

Written Testimony before the
Senate Standing Committees on Finance,
Energy and Telecommunications, and
Environmental Conservation

Thursday, January 19, 2023

Subject: Implementation of the Climate Action Council Final Scoping Plan

Purpose: To examine the legislative and budgetary actions necessary to implement the Climate Action Council Final Scoping Plan

National Fuel Gas Distribution Corporation (National Fuel or the Company) appreciates the opportunity to testify before the Senate Standing Committees on Finance, Energy and Telecommunications, and Environmental Conservation regarding the implementation of the Climate Action Council's (Council) final scoping plan (Scoping Plan). My name is Donna L. DeCarolus. I am President of National Fuel, and I am pleased to be able to provide this information today. I am also a member of the Council and would point out that I make these comments today in my role as President of National Fuel and not in my capacity as a member of the Council.

I'll start with some background about National Fuel. We are a gas-only utility providing service to approximately 740,000 customers in Western New York and northwestern Pennsylvania. As the largest gas-only utility in New York, our service territory encompasses metro Buffalo, Niagara Falls and Jamestown and extends as far east as the Finger Lakes and south to the Pennsylvania state line. Our utility is a subsidiary of National Fuel Gas Company, a diversified energy company engaged in a number of natural gas-related activities, including natural gas exploration and production, gathering, and pipeline and storage. We are headquartered in Western New York, and we are one of the region's largest employers. National Fuel fully

supports a lower-emissions future, and we are proud of the substantial emissions reductions we have achieved over the last three decades, as well as the course we are charting for our utility and customers to responsibly achieve the ambitious requirements of New York's Climate Leadership & Community Protection Act (CLCPA or the Climate Act).

The work of the Council since its inception in March of 2020 has been extensive, involving not only the Council members and New York State Agency staff but also significant contributions from multiple advisory panels and working groups and, perhaps most importantly, comments from thousands of individuals and stakeholders meant to inform the critical task the Council has undertaken on their behalf. It has been a great privilege to participate in this important process.

I support many of the recommendations in the Scoping Plan, including the adoption of accelerated energy efficiency measures, efforts to ensure power system reliability, research and development initiatives to pursue innovative emissions reduction solutions, and the evaluation of the use of the natural gas distribution system to deliver low and no-carbon renewable natural gas (RNG) and hydrogen. Of particular note is the Scoping Plan's increased emphasis on the development of thermal energy networks in accordance with the recently enacted *Utility Thermal Energy Network and Jobs Act* and the insertion of a rigorously developed Gas System Transition Plan Framework at the end of Chapter 18 that will help guide the transformation of this critical energy delivery asset. These aspects of the Scoping Plan will help support natural gas utility workers who have successfully operated a natural gas system that is more than

99% reliable, and who can utilize their significant expertise to safely and reliably operate a decarbonized gas system in the future. That expertise was evident during the recent blizzard in Western New York where there were only thirteen service interruptions on the natural gas system. Even with these positive inclusions, however, the Scoping Plan does not go far enough with many of these initiatives to ensure a responsible energy transformation for New York.

Throughout my tenure on the Council, and from my perspective as the President of a utility in western New York serving communities with more than 1.6 million people, I have continued to express concerns about the Scoping Plan's consumer impacts – for residential homeowners, small businesses and industrial interests in the state – and to offer perspectives and alternatives that will allow us to meet the requirements of the Climate Act while preserving reliability (at both the wholesale power generation level and for homes and businesses), energy system resiliency and an affordable transition for consumers. I find the final Scoping Plan falls short in this regard, and there remain significant concerns that could jeopardize the reliable, resilient and affordable provision of energy for the state's residents and businesses. Specifically, the Scoping Plan:

- Fails to adequately ensure grid reliability for consumers and nonetheless mandates electrification of heat and other end-uses starting in 2025;
- Relies too heavily on a single energy source that is prone to weather-related disruption; and,
- Does not include a full assessment of impacts on consumer energy affordability.

