

January 28th, 2021

My name is Amber Ruther, and I am a member of Syracuse DSA, the Public Power New York Coalition, and the Renewable Heat Now campaign. I am writing to request that you pass the following bills and include the following funding in the NYS budget:

Stop fossil fuel expansion now:

- **The All Electric Building Act S6843A (Kavanagh) / A8431 (Gallagher)**
 - Bans fossil fuels for heating, cooking, and hot water in all new buildings by 2024, except where technologically infeasible.
- **A moratorium on energy-intensive forms of cryptocurrency mining (A7389/S6486)**
 - To prevent old fossil fueled plants like Greenidge from reopening or expanding to mine cryptocurrency

Build the publicly owned renewable generation and resilient public utilities we need:

- **Build Public Renewables Act A1466a (Carroll) / S6453 (Parker)**
 - Enables the New York Power Authority to build new renewables and retrofit all public buildings with heat pumps by 2030
- **Public Power for Long Island (A9035/S7576A)**
 - Establishes a commission which will create and implement a plan to make Long Island's utilities fully public and democratically controlled to reduce utility rates, enable faster decarbonization, and enable greater grid resiliency

Build Renewable Heat Now:

- **Fossil-Free Heating Tax Credit: S3864 (Kennedy) / A7493 (Rivera) and Sales Tax Exemption: S642A (Sanders) / A8147 (Rivera)**
 - Enacts a tax credit and sales tax exemption for geothermal heat pumps, making them more affordable to install.
- **Advanced Building, Appliance, and Equipment Standards Act S7176 (Parker) / A8143 (Fahy)**
 - Removes legal obstacles to building decarbonization and updates appliance efficiency standards to reduce energy use, which would slash emissions and save consumers an estimated \$2.5 billion by 2030.
- **At least \$1 billion/year for a Green Affordable Housing Fund**
 - New York's budget must include at least \$1 billion/year to fund all-electric affordable housing in and for Disadvantaged Communities.
- **At least \$15 billion/year total for climate justice investments**
 - I echo [NY Renews' demands](#) for at least \$15 billion/year for climate jobs, renewable energy, heat pumps, electric buses, grid resilience, protected bike lanes, energy efficiency measures, a just transition for fossil fuel workers, and more.
- **Gas Transition and Affordable Energy Act (Fahy/Krueger)**
 - Requires the Public Service Commission to develop an equitable plan to phase out the gas utility system.

The current budget does not go nearly far enough to address the climate crisis. Passing the Climate Leadership and Community Protection Act in 2019 was a great first step in setting the goals we must achieve. But, we are nowhere near meeting those goals, and the fact

that the Legislature has failed to pass any major climate legislation or allocate major funding in the past 2 years to achieve those goals is inexcusable.

Stop fossil fuel expansion now:

We are still moving in the wrong direction on climate. Every minute you wait to take action, more pipelines are being built through our communities. More fossil fuels are extracted and burned. More irreversible climate tipping points are hit. More species go extinct. More ecosystems collapse. More hurricanes, tornadoes, floods, heat waves, and fires rip through our communities. More people die.

We need to stop ALL new fossil fuel infrastructure immediately. If we don't, we will either miss our climate targets, or New York ratepayers will be forced to foot the bill for billions of dollars in fossil fuel infrastructure that will need to be shut down before the end of its useful life.

That's why we urge you to pass the **All-Electric Building Act (S6843A/A8431)**, which would ban fossil fueled heating and cooking systems in new buildings by 2024. Heat pump installers and the Climate Action Council have said that this timeline is feasible and needed to meet our climate targets, so that is the timeline we must implement - not 2027, as proposed in the current budget. From an engineering perspective, it's far easier to install heat pumps in new buildings that are designed for them than retrofitting existing buildings is, so it will be far less costly to building developers to require all-electric buildings now. We should have stopped installing new fossil fueled systems 30 years ago - we have to do it as soon as possible now to prevent further irreversible climate destruction and thousands of deaths. [New York already leads the nation](#) in premature deaths caused by burning fossil fuels in buildings, and fossil fuel pollution causes \$21.7 billion in health impacts in New York. A [Harvard study](#) found that fossil fuel air pollution is responsible for 1 in 5 deaths worldwide, or [8.7 million premature deaths](#) in a single year. That is 16 deaths per minute - by the time you're finished reading this, about 50 more people will have died because of fossil fuels. I cannot emphasize the urgency of immediate action enough.

