ACEC New York

American Council of Engineering Companies of New York

Comments Regarding the Climate Action Council's *Draft Scoping Plan*

The American Council of Engineering Companies of New York (ACEC New York) represents close to 300 consulting engineering and affiliate firms and 30,000 employees throughout New York State. Our members plan and design the structural, mechanical, electrical, plumbing, civil, environmental, fire protection, technology and other systems for the buildings and infrastructure throughout New York. Our State and Metro Energy Committees have reviewed the *Draft Scoping Plan* to offer observations and feedback.

The *Draft Scoping Plan* addresses the decarbonization of existing buildings through prohibiting the replacement of fossil fuel equipment at the end of useful life. ACEC New York supports the goal of decarbonizing existing buildings. We submit the following observations and ideas regarding the *Draft Scoping Plan's* approach.

Comment 1

- Retrofitting the heating and hot water systems in existing buildings to all-electric has varying degrees of complexity based on the type of system in the building. For all systems there is a certain amount of modifications that will be required to convert from a fossil fuel based system to an all-electric solution. However, for certain system types, such as steam heating, the system would need to be completely replaced. All existing piping, radiators and boilers would need to be removed and replaced with electric equipment and distribution. This would take a considerable amount of time and cost to design and construct. Waiting until the existing equipment fails or reaches the end of useful life will mean that the building is without heat and or hot water for an extensive period of time while the system is being replaced.
- Furthermore, many properties will require increases or modifications to the existing electrical service from the utility to accommodate the additional electric loads. This also has timing and cost implications.
- Similar factors relate to replacing gas appliances with electric. In most buildings, substantial modifications to the electrical distribution and service will be required to support the new appliances.

Recommendation 1

- Extensive proactive outreach will be required to ensure that all building owners are aware of the new requirements and are incentivized to replace their equipment before it reaches the end of useful life. Otherwise, many homeowners will be left without a habitable building if their equipment fails and they are not able to replace it quickly in kind.
- The existing heating and hot water system in a building should be taken into account to determine financial incentives and electrification timelines. Different building types and in particular different types of heating systems will require different approaches and different incentives. If a system has a forced air HVAC system vs a steam heating system there is a major difference in costs, timeline and logistics to meet the mandate.
- We recommend that the phasing be further refined based not only on the size of the building but also the type of existing heating system in the building.

Comment 2

- Relative to the implementation timeline, there are concerns whether there is adequate workforce to accomplish the retrofit goals as stated in the S*coping Plan* (from 2030 on >250,000 retrofits or new housing units with 100,000 new jobs).
- The timeline to train workers to a high level of competency is not brief and maintaining a uniform standard across all contractors and their work products should be paramount.
- Fast tracking this process will likely lead to expensive repairs and inefficient operation in the long term which will be detrimental to the State's carbon reduction goals.

Recommendation 2

- An analysis of the available workforce in the industry should be conducted to determine where there are potential shortages. The implementation timeline should take this into account.