These same concerns were raised in the thousands of comments received on the draft Scoping Plan and have not been adequately addressed in the final document. As a

result of these shortfalls, and because I believe there is a more responsible emissions reduction path that considers climate and economic differences across the state that the Scoping Plan fails to adequately embrace, I voted against approval and adoption of the final Scoping Plan.

I. The Scoping Plan Fails to Ensure Grid Reliability for Consumers

Throughout the Council's deliberations on the Scoping Plan the New York Independent System Operator (NYISO), the organization responsible for evaluating the state's power system to prepare for future reliability risks, has issued increasingly frequent dire warnings about the reliability of the electric grid in the context of the state's planned energy transformation. In its *2021-2040 System & Resource Outlook (Outlook)*,¹ the NYISO predicted that "[f]uture uncertainty is the only thing certain about the electric power industry" as it forecasted a need for 111 to 124 GW in total generation capacity in 2040 indicating that total installed capacity must triple to achieve the Climate Act's 100% by 2040 goal and noting that over the past five years only "2.6 GW of renewable and fossil-fueled generators came on-line while 4.8 GW of generation deactivated." Most recently, in its *2022 Reliability Needs Assessment (RNA)*² issued last month, the NYISO warns that "thinning reliability margins over the next decade present increased challenges to reliability" and that

Even the slightest deviations from expected conditions, load forecasts, or project delays could trigger future reliability needs, including: delays in

¹ *2021-2040 System & Resource Outlook*, New York Independent System Operator (September 22, 2022).

² *2022 Reliability Needs Assessment*, New York Independent System Operator (November 15, 2022).

expected transmission and generation capacity expansion, *extreme weather and higher-than-expected demand*, unplanned generator retirements or outages, or gas pipeline shortages that could result in reliability concerns during winter cold snaps. (Emphasis added)

According to the NYISO, these concerns are heightened for the New York City area which “faces the greatest risk due to limited generation and transmission to serve forecasted demand” and for “the assumed expected summer weather, the New York City grid as planned has limited transmission security margin in 2025 and approaches zero in ten years.” The NYISO further notes that

The reliability margins within New York City may not be sufficient *even for expected weather* if (i) forecasted demand in New York City increases by as little as 60 MW in 2025, (ii) the CHPE [Champlain Hudson Power Express] project experiences a significant delay, or (iii) there are additional generator deactivations beyond what is already planned. *In fact, the long-term demand forecast to be updated in early 2023 is expected to increase substantially due to strong commercial and residential growth along with increased electrification of transportation and home appliances.* (Emphasis added)

Finally, in its *RNA* the NYISO’s resource adequacy analysis demonstrates “a continued statewide reliance on neighboring regions to the point that New York would not have adequate resources throughout the next ten years if not for emergency assistance.”

In the face of these increasingly alarming warnings from the NYISO, the integration analysis that serves as a basis for the recommendations of the Scoping Plan inexplicably includes assumptions that depart from the NYISO’s analysis in critical areas, including more optimistic assumptions about overall resource build, levels of renewable energy output and instances of renewable curtailment.³ The Council’s

³ *New York State Climate Action Council Presentation, Meeting 27* (October 25, 2022).

substitution of its own judgment for that of the NYISO in itself is problematic, but departing from the NYISO's analysis in these critical areas is especially concerning given the serious reliability issues articulated not just by the NYISO but also by other knowledgeable stakeholders like the New York State Reliability Council which, in its comments filed with the Council on the draft Scoping Plan, warns that "there are many unknowns in the transition to the CLCPA's goals. The risks of not reaching a goal in the time required is real" and "delaying or changing a CLCPA goal would be preferable to the risk of a wide scale blackout and associated public safety concerns."⁴ All of this, coupled with recommendations in the Scoping Plan that seem designed to trigger the reliability shortfalls the NYISO warns of, including policies that will result in unprecedented loads on a strained electric grid supplied largely by intermittent energy sources, raises serious concerns for me about the Scoping Plan's ability to ensure grid reliability for consumers. As a Council we heard from commenters on the draft Scoping Plan who raised "strong concerns about the reliability of the grid ... as we transition to intermittent renewables."⁵ At the August 23, 2022 Council meeting, a summary of the thousands of written comments the Council received was presented, including an iteration of the general feedback received on the issues of capacity, reliability and security of the electrical grid. That feedback includes:

- Commenters questioned the reliability of the current grid infrastructure and its ability to handle increased load,

⁴ *NYSRC Comments on CAC's Draft Scoping Plan*, New York State Reliability Council (June 22, 2022).

