Good afternoon, my name is Liz Moran, and I am the New York Policy Advocate for Earthjustice. Earthjustice, as the nation's first and largest national nonprofit environmental law organization, brings far-reaching change by enforcing and strengthening environmental laws on behalf of hundreds of organizations and communities. We are dedicated to defending the right of all people to a healthy environment, protecting our magnificent wild places and species, and fighting to curb climate change.

Thank you for the opportunity to testify today regarding implementation of the recently finalized Climate Scoping Plan. Thanks to the voices of thousands of New Yorkers, New York has taken a tremendous step forward in laying out the plan to meet the mandates of our climate law. The final scoping plan lays out key policies across various sectors to move New York off fossil fuels and recognizes the importance of electrifying vehicles and buildings.

It is now critical that Governor Hochul and the Legislature move forward with bold legislation during the 2023 budget and legislative session that will achieve the vision of the scoping plan. Additionally, legislation must prioritize the health and welfare of low-income communities and communities of color at the frontlines of the climate crisis, and reject false solutions, such as offsets and alternative fuels, like biomethane, biofuels, and hydrogen.

Earthjustice, alongside numerous allies, submitted extensive comments on the Scoping Plan to the Climate Action Council during the comment period.1 In our testimony, we have included some of the key recommendations also made to the Council that can, and in some cases must, be accomplished through legislative action.

Earthjustice urges for passage of the following budget and legislative items, which are essential for New York to meet the mandates of the Climate Leadership and Community Protection Act:

- **Pass the All-Electric Building Act (S562A/A920A)**, which will prohibit the use of fossil fuels in new buildings starting in 2024 for buildings 6 stories and under, and 2027 for buildings 7 stories and over.
- **Pass a policy prohibiting the sale of new fossil fuel heating equipment, alongside funding assistance for those in need.**
- **Pass the NY HEAT Act (formerly known as the Gas Transition and Affordable Energy Act) (S8198/A9329 of 2022)**, which will give the Public Service Commission the authority and direction to align gas utility regulations and system planning with the CLCPA.

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1 Letter from Earthjustice et al. to members of the Climate Action Council regarding the draft scoping plan, dated June 30, 2022
https://static.politico.com/7d/9f/1c5b993f43e18bb4d9cd479fwe0/introduction1-combined.pdf
• Pass the Green Transit, Green Jobs bill (A3090-A and S3535-C).
• Increase funding to the MTA by $300 Million to achieve #6MinuteService. Increasing the frequency of bus and subway arrivals would encourage more New Yorkers to ride public transit, reducing the number of cars on the road.
• Increase key agency funding and staffing for the agencies tasked with implementation of the CLCPA.
• Pass the Fossil Fuel Subsidy Elimination Act (S7438/A8483 of 2022), which would eliminate some of New York’s most egregious giveaways to the fossil fuel industry and save the state as much as $330 million annually.
• Pass the Climate and Community Protection Fund, which would serve as a pool of resources, much like the Environmental Protection Fund, to fund programs necessary for meeting CLCPA mandates.
• Create a $2 billion Green Affordable Pre-Electrification (GAP) Fund2, which 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.
• Promote affordable financing for pre-electrification and electrification to provide all New Yorkers with access to up-front funds to upgrade their buildings and take advantage of the tax credits, rebates, and incentives provided through the IRA and utility programs.
• Include at least $400 million for the Environmental Protection Fund, which funds numerous environmental and climate mitigation and adaptation programs that protect New York’s water and land and create good jobs.
• Include $1 billion for the Clean Water Infrastructure Act.
• Pass legislation to reduce the climate impact of food, including:
  o Good Food New York (S7534/A8580 of 2022), which would allow municipalities to prioritize values-based standards for food procurement;
  o Greenhouse Gas Emissions Standards for Food Purchasing (S740/A6241 of 2022);
  o Healthy Food Service Guidelines (S4644C/A5682C of 2022), which directs the Department of Health to develop standards for healthier foods and beverages in all state facilities and state-supported programs;
  o Food Donation and Food Scraps Bill (S9562 of 2022), which expands the State’s food donation and food scraps recycling program; and,
  o Community Gardens Bill (S629), which directs the community gardens task force to determine whether New York community gardens located on public land qualify for designation as Critical Environmental Areas (CEAs).
• Pass legislation to implement an Indirect Source Rule for warehouses (A9799 of 2022), which would reduce dirty heavy-duty vehicle traffic that disproportionately harm disadvantaged communities.
• Pass the Build Public Renewables Act (A279), which gives the New York Power Authority (NYPA) the power to finance, build, and maintain new renewable energy projects.

We have detailed our support for many of these bills and policies in the subsequent sections, which have been divided by sector in alphabetical order.

Additionally, we offer our thoughts and recommendations regarding:

- Cap & Invest
- Opposition to Low-Carbon Fuel Standard (A964/S1292)
- Opposition to false solutions, such as policies that promote offsets and alternative fuels, like biomethane, biofuels, and hydrogen

Agriculture

The contributions of the agriculture sector to greenhouse gas (“GHG”) emissions are often overlooked in the discussion on climate change, yet there are numerous policies and tools New York could adopt to transform this sector to help mitigate catastrophic climate change.

