Page](#)
[Visit our Meetup website for Programs and Outings](#)

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You can find the names of our Executive Committee members on our website:

[Go to our Contact page](#)

If you no longer wish to receive our Newsletter by email you can unsubscribe by sending an email request to Dave Thomas at dave@davidalexanderthomas.com.