⁵ *New York State Climate Action Council Presentation*, Meeting 27 (October 25, 2022).

- Many commenters have experienced power outages in their homes and have relied on their gas appliances, highlighting that an all-electric home would be unable to function in these cases,
- Commenters were also worried about more frequent power outages and pointed to Texas and California’s outages to illustrate their fears,
- Commenters expressed concern around the intermittency of renewables, especially as a sole energy source, and the potential public health risks of power outages and unreliable electricity supply,
- Residents were concerned about New York’s energy security, emphasizing that full electrification would leave the State especially vulnerable to attacks on the grid, and
- These commenters generally prioritized energy independence and suggested that meeting the State’s electric demand without fossil fuels would require purchasing renewable from other countries and states.⁶

In light of this feedback, the significant concerns consumers and businesses have regarding the capacity, reliability and security of the electrical grid are undeniable,

⁶ *New York State Climate Action Council Presentation, Meeting 23 (August 23, 2022).*

particularly since in large part they are based on real-world occurrences witnessed in New York as well as other states and countries.⁷ As noted below, these serious reliability and resiliency concerns will be exacerbated by dates included in the Scoping Plan's Buildings chapter - by which natural gas equipment will be prohibited in homes and other buildings as early as 2025 - that are not tied to identified reliability milestones or determinations. In my opinion, particularly against the backdrop of the tens of thousands of power outages experienced in our service territory as a result of the recent blizzard, the final Scoping Plan is not an adequate response to these serious concerns.

II. The Scoping Plan Relies Too Heavily on a Single Energy Source That is Prone to Weather-Related Disruption

Despite the persistent and escalating concerns raised by the NYISO and others about an anticipated overburdened and unreliable electric grid, the Scoping Plan continues to focus too heavily on electrification to achieve the state's emissions reduction goals. In the Buildings chapter, for example, it states that "[a]ll scenarios modeled in the integration analysis include rapid adoption of high efficiency heat pumps so that one to two million energy-efficient homes use heat pumps by 2030, and by 2050, the large majority of buildings statewide use electric heat pumps for heating, cooling, and hot water."⁸ Ignoring concerns about "even the slightest deviations from expected

⁷ In the course of the Council's deliberation process we heard commentary from some members that the issue of reliability had been mentioned too frequently, perhaps is too prevalent in the Scoping Plan and is being used as a "scare tactic." Given the feedback we received from constituents across the state, warnings from the NYISO and other knowledgeable stakeholders, and the electric reliability and security failings we have witnessed recently in New York and other jurisdictions, it would have been grossly irresponsible for the Council not to take up these issues in a material and persistent fashion as it developed the final Scoping Plan.

⁸ *Scoping Plan* at p. 176.

conditions ... including ... delays in expected transmission and generation capacity expansion and ...higher-than-expected demand,” among others, that the NYISO identifies as potential catalysts for reliability deficits, this approach seems bound to push the state squarely into exactly the sort of energy crisis the NYISO has repeatedly warned us about, by dramatically (and likely prematurely, given the unrealistic timing mandates discussed below) increasing load on an already fragile electric grid.

A. Energy Efficiency is a Critical First Step

The Scoping Plan should be clear that the *primary* focus for building decarbonization should be energy efficiency initiatives that emphasize building shell and related improvements. Reducing energy demand on the front end in a way that will curb the use of all forms of energy is an obvious solution that should be pursued aggressively in the first instance. The New York Public Service Commission has concluded that energy efficiency plays a key role in the achievement of the state’s clean energy goals, recognizing that it can reduce or avoid the need for additional infrastructure and result in noteworthy cost reductions for consumers, particularly low- and moderate-income consumers.⁹ Following aggressive adoption of energy efficiency measures, to effectively ensure energy reliability and resiliency for consumers the state must pursue an all-of-the-above approach that encourages the use of multiple forms of energy and a diversified energy delivery network. In the Buildings sector in particular, which addresses energy needs for the homes and businesses where our residents live

⁹ *Order Authorizing Utility Energy Efficiency and Building Electrification Portfolios Through 2025*, In the Matter of a Comprehensive Energy Efficiency Initiative, Case 18-M-0084 (January 16, 2020).

and work each day, all options should be on the table to ensure these fundamental principles, and to maintain affordability and choice for consumers.