Food systems contribute approximately one third of global and U.S. greenhouse gas emissions,\(^3\) and agriculture is the largest contributor of non-CO\(_2\) greenhouse gases.\(^4\) Even if all other emissions sources immediately stopped, emissions from the global food system would still raise temperatures by more than 1.5°C above pre-industrial levels (the target limit for warming under the Paris Agreement) within 30 to 45 years, and might exceed a 2°C increase within 90 years.\(^5\)

The State Department of Environmental Conservation (“DEC”) indicates that agriculture is responsible for 6% of total state GHG emissions, and that 92% of those emissions come from livestock.\(^6\) Unlike other sectors in New York where emissions have already decreased, livestock management emissions have increased 44% since 1990.\(^7\) And unlike the energy sector, whose contributions to climate change are largely in the form of carbon dioxide, agricultural emissions include methane, nitrous oxide, and carbon dioxide. Over 20 years, methane has a global warming potential about 84 times greater than carbon dioxide, and nitrous oxide has a global warming potential about 264 times greater than carbon dioxide.\(^8\)

Food systems emit greenhouse gases at all stages of food production:

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\(^3\) Crippa, M. et al. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. Nat Food 2, 198–209. [https://doi.org/10.1038/s43016-021-00225-9](https://doi.org/10.1038/s43016-021-00225-9)


\(^5\) Clark, M. A. et al. (2020). Global food system emissions could preclude achieving the 1.5°C and 2°C climate change targets. Science 370(6517), 705-708. [https://doi.org/10.1126/science.aba7357](https://doi.org/10.1126/science.aba7357)


\(^7\) Id.

• Fertilizers and pesticides are made from fossil fuels in an energy-intensive manufacturing process.9
• Deforestation, destruction of grasslands, and other land clearing releases tremendous amounts of carbon stored in soils and plants.
• Excess fertilizer applied to crops releases nitrous oxide, a greenhouse gas with 300 times the warming power of carbon dioxide over 100 years.10 On average, producers apply about twice as much fertilizer as the crops can use.
• Cows—both beef cattle and dairy cows—release “enteric” methane with every breath. Methane is about 25 times more potent than carbon dioxide over 100 years. Manure from cows, swine, and poultry also releases methane and nitrous oxide.
• A small number of large facilities are responsible for the majority of methane emissions. Mitigating emissions from the most concentrated facilities would make a large impact on total emissions.
• Food processing is energy intensive and releases carbon dioxide. New York has over 2,600 food processing facilities.11
• About one third of the food produced is wasted. Most of that ends in landfills where it rots and releases methane. This is the largest source of methane emissions in New York State.12 About 40% of this waste comes from the retail/restaurant stage and about 40% from our homes.

Earthjustice was pleased to see the Final Scoping Plan included key strategies to reduce emissions from the food production and food waste systems, including expanded incentives and assistance for farmers to adopt soil health practices on cropland and reduce manure methane emissions and tax incentives for private forest landowners to manage their land for conservation and carbon sequestration. We also support the Climate Action Council’s recommendation for limits on the use of biogas.

However, the Final Scoping Plan’s strategies for reducing emissions from the State’s agricultural sector are—in contrast to the CLCPA itself—fairly modest in scope and imagination. We are disappointed that key strategies were left out of the Final Scoping Plan, including establishing methane emissions limits on livestock facilities; phasing in fertilizer fees to help fund farmers transitioning to climate-friendly practices; banning winter manure spreading; strategies to reduce herd size, and setting statewide goals for the adoption of climate-friendly practices. Without these key strategies, the Final Scoping Plan is far less effective in reducing emissions from our food production system, and the state cannot achieve its climate goals without greater participation by the agriculture and food sectors.

12 Find the final scoping plan at: https://climate.ny.gov/resources/scoping-plan/
The legislature should consider policies that fill the gaps left in the Final Scoping Plan, identified above, along with the following pieces of legislation that tackle ways to reduce the climate impact of food:

- **Good Food New York (S.7534/A.8580 of 2022)**, which would allow municipalities to prioritize values-based standards for food procurement;

- **Greenhouse Gas Emissions Standards for Food Purchasing (S740/A6241 of 2022)**;

- **Healthy Food Service Guidelines (S4644C/A5682C of 2022)**, which directs the Department of Health to develop standards for healthier foods and beverages in all state facilities and state-supported programs;

- **Food Donation and Food Scraps Bill (S9562 of 2022)**, which expands the State’s food donation and food scraps recycling program; and,

- **Community Gardens Bill (S629)**, which directs the community gardens task force to determine whether New York community gardens located on public land qualify for designation as Critical Environmental Areas (CEAs).

### Pass Good Food New York

Currently, New York State food procurement laws require that local governments and institutions choose the lowest responsible bidder without considering other criteria. These laws, which have not been updated for over fifty years, are among the most restrictive in the nation and do not take into account the many externalities associated with food production and distribution.

The Good Food New York bill (S.7534/A.8580 of 2022) would permit local governments to adopt values-based standards for food procurement based on the national Good Food Purchasing Program (GFPP). These standards include benefits to local economies, environmental sustainability, valued workforce, animal welfare, nutrition, and racial equity. The law would allow local governments to select bids that fulfill one or more of these values provided their cost is no more than 10% greater than the cost of the lowest bid for that project.

This new model will push large contractors to improve their practices and move toward more ethical, clean, and climate-friendly production and supply practices. It will also expand access to opportunities for small and historically marginalized farmers, producers, and suppliers, who may not be able to achieve competitive pricing under the current procurement model. The bill allows New York municipalities to use their tremendous buying power to support safe, healthy, and sustainable food production and influence the market not just regionally, but nationwide.

Earthjustice supports this bill for both its climate benefits, as well as its consideration of the effects of food contracts on local economies, workers, public health, and animals. We envision a holistic food system, of which environmental sustainability is just one component. The Good Food New York bill will enable municipalities to invest in local business and promote practices that work for people, animals, and the planet. By implementing the Good Food New York bill, New York can help create a food system that nourishes our communities, celebrates our work force, treats animals with compassion, and protects the planet.
Pass Greenhouse Gas Emissions Standards for Food Purchasing

The Greenhouse Gas Emissions Standards bill (S740/A6241 of 2022) would require that, in consultation with the Department of Environmental Conservation ("DEC"), the Office of General Services ("OGS") establish a methodology for state agencies to estimate the greenhouse gas emissions that occur through the life cycle of all food and beverages purchased by said agency. The bill also requires that the OGS establish best practices for sustainable food procurement, and that state agencies give preference to food and beverage procurement practices that achieve the goal of reducing greenhouse gas emissions.

