



May 31, 2022

NYS Climate Action Council
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Re: Draft Scoping Plan Comments

Dear Members of the Climate Action Council:

We write this joint letter on behalf of the Plumbing Foundation City of New York, Inc. (PFCNY), a nonprofit trade association representing NYC Licensed Master Plumbers, engineers, manufacturers, and supply houses with the mission to ensure the enactment and enforcement of safe plumbing codes; and the Association of Contracting Plumbers of the City of New York (ACP), the bargaining party counter to UA Plumbers Local No. 1. We urge the Climate Action Council to carefully consider all stakeholder feedback fairly and equally.

Our organizations have been at the forefront of combating climate change for decades, including the greening/increasing the efficiency of construction material to mitigating the impact of irregular weather events (e.g., extreme heat/cold, severe storms with deadly flooding, etc.). We want to ensure all New Yorkers use less fossil fuels in construction and in the operation of the millions of buildings and homes within New York. The intent of the Climate Leadership and Community Protection Act (CLCPA) is to do just that and it must be applauded. However, upon review of the Climate Action Council's Draft Scoping Plan (the "Plan"), the plumbing industry has major concerns. Among its proposals, the Plan seeks to have 1-2 million homes and 10-20% of commercial buildings electrified with heat pumps by 2030. By 2050, the Plan seeks to have updated State Building Codes banning gas from new construction, and for 85% of homes and buildings to be electrified with heat pumps. The Plan says New York should ban gas hookups by 2024.

Financial Considerations

What the Plan seriously overlooks is **who is going to bear the cost of electrifying the 1-2 million homes by 2030 in New York State** (not to mention the rest after that). It is alarming that the multiple requests for the Climate Action Council to conduct a comprehensive cost analysis have seemingly been ignored. While the Plan made admirable efforts to ensure low-income and disadvantaged communities will be subsidized and benefited throughout the transition to clean energy, it did not account for the rest of the state in any meaningful way. The middle class seems to be especially forgotten. To convert one home to electric, it can cost between \$25,000 to \$50,000, and



upwards.¹ The cost of electrifying 1-2 million homes by 2030 will no doubt be in the billions. On April 6, 2022, Governor Kathy Hochul issued a press release announcing that New York will receive \$34M in federal aid through the Weatherization Assistance Program to support electrification and electrification-ready upgrades in a mere 1,000 homes.² While she asserts that the “\$34 million will bring us closer to our goal of reaching two million climate-friendly homes by 2030”³ it must be emphasized that **\$34 million dollars will only help ONE THOUSAND homes, nowhere near the required two million.**

Further, when the New York State Energy Research and Development Authority (NYSERDA) offered a residential Air-Source Heat Pump Rebate Program from 2017–2019 to incentivize homeowners to switch to a cleaner heating and cooling system, its data shows that the average project cost was \$16,272.⁴ Over the course of the program, 5,756 applications were submitted for installations from single-family detached homes. Based on the publicly available data, Diversified Energy Specialists (hereinafter “DES”), a renewable energy consulting and environmental markets trading company, estimated that 386 of those applications for rebates could be considered whole-home solutions. Based on the application data, DES estimated that a minimum of 45.4% of the 386 single-family detached house installations retained their existing central heating system as a supplement. Many applications did not include a response regarding a supplementary heat source, therefore DES views 45.4% as a conservative estimate. The extensive data sets from NYSERDA suggest that the installation of air-source heat pump systems at the residential level is too costly for most low- and middle-income homeowners in the northeast region of the United States. The average conditioned square footage of the homes for these installations is 10-20% lower than the median household size in New York, suggesting that homeowners in average and above average sized homes are choosing not to install air-source heat pump systems for their heating needs. Policy in the northeast has historically focused on retrofitting air-source heat pump systems in homes with fossil-fired systems at the end-of-life of the fossil-fired system. Replacing and upgrading a natural gas, propane, or heating oil system at the end-of-life in the northeast typically costs a homeowner

¹ Home Innovation Research Labs, *Costs and Other Implications of Electrification Policies on Residential Construction* (February 2021), available at <https://www.nahb.org/-/media/NAHB/nahb-community/docs/committees/construction-codes-and-standards-committee/home-innovation-electrification-report-2021.pdf>.

