

VIA E-MAIL

February 10th, 2023

New Yorkers for Clean Power Testimony on the 2022-23 New York State Budget

Thank you for this opportunity to present testimony regarding the 2023-2024 State Budget. My name is Lisa Marshall and I'm the Director of Organizing and Advocacy for New Yorkers for Clean Power. I previously served as Director of HeatSmart Tompkins, the original community based organization promoting the adoption of heat pumps.. Transition off of fossil fuels and in particular building electrification are my core areas of advocacy and expertise.

New Yorkers for Clean Power (NYCP) is a statewide collaborative campaign to rapidly shift to a clean energy economy. Through education, advocacy and organizing, the campaign engages the public, local governments and businesses to advance a range of renewable energy, energy efficiency, heat pumps and clean transportation solutions.

HeatSmart Tompkins was a community non-profit that has led the charge for building electrification in NYS. Hundreds of Tompkins county residents used our services and had our vetted installers do the installations of both ground source and air source heat pumps. Solar Tompkins launched the HeatSmart program to facilitate improved insulation of the building shell and promote the conversion of all forms of fossil fuel heating to air- and ground-source heat pumps. Our mission is to make positive solutions available to everyday people. After we had run our program for two very successful years, NYSERDA chose to create a statewide program based on our example, and there are now 20 state-funded efforts that cover most of New York State. This work now continues state wide as the new Clean Energy Hubs.

New Yorkers for Clean Power requests the inclusion of the bills and funding allocations listed below in the budget that we see as key to making a swift equitable, affordable transition from natural gas for heating and cooking to heat pumps, in particular we are advocating for the widespread adoption of community thermal loops that make ground source heating affordably available to whole neighborhoods or cities ground source heat pumps (gshp), putting NY in position to meet the 2030 and 2050 emission reduction goals while protecting against the grid impacts of peak electricity demand.

- **All-Electric Building Act** [S562A Kavanagh/A920 Gallagher](#)
- **NY HEAT (Home Energy Affordable Transition)** [S2016 Krueger & May/A##### Fahy](#)

- **Energy Efficiency, Equity, and Jobs Act [S2469 Parker/A2655 Hunter](#)**
- **[2023 Renewable Heat Now Budget Proposals](#)**

Buildings are the largest source of greenhouse gas emissions in NYS, but there's no reason at all that new buildings built today should add to this problem. The technology is in place now to affordably construct nearly any kind of building with efficient electric heating, cooling, hot water, cooking and appliances. We applaud the Governor for setting a date to end fossil fuel hookups in buildings, but her timeline is simply too far out to meet our state's climate goals. Further, any new building connected to the gas system will be shackled to obsolete polluting technology which all NY rate payers will have to continue to subsidize. There is no need to put the date 5 years out!

Last year, we were heartened to see that Governor Hochul addressed the badly needed reforms to public service law that are addressed in the NY HEAT act. Those were missing from the Governor's budget this year. These are absolutely essential to prevent the continued inequitable expansion of the gas system on the ratepayers' dime. The legislature must take steps to address both the obligation to serve and the "100 foot" rule that locks New Yorkers into billions of ratepayer dollars - the most regressive source of revenue - to fund continued gas expansion. This must end. Further this bill directs the PSC to address energy affordability and rate design so that the transition will be managed and planned in an equitable manner instead of leaving us to the mercy of the gas utilities.

Further, I want to highlight the need for a green affordable pre-electrification fund (GAP fund) that would address barriers to electrification that are not covered by other programs, such as deferred maintenance, hazard remediation, electrical upgrades, weatherization, energy efficiency, and an all-electric replacement for fossil fuel appliances at the end of their useful life. These barriers prevent many of the most vulnerable New Yorkers from accessing the existing incentives and grants for weatherizing and electrifying their homes. This is an investment in people's health, safety and wellbeing in addition to being an important energy measure.