This system builds off the GFPP, with a focus on our food system’s greenhouse gas contributions. The first requirement of the bill will help regulators understand the current impacts of the State’s food systems and inform policies to mitigate those impacts. The second requirement, like the Good Food New York bill, leverages the government’s buying power to push markets to adopt climate-friendly practices.

In addition to helping New York reach its emissions reduction targets, prioritizing sustainability in food and beverage procurement practices will benefit the health of New Yorkers. A Tulane University study found that climate-friendly diets are generally also healthier than emissions-intensive diets. Foods and beverages with lower greenhouse gas footprints also tend to cost less, and shifting procurement practices should save state agencies a significant amount of money. Earthjustice supports this bill as an important step toward achieving emissions reductions and building a more sustainable food system.

Pass Healthy Food Service Guidelines

The Healthy Food Service Guidelines (S4644C/A5682C of 2022) for New York Act would direct the Department of Health to develop standards for healthier foods and beverages in all state facilities and state-supported programs. The bill mandates that food standards be consistent with the most recent federal Dietary Guidelines for Americans, prohibits the offering of sugar-sweetened beverages, and encourages the purchase of plant-based whole foods.

One of the most effective and low-cost ways a state can promote the consumption of healthy foods is through meals provided by state agencies, facilities, and programs. Millions of employees, visitors, students, people in state custody, and recipients of state services rely on state-provided meals, but New York does not have a comprehensive policy ensuring the healthfulness of the food and beverages it procures. New York City provided a model for the state in 2008, when it became the first major city in the country to set nutrition standards for foods purchased or served by the city—as a result, city agencies decreased their use of added sugars, saturated fats, and sodium, and took an important step toward improving public health.

The bill’s promotion of plant-based foods will, in addition to improving public health, help build a more environmentally sustainable food supply chain. The meat and dairy industries’ enormous

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carbon footprints are a major hindrance to achieving the CLCPA’s emissions reductions goals. By helping to shift New Yorkers’ diets toward lower climate impact, plant-based foods, this bill encourages healthy eating habits and reduces reliance on carbon-intensive food products. Earthjustice supports this bill in hopes that it will support public health and climate-friendly food practices across the State.

**Pass the Food Donation and Food Scraps Bill**

Each step of food production—growth, harvesting, processing and packaging, transportation, and storage—releases greenhouse gases into the air. Yet an alarming proportion of that food is thrown out, resulting in a wasteful and unnecessarily large carbon footprint. These food scraps, often perfectly edible, end up in landfills where they decompose and release even more greenhouse gases in the form of methane emissions. Meanwhile, millions of New Yorkers face food insecurity and inadequate access to healthy foods.

This legislation (S9562 of 2022) would expand the State’s food donation and food scraps recycling program by gradually scaling down the annual average tonnage of food scrap generators that are required to join the program, and by removing exceptions regarding recycler capacity. This will increase the number of participants in the program, in turn increasing the amount of food waste the state can redirect to New Yorkers in need. The bill builds upon the 2020 Excess Food Act, which streamlined the donation process from food suppliers to food banks.

**Pass the Community Gardens Bill**

The Community Gardens bill (S629) would amend the agriculture and markets laws to direct the community gardens task force to determine whether New York community gardens located on public land qualify for designation as Critical Environmental Areas (CEAs) under state law. The bill builds on S3152A/A735, which required the Commissioner of Agriculture and Markets to convene a task force to assess the state of and promote the expansion of New York’s community gardens.

Community gardens provide numerous important benefits for communities and the environment, among them: alleviation of food insecurity, access to fresh produce, space for community organizing, local air pollution mitigation, wildlife habitat, heat reduction, and carbon sequestration. Despite the many gifts that these spaces offer, they have very few legal protections, and real estate development currently threatens numerous gardens. This bill would help increase protections for these important areas by facilitating their designation as CEAs under the State Environmental Quality Review Act. This designation would trigger additional procedural steps for any projects that may threaten a designated garden, and require decision makers to evaluate the impacts of such a project. This evaluation process would also provide an important opportunity for gardeners and nearby residents to participate in development decisions in their communities. Earthjustice supports this bill and the climate, health, and community benefits it would bring to New York.
Climate Funding

The climate crisis is already harming New York’s public health and environment. Recently, an unprecedented bomb cyclone devastated Buffalo and caused flooding on parts of Long Island.\(^\text{14}\) In recent summers, New York saw record flooding and heatwaves, resulting in deaths. The remnants of Hurricane Ida killed 46 people across four states that were hit by the storm, which includes 16 New Yorkers.\(^\text{15}\) Devastation like this will only get worse as the climate continues to warm – New York can expect to see more frequent extreme weather events, increased flooding and heat waves, rising water levels, and more.

The cost of inaction is greater than the investments necessary to meet New York’s climate goals – according to the Final Scoping Plan, by more than $115 billion.\(^\text{16}\) But the cost benefits of proper investment are tremendous. The Final Scoping Plan estimated the creation of enough jobs to outnumber potential displaced jobs by a ratio of ten-to-one in 2030. According to an earlier report from the Climate Action Council, net benefits of meeting New York’s CLCPA mandates are in the range of $80-$150 billion.\(^\text{17}\) Additionally, public health benefits range from $160-$170 billion.