² *Governor Hochul Announces \$34 Million in Federal Funds to Improve Energy Efficiency for Over 1,000 Homes* (Apr. 6, 2022), available at <https://www.governor.ny.gov/news/governor-hochul-announces-34-million-federal-funds-improve-energy-efficiency-over-1000-homes>.

³ *Id.*

⁴ *NYSERDA-Supported Air Source Heat Pump Projects: 2017-2019*, NYSERDA, available at <https://data.ny.gov/Energy-Environment/NYSERDA-Supported-Air-Source-Heat-Pump-Projects-20/dpke-svni> (last visited Nov. 4, 2021). IMPORTANT NOTE: This study was done prior to supply chain issues and material cost increases.



\$7,000–\$10,000. Spending an additional \$10,000–\$15,000—an estimate on the lower end—to retrofit an air-source heat pump system is not affordable for most homeowners.⁵

In a *Politico* article describing an outside review of National Grid’s plan to meet the demand for gas, it says:

If no new infrastructure were built, the report concludes that efforts to roll out incentives to reduce gas usage through weatherization, electrification and demand response would need to be dramatically accelerated. Additionally, **customers would pay higher costs** and accept a greater risk that emergency curtailments — shutting off gas service to customers — may happen if those efforts are unsuccessful.⁶

In a more recent *New York Post* article, it was revealed that John Howard, former chairman and current member of the NYS Public Service Commission (PSC), said in a PSC session that “local pols ‘totally obfuscated’ the costs of the [CLCPA] because the sticker shock would have made the initiative unpopular” because the cost is in the **hundreds of billions of dollars**.⁷ The PSC will have the role of approving rate increases for capital investments to comply with the CLCPA—in turn, the utility companies will pass those costs onto consumers.

Feasibility

What is equally disturbing in the Plan is that while renewable natural gas (RNG) and hydrogen are mentioned (e.g., transportation sector), neither are thoroughly discussed in terms of

⁵ Two reports out of California, one from San Francisco and the other from Palo Alto, can provide further examples of the potential cost implications of total electrification. In April 2021, San Francisco’s Budget and Legislative Analyst’s Office issued a memo that states that the estimated costs of electrical appliance retrofitting of residences range from \$14,363 per housing unit (both multi-family and single-family units) to \$19,574 for multi-family units, and \$34,790 for single family homes at the higher end, and that the Citywide cost to retrofit all residential units currently using natural gas-fueled appliances with those fueled by electricity ranges from **\$3.5 to \$5.9 billion**. Budget and Legislative Analyst’s Office, *Memo to Supervisor Mar* (Apr. 22, 2021), available at <https://sfbos.org/sites/default/files/BLA.ResidentialDecarbonization.042221.pdf>.

In November 2016, a report submitted to the City of Palo Alto estimated that to accommodate electric space heating in California, it would cost \$4,700 to upgrade the electricity service for an existing single-family building and \$35,000 for a low-rise multifamily building. Peter Pernijad, *Palo Alto Electrification Study*, TRC ENERGY SERVICES (Nov. 16, 2016) available at <https://www.cityofpaloalto.org/files/assets/public/development-services/advisory-groups/electrification-task-force/palo-alto-electrification-study-11162016.pdf>.

⁶ Marie J. French, *Review sees risk of halt to new gas hookups in New York City, Long Island*, POLITICO (Sept. 15, 2021) (emphasis added).

⁷ Carl Campanile, *‘Green New Deal’ plan will cost NYers ‘hundreds of billions’ in energy bills: official*, NEW YORK POST (May 15, 2022).



the benefits and feasibility versus that of full electrification from renewable sources like wind and solar and use of electric heat pumps. There are over 4,500 miles of natural gas transmission lines, more than 5,500 natural gas gathering lines, nearly 50,000 miles of gas distribution pipelines, and over 37,000 miles of gas service lines in New York State.⁸ The Plan focuses more heavily on decommissioning natural gas plants and piping infrastructure rather than using this valuable resource to implement RNG and green hydrogen into the pipeline.