B. Dual or Hybrid Heating Systems Should be Adopted to Mitigate Costs and Strain on the Electric Grid

A positive addition to the Scoping Plan is an expanded discussion and adoption of thermal energy networks arising out of recent legislation that will make it easier for utilities to develop these networks. National Fuel and other utilities in the state are already advancing community geothermal pilot projects that will supply thermal energy to residents and commercial facilities using community heat pump systems and geothermal heat pumps. Thermal energy solutions have been endorsed by many, including the Council, because of their ability to encourage energy diversity, reduce strain on the electric grid, perform more effectively and efficiently in cold climates than electric air source heat pumps and provide jobs for a skilled workforce with experience working on the state's extensive network of underground natural gas systems. All of these advantages associated with thermal energy solutions are equally applicable to the use of dual or hybrid heating systems that utilize high-efficiency furnaces in conjunction with air source heat pumps, yet the Scoping Plan inexplicably fails to fully embrace let alone even analyze the use of these systems.

Like geothermal heat pumps, use of dual or hybrid heating systems promotes energy diversity, will reduce the burden on the electric grid, is more effective in portions of the state that are subject to colder temperatures and will maintain jobs for skilled

workers.¹⁰ A further benefit of both systems is that their underground facilities can ensure the consistent delivery of energy even as less resilient above-ground facilities are damaged and rendered inoperable by the increasingly extreme weather events that have and unfortunately will continue to impact New York. Dual or hybrid heating systems can reduce emissions by more than 92% when combined with energy efficiency measures and decarbonization of upstream emissions,¹¹ and can be supported by the 50,000-mile storm-resistant pipeline system that already exists, and has largely already been paid for, to transport natural gas and alternative fuels. A dual or hybrid approach can avoid approximately 60 GW of new capacity statewide and approximately \$75 billion of capital expenditures in New York by 2050. Given the Scoping Plan’s acknowledgment that “[c]urrent studies identify that even after full deployment of available clean energy technologies, there is a remaining need for 15 GW to 45 GW of zero-emission dispatchable electricity generation capacity in 2040 to meet demand and maintain reliability,”¹² why wouldn’t the Scoping Plan recommend pursuing a path that can help resolve this shortfall?

¹⁰ Work on the newly authorized thermal energy network systems alone will not be sufficient to ensure a just transition for natural gas workers, especially in the near term. Work on a decarbonized gas system and a focus on alternative fuels should also be included in any plan for a just transition. The New York State Building and Construction Trades Council is supportive of this approach, as indicated in comments filed in response to the draft Scoping Plan: “Strong labor standards, responsible development requirements, and responsible contracting requirements, as well as an all-inclusive approach to all clean energy sources, i.e., both renewable and alternative dispatchable sources like hydrogen, biofuel, and others, are each essential components to a successful transition to a reliable and clean energy system.” *Draft Climate Action Council Scoping Plan Comments*, New York State Building and Construction Trades Council (July 1, 2022).

¹¹ *Meeting the Challenge: Scenarios for Decarbonizing New York’s Economy*, Guidehouse, Inc. (February 19, 2020).

¹² *Scoping Plan* at p. 252.