The cost of inaction should come as no surprise – New York is already no stranger to the astronomical costs of the climate crisis. Hurricane Sandy, which took the lives of 44 New Yorkers in 2012, inflicted an estimated $19 billion in damages and lost economic activity in New York City.\(^\text{18}\) There have also been astronomical costs associated with public health damages due to air pollution and reliance upon fossil fuels. As one example, the health impact costs associated with fossil fuel combustion in buildings has cost New York City $12.5 billion annually, and the rest of New York State $9.2 billion annually.\(^\text{19}\)

Additionally, the warming climate is placing additional strains on New York’s water infrastructure. With increased freeze and thaw cycles and increased precipitation, New York’s aging water infrastructure is suffering. Estimates dating back to 2008 found that New York will need to invest $80 billion in drinking and wastewater infrastructure to ensure it is properly repaired, replaced, and upgraded.\(^\text{20}\) These needs will only grow without proper investments to meet demands and bold policy and investments to address climate change.

New York must make meaningful investments into a transition to a zero-emissions economy without delay, as well as investments in climate resiliency and adaptation. The Legislature has

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opportunities this session to advance climate investments by ensuring the state enacts a strong and equitable cap and invest policy, as well as by passing the following bills and policies in the SFY2023-24 budget:

- **The Fossil Fuel Subsidy Elimination Act (S7438/A8483 of 2022)** would eliminate some of New York’s most egregious giveaways to the fossil fuel industry and save the state as much as $330 million annually. This legislation is a no-brainer for New York. The CLCPA and the Scoping Plan are clear that the state is moving off fossil fuels, and there is no reason the fossil fuel industry should continue receiving subsidies from the people of New York.

- **The Climate and Community Protection Fund** would serve as a pool of resources, much like the Environmental Protection Fund, to fund programs necessary for meeting CLCPA mandates. A report to the Climate Action Council found that annual investments to ensure New York is on track to meet its climate mandates must be at least $10 billion. Given the goal of creating a historic fund for climate programs through the Scoping Plan’s proposed cap and invest policy, as well as the history of dipping into funds from the Regional Greenhouse Gas Initiative to fund the general budget, the Climate and Community Protection Fund is a necessary measure to ensure accountability, compliance with the CLCPA’s 35% investment mandate in disadvantaged communities, and to safeguard climate funds so that they are used for their stated purpose.

Implementation of the CLCPA, as well as key programs for climate mitigation and adaptation, must be funded through the budget. The legislature should include at least $400 million for the Environmental Protection Fund’s critical environmental and climate mitigation and adaptation programs. The legislature should also include $1 billion for the Clean Water Infrastructure Act. New York’s aging water infrastructure is being further stressed by climate change, and needs in New York are estimated to exceed $80 billion over 20 years. Finally, implementing the CLCPA will require sufficient funding to agencies so they have the staff and resources to develop new regulations, programs, and investments that will be needed over the coming year.

**Cap and Invest Program**

The Scoping Plan recommended New York implement a “cap and invest” policy to place a declining cap on emissions and require major greenhouse gas emissions sources to purchase emissions credits. A cap and invest policy is a way of placing an enforceable overall cap on New York’s emissions, ensuring they decline over time to meet the CLCPA mandates, and of raising new revenue to fund the transition to a zero-emissions economy. Previous cap and trade programs have had serious flaws, allowing emissions to continue and even rise in overburdened communities while failing to substantially reduce overall emissions.

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New York has a chance to learn from experience and implement a better cap and invest program that will not only dramatically reduce emissions and create jobs, but will also prioritize reducing pollution and benefiting disadvantaged communities and protect consumers.

It will be crucial for a strong cap and invest program to include as many sectors and industries as possible, with strict limits to any exemptions. Agriculture, despite being a significant contributing factor to greenhouse gases and other pollution in New York, has historically been left out of “economy-wide” programs – that should end with a cap and invest program in New York. Just as industrial methane sources should be included, agricultural methane sources must also be included, particularly the largest industrial scale agriculture sources (i.e. large concentrated feeding operations, known as CAFOs). Additionally, nitrous oxide, a powerful greenhouse gas almost 300 times more potent than carbon dioxide, and emitted by agricultural and industrial sources must also be included in the program.

A cap and invest program must be in line with the CLCPA’s equity provisions. Any cap and invest program in New York must include:

- Caps that decline every year to meet CLCPA 2030 and 2050 emission reduction mandates, as well as interim benchmarks;
- Safeguards against “budget raids” that would use funds for non-climate purposes;
- Targeted relief for low- and moderate-income consumers;
- Provisions to ensure emissions do not disproportionately affect disadvantaged communities including:
  - limited permit banking and trading, specifically in disadvantaged communities
  - some facility specific caps on greenhouse gas emissions (GHGs) or co-pollutants;
  - enhanced review of justification for any new facility seeking emissions permits;
  - higher “auction” prices and lower cap levels in applied DAC and environmental justice areas that are reduced aggressively over time
- Labor protections and workforce assurance funding for workers in sectors impacted by the cap system including:
  - funding to support (re)training, continuing education, workforce development;
  - wage support and replacement to maintain existing pay and/or salaries of impacted workers;
  - early retirement and pension support for workers in impacted sectors and industries who are eligible or nearing eligibility for retirement.
- Rules for permits to prevent trading upon purchase, double allowances and offsets, and banking unused permits year-to-year; and
- Investment of funds should meet or exceed the CLCPA’s 40% investment goal in disadvantaged communities.

**Building Electrification**

Electrifying buildings and making them more energy efficient is a key component of addressing both climate change and the even more immediate public health threats posed by fossil fuels,
which disproportionately harm communities of color. Additionally, as the cost of fossil fuels rise, going all-electric, particularly for new construction, will help New Yorkers save energy costs.\textsuperscript{22}

On-site fuel combustion in residential, commercial, and industrial buildings generates 32% of the State’s total GHG emissions, and combined buildings emissions, including electricity generation used for buildings, constitute approximately 45% of the State’s total GHG emissions.\textsuperscript{23}

Additionally, burning fossil fuels in buildings contributes to dangerous air pollution. Stoves and heating appliances that use gas or oil emit nitrogen dioxide—which causes learning deficits, increased susceptibility to asthma and allergies, aggravated respiratory symptoms, and changed lung function—as well as particulate matter—which can increase the risk of heart and asthma attacks, and lead to premature death.