National Grid released a report in April 2022 with a plan to fully eliminate fossil fuels from both their gas and electric systems by 2050 using a hybrid approach which includes a large reliance on renewable natural gas and green hydrogen.⁹ The report states “[b]y simultaneously capturing methane and displacing natural gas, RNG has the lowest lifecycle carbon intensity of *any* energy source available today.”¹⁰ RNG is also easily stored and delivered through existing gas networks. Further, it is a readily available solution and National Grid has already been successfully injecting RNG into its gas system since 1981.¹¹ Hydrogen is also the most abundant chemical element on earth; National Grid’s report says that green hydrogen can be blended with natural gas or RNG up to 20% by volume and run through existing gas networks.¹² Another important factor National Grid takes into account is to utilize the skills of our existing gas workforce,¹³ and that can be done on a larger scale if New York adopts a plan similar to National Grid.

There is also extensive data on the lack of consistency and reliability of wind and solar power—these renewable sources are not an equal replacement for traditional energy sources. According to a NYISO report from 2021, there were 74 instances in 2020 when there was not enough wind to power wind turbines for more than 8 hours at a time.¹⁴ There does not seem to be a

⁸ Consumer Energy Alliance, *Pipelines and their Benefits to New York*, THE VOICE OF THE ENERGY CONSUMER 3 (May 21, 2018) available at

<https://consumerenergyalliance.org/cms/wp-content/uploads/2018/05/New-York-Pipelines-Report-052118.pdf>.

⁹ National Grid, *Our clean energy vision: A fossil-free future for cleanly heating homes and businesses* (April 2022), available at

https://www.nationalgrid.com/document/146251/download?utm_source=US+Newsroom+&utm_medium=Press+Release+&utm_campaign=Fossil+Free. This plan also takes into consideration affordability for customers;

National Grid argues that “customers should not have to spend \$20,000-\$60,000 in upfront costs to fully electrify their homes in order to have clean energy.” Further, because the plan allows customers to use existing equipment and appliances it ensures the transition to clean energy is affordable. *Id.* a 19.

¹⁰ *Id.* at 9 (emphasis added).

¹¹ *Id.*

¹² *Id.* at 10.

¹³ *Id.* at 20.

¹⁴ New York ISO, *Power Trends 2021: New York’s Clean Energy Grid of the Future* 16 (2021), available at

<https://www.nyiso.com/documents/20142/2223020/2021-Power-Trends-Report.pdf/471a65f8-4f3a-59f9-4f8c-3d9f2754d7de>.



viable solution to meeting peak demand.¹⁵ There is a great risk that if New York becomes completely dependent on electrification, especially powered by renewable sources, there could be widespread power loss and a doomsday scenario. In February 2021, Texas experienced an electrical shutdown which left millions of homes and businesses without heat or running water.¹⁶ The power loss catastrophe led directly or indirectly to at least 246 deaths¹⁷ (there is speculation the death toll is much higher). Quickly banning natural gas and not considering use of the existing pipeline infrastructure seems shortsighted and dangerous (and possibly fueled by the desire to have headlines rather than following practical and logical thinking?).

As you may be aware, the “gas ban” trend began with Berkeley, California in 2019 when the Berkeley City Council passed a gas ban for hookups in new residential as well as some commercial construction, and mandated the use of electricity for heating. Those unfamiliar with how electric grids are run (although the CAC is no doubt well-aware), natural gas actually powers electricity and this is the case for 38% of all electricity in the United States.¹⁸ Moreso this is true for 39% of the electricity in California, and 37% for New York (33% of electricity is also powered by nuclear power in New York, but that does not take into account the closing of Indian Point, see more below).¹⁹ Further, as explained by the *New York Times*, “New York tends to consume more energy than it creates and imports some electricity from neighboring states and Canada.”²⁰ So by requiring more end users to electrify their heating systems may in turn mean higher usage of natural gas.