In Tompkins County, we have been years ahead of state policy and have proven that heat pumps are popular, cost effective, and reliable even in one of the coldest regions of the state. We boast numerous examples of new buildings running today on efficient air source or ground source heat pump heating. These include, but are not limited to: an airport terminal, a grocery store, affordable housing complexes, graduate student housing, large and small commercial and municipal buildings and several large, mixed use buildings (see examples below). Developers

who were at first skeptical or even hostile to these technologies have now found that they prefer them.

Some examples:

[Arthaus Ithaca](#)

[Greenstar Cooperative Market](#)

[Maplewood graduate student apartments in Ithaca](#)

[Village Solars Townhouses](#)

[City Centre](#)

[Tompkins County Financial](#)

[210 Hancock \(affordable housing\)](#)

[Tompkins County Int'l Airport](#)

[Breckenridge Place \(affordable housing\)](#)

The technology is ready and proven. What is needed is a strong policy signal to developers, labor unions, architects, manufacturers, investors, builders, buyers, realtors, and the public that all new buildings in New York will be all-electric. This will in turn bring down costs for retrofitting existing buildings with heat pumps as the business model will shift. Any new building built today and connected to the gas system will be less affordable, less safe, less healthy to live in and will put any chance of meeting our ghg reduction goals further and further into the rear view mirror.

Every day at HeatSmart, I talked to folks seeking advice on installing heat pumps because of the cost savings, the comfort, the convenience and the climate benefits heat pumps provide. People like Katie who went from paying over \$4000/year for propane and wood to paying less than \$400 a year for heating after installing a geothermal heat pump. And now she keeps her house at a comfortable 68 degrees instead of 60. Then there's Tom who has been heating with wood for 40 years, but is getting older now and is finding the wood management too burdensome - air source heat pumps will allow him and his wife to stay in their home maybe a decade or two longer. Another example is Beth who qualified for a free air source heat pump through EmPower for her manufactured home. Now her family has air conditioning for the first time. A renter we interviewed in Ithaca told us that this was the first apartment she had lived in where the heat didn't go out in the winter and also the first that provided air conditioning. I could tell you hundreds more stories.

These are policies that will expand our workforce by nearly 200,000 workers by 2040 with well-paying jobs. Currently it is hard for heat pump contractors to keep pace with the demand for heat pumps, but as heat pumps become the norm, every HVAC contractor will become a

heat pump contractor. This transition is already underway. The same engineers who design HVAC and water systems for new buildings now, can do the same for all electric buildings. This is already happening in Tompkins County and elsewhere around the state thanks to the NYS Clean Heat program.

Air source heat pumps are about 25%-33% of the solution for building decarbonization. The rest will be heavily reliant on waste heat recapture and heat sharing through networks, community-scale geothermal networks. Thermal energy networks are the equitable way to achieve large-scale decarbonization of urban areas (commercial real estate, large multifamily and industrial). This infrastructure will require at least 2X the amount of pipe than our existing natural gas network, not to mention the pipe infrastructure required within buildings. This is not a pipe dream, these district energy systems already exist in several places in the USA, Canada, Europe and around the world.

Keeping energy production within the State allows us to keep more money circulating within our State economy, boosting jobs and reducing the tax burden on property and income taxes. Our existing gas utilities and gas workers can transition over time to clean infrastructure, while keeping their existing jobs/roles. Pipefitters will be needed to build and manage thermal networks. Thermal storage is as important as electric storage. This requires a good deal of work on the part of plumbers and pipefitters.

We are not alone. Other cities, states and countries around the world are working toward these same goals. Heat pumps are very widely in use in the world's coldest climates, including in Canada and Scandinavia. At last year's NY Geothermal Energy Organization (NY-GEO) conference Carleton College in Northfield MN presented about how their district energy system has reduced the college's energy consumption by 46% compared to their average use for the five years before they began construction on the Utility Master Plan. Every SUNY school in NY could do the same thing if we're willing to make the investment. This change in total energy use includes a 70% reduction in natural gas consumption. Washington State will require all-electric space and water heating in new commercial and multifamily construction, making it the first state to incorporate building electrification mandates into statewide energy codes starting in 2023.