



IT'S TIME TO SAY "NO" TO NEW BUILDINGS THAT HARM THE CLIMATE AND HUMAN HEALTH

The Problems with Combustion in Buildings:

Climate - Fracked gas and oil burned in buildings are responsible for 28.3% of Connecticut's greenhouse gas emissions. This figure does not even include the unquantified amount of methane lost to gas leaks, which are persistent and pervasive in Connecticut. Gas leaks pour powerful greenhouse gas into the atmosphere. The gas we burn in our homes (and that leaks during every step of its extraction, transport, and delivery into our homes) is methane, and when released directly into the atmosphere, it is 84 to 87 times more powerful than carbon dioxide, the most common greenhouse gas.

Health - Combustion inside buildings is not just a climate threat, it's also a public health threat. Gas appliances fill our homes with many of the same pollutants as car exhaust – carbon monoxide, nitrogen dioxide, particulate matter, and even formaldehyde.¹ The air we breathe indoors – where we spend 90% of our time – is often more polluted than outdoor air.² Health impacts stemming from elevated nitrogen

¹ Gas stoves can generate unsafe levels of indoor air pollution, Vox, May 11, 2020

² Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020

dioxide exposure include aggravated respiratory symptoms and higher susceptibility to lung infections³, a 42% increased risk of children developing asthma symptoms,⁴ and IQ and learning deficits in children.⁵

Increased costs - In June 2022, the Connecticut Public Utilities Regulatory Authority (PURA), ruled that ratepayers will no longer have to pay for future gas line extensions because it is bad for ratepayers. PURA found that as a result of gas expansion projects from 2014-2019, ratepayers in Connecticut have paid approximately \$64 million in higher gas costs. Additionally, it is cost competitive to build and operate an all-electric home in our region.⁶

The Solution: Clean, combustion-free, all-electric new buildings are increasingly being utilized as a central tool in cities and states across the country to reduce emissions, reduce maintenance and operational costs, prioritize public health and safety, and meet climate goals. The only way to deal with the climate and health threats of burning gas in buildings is to stop burning gas in buildings. The first step is to require combustion-free, all-electric standards for newly constructed buildings.

Examples:

Boston on August 16, 2022 Boston Mayor Michelle Wu announced that she will file a home rule petition that will allow Boston to set building standards eliminating the use of fossil fuels in new buildings and major renovations.

Washington D.C. in July 2022 the DC Council voted unanimously to adopt the Clean Energy DC Building Code Act, which will require that by 2026, new buildings in DC are net-zero energy, meaning the buildings are highly energy efficient and produce the energy they use on-site from renewable sources. The bill prohibits the combustion of dirty fuels in new buildings, which will reduce indoor air pollution and cut greenhouse gas emissions.

What Needs to be Done: Local municipalities can pass an ordinance to prohibit fossil fuel combustion and require all-electric construction in new buildings and major renovations. For more information about a Building Electrification ordinance for your town, contact Allyson.Samuell@sierraclub.org

³ Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020

⁴ Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020

⁵ Effects of prenatal exposure to NO