



Written testimony of Jessica Azulay, Executive Director of Alliance for a Green Economy before the Joint Public Hearing to examine the legislative and budgetary actions necessary to implement the Climate Action Council Final Scoping Plan

January 19, 2023

Thank you for the opportunity to testify in front of this very important body about legislative and budgetary actions necessary to implement New York's Climate Law.

I am the Executive Director of Alliance for a Green Economy (AGREE), a statewide nonprofit working for the past decade towards a 100% renewable, clean, safe, democratic, and affordable energy system. At AGREE, we are very focused on the nuts and bolts of what the energy transition looks like, how it is funded, who pays and benefits, and what is and isn't working on the ground. To that end, we intervene in most major utility rate cases in New York where the rubber meets the road on what utilities spend our money on. We also participate in most of the major policy proceedings before the New York Public Service Commission and work to advise NYSERDA on how its programs could reach more people and be more equitable. We are members of the Energy Democracy Alliance, Renewable Heat Now, Better Buildings NY, NY Renews, and Upgrade NY, a new collaboration with organized labor working together to decarbonize buildings with thermal energy networks.

For the past four years, we have helped lead HeatSmart CNY, a program in Central New York that has educated residents about energy efficiency and heat pumps and helped over 200 households reduce their fossil fuel usage through weatherization and/or heat pumps, over half of them low-income households. This year, we are launching the Central New York Clean Energy Hub together with regional partners providing an expanded portfolio of education, outreach, and support to clean energy programs in five counties.

Why we focus on buildings

Our state is already affected by the climate crisis: powerful storms, rising sea levels, and extreme heat and cold damage homes, infrastructure, industry, and agriculture, and public health. The Climate Action Council found that the cost of inaction would exceed the cost of necessary climate action by more than \$115 billion. ([Executive Summary p. 5](#)) Thankfully, the investments and policy changes we need to prevent climate disaster will also create many

societal benefits in the form of reducing pollution and improving public health and safety, creating good jobs, and lowering energy costs for many New Yorkers.

Today I'm going to focus on the fossil fuels burned in buildings for heating, hot water, and cooking. This combustion, as well as methane leaks along the gas fracking and distribution system make buildings NY's largest source of greenhouse gas emissions.

The Climate Action Council has made it clear that the most cost-effective way to decarbonize our buildings is to weatherize them and to replace fossil-fuel burning appliances with efficient electric appliances. Thankfully, the technology needed to do this is already available, and thousands of New Yorkers have already replaced their fossil-fuel heating systems and hot water tanks with heat pumps. In 2021, over 20,000 heat pumps were installed in NY, a three-fold increase from the year before. I myself replaced my gas stove with an induction stove 8 years ago and I can attest that it's a wonderful cooking appliance with all the responsiveness of my previous gas stove but without the fumes.

Last year, the legislature took another important step by enabling utilities to build thermal energy networks, which can help entire neighborhoods harness geothermal energy and sources of waste heat, like our sewers and data centers, to heat and cool our homes. The utilities are working to pilot those networks now.

All of this to say that we have the solutions, but we require policy interventions and funding to scale them up.

Overview of buildings in the Final Scoping Plan

The Climate Action Council scoping plan found that *“energy efficiency and end-use electrification are essential parts of any pathway that achieves New York State’s emission limits. Approximately one to two million efficient homes must be electrified with heat pumps by 2030.”* ([Executive Summary p. 5](#)) *“By 2030 the majority of new purchases for space and water heating will be heat pumps, with one to two million homes and 10% to 20% of commercial space using them by 2030, and hundreds of thousands of additional homes and commercial buildings becoming efficiently electrified each year. The 2050 vision for the buildings sector sees 85% of homes and commercial building space statewide electrified with a diverse mix of energy-efficient heat pump technologies and thermal energy networks.”* ([Executive Summary p. 14](#))

The plan makes several specific policy recommendations to achieve this scale of building decarbonization including:

