

nyecc

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October 15, 2021

The Honorable James F. Gennaro

Chairperson, Committee on Environmental Protection

250 Broadway, Suite 1773

New York, NY 10007

Re: New York City Council Int. 2317-2021

Dear Chairperson Gennaro:

The New York Energy Consumers Council (“NYECC”) has convened a group of professionals from across the energy and real estate industries and performed a review of the proposed legislation Int. 2317-2021. These professionals, who are members of NYECC, are engineers and sustainability practitioners who actively operate buildings in New York City and are also experts in energy policy. We are supportive of the spirit of the bill, as it is in line with the Climate Mobilization Act, i.e. NYC Local Law 97 as well as New York’s Climate Leadership and Community Protection Act (the CLCPA). We also support the efforts laid out in principle as a necessary step to reducing carbon emissions from buildings, and their contribution to reducing the effects of climate change. However, we feel that significant changes to the bill, as written, are needed. Our recommended changes are set forth below:

1) The bill as written would apply to all new buildings and certain renovations and would take effect after two years.

(a) Given the implications of this legislation on the electrical grid, NYECC proposes that Consolidated Edison Company of New York, Inc. should be directed to commission a study by an independent third party to evaluate the preparedness of the electrical transmission and distribution infrastructure for the effects of the bill under the specified timeline in the bill and whether it can support the electrified building stock as created by the bill. The study should analyze whether there are any additional infrastructure investments that are needed along with the costs of such investments and how those costs will be allocated. This study should also be made publicly available for review and public comment. The necessary infrastructure upgrade project timelines should be made public as well to assist in proper planning by developers and building

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owners. The effective timing of the fossil fuel ban should track the timing of the completion of such infrastructure projects.

- b) The legislation should be phased in over time based on square footage and/or building height. This would allow the above-mentioned study to take place, would allow time for a new performance-based energy code to come into effect, and would provide time for products to come to market that can meet the needs of all segments of the building stock. The most efficient current technology (heat pumps) requires significant roof space. For larger buildings, due to the limitation of the building footprint, the roof and setbacks are typically not large enough to accommodate the necessary equipment to heat the building. Therefore, the absence of a phase-in could result in many buildings using electric resistance heating rather than heat pumps, which would tax the already over-burdened grid and would actually increase emissions, given the inefficiencies of those systems. As heat pump technology evolves, it will require less space. An example of what a phased implementation plan could look like is the following:
 - i) 2 years following completion of required grid infrastructure upgrades, all new construction of 50,000 square feet, 3 stories or less, and/or single-family homes must comply.
 - ii) 5 years following completion of required grid infrastructure upgrades, all new construction of 500,000 square feet or less and/or 10 stories or less must comply.
 - iii) 8 years following completion of required grid infrastructure upgrades, all other new construction must comply.
 - c) The bill should only apply to new buildings, or to renovations that have a value of over 50% of the property value.
 - d) There should be language added to allow for the following exemptions:
 - i) If Consolidated Edison cannot cost-effectively provide electrical service to a new building.
 - ii) For cooking gas in apartments (Please see case study, attached as Exhibit A).
 - e) There should be an explicitly defined process with guidelines in order to claim an undue hardship exemption.
- 2) NYECC recommends the following additional amendments:
- a) New York City owned buildings should also be included in the bill as required to comply.
 - b) Standby generators used for curtailment activities (which bolster grid resiliency) should be exempted.
 - c) Nothing should prevent a newly constructed building from connecting to a district heating and/or cooling system including Consolidated Edison's district steam utility. Per proposed Section 24-177.1(a), prohibited emissions are those due to combustion "within a building". When a building utilizes the district steam system, combustion is off site. We would like to clarify that a building will have the option to utilize district steam as a thermal energy source.

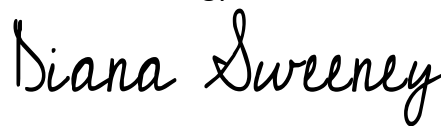
Hybrid options should remain viable as well. Heat pumps can heat buildings reliably at milder (+32°F) outdoor air temperatures in modestly humid weather. When paired with traditional natural gas boiler systems, which can provide heating at low outdoor air temperatures, a hybridized heating system would result in a more favorable solution that is economical, reliable, and sustainable. Limited use of a backup boiler would not add significant amounts of greenhouse gases, would reduce pressure on the grid during winter peaks, and would allow for important redundancy for providing heat in the case of

electrical outages. We believe market drivers, including Local Law 97 penalties, will serve to curb the use of natural gas, and we are open to exploring how usage limits can be set and regulated.

The NYECC greatly appreciates your attentiveness to our concerns regarding this legislation, and we welcome additional discussions around these items as this legislation continues to evolve. Our organization represents energy consumers of all shapes and sizes in New York City, and we want to make sure the voice of the consumer is heard and considered with the passing of legislation that will greatly impact them. We fully support the efforts of the City Council to decrease the carbon footprint of the greatest City on Earth and hope to remain engaged to ensure the enacted legislation is feasible to achieve its intended goals.

Sincerely,

New York Energy Consumers Council

A handwritten signature in black ink that reads "Diana Sweeney". The signature is written in a cursive, flowing style.

Diana Sweeney
Executive Director

cc: Nabjot Kaur, Legislative Director, Council Member Jim Gennaro
Bradley Reid, City Council Central Staff
Terzah Nasser, City Council Central Staff
Ben Furnas, Mayor's Office of Climate and Sustainability
Nicole Abene, Mayor's Office of Climate and Sustainability

EXHIBIT A – CASE STUDY

We performed a case study on an existing member’s multi-tenanted residential building to review the impacts of eliminating natural gas combustion if the legislation had been implemented as it is currently written at the time the building was developed. The study was performed on a recently constructed (2019) 560,000 GSF multifamily residential building with a natural gas fired, condensing hydronic heating system.

The findings, which are rough estimates, are summarized below:

- Installation of electrified heating systems would have resulted in an increase in first costs of ~\$4.5M or \$8.00/GSF.
- Annual operating costs would increase by ~ \$75,000. Note: While LL97 fines would “offset” the additional utility cost in year one, if electricity costs outpace natural gas costs, as has been experienced historically, the capex investment may never pay back.
- Loss in annual revenue of \$120,000, consisting of \$100,000 in lost rent from reduction in views associated with the exterior mechanical equipment placed on roof setbacks, as well as \$20,000 in lost amenity fees due to reduction in outdoor terrace amenity space.
- Initial carbon savings from electrifying the heating systems vary between 250 and 300 tons of carbon per year, depending on whether eGrid or LL97 coefficients are used.
- The carbon impact of gas cooking is minimal at only 40 tons per year which equates to approximately 7.5% of the building’s total gas usage. The carbon impact of electric cooking appliances in the apartments equates to 64 tons per year, an increase on day one of 24 tons per year. This increase would remain a carbon penalty until the grid becomes 40% cleaner than the 2024 LL97 carbon coefficients (approximately .00018 tCO₂/kWh).

Electric cooking systems available on the market today use resistance electric heating elements that a coefficient of performance (COP) of 1, which is only marginally higher than natural gas cooking systems, but the difference doesn’t overcome the higher carbon intensity of electricity versus natural gas given today’s emissions coefficients. For comparison, heat pumps have much higher COPs (1.5 - 5.0) which offset the higher carbon coefficient of electric when applied to domestic hot water and comfort heating systems.