Dear Members of the New York State Climate Action Council:

I am writing to you in response to the Climate Action Council Draft Scoping Plan, both as a lifetime resident of New York State and as a mechanical engineer from Clarkson University who has worked in the natural gas industry, serving Western New York, for almost 30 years.

While I am in total support of acting responsibly and protecting our environment, I have several concerns about the Draft Scoping Plan. There are many questions that remain unanswered about so much conversion to electric and many practical reasons why such an extreme conversion to one energy source is not a good idea. I have not seen a detailed plan of how the existing electric grid will support the level of conversion that the Draft Scoping Plan contemplates. The cost to strengthen the electric grid, a grid that struggles at times to handle the existing load, must be staggering and does not seem to be practical. Additionally, reliability is extremely important when it comes to energy delivery. Particularly in Western New York during periods of severe winter weather, energy delivery is a necessity and not a luxury. I believe there are ways that are less extreme but still achieve climate action goals while still maintaining fiscal responsibility and keeping New York residents safe at all times.

I have never understood why electric is viewed as such a clean energy source. Just because there are no visible emissions at the point of end use consumption does not make electric a low-emission energy source. While there are certainly low-emission sources of power production like wind, solar and hydro, those sources only account for a small fraction of New York's consumption needs. Most of New York's power production comes from burning fossil fuels. Those production sites are typically in more rural and remote areas that are not visible to most of the public. Since those production sites are so far removed from the markets and consumption points they serve, the energy loss from transporting that electricity such a long distance adds much inefficiency to the delivery process. The same can be said for wind, solar and hydro power production sites – all have inherent inefficiencies due to the distance that electricity needs to travel before it reaches the market.

If fossil fuels are no longer used to produce electricity, what would meet the energy demands of New York residents? There is not enough real estate for solar and wind to meet our energy needs, and hydro is limited to what resources are currently available. Relying solely on these methods for power production would set New Yorkers back centuries. It is not

practical or feasible for these methods alone to meet the energy needs of New Yorkers in the 21<sup>st</sup> century. New York does, however, already have an established natural gas system that delivers energy safely and reliably to meet the demands of modern New Yorkers.

The existing power grid in New York struggles to handle the existing electric load. If even more demand is placed on the current grid due to increased conversion from other existing energy sources to electric, reliability may decrease significantly. I am not in the power generation or electric delivery business, but those who are in that business know and understand that the existing grid is not sufficient for what is proposed in the Draft Scoping Plan. The amount of capital investment required to improve the grid so it can handle such larger demands would seem to be incredibly high and cost prohibitive. It may be impractical at the very least and even impossible in the worst case. I have not seen a plan for the resources and time required to bolster the grid sufficiently to accommodate these increased load demands. I would imagine the cost to the New York ratepayer would be overly burdensome.

The cost to individual New York residents would seem to be overly burdensome as well. If New Yorkers are forced to replace gas appliances with all electric appliances, they will need to upgrade the electric systems in their homes. The estimated cost to upgrade a residential home's service to handle the increased load would be substantial. When you compare that cost to the value of many homes in Western New York, the economics do not work and homeowners will be faced with insurmountable costs for less reliability.

Heat in New York is not a luxury in the winter – it is a necessity. In order to keep New York residents safe through our typical harsh winter conditions, they must have a reliable source of heat. Not to be dramatic, but the availability of heat at certain times of the year can be the difference between life and death. Heat is that important. Most New Yorkers have experienced a power outage. Many are accustomed to living without power at least once every year and some experience power outages several times per year. Those outages often affect thousands of customers at a time and can last for extended periods of time. And that is with the existing grid, before any additional load is placed on the grid. By comparison, most New Yorkers have never experienced an interruption in their natural gas service even once in their lifetime. Thankfully, most residents in Western New York get their heat from natural gas, which means they have a consistent and reliable source of heat every winter. They can count on being safe through even the harshest winter conditions. Can you imagine what would happen if all that heating load is shifted to an electric grid that cannot handle that kind of load on peak days in the winter when customers need it the most? That would be irresponsible and dangerous for the residents of New York.

Shifting all of New York's energy needs to electric is a mistake. I have not seen a practical plan for achieving this goal, and the arguments I make here about cost and reliability stand. There is much that the natural gas industry can do to help New York meet climate action goals, without bankrupting New Yorkers and subjecting them to being without heat when they need it most. Please consider using a common-sense approach and a diverse solution where residents have access to both natural gas and electric for their energy needs. It is never wise to put all your eggs into one basket. If New York switches to all electric, that is essentially what we would be doing. That is costly and, more importantly, it is dangerous. It is no different than diversifying an investment portfolio. Please consider an energy solution where diversity plays a key role, to both mitigate risk and to keep costs reasonable for all New Yorkers.

Thank you for your consideration. All New Yorkers are counting on you to make a good, common-sense decision that takes everything discussed here into account.

Sincerely,

Craig K. Swiech

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