A significant amount of support has been shown for pursuit of a dual or hybrid heating approach in New York. On August 29, 2022, the Independent Power Producers of New York, The Business Council of New York State, the New York State AFL-CIO, and the New York State Building & Construction Trades Council issued their comprehensive proposal *Advancing New York State's Clean Energy Goals*, which articulates seven key principles to ensure the state's clean energy goals are pursued responsibly. Included among these principles is an approach to reduce emissions from all sectors, including transportation and heating, that endorses a dual or hybrid heating pathway, noting that “[e]mphasis should be placed on exploring diverse solutions for emission reductions, including energy efficiency programs that ensure early attainment of the most significant energy reductions possible *and dual-source heating options (i.e., using low- and no-carbon fuels in high efficiency natural gas furnaces in combination with air source heat pumps), to ensure that New Yorkers remain safe and healthy.*”¹³ (Emphasis added)

Despite this support for a dual or hybrid heating pathway and the obvious benefits of this approach, the Scoping Plan relegates the use of these systems only to circumstances where supplemental heat is needed in the coldest regions of the state or as a backup source of heat during power outages.¹⁴

¹³ *Advancing New York State's Clean Energy Goals*, Independent Power Producers of New York, The Business Council of New York State, the New York State AFL-CIO, and the New York State Building & Construction Trades Council (August 2022) (Clean Energy Principles).

¹⁴ *Scoping Plan* at p. 179.

C. Unnecessary Limitations on Alternative Fuels

The use of dual or hybrid heating systems may also be constrained by unnecessary limitations placed on alternative fuel use in the Scoping Plan. While certain modifications to the Scoping Plan have suggested evaluation of the use of alternative fuels, language remains that could be viewed as limiting their application generally and only to certain sectors. For example, when discussing research and development for alternative fuels the Scoping Plan refers to the state’s assessment and support of these technologies “with respect to the potential for *some use of alternative fuels in buildings* (such as renewable natural gas [RNG], green hydrogen, wood, and/or high-percentage biodiesel blends) and bioenergy with carbon capture and storage for *harder-to-electrify buildings*, which may include campuses with district energy systems.”¹⁵ (Emphasis added) In addition, in *Chapter 9. Analysis of the Plan*, of the multiple pathways to achieving the Climate Act’s greenhouse gas emissions limits included as key findings in the Scoping Plan and supported by its underlying integration analysis only one addresses alternative fuels and that finding is similarly limited to “sectors that are challenging to electrify.”¹⁶

Specifically with respect to hydrogen, the modification to the Scoping Plan the week before its adoption changing its description to hydrogen formed only via renewable and nuclear energy could constrain the development of other hydrogen options (e.g., low carbon intensity hydrogen, referenced in a prior iteration of the

¹⁵ *Scoping Plan* at p. 213.

¹⁶ *Scoping Plan* at p. 123.

Scoping Plan) that are consistent with federal standards and programs such as the U. S. Department of Energy's hydrogen definition included in the *Infrastructure Investment and Jobs Act of 2021*, and uses in other jurisdictions, and could unnecessarily limit decarbonization options at this early stage of the state's energy transformation.¹⁷

With respect to RNG, the failure to recommend appropriate market signals and/or mechanisms to spur market development – such as a renewable gas standard similar to those adopted in California and Oregon, and a clean heat standard like one recently considered in Vermont – is a major failing of the Scoping Plan and should be rectified via legislative action. Adoption of these mechanisms could offer consumers a decarbonization pathway that is an alternative to costly electrification mandates but, as noted below, these options were never fully evaluated by the Council. Also requiring legislative action are changes to the accounting associated with RNG that is at odds with federal standards and prevents an appropriate recognition of the often enormous, avoided emissions associated with RNG development which are further magnified by the statute's adoption of a 20-year global warming standard. While the Council, at the recommendation of its Alternative Fuels Subgroup, has concluded that these avoided emissions will be included in any lifecycle analysis of RNG for policy-making purposes, this issue should be resolved in the Climate Act from an inventory accounting perspective. A number of scientists from academic institutions including SUNY ESF,

¹⁷ Any impact(s) to the state's ability to take advantage of federal programs because of its deviation from federal standards is never disclosed in the Scoping Plan. Similarly, it's not clear if benefits that should inure to the state from RNG-related credits available in the *Inflation Reduction Act* have been included in the Council's integration analysis. Unfortunately, this is consistent with the Scoping Plan's lack of transparency on certain cost/benefit issues.