We also need you to pass the **moratorium on energy-intensive cryptocurrency mining (A7389/S6486)** to stop old fossil fueled power plants like Greenidge from coming back online or expanding. We should be promoting energy efficiency and reducing overall energy use as much as possible to meet our climate targets while ensuring there is enough renewable generation available to electrify our heating, cooking, and transportation. Proof-of-work cryptocurrency mining is doing the opposite. Every single proof-of-work cryptocurrency transaction uses energy equivalent to 90 gallons of gasoline. It has been estimated that Bitcoin transactions alone use more energy than the entire country of Sweden. The crypto mining industry wastes massive amounts of energy for the sole purpose of transferring wealth to a few lucky investors. And as more investors join the network, the computational puzzles used to verify transactions become harder, requiring even more energy to solve. It is literally allowing people to trade pollution for profit at an exponential rate, and that is a slippery slope that we and our planet cannot afford. Allowing the Greenidge fossil fuel plant to expand to mine cryptocurrency would also set a dangerous precedent for the 30 other power plants in New York like Fortistar that may also be expanded to mine cryptocurrency. There are also 16 other ways to mine cryptocurrency that are not nearly as energy intensive as proof-of-work crypto mining is.

Build the publicly owned renewable generation and resilient public utilities we need:

But we can't just stop the harm - we also need to build the good.

The CLCPA mandated that New York get to 70% renewable energy by 2030. Yet, New York is still stuck at only 4-6% wind and solar. The main source of renewable energy we do have is 23% hydroelectric power, which was mostly built by the New York Power Authority, or NYPA. NYPA was created by FDR when he was Governor of New York because he saw the need for a massive public investment in our energy system. He recognized that energy systems that harness natural resources like water (or wind, or the sun) should not be owned by investors, but by the public. He harnessed the power of state planning and NYPA's low-cost bond issuances to create a greener, more reliable, more affordable grid, during the New Deal and we desperately need to do that again to build a Green New Deal. But right now, NYPA is restricted by its charter from building any new renewables. There is no reason for this restriction to exist. We urge you to pass the **Build Public Renewables Act (A1466a/S6453)** to unleash the power of NYPA's low-cost bonds to build new renewables. It would also require NYPA to retrofit all public buildings with heat pumps by 2030 and build geothermal district heating systems, which the private sector has largely not done and will not do because they only select the most profitable projects.

Right now, many of our offshore wind contracts are going to private companies like BP, which profited from causing the climate crisis in the first place. In a just world, BP would instead be forced to pay for the deaths they have caused, go out of business, and have its executives sent to the Hague to be tried for crimes against humanity. Instead, they are being handed millions of our dollars so they can profit from the crisis they caused. Other offshore wind contracts are being given to foreign state-owned companies like Equinor and Orsted. Instead of giving them millions to build renewables for us, we could keep those dollars and jobs in New York by enabling our own state-owned company (NYPA) to build them instead. The [Build Public Renewables Act](#) would create up to [51,133 jobs and \\$93.5B in economic activity](#), all without raising taxes or energy bills.

A transition to renewable energy is inevitable, but a just transition is not. NYPA is able to guarantee justice and affordability in a way that private renewable developers cannot. NYPA can guarantee that their energy is as affordable as possible because their cost of capital, 3.5%, is much lower than most private renewable developers. Right now, only wealthy homeowners have been able to afford solar panels and heat pumps. We need to shift towards building low-cost, publicly owned, large-scale renewables that benefit low-income people and disadvantaged communities and ensure renters can be part of the energy transition. This bill would allow NYPA to sell power not only to their current customers, which are mostly public buildings and businesses, but directly to New Yorkers. It would require them to allocate their lowest-cost power to disadvantaged and low-income communities first, and they would be enrolled to receive this energy automatically on an opt-out basis, eliminating many of the administrative barriers we currently face. This bill would also ban Energy Service Companies (ESCOs) from serving residential customers. ESCOs have long been an unnecessary, harmful, and predatory middleman that often masquerade as a utility, then trick unsuspecting consumers into bait-and-switch contracts and jack up

their energy bills. By cutting out the middlemen, we can end these predatory practices once and for all.

Under the Build Public Renewables Act, NYPA will guarantee that all of their projects are neutral to unionization, pay prevailing wage, and are subject to project labor agreements. Unfortunately, right now, many solar and wind jobs are not unionized and pay less than fossil fuel industry jobs, so fossil fuel workers have been resistant to the energy transition, but it doesn't need to be that way. The Build Public Renewables Act also requires NYPA to provide a just transition for fossil fuel workers who do lose their jobs in the energy transition, offering free retraining opportunities or direct payments.