Findings recently published in the International Journal of Environmental Research and Public Health found that nearly 19% of childhood asthma cases across New York can be attributed to the use of gas stoves in homes.\textsuperscript{24} A study by RMI found that children living in homes with a gas stove are 42% more likely to experience asthma symptoms. Additionally, New York has the most premature deaths in the country from fossil fuel combustion in buildings.\textsuperscript{25}

Chronic exposure to air pollution also increases the risk of death from COVID-19. Indoor fossil fuel combustion is also a significant source of outdoor air pollution, including particulate matter and smog. Communities of color are exposed to higher levels of this pollution than the general population.

Acknowledging the significance of addressing emissions from the buildings sector, the Final Scoping Plan includes numerous recommendations, including the following, which we have detailed further in our testimony:

- **Banning fossil fuels in new construction** – legislation that would accomplish this recommendation, and, critically, go beyond what was expressly recommended, is the *All-Electric Building Act (S562A/A920A)*.
- **Banning the sale of new fossil fuel combustion equipment, starting in 2028** – Governor Hochul included a proposal in her State of the State address to ban the sale of fossil fuel heating equipment for smaller buildings starting in 2030, and larger buildings in 2035. Earthjustice supports such a policy, however, it must be coupled with policies

\textsuperscript{22} Max Shron, Amit Kooner, Juan-Pablo Velez, “The impact of the All-Electric Building Act on the cost of heating new homes in New York State,” October 2022, https://drive.google.com/file/d/14cm1Hk4DLHY_vK8gyOwTcRIAlalqUT/view
and funding initiatives, such as the GAP Fund, to assist poor and working class households and upgrades to New York’s grid.

- **Gas System Transition** – the Final Scoping Plan recommends strategic downsizing of the gas system. *The NY HEAT Act (formerly known as the Gas Transition and Affordable Energy Act) (S8198/A9329 of 2022)*, by aligning public service law with the mandates of the CLCPA, is an essential component for this planning process, while protecting costs for consumers.

*Pass the All-Electric Building Act*

The All-Electric Building Act is essential for New York to meet the CLCPA mandates. The bill aligns with New York City’s Local Law 154 of 2021 and follows the spirit of the CAC’s recommendations in the Final Scoping Plan, that DOS, NYSERDA, and the Code Council should advance code provisions that prohibit fossil fuel combustion in new construction, statewide of single-family and low-rise multifamily buildings in 2025. Then by 2028, State code should prohibit fossil fuel combustion in new construction, statewide of multifamily residential buildings (four stories or more). Additionally, global scientists and energy experts recommend rapid action – the International Energy Agency (IEA) has recommended that no fossil fuel boilers are sold after 2025.26

New York’s leadership on this issue is necessary – New York emits more building air pollution than any other state in the country. Not only does All-Electric Building Act align with what leading scientists are telling governments to do, it’s also extremely popular in New York, with September 2022 polling finding that 66% of likely voters in New York support the policy.27

Additionally, analyses have found that building all-electric would lead to energy cost savings for consumers. As the prices of gas and fuel oil have continued to rise, New Yorkers would save more with an all-electric home. According to Win Climate:

- “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) instead of a furnace or boiler.
- Savings would be higher if builders opted for Ground Source Heat Pumps (GSHP) instead, at an average yearly savings of $1,165 per home across the state. In 2018, Ground Source Heat Pumps were installed more often in new construction than cold-climate Air Source Heat Pumps, according to NYSERDA.
- Single family homes in every Climate Zone across New York State would enjoy cost savings, on average. This includes both the warmest and coldest parts of the state.”28

New York City recently adopted Local Law 154 of 2021, which bans gas in new buildings 6 stories and under starting in 2024, and 7 stories and larger starting in 2027. RMI recently

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28 Max Shron, Amit Kooner, Juan-Pablo Velez, “The impact of the All-Electric Building Act on the cost of heating new homes in New York State,” October 2022, [https://drive.google.com/file/d/14cm1hLk4DIY_vK8gyOwTeRIAlaa3kUT/view](https://drive.google.com/file/d/14cm1hLk4DIY_vK8gyOwTeRIAlaa3kUT/view)
analyzed the greenhouse gas reduction benefits of New York City’s law, and the impact New York State would have by adopting a similar law, and found that it “would save an additional 4 million metric tons of CO2 by 2040 beyond the reductions already expected from NYC — the equivalent of keeping 870,000 cars off the road for one year.”

Not only would the All-Electric Buildings Act help improve energy efficiency and protect public health, but it would also save New Yorkers money on energy and create jobs. The Legislature should not hesitate to pass this legislation this year.

*All-Electric New Construction is Already Happening in New York and Around the World*

New York City joined over fifty municipalities in California and elsewhere in adopting policy to ban gas in new construction. New York City’s Local Law 154 bans gas in new buildings 6 stories and under starting in 2024, and 7 stories and larger starting in 2027.

Constructing all-electric buildings starting in 2024 is entirely feasible and necessary to ensure that New York meets its climate mandates and halts expansion of fossil fuel infrastructure and dependence as soon as possible. It is time for New York to adopt this policy.

Additionally, *all-electric buildings are already being constructed in New York*, including in Upstate. [Over 130 buildings](https://www.earthjustice.org/our-work/energy/clean-energy/all-electric-new-construction) have already been constructed or are in the process of being constructed as all-electric in regions across the state. Some examples include:

- **Zero Place**, a mixed-use, 4-story, carbon-free building in late development in New Paltz, 64,000 square feet including 46 apartments and retail.
- **Autumn Gardens**, a 72-unit public housing development at 788 E. High St. in the City of Lockport transitioned to geothermal heating in 2015.
- **Horsefeathers**, a 30,000 square foot 24-unit building with restaurant on ground floor in Buffalo transitioned to geothermal.
- **Tompkins Financial Corporation Headquarters**, 7-story commercial building in Ithaca is all-electric relying on air source heat pumps.
- **City Centre**, over 200,000 square feet of apartments, commercial and retail space completely reliant on air source heat pump at 301 East State St in Ithaca.
- **100 Flatbush Ave**, a 44-story mixed use tower in downtown Brooklyn with 441 residential units and 30,000 square feet of retail.