Advanced State codes are a key strategy for requiring residential and commercial buildings to be built to a zero-emission and highly efficient standard (without equipment used for the combustion of fossil fuels) starting in 2025 for low-rise residential new construction and in 2028 for commercial new construction, and for incorporating strategies for building resilience. ([Executive Summary p. 14](#))

Scale Up Public Financial Incentives and Expand Access to Public and Private Low-Cost Financing for Building Decarbonization: The integration analysis indicates that to meet the necessary contribution from the buildings sector, more than 250,000 housing units each year will need to adopt electric heat pumps and energy efficiency measures from 2030 onward — greater than a tenfold increase from current market activity — with a comparable pace of transformation in commercial buildings. Additional investment will expand jobs in energy efficiency and building electrification in communities statewide by adding a projected 100,000 new clean energy jobs by 2030. This Scoping Plan provides recommendations to redirect existing spending toward a more sustainable buildings sector. Public funding should be scaled up and used strategically to accelerate wide market adoption of weatherization, electrification, and additional energy efficiency and resiliency upgrades; to expand dedicated financial support for LMI households, affordable and public housing, and Disadvantaged Communities to make and benefit from these energy and resiliency upgrades while improving housing quality and comfort; and to promote thermal energy networks with support for transitioning the existing workforce and workforce development. ([Executive Summary p. 14](#))

Align regulatory frameworks: The State should identify and pursue modifications to regulatory frameworks for energy efficiency, building electrification, and resiliency programs to further align the programs with Climate Act goals and requirements. This includes, but is not limited to, attention to accounting holistically for the societal costs and benefits of building energy upgrades, including health impacts associated with outdoor and indoor air quality and thermal comfort. Additionally, as discussed in Chapter 18. Gas System Transition, the State should review and as appropriate bring into alignment with the Climate Act statutory provisions regarding gas service, such as reviewing the provision of gas service lines and extensions of gas mains at no cost to new customers (known as the “100-foot rule”). ([Scoping plan p. 197](#))

Fund non-energy improvements when necessary: As described in the Barriers and Opportunities Report, building stock that is old and in disrepair can limit the reach of building decarbonization and resiliency programs, due to challenges such as increased cost to make upgrades, the need to address more critical priorities (e.g., roof repair), or structural deficiencies or health and safety issues that lead to homes being deferred from energy efficiency and weatherization program participation until such issues are addressed. For example, moisture and mold-creating conditions in a home need to be addressed before weatherization in order to protect the health of occupants; but severe mold issues require deferral from the federally funded Weatherization Assistance Program since mold testing and remediation is not an allowable cost. Lack of maintenance and upgrades can also negatively impact occupant health (via indoor air quality and temperature comfort), economic security, and increased stress and anxiety. The State should create a new Retrofit and Electrification Readiness Fund for LMI households, affordable housing, rent regulated housing, public housing, and residential buildings in Disadvantaged Communities to cover costs of non-energy building

improvements that are necessary to install energy measures and broadband installation costs when funding energy projects. ([Scoping plan p. 199](#))

Support community-scale solutions and community thermal systems: The State should develop, pilot, and, where successful, scale up financial support for portfolio- and community-scale solutions, where hundreds of homes and businesses are contracted for energy upgrades to boost project delivery efficiency, reduce unit costs, incorporate place-based strategies, and drive scale and momentum (as compared with one-off projects). A strategy to support development of clean thermal energy networks is discussed in this chapter. ([Scoping plan. p. 199](#))

Action needed by the NY Legislature in 2023

The scale of change outlined by the scoping plan might sound daunting, but we don't have to change everything overnight. We do, however, have no time to lose in getting started. Based on our experience, there are a few important barriers that are holding us back from making significant progress toward our goals.