NYPA is proven to be more responsive to the needs of frontline communities than private renewable developers are, and they have been consistently rated as a top employer in the country. And, as a public agency, they are responsible to serve the public, not Wall St. investors. One of the major barriers to renewable deployment has been siting challenges. Only 4 out of 63 currently planned renewable projects have made it through the pipeline. Private developers have often rammed projects through while ignoring legitimate community concerns, required people to sign non-disclosure agreements, and used bait-and-switch contracts where they promise to build renewables one way and then build another way. ORES doesn't have enough staff to do real community engagement on siting decisions. The Build Public Renewables Act would change this and facilitate real energy democracy by turning NYSEERDA's 13 regional clean energy hubs into sites for community engagement on what renewables get built, how, and where. 68% of all voters and 81% of Democrats support the Build Public Renewables Act - it's time to pass it!

We believe that a publicly owned, democratically controlled energy system is essential for an affordable and just transition from fossil fuels to renewable energy. That's why we also urge you to pass the bill which would establish a legislative commission to create a plan for [fully public utilities on Long Island \(A9035/S7576A\)](#). For too long, Long Islanders have faced high utility rates and poor grid reliability because of the Long Island Power Authority's failed public-private partnership with PSEG. The root cause of PSEG's poor performance is that they are a private monopoly who profit from providing an essential service. No amount of micromanagement will change their financial incentive to prioritize profits over grid reliability, customers, and workers. They have every incentive to find loopholes, defer basic grid maintenance until things break or explode, and to operate with a skeleton crew of workers who are then unable to restore power quickly during climate disasters such as Tropical Storm Isaias. There is also no true way to hold PSEG accountable to the people they ostensibly serve. While the DPS may fine them for poor performance, they are unable to fine them an amount that would severely impact shareholder profits, because then PSEG's cost of capital would go up, harming ratepayers, and they may even become unable to raise the capital that they need to function. A basic human need that is a natural monopoly should never be left up to a for-profit company, because they will always internalize rewards (profits) and socialize risks (blackouts, pollution, climate change, etc.). We've seen the worst case scenario of what can happen in places like Texas where the energy people need to survive is treated as a commodity to profit from instead of as a human right.

It's reprehensible that the options analysis for LIPA, which clearly showed that a fully public system was by far the best option for ratepayers and would save \$65-75 million/year, and that the public hearings where around 90% of testimony was in favor of a fully public system, were essentially ignored and overruled by a backroom deal made by disgraced former Governor Andrew Cuomo to give PSEG another chance.

The U.S. already has 2,000 fully public utilities or electric co-ops around the country, and we know they work - we don't need to guess. On average, they are 13% more affordable than private utilities, and have half the average outage duration time. Public utilities also have more freedom to innovate - many have expanded renewable energy and electric heat pumps more quickly than private utilities, and Chattanooga's Electric Power Board was the first to invest in fiber optics, laying the groundwork for a world-class smart grid that has reduced power outages by 60% and saved the city close to \$60 million annually.

In the words of Assemblymember Doug Smith, "we have a Frankenstein monster of utilities. It's the worst of both worlds. LIPA is unaccountable to the people, and we have this monopoly of PSEG, which under the current structure, is guaranteed to make a profit while utilizing LIPA's non-profit status."

We know public ownership in and of itself is not a panacea. That's why this bill involves an advisory committee dedicated to ensuring LIPA is truly democratic and accountable to the public. We need robust democratic governance mechanisms to ensure that the interests of workers, ratepayers, reliability, and the environment are balanced.

Build Renewable Heat Now:

We need policymakers to reject expensive, unproven, and [false solutions](#) like [so-called renewable natural gas](#), [biofuels](#), and [hydrogen](#) for the heating sector. These false solutions are being [pushed by the fossil fuel industry](#) so that we will be forced to continue using their infrastructure. Green hydrogen does have some uses for hard-to-electrify industries like aviation, heavy-duty transport, and energy storage via fuel cells. But [countless studies](#) show that heat pumps are a safer, healthier, and more cost effective way to decarbonize the heating sector than green hydrogen would be. Green hydrogen is known to cause extensive damage to pipes and appliances, so it's not feasible to use for heating at any large scale.

The technology for heat pumps is ready, and cold climate air-source heat pump models can operate efficiently below [-10 degrees](#). Ground-source (aka geothermal) heat pumps can operate efficiently in weather that's even colder. Very cold countries like Sweden already get [75% of their heat](#) from heat pumps, including geothermal [district heating systems](#) designed to capture waste heat. The reasons heat pumps haven't been installed at that scale in New York are mostly political, not technical.