Banning gas for new construction starting in 2024 is easily doable and a win for climate, air quality, and jobs.

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Myth vs. Fact: Technology and the Grid is Ready for All-Electric Buildings in NY

Unfortunately, opponents to the All-Electric Buildings Act have engaged in a misinformation campaign regarding what this legislation does, and the feasibility of adopting such a policy now. To address common arguments:

- **Can all-electric buildings be done in cold climates?** YES. Households living in cold climates need geothermal or a good quality, cold-climate air-source heat pump specifically designed for harsh winters. Air-source heat pump technologies have advanced significantly, with leading products now performing well below 10 degrees Fahrenheit. This technology has even been tested as far north as the Arctic Circle.30

- **Can New York’s grid handle all-electric new construction?** YES. New York’s electricity grid currently experiences peak use during the summer and has excess capacity during the winter. Heat pumps primarily use the most energy in the winter. According to the Long Island Power Authority, adding heat pumps to the grid will help bring down the per kilowatt cost of electricity because they level out electricity use, which improves grid utilization.31 Additionally, new buildings that are built to higher energy standards will be more efficient than New York’s existing housing stock.

- **Is it more expensive to build all-electric?** NO. A report recently released by Win Climate found that, across the state, all-electric new construction would lead to a decline in energy costs — a minimum of $900 each year.32 Additionally, an analysis from RMI found new all-electric single-family homes are in many cases cost-competitive, or cheaper, to construct than new fossil fuel-based homes.33 Heat pumps also provide inexpensive air conditioning, which adds to their cost-effectiveness.

- **What happens if there is a power outage?** All modern heating systems, whether gas, propane, oil, kerosene, coal, or wood pellets rely on electric power to operate (wood stoves are the only exception). Some very old and inefficient fossil-fueled furnaces can work without electricity, but that is not the case for modern gas furnaces. The All-Electric Building Act would not prohibit the use of fossil fuels for emergency backup or for any use for which an all-electric solution is found to be technically infeasible.

**Pass the NY HEAT Act**

New York State needs to urgently update how it regulates gas utility service and bring the statewide gas distribution system into alignment with the CLCPA.

Currently, the gas utilities obligation to serve is a major obstacle and prevents utilities from developing neighborhood scale building decarbonization projects. Another barrier to the decarbonization of buildings is the statutorily mandated utility system extension allowances

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32 Max Shron, Amit Kooner, Juan-Pablo Velez, “The impact of the All-Electric Building Act on the cost of heating new homes in New York State,” October 2022, [https://drive.google.com/file/d/14cm1hLk4DIiY_vK8pvOwTCrIMlAaa3kUT/view](https://drive.google.com/file/d/14cm1hLk4DIiY_vK8pvOwTCrIMlAaa3kUT/view)

which require existing ratepayers to subsidize gas infrastructure hookups for new customers. This subsidy incentivizes both gas system expansion and gas appliance installation. Removing natural gas line subsidies further tilts economics in favor of all-electric buildings. This bill will end costly ratepayer-subsidized natural gas expansion while ensuring the equitable provision of electric service and efficient heating, cooling, cooking, and hot water services.

The NY HEAT Act will ensure that state regulation and oversight of gas utilities provides for the equitable achievement of the climate justice and emission reduction mandates set forth in the CLCPA. This bill provides the Public Service Commission with the authority and direction to align gas utility regulation and gas system planning with the CLCPA’s mandate and requires the Commission to take a proactive role.

Bringing about an equitable transition off gas will require intentional planning and dedicated assistance to some disadvantaged communities. This bill orders a managed transition which will avoid burdening any subset of energy consumers with the spiraling costs of natural gas infrastructure. Under this new bill, in order to right size the current distribution system, utilities will be prevented from expanding its gas distribution infrastructure with the goal of expanding the availability of service to new customers.

Reject False Solutions: RNG and Hydrogen

Earthjustice urges the legislature to reject strategies built around combustion of alternative fuels such as RNG and hydrogen. Production and use of these fuels result in significant GHG emissions and other environmental impacts.34 For example, hydrogen combustion creates significant emissions of nitrogen oxides (NOx), a precursor to both ground-level ozone and fine particulate matter.35 These pollutants adversely impact local air quality and can cause serious health problems, and disproportionately affect communities of color.36 In fact, combusting hydrogen may produce NOx emissions at six times the rate of combusting methane.37

Additionally, a growing body of research indicates that blending hydrogen with natural gas for use in buildings is highly inefficient and does little to reduce GHG emissions.38 Moreover, because of the difference in chemical properties between hydrogen and methane, it is not feasible to use the existing natural gas infrastructure to combust hydrogen in buildings.39 Natural gas

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39 Id.
pipelines can only handle low hydrogen blends before creating safety risks. Relying heavily on hydrogen to power appliances would therefore require utilities to retrofit or replace most pipelines, a huge capital investment, whereas electrification is significantly less disruptive because equipment and appliance replacements can occur incrementally using existing electrical infrastructure.