Cornell and colleges and universities from across the Country recently forwarded correspondence to the Governor, with copies to the Chairs of the Senate and Assembly and the US Department of Energy, advocating that New York adopt the federal system of greenhouse gas accounting in place of the methodology included in the Climate Act to ensure “that the state’s climate requirements are aligned with federal incentives to take full advantage of the opportunities the [Inflation Reduction Act] makes available.”

D. Mandatory Dates Forcing Building Electrification Jeopardize Energy Reliability

The Scoping Plan’s failure to more fully embrace diverse forms of energy, and over-reliance on electrification in the Buildings chapter, is greatly exacerbated by strategies that would prohibit building systems and equipment used for fossil fuels in *new construction* statewide for single family and low-rise multifamily residential buildings beginning in 2025 and for larger multifamily residential buildings and commercial buildings in 2028, and in *existing buildings* at end of useful life for residential-sized equipment beginning in 2030 and for large and commercial-sized equipment beginning in 2035.¹⁸ The Scoping Plan views these strategies “as an important policy lever that can contribute to the *rapid transformation* presented in the integration analysis”¹⁹ (emphasis added). It is exactly this sort of forced transformation, artificially accelerated by specific dates that are not tied to identified reliability milestones or determinations, that will increase the likelihood of the serious reliability and resiliency concerns that the NYISO has been warning the state about throughout the Scoping Plan development

¹⁸ *Scoping Plan* at p. 190.

¹⁹ *Scoping Plan* at p. 185.

process. While there is language included in the Buildings chapter that requires consideration of the electric system's ability to meet demand with widespread electrification, specific dates that drive that process should be adopted, if at all, *only* after a thorough system evaluation and unequivocal determination that the necessary power and electric infrastructure exists to meet anticipated demand. A better approach that would help avoid the perils consistently identified by the NYISO is to offer incentives (not mandates) for conversion to multiple decarbonization options, prioritizing conversions from higher emitting fossil fuels like oil and propane, and, critically, to adopt in the Buildings chapter (indeed, in the entire Scoping Plan) the strategies recommended in the rigorously developed Gas System Transition Framework included in Chapter 18 of the Scoping Plan. That Framework requires, among other things, “a detailed, strategic, and coordinated approach to optimization of the electric and gas systems, and that any contracting of the gas system considers end-use customers who are highly reliant on gas, economic impacts, feasible alternatives, and growth in the power generation sector with electrification.”²⁰ Only a careful, analytical approach like this can ensure that consumers will have reliable access to the energy they need throughout the complex energy transformation that lies ahead.²¹

²⁰ *Scoping Plan* at p. 361.

²¹ The Clean Energy Principles advocated by supporting energy, labor and business interests also endorse this approach, indicating that “bans on existing types of facilities and appliances should not be imposed, especially where such bans would sacrifice reliability, resiliency, and cost efficiency.”

III. The Scoping Plan Does Not Include a Full Assessment of Impacts on Energy Affordability

Throughout the draft Scoping Plan process I and other Council members have raised concerns about costs associated with Climate Act compliance. For example, at the December 15, 2020 Council meeting members raised the importance of an upfront cost study to inform the feasibility of potential recommendations that the Council would consider in forming the Scoping Plan. Shortly thereafter, Gavin Donohue and I sent a letter to the Council in support of a request by Multiple Intervenors - an unincorporated association of approximately 57 large industrial, commercial and institutional energy consumers with manufacturing and other facilities located throughout New York state - for a quantitative analysis of the costs of Climate Act compliance on New York state businesses. Our letter extended beyond this request and also asked for “a detailed analysis to estimate the annual and total cost impact on electric and natural gas bills for all customer sectors across the state, including residential, small and large business customers, associated with implementation of the CLCPA’s requirements.”²² The Cost Letter included nearly 70 signatories, all of whom supported the request for cost information “[i]n the spirit of having full knowledge and understanding of the costs and benefits of alternative pathways for emissions reductions under the CLCPA.”