We need a real plan, plenty of funding, and supportive policies to electrify buildings affordably and at scale, which is why I urge you to pass the entire [Renewable Heat Now bill package](#). The funding and policies in this package complement each other and are necessary to stop fossil fuel expansion, transition buildings off fossil fuels, and make renewable heating, hot water, and cooking technologies affordable and available.

Burning fossil fuels in buildings for heating, cooking, and hot water contributes to one-third of New York's emissions, as well as a [host of serious public health and indoor air quality issues](#). For example, children in homes with gas stoves are 42% more likely to have asthma symptoms. The Climate Action Council has determined we need to electrify around 2 million buildings by 2030 to meet our climate targets, or 200,000 buildings per year. Right now, we're only electrifying a tenth of that - 20,000 buildings per year. The current incentive programs for homeowners to install electric heat options like heat pumps are inadequate, short-term, extremely complicated, and change so frequently that even program administrators can't keep up with it. The average cost of a single family whole home cold climate air source heat pump system in Central New York in 2021 was \$26,000, for a relatively modestly sized and insulated home, up from \$15,000 on average in 2019 and 2020. The average geothermal heat pump system in CNY has increased from \$41K to \$45K over the same time period. These existing programs are absolutely not enough to enable low or moderate income people to install heat pumps. That is why we urge you to pass the **Fossil-Free Heating Tax Credit: S3864 (Kennedy) / A7493 (Rivera) and Sales Tax Exemption: S642A (Sanders) / A8147 (Rivera)** to make the up-front costs of installing ground-source (aka geothermal) heat pumps, which are the most efficient type of heat pump, more affordable. These are refundable tax credits so that lower income households without significant tax liabilities can access the same financial assistance to install geothermal heat pumps as the wealthy.

We also need significant, consistent, and understandable financial assistance for heat pump installation. That's why we're calling for at least [\\$1 billion/year in the budget for a Green Affordable Housing Fund to directly fund building electrification and new all-electric affordable housing in and for Disadvantaged Communities, as well as \\$15 billion/year for climate justice investments total](#). At the State of the State, Governor Hochul committed to 1 million electric-ready and 1 million all-electric homes by 2030. But, she failed to allocate enough funding to achieve this goal. In the budget, she has only allocated \$250 million to electrify 50,000 homes over the next 5 years. This is nowhere near the 200,000 homes per year the Climate Action Council determined we need to electrify to meet our climate targets.

To make building electrification at scale a reality, we also need the state to step in with bulk buying programs that reduce the cost of heat pumps for installers. We need a bigger heat pump installation workforce. We need to intentionally grow the workforce, develop apprenticeships, training programs and centers, and prevailing wage mandates to incentivize these jobs and ensure they pay well. For-profit installers can pick and choose their projects, so they often pick the easiest and most profitable, usually leaving low-to-moderate households out. The free market alone has not and will never get us to where we need to be. We need the state to step in and rework the industry such that utilities, municipalities, the New York Power Authority via the **Build Public Renewables Act**, or another public entity is helping install heat pumps, and especially to build geothermal district heating systems that the private sector isn't building and shouldn't build because they are essentially a natural monopoly that requires crossing public right-of-ways.

We also urge you to pass the Advanced Building, Appliance, and Equipment Standards Act S7176 (Parker) / A8143 (Fahy) which removes legal obstacles to building decarbonization and updates appliance efficiency standards to reduce energy use, which

would slash emissions and save consumers an estimated \$17.5 billion by 2035.

Finally, we urge you to pass the **Gas Transition and Affordable Energy Act** (TBD) which will require the Public Service Commission to develop an orderly and equitable plan to phase out the gas utility system. Without this plan, the transition will be chaotic, slow, and expensive. Fewer and fewer gas customers will be left paying for the fixed costs of the gas system as others electrify, and this burden will likely fall on low-income customers with the least means to switch to heat pumps. The Public Service Commission to date has largely refused to enforce the CLCPA, and are relying on the assumption that we will miss our climate targets and the gas system will be used and useful after 2050, or that hydrogen will be blended into the gas system. Hydrogen is extremely expensive, and is known to damage pipes and appliances. So this plan would entail replacing every single gas pipe in the system, costing billions of dollars in construction alone, as well as full replacement of every single boiler, stove, and furnace in New York. This [false solution for the heating sector](#) is being pushed by for-profit gas utilities like National Grid, and it should be completely rejected. Instead, we must mandate that the Public Service Commission pursue the more cost-effective and actually feasible strategy of building electrification and creating geothermal district heating systems in an equitable, orderly, affordable way