Additionally, less than one percent of hydrogen is produced via electrolysis and only about 0.02 percent qualifies as green hydrogen (meaning that it is produced from electrolysis powered purely by renewable electricity).\(^\text{40}\) Green hydrogen production is currently limited to demonstration projects, with projects “mostly in the single-digit MW scale.” Instead, nearly all hydrogen within the United States is gray hydrogen, produced via steam methane reformation (“SMR”) of fossil gas, an energy-intensive process emitting both GHGs and harmful co-pollutants including NOx, fine particulate matter, carbon monoxide, and volatile organic compounds. And because electrolysis is so energy-intensive, hydrogen produced using grid-average electricity is even more carbon-intensive than hydrogen produced via SMR. Producing hydrogen is also water-intensive, and at a large scale could lead to water stress.

Production and use of other non-fossil fuels such as RNG also results in harmful environmental impacts and can increase net GHGs. Indeed, because RNG is chemically identical to fossil gas, its combustion emits the same level of GHGs.\(^\text{41}\) Additionally, RNG cannot provide a meaningful source of energy: the supply of true, capturable waste methane (e.g., from uncontrolled landfills and wastewater treatment plants) amounts to less than 1% of current gas demand.\(^\text{42}\)

Moreover, any strategy built around continued reliance on the gas pipeline system necessitates massive investments in replacement of leak-prone pipes. Utilities are collectively planning to invest billions of dollars in LPP replacement over the next several decades. These costs are grossly disproportionate to their climate benefits and most of these costs could be avoided through a more surgical, safety-based approach to focusing instead on the most hazardous and environmentally significant leaks. For these reasons, building decarbonization must be pursued through electrification, and reliance on alternative fuels must be rejected.

**Vehicle Electrification and Public Transportation**

The Scoping Plan made clear that an expedited transition to zero-emission vehicles is necessary to reach CLCPA-mandated emissions reductions in New York. Vehicle electrification – particularly for medium- and heavy-duty vehicles – has added clean air benefits, since diesel emissions from trucks and buses are a major contributor to poor air quality and health impacts like asthma and other chronic respiratory illness. The state has been adopting critical electric vehicle sales regulations like Advanced Clean Trucks and Advanced Clean Cars II. The


\(^{41}\) Alternative Fuels Data Center, U.S. Dep’t of Energy,.

legislature has the opportunity this session to fully fund public transit, reducing our reliance on cars, and to incentivize a faster transition to zero emissions from certain fleets like public transit buses and delivery trucks associated with large-scale e-commerce warehouses. All of these policies are critical to ensure the state pursues an electrification-first policy for emission reductions across all end uses and in a manner that fully realizes the scope of the CLCPA’s equity mandates, while minimizing reliance on combustion fuels and other false solutions.

**Pass Green Transit, Green Jobs**

The Green Transit, Green Jobs bill (A3090-A and S3535-C) will achieve a zero-emissions transit bus fleet by phasing out purchases of new fossil fuel transit buses starting in 2029. The bill prioritizes a just transition for workers, providing protections to existing transit employees subject to a collective bargaining agreement while spurring the creation of high-quality, green jobs. It is necessary to spur a faster transition to zero-emissions buses, which will improve air quality, especially in disadvantaged communities, and create good, family-sustaining jobs. Passing Green Transit, Green Jobs this session will implement the Final Scoping Plan’s recommendation to “transition to zero-emission public transportation fleets” and drive investment in a vehicle segment that’s primed for electrification now – and one that has a substantial local supply chain.

**Electrifying transit buses helps eliminate one of the most harmful sources of local air pollution.** A Harvard study from 2021 found that health damages from transit emissions cost New Yorkers $21 billion in 2016, and pollutants from buses in the New York City area had the highest health impacts of all vehicle types.

**Transit agencies are not moving quickly enough to adopt zero-emissions buses.** Despite the availability of clean alternatives and the suitability of transit buses for electrification, almost all the state’s 8,500+ transit buses burn fossil fuels such as diesel or fracked gas, spewing toxic pollutants into neighborhoods while exacerbating the climate crisis. Transit agencies will have to switch to zero-emissions buses eventually under the CLCPA, and the Green Transit, Green Jobs legislation ensures it will be done on an expedited but reasonable timeline.

**Electric buses are already cost-competitive with fossil fuel buses.** Purchase prices for electric buses are expected to be the same as or even less than for fossil fuel buses, and even now an investment in electric buses yield substantial cost savings over the lifetime of the buses. And federal legislation has boosted funding available to overcome purchase price premiums. Investing in ZEBs makes economic sense today and will not be burdensome for transit agencies in 2029 when the bill’s mandate begins.

**Investing in zero emissions buses can create good jobs.** The bill ensures investments in electric buses will be done in a way that protects workers and will create good, family-sustaining jobs, by using the U.S. Employment Plan, a “best-value” contracting framework to guide
procurements of zero emissions buses and related infrastructure. Procurements using the U.S. Employment Plan have a proven track record of creating hundreds of high-quality jobs.

**Pass Legislation to Implement an Indirect Source Rule for Warehouses**

The e-commerce sector has experienced exponential growth in the last decade, with consumer demand for online goods surging by over 33% between 2019 and 2020 alone. The influx of demand coupled with online retailers’ same- or next-day delivery guarantees has accelerated the buildout of logistical “last-mile” warehouses, many sited disproportionately within or surrounding lower income communities and communities of color in New York State. The expansion of e-commerce freight delivery is one of the reasons that freight trucks’ total VMT is projected to increase by 54% by 2050 – threatening to stall progress on CLCPA emission reduction mandates, even with newly adopted truck electrification rules.

Massive e-commerce warehouse facilities and the high number of trucks associated with their operations are currently unregulated. To address the problem of increased diesel truck emissions from e-commerce warehouses, and the disparate health impacts in communities where these warehouses are clustered, the legislature should pass A.3090 of 2022 to require an “Indirect Source Rule” which will drive electrification and emission reductions at e-commerce mega-warehouses. Currently, emissions from these facilities are generally not regulated, which threatens to exacerbate the already pronounced inequity in the distribution of transportation emissions as goods movement activity increases. It is clear that targeted policies for warehouses (and other freight hubs) are needed to prioritize clean energy investments and emission reductions in communities most burdened by the status quo freight and goods movement system.