First things first, there is still some misalignment between Public Service Law and the CLCPA, and as a result, we are raising gas bills unnecessarily and wasting that money on soon-to-be obsolete gas infrastructure. The numbers are staggering. Approximately \$1 billion over the last five years was spent just hooking new customers up to the gas system, paid for by rate increases on existing customers' bills. Additionally, in Con Edison territory alone, that gas utility is asking for \$1.27 billion to replace existing leak prone gas mains with new gas pipelines that customers will be paying off for decades. Utilities across the state are doing the same. We need to start using our money in a much smarter way: funding solutions like energy efficiency, heat pumps, and thermal energy networks instead of more gas infrastructure. A lot of progress on this concept has been made over the years in utility rate cases and in the Public Service Commission's gas planning proceeding. However, the law requires utilities to subsidize new gas hookups and to keep providing gas to existing customers, even when cost-effective, climate-compliant alternatives exist to meet people's heating, hot water, and cooking needs through renewable energy.

The **NY HEAT (Home Energy Affordable Transition) Act**, sponsored by Senators Krueger and May and Assemblymember Fahy would address this. It would eliminate the subsidies that all New York ratepayers are forced to pay through their utility bills that make new gas hookups within 100 foot of a gas main free (known as the "100 foot rule"). It would enable neighborhood scale building decarbonization, such as Thermal Energy Networks, by eliminating the utilities' "obligation to serve" gas, and it would protect low- and moderate-income families by ensuring no household pays more than 6% of their income for energy. Passing this law would align Public Service Law with our Climate Law while protecting ratepayers through an orderly, managed downsizing of the gas system.

Second, we must focus more on energy affordability, including the affordability for all New Yorkers to transition off fossil fuels in their homes as well as affordability of the electricity used to power our electrified homes. This is why we were so pleased to hear Governor Hochul speak in her State of the State about energy affordability and building electrification as one and the same. As the Governor stated, our reliance on fossil fuels is contributing to energy unaffordability. We are seeing our energy bills go up and up, just as we see our global temperatures rise. We can and must seek solutions that tackle both of these problems together.

The Governor announced two new initiatives to tackle these issues. One is the **Empower+ program**, coupled with an **Energy Affordability Guarantee**, which she is proposing to fund with \$200 million from the state budget. The Governor also announced a \$200 million expansion of the State's **Energy Affordability Program**, which provides utility bill discounts for hundreds of thousands of low-income New Yorkers, creating an important buffer against rising energy costs. The goal of this program right now is for low-income New Yorkers to pay no more than 6% of their income for energy. By expanding eligibility for this program to include households making less than \$75,000 per year, the Governor is putting in place an important policy that has the potential to ensure that all New Yorkers will be able to afford the energy needed as we electrify.

We support these programs and the funding. In general, we call on the Legislature and the Governor to fund as much of the climate transition and energy affordability as possible through state appropriations, rather than through regressive surcharges on energy bills.

The Governor's proposals are a great start, but they do not go far enough. The Renewable Heat Now Campaign has worked with building energy practitioners from across New York to develop a **Green Affordable Pre-Electrification (GAP) Fund** to pay for important home improvements that must be tackled in order for people to be able to access weatherization and electrification funding from NYSERDA, utilities, and the federal government. Too often we see residents living in the houses that need weatherization and electrification the most unable to access the programs that are designed to help them. The barriers are many, and include prerequisite health hazard remediation, structural upgrades, electrical work, and other projects that many low and moderate income people can't afford. The GAP fund would fund these housing needs that are not funded by existing programs, unlocking access to NYSERDA's Empower+, IRA money, utility weatherization and electrification incentives and more as is recommended in the final scoping plan under the name "Retrofit and Electrification Readiness Fund."

The GAP Fund would complement another important piece of legislation designed to implement the CLCPA; the **Energy Efficiency Equity and Jobs Act** sponsored by Senator Parker and Assemblymember Hunter. That bill would ensure that our energy efficiency programs are reaching disadvantaged communities, something required by the CLCPA but not yet happening.

We are also calling for the creation of **no- and low- interest loans for weatherization and electrification** to provide New Yorkers with access to upfront funds needed to pay their portion of electrification and weatherization costs that are not covered by incentives, rebates, and tax credits.

These programs and more are included in the **Climate and Community Protection Fund** championed by New York Renews.