Although the goals set forth by the State require the utilities to power their electricity from renewable sources, the technologies and feasibility of which are still being explored to meet the

¹⁵ American Gas Association, *Net-Zero Emission Opportunities for Gas Utilities* (Feb. 2022) available at <https://www.aga.org/research/reports/net-zero-emissions-opportunities-for-gas-utilities/>. “[I]t’s likely that a large-scale shift to electric heating—even using highly-efficient technology such as air-source heat pumps—would drive significant increases in peak electric loads, shift the electric grid from summer peaking to winter peaking in many locations, and increase challenges associated with decarbonizing electric generation using intermittent renewable sources.” *Id.* at 11. This report is a great resource for the Climate Action Council to reference for detailed information on the value of hydrogen and renewable natural gas.

¹⁶ Lynn Doann, *How Many Millions Are Without Power in Texas? It’s Impossible to Know for Sure*, TIME (Feb. 17, 2021), available at <https://time.com/5940232/millions-without-power-texas/>. This particular author speculated “judging by the average size of a U.S. household, and the amount of load shed in Texas, at least 15 million people may have been plunged into darkness in that state alone.”

¹⁷ Patrick Svitek, *Texas puts final estimate of winter storm death toll at 246*, THE TEXAS TRIBUNE (Jan. 2, 2022), available at <https://www.texastribune.org/2022/01/02/texas-winter-storm-final-death-toll-246/amp/>.

¹⁸ Nadja Popovich and Brad Plumer, *How Does Your State Make Electricity?*, NEW YORK TIMES (Oct. 28, 2020), available at <https://www.nytimes.com/interactive/2020/10/28/climate/how-electricity-generation-changed-in-your-state-election.html>.

¹⁹ *Id.*

²⁰ *Id.*



policy goals. Further, when Indian Point was shut down, the nuclear power it produced was mostly replaced with natural gas, the most abundant and efficient fuel source in the region. The State claims this is temporary and that it will too have to meet the 70% goal by 2030.²¹ How we get there remains to be determined.

Job Loss

We would be remiss not to mention the catastrophic impact on the plumbing industry and those working in the natural gas field specifically. Throughout the Plan as well as the Jobs Study there seems to be no specific mention of plumbers. While there is mention of “gas industry” workers, that seems to be tailored to those at utility companies who would be facing job losses. The assertion that gas industry workers (if the intent was to even include plumbing contractors and their technicians) that these individuals can “easily” be “retrained” in a new field shows a fundamental lack of understanding of the trade, and further a lack of thorough consideration of the impacts on small businesses that are based mostly or solely on gas work, and in turn, the impact on employment and the economy. It seems the CAC did not actually include all impacted industry stakeholders throughout their development of this Plan.

Commonsense Proposed Solution

There are many common-sense individuals and groups out there that have voiced their concerns, and all agree that the state needs to devise a plan to reach the CLCPA goals by implementing an all the above, or “hybrid,” approach, meaning use of various technologies, including RNG and green hydrogen. Natural gas should also be considered a valuable tool in reaching the CLCPA goals, and an outright ban too near in the future can and will have catastrophic impacts on New York. Gas utility industry methane emissions have decreased 69% since 1990, and a recent report shows multiple pathways to reach a net-zero future which involves natural gas, gas utilities and delivery infrastructure as part of those pathways.²²

If the Climate Action Council does not seriously consider a more diversified and incremental approach to meet the CLPCA’s climate protection goals, it is inevitable that down the road the “Plan” will need to be revisited, revised, and/or reversed.

²¹ Patrick McGeehan, *Indian Point Is Shutting Down. That Means More Fossil Fuel.*, NEW YORK TIMES (Apr. 12, 2021), available at https://www.nytimes.com/2021/04/12/nyregion/indian-point-power-plant-closing.html?mc_cid=0350660d78&mc_eid=a9e1e8c0ba.

²² *Id.* at 2.



Conclusion

We thank the Climate Action Council for the opportunity to comment on the Draft Scoping Plan and reiterate our request that it carefully consider all stakeholder feedback fairly and equally.

Thank you and do not hesitate to contact us for any reason.

Sincerely,

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