The bill would close the regulatory gap for these facilities, requiring warehouse operators to take measures to reduce air emissions. Key provisions include:

- **An air emissions reduction and mitigation plan** requiring warehouse operators to demonstrate emission reductions efforts by: acquiring zero-emission vehicles & charging infrastructure; installing solar panels on-site; using alternative transportation modes for incoming or outgoing trips; or paying additional fees
- **Enhanced protections** for warehouses operating in disadvantaged communities or that impact schools and similar facilities
- **A permit requirement** for new warehouse developments or those proposing significant modifications
- **Ongoing reporting requirements** related to truck traffic and emissions mitigation measures
- **A zero-emission zones study** on the feasibility, benefits, and costs of implementing low- and zero-emissions designated areas for air pollution and congestion hotspots within New York State

**Support Direct, Targeted Emission Reductions Instead of a Low-Carbon Fuel Standard**

We are concerned that the Clean Transportation Standard, as proposed in the Scoping Plan and advanced in A964/S1292, is not the right tool to raise revenue or incentivize zero emissions
transportation in New York, for three reasons. First, the Clean Transportation Standard is likely to incentivize the use of “low-carbon” alternative fuels and artificially encourage investments that would lock-in combustion infrastructure, even in cases where electrification is viable today. This will result in a slower transition to a zero-emissions transportation sector, and continued tailpipe emissions, particularly of harmful co-pollutants. In other states, similar policies have been found to prop up alternative fuel projects with dubious climate benefits.

Second, the Clean Transportation Standard would create a private market for investment in “clean transportation” not subject to oversight by New Yorkers, public agencies or the legislature. Moreover, investments under the Clean Transportation Standard would not be subject to the CLCPA’s requirement that a minimum of 35% of funds be invested in disadvantaged communities, thus undermining the state’s equity mandates.

Finally, as New York looks to implement an economy-wide cap and invest program that would, as we advocated above, center equity and create a public fund to invest in the transition to a zero-emissions economy, a Clean Transportation Standard would be duplicative and unnecessary. It could also divert agency resources away from other programs that would more directly achieve emissions reductions.

Rather than supporting a Clean Transportation Standard, or any low-carbon fuel standard derivative, the legislature should support and scale-up existing programs to deploy zero-emission vehicles and supporting infrastructure, like NYSERDA’s Truck Voucher Incentive Program and Charge Ready NY.

Transit Authorities Need Robust Funding to Increase Service and Expand Access

The Final Scoping Plan is unambiguous in its recommendation to improve and expand New York State’s public transportation systems. It calls for “historic investments in expanded public transportation and micro-mobility” and “significant increases in the availability of public transportation services” by 2030, and a “large-scale investment in expanded public transportation and complementary modes of transportation” in advance of the midcentury emission limits.44 Reducing vehicle miles traveled – for discretionary personal trips and as part of a more efficient freight network – must go hand-in-hand with electrification.

We urge the legislature to take immediate action by adding $300M in funding for the Metropolitan Transportation Authority’s operation budget to achieve 6-minute service across its bus and subway system. More frequent service is needed to ensure New Yorkers continue to rely on public transportation rather than private vehicles for their mobility needs. The legislature should consider additional measures to evaluate funding needs for non-MTA transit systems to enable a doubling of service accessibility and availability, in line with recommendations provided by the Transportation Advisory Panel.45

44 FSP at 147-49. 45 Transportation Advisory Panel Recommended Strategies, attached to Final Scoping Plan at App’x A (p. A-8).
Rapid Deployment of Charging Infrastructure is Needed Across the State

The Final Scoping Plan notes that New York State “must quickly increase the number of EV charging stations” to support the uptick in ZEV adoption expected by the end of this decade. This is consistent with a study by the National Academies of Sciences, Engineering, and Medicine, which concluded that EV charging infrastructure will have to become “ubiquitous” by the end of this decade to keep deep decarbonization targets on track.46

While specific projections vary, in quantitative terms that means New York State will need up to 45,000+ non-home chargers by 2025 and as many as 129,000+ by 2030; Buffalo alone will need non-home charging to grow from roughly 600 in 2020 to nearly 11,000 by 2030.47 A significant portion of these will have to be fast chargers, and those will have to sited appropriately to best facilitate the transition to EVs across all vehicle classes. Substantial funding and planning will be needed to catalyze charger deployment, and to fill in the gaps where the private sector is lagging.

The Plan calls specifically for intentional focus on deployment at multi-unit dwellings, on-street charging in urban areas, and along travel corridors in rural areas, as part of the state’s commitment to prioritize disadvantaged communities. These are sensible, essential policies and we encourage the legislature to pass legislation this session, to ensure that infrastructure barriers do not inhibit widespread transportation electrification needed to meet the CLCPA’s emission limits.

We also ask that the legislature focus on these additional policies, which will help spur infrastructure deployment at scale while addressing some of the systematic inequities in EV deployment to date:

- **Significantly increase state funding towards public electric vehicle charging stations**, to increase EV charger density in low-income and environmental justice communities, with a focus on highly polluted freight hubs;
- **Adopt legislation similar to California’s AB 2127**, to ensure the rollout of EV charging infrastructure is carefully coordinated and sufficient to meet EV deployment targets;
- **Redirect transportation funds away from highway expansion and towards EV charging infrastructure and public transit**, to the maximum extent practicable;
- **Use EV charging investments to bring expanded mobility options to transportation disadvantaged New Yorkers** and facilitate a shift from personal to shared mobility;
- **Pair EV charging with storage, distributed energy resources, and smart charging** to reduce system costs and minimize grid impacts.

Thank you for the opportunity to testify today. Earthjustice looks forward to working with the legislature to pass the bold legislation needed to meet the state’s climate law mandates.

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