We also support Senator Kavanagh's and Assemblymember Gallagher's **All Electric Building Act**, which would require new buildings to be constructed without fossil fuel combustion systems or appliances. Building codes will be modernized to require new buildings to be all-electric and highly efficient, starting in 2024 with buildings under seven stories and by 2027 for larger buildings. If you consider that about 50,000 new buildings are constructed in New York every year and that 20,000 buildings in 2021 installed heat pumps, you can easily see that we're putting in new fossil fuel systems faster than we are removing them, making it much harder for us to make any progress on emissions from the building sector. [Rocky Mountain Institute analyzed the impacts](#) of the All-Electric New Buildings Act and found that it would save an additional 4 million metric tons of CO2 by 2040 beyond the reductions already expected from NYC's all-electric building requirement — the equivalent of keeping 870,000 cars off the road for one year. New York state has 50,000 new homes built each year. That's a new home every 10 minutes. It is also much easier and more cost-effective to design and build an all-electric building to begin with than to need to retrofit it with heat pumps down the line, so delaying this requirement for new buildings would only cost New Yorkers more in the long run.

We hope you will pass this important piece of legislation this year, which will help us stop digging the hole, and will lead in many cases to a lower cost of living for the residents of these buildings. A [recent report by Win Climate](#) found that the average new single-family home built in New York State would save approximately \$904 per year if built with a cold-climate Air Source Heat Pump (ccASHP) or \$1,165 per year if built with a ground-source heat pump (GSHP) instead of a furnace or boiler, with the greatest savings of \$2,079-\$2,486 in Climate Zone 6 which covers much of upstate New York.

The Climate Action Council's scoping plan recognizes the massive potential for thermal energy networks as an alternative to the gas utility system in New York, and urges us to lead by example by installing them at state campus facilities.

The plan states that "In 2022, the State enacted the Utility Thermal Energy Network and Jobs Act, advancing a new initiative to develop regulatory structures and pilot/demonstrate utility thermal energy networks across the state's utility service territories. These thermal energy networks are rapidly emerging as a key strategy to scale up building decarbonization from a "building-by-building" to a "community-by-community" approach, and critically, they provide overlapping job needs with the skilled pipe trades workforce that has historically worked on gas pipelines. Specifically, advancing thermal energy networks will mean significant job opportunities across multiple trades, from trenching and drilling, pipeline and plumbing installation, and

electrical work to heating, ventilation, and air conditioning (HVAC) and ductwork, construction and assembly, and ongoing maintenance and operations activities. As they are piloted, and gain benefit from federal tax credits for commercial geothermal installations and thermal energy storage systems, these thermal energy networks have the potential to help establish a major transition strategy for gas utilities and their workforces and contractor bases to shift to being clean thermal energy providers. In addition, many state campus facilities (State University of New York [SUNY], New York State Office of General Services [OGS], New York State Department of Corrections and Community Supervision, etc.) are ideal candidates for the installation of thermal energy networks, particularly at higher education institutions where demonstration projects can be paired with research and student learning opportunities.”
[\(Scoping Plan, p. 78\)](#)

We have been working hand in hand with our friends in the labor movement to support the development of Thermal Energy Networks in New York, first by supporting Utility Thermal Energy Network and Jobs Act, and now by calling on New York to lead by supporting thermal energy projects at large state-owned facilities like SUNY Campuses. Decarbonizing just 15 of the most energy intensive state facilities would reduce on-site energy use from state buildings by 40%. We can get a lot of bang for the buck with these projects, create good paying jobs, bring members of disadvantaged communities into the union workforce, and provide a transition pathway for today’s gas workers. We call on the Governor and the Legislature to lead by example and fund shovel ready thermal energy networks at state facilities as well as feasibility studies for thermal energy networks at the most energy intensive state campuses.

We look forward to working with the Legislature and the Hochul administration to implement the CLCPA. By taking the near-term actions listed above in your State Budget this year, you can put New York on solid footing to achieve the ambitious building-sector transition outlined in the Climate Action Council’s Final Scoping Plan. But just as importantly, you can ensure your actions contribute to energy affordability and a just transition.

Respectfully submitted,

/s/

Jessica Azulay

Executive Director

Alliance for a Green Economy