Despite these requests, the cost data so critical to our work developing a draft Scoping Plan was never provided. In December 2021, when I voted in favor of releasing the draft Scoping Plan for public review and comment, I reiterated my strong feeling that “[i]t is imperative that the Plan include a detailed, credible analysis of cost

²² *Letter to New York State Climate Action Council Co-Chairs* (January 20, 2021) (Cost Letter).

impacts for all consumer sectors across New York, and that information should be part of the public discussion of the Plan.” Integral to my vote in favor of issuing the draft Scoping Plan was “an expectation that the Council will ensure that the draft Scoping Plan, and the important issues concerning cost, safety, reliability and resiliency not fully addressed in the Plan, will receive a thorough and fair review by the Council and before the public.”²³ At the eleven public hearings held across the state we heard over and over again from residents and business owners questions and concerns about how they would be impacted financially by the draft Scoping Plan and its recommendations. Those questions and concerns were echoed in the thousands of written comments the Council received as well. The general feedback received on the issue of cost impacts is as follows:

- Some commenters expressed belief that the benefits of the transition will outweigh the potential costs of delayed action; *however, many commenters expressed concern about the potential cost impacts of the Plan.*
- Commenters were *specifically concerned with the cost of the renewable energy transition, noting the high cost of transitioning to alternative technologies and disproportionate impacts on Low- and Moderate-Income (LMI) households, Disadvantaged Communities (DACs), and those who are on a fixed income (e.g., retired individuals).*

²³ Donna L. DeCarolis Statement, Climate Action Council Meeting (December 20, 2021).

- They cited *expected costs up to \$25,000-\$50,000 to upgrade their homes with alternative technologies in accordance with the Plan and were specifically concerned about heat pump retrofits and electric vehicles (EVs)*, as they are believed to be prohibitively expensive with limited available incentives or subsidies.
- Commenters also *expressed concern about increasing electricity costs*, emphasizing their belief that increasing demand for electricity through electrification will cause electricity prices to rise.
- They also *expressed concern that electric companies could raise prices when homes would have no alternative energy source*. Commenters listed natural gas, propane, and wood as the most affordable heating fuels and *insisted that electricity is more expensive, especially for heating homes in cold climates*.
- Commenters *expressed concern that the Plan will increase taxes and place a financial burden on New Yorkers*, citing the already high cost of living in the State which has been exacerbated by COVID-19 and

inflation and warned that cost of living increases will drive people and businesses out of New York.

(Emphasis added)²⁴

Virtually every iteration of feedback on cost impacts of the draft Scoping Plan included some element of concern regarding the costs associated with its recommendations, yet still to this day the Council and the public have not received a satisfactory answer to questions posed more than two years ago by Council members about cost. This omission is especially concerning in light of the limited consumer-based information that has been developed by the Council's consultants that suggests material financial impacts on New Yorkers, generally estimating a cost of between \$20,000 to \$50,000 to convert a natural gas home in upstate New York to all electric. Based on this data, in National Fuel's western New York service territory alone the estimated cost for consumers to electrify their homes would be between \$10 and \$25 billion. New York simply cannot pursue a historic overhaul of its energy systems without a clear picture of all the costs consumers will bear, particularly low-income consumers and those living in disadvantaged communities.

Consequently, the Scoping Plan was completed without a full assessment of impacts on energy affordability and what its primary focus on mandated electrification will cost consumers and businesses including, among others, no true assessment of conversion costs for consumers to electrify everything in their home, and no visibility on cost per kwh for electric grid and local transmission and distribution buildout. This

²⁴ *New York State Climate Action Council Presentation, Meeting 23 (August 23, 2022).*

dearth of information is especially disturbing in light of the financial devastation wrought by the COVID-19 pandemic on residents and businesses in New York, where low-income customers enrolled in utility bill discount programs had arrears totaling approximately \$478 million as of June 2022. It is more important than ever that cost be taken into account when considering any major policy initiative that will affect consumers.

