

Resolution in Support of an Ordinance to Ban Natural Gas Connections in New Construction and Major Renovations

March 16, 2023

WHEREAS, according to the Bylaws of the City of Ann Arbor Renters Commission, the Renters Commission shall, “[p]ropose, evaluate, recommend, and respond to policies, practices, or laws that affect renters in the City, including, but not limited to: housing affordability, transportation access, land use, public health and safety, and economic development;”

WHEREAS, City Council on November 4, 2019, approved a resolution declaring a climate emergency and setting a target year of 2030 to achieve city-wide carbon neutrality (R-19-498);¹

WHEREAS, City Council on June 1, 2020, approved the Living A2Zero Ann Arbor Carbon Neutrality Plan (R-20-193);²

WHEREAS, gas combustion in Ann Arbor’s buildings generated 520,000 metric tons of CO₂-equivalent emissions in 2021, which represents 28 percent of the city’s total emissions that year, according to the city’s 2021 greenhouse gas inventory report;³

WHEREAS, Strategy 2, Action 1 of the A2Zero plan, “Promote home and business electrification,” includes the following assumption: “All new residential and commercial buildings are designed and built to operate without the use of natural gas, reducing the increased cost associated with retrofitting existing systems;”⁴

WHEREAS, Strategy 3, Action 2, “Update building codes,” includes the following assumption: “All new construction from 2022 through 2030 (and beyond) is built to net zero energy standards, which includes no natural gas consumption;”⁴

WHEREAS, as of February 2023, approximately 40 cities and counties nationwide had adopted ordinances banning or restricting natural gas connections in new construction;⁵

WHEREAS, the Zero Code Appendix to the 2021 IECC requires that commercial, institutional, and medium- to high-rise residential buildings achieve net zero energy use, either with on-site or off-site energy generation;⁶

WHEREAS, the A2Zero plan, strategy 3, action 2 assumes adoption by the state of the Zero Code Appendix in 2021, enabling subsequent adoption by the city;⁴

WHEREAS, the Michigan state Bureau of Construction Codes will not adopt the Zero Code Appendix in the current revision cycle;

¹ Ann Arbor City Council, [Resolution in Support of Creating a Plan to Achieve Ann Arbor Community-Wide Climate Neutrality by 2030, R-19-498](#)

² [Resolution Adopting the Living A2Zero Ann Arbor Carbon Neutrality Plan, R-20-193](#)

³ Office of Sustainability & Innovations, [2021 Ann Arbor Community-Wide Greenhouse Gas Inventory](#)

⁴ Office of Sustainability & Innovations, [A²ZERO Action Plan 4.0](#)

⁵ Institute for Energy Research, [An Overview of Natural Gas Bans in the U.S.](#), August 2021.

⁶ New Buildings Institute, [Zero Energy Appendix for the 2021 IECC](#), June 2020.

WHEREAS, Ann Arbor is currently experiencing a significant increase in the construction of new buildings that is already adding substantially to the city's inventory of gas-burning buildings;⁷

WHEREAS, as of February 1, 2023, thirty separate development projects in the city that will burn gas for heat were under construction or in advanced planning, which when completed will produce almost 24,000 metric tons of additional CO₂-equivalent emissions annually just from gas combustion;^{7,8}

WHEREAS, these new emissions will represent more than four times the estimated 5,682 metric tons of annual emissions that will be prevented by the investment of Ann Arbor residents and the city government in new solar installations, including the Solarize residential initiative (through May 2022) and the pending Solar at City Facilities (Enerlogics) and parks (Homeland Solar) projects, when complete;

WHEREAS, incorporating all-electric appliances, including heat pumps, is cost-effective in new construction, according to the Rocky Mountain Institute 2020 report, "The New Economics of Electrifying Buildings," which analyzed heat pump versus gas 15-year appliance life cycle costs in seven markets, including Minneapolis. The report found that in all seven cities, building a home with all electric appliances was cheaper than building a home with gas infrastructure both in terms of up-front costs and over the course of 15 years;⁹

WHEREAS, it has been thoroughly documented that gas appliances like stoves and ovens are sources of volatile organic chemicals known to be toxic and/or carcinogenic, as well as nitrous oxide, which impairs neurological and cognitive function, and ozone and small particulate matter, which can cause asthma exacerbation, heart attacks, airway irritation, difficulty breathing, coughing, and premature deaths for those with heart or lung-related conditions;^{10,11}

WHEREAS, it has also been shown that many gas appliances emit large amounts of natural gas even when they are not turned on, meaning that dangerous amounts of toxic and/or carcinogenic chemicals can be emitted from gas appliances that are not activated;^{11,12}

WHEREAS, carbon monoxide is another dangerous chemical that is produced by incomplete combustion of natural gas in gas appliances which can cause carbon monoxide poisoning in higher concentrations;

⁷ Ryan Stanton, [30+ Ann Arbor developments to watch in 2023, including more high-rises](#), Feb. 1, 2023.

⁸ Ken Garber, [Greenhouse gas emissions from natural gas-heated new construction in Ann Arbor \(February 1, 2023\)](#).

⁹ Rocky Mountain Institute, [The New Economics of Electrifying Buildings: An Analysis of Seven Cities](#)

¹⁰ Gruenwald et. al., Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States, *Environ. Res. Public Health* 2023, 20, 75. <https://doi.org/10.3390/ijerph20010075>

¹¹ Michanowicz et al., *Environmental Science & Technology* 2022 56, 14. DOI: 10.1021/acs.est.1c08298 <https://pubs.acs.org/doi/10.1021/acs.est.1c08298>

¹² Lebel et al., Methane and NO_x Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes, *Environ. Sci. Technol* 2022, 56, 14. <https://doi.org/10.1021/acs.est.1c04707>

WHEREAS, according to the CDC, carbon monoxide poisoning accounts for over 100,000 hospital visits and over 420 fatalities every year;¹³

WHEREAS, the Renters Commission has previously considered a draft ordinance that would require the installation and maintenance of carbon monoxide detectors in rental units that have gas appliances;

WHEREAS, homeowners have the decision-making authority to transition to electric appliances, however, tenants are not able to make these decisions and can be exposed to the risks of gas appliances against their will;

WHEREAS, a high-efficiency air source heat pump rated at 10.3 HSPF is more than twice as efficient at 5 degrees Fahrenheit as a modern high-efficiency gas furnace, ensuring reliable all-electric space heating and minimizing any difference in operating cost between gas and electric, especially when combined with the tight building envelopes typical of new construction;

WHEREAS, the 2022 Inflation Reduction Act provides substantial new financial incentives for heat pump installation;¹⁴

WHEREAS, induction stoves are considerably safer, significantly more energy efficient, and can also heat cookware faster and more precisely than gas stoves;¹⁵

WHEREAS, the city has approved seven all-electric development projects since 2020, demonstrating the feasibility of all-electric new construction;

WHEREAS, under the Michigan Home Rule City Act (Act 279 of 1909, as amended), Michigan municipalities have substantial leeway to enact ordinances for the health, safety, and general welfare of their residents;

THEREFORE BE IT RESOLVED, that the Renters Commission expresses its concern about the public health and climate impacts of gas appliances and in particular about the difficult situation of many tenants who do not have the ability to choose whether they use gas or electric appliances;

BE IT FURTHER RESOLVED, that the Renters Commission recognizes the importance of electrification and decarbonization in regard to the quality of life of all Ann Arbor tenants and expresses its complete support and commitment to the goals of the A2Zero Plan;

BE IT FURTHER RESOLVED, that the Renters Commission urges the City Planning Commission to draft as soon as possible an ordinance banning natural gas connections for all new construction, as well as major renovations and revisions, and urges the City Council to pass this resolution once completed.

¹³ Centers for Disease Control and Prevention, [Carbon Monoxide \(CO\) Poisoning Prevention](#)

¹⁴ The White House, [Clean Energy for All](#).

¹⁵ Kathryn O'Shea-Evans, [Why New Induction Cooktops Are Safer and Faster Than Gas or Electric](#), *The Wall Street Journal*, April 22, 2021.