Some have responded to these cost concerns by suggesting that certain economy wide strategies such as carbon pricing and related mechanisms can fund the state's energy transformation. The Economy Wide Subgroup established by the Council considered two economy wide greenhouse gas policies²⁵ – a tax or fee establishing a carbon price and a cap-and-invest program – and concluded that the latter would best be able to meet the Climate Act's requirements and goals. While acknowledging the effort that went into consideration of these economy wide policies, I have significant concerns about adoption of a cap-and-invest program in New York given its potential to impose unsustainable cost burdens on residents and businesses, encourage economic leakage from the industrial sector and disproportionately burden certain regions of the state, including Western New York (which will already likely bear a greater burden than other regions of the state under the Scoping Plan). Adoption of this strategy should not be pursued without rigorous and transparent evaluation. Establishing such a program to generate monies to fund the state's energy

²⁵ This subgroup was initially tasked with reviewing a third policy category – clean energy supply standards – but ultimately concluded that those standards should be considered separately under sector chapters. This decision resulted in some clean energy supply standard options, like renewable gas standards and clean heat standards, both potentially viable mechanisms adopted and/or considered in other jurisdictions, never being fully evaluated by the Council.

transformation would hardly be worth it if an inartfully designed program resulted in emissions and economic leakage and disproportionate negative impacts on certain individuals, sectors and/or regions of the state.

IV. Key Recommendations to Achieve a More Responsible Emissions Reduction Path for Consumers

While I support a number of the strategies in the Scoping Plan, I believe there is a more responsible emissions reduction path predicated on an all-of-the-above decarbonization approach that acknowledges regional differences in the state and encourages the development and use of multiple forms of energy and a diversified energy delivery network to achieve a reliable, resilient and affordable energy transition for consumers. I offer the following key recommendations as a means of effectuating this approach:

- Given the significant reliability and resiliency concerns raised by the NYISO and others, the state is placing undue risk on consumers by relying so heavily on a single form of energy and energy delivery system, especially one that is prone to disruption by extreme weather events as we saw recently in Western New York. Mandatory dates – beginning in 2025 for new construction and 2030 for existing buildings - that effectively mandate electrification of homes and businesses without the assurance of identified reliability milestones should be rejected.

- The storm-hardened, underground natural gas system should be leveraged to achieve the Climate Act’s decarbonization requirements, and a hybrid heating path that will mitigate costs and promote reliability should be implemented.
- The state should unlock consumer benefits of alternative fuels, particularly RNG in the near term for immediate emissions reductions and hydrogen in the longer term, including hydrogen blending for the heating sector. This means developing market mechanisms like renewable gas and/or clean heat standards and amending the Climate Act to include avoided emissions in inventory accounting for RNG.
- A thorough quantitative analysis of all costs associated with the various emissions reduction initiatives identified in the Scoping Plan should be performed and shared with the public. This analysis is long overdue and is critical to an understanding of cost impacts on New York’s residents and businesses and to the identification of initiatives that will ensure energy affordability, including for low-income customers and individuals living in disadvantaged communities.
- Given the complexity of New York’s energy transformation, and its widespread economic and societal impacts, the design and implementation of any economy-wide strategy – including a cap-and-invest program - must be accomplished in a highly precise fashion and only after significant study and consideration so that it

doesn't simply result in yet another "tax" on certain sectors of consumers or regions of the state.

- All of these initiatives must be viewed from a regional perspective and implemented accordingly, considering, among other things, financial circumstances, climate challenges and existing energy use and emissions for the various regions of the state.

V. Conclusion

While I fully support pursuing emissions reductions in the state and greatly appreciate the work of the Council and those who have supported its efforts, the Scoping Plan in totality does not present a responsible path forward for consumers and is not appropriately responsive to the comments and concerns raised by many of those who have taken part in this process. My sincere hope is that the next steps in this exercise - where the recommendations in the Scoping Plan are taken into consideration as legislative, regulatory and related processes unfold - *will not* result in the adoption of prohibitions that force electrification prior to specific determinations of grid readiness and *will* result in responsible choices that prioritize energy reliability, resiliency and affordability for consumers. As we've learned from the numerous warnings of the NYISO and real-world incidents in New York as well as in Texas, California and elsewhere, anything less could be disastrous for the state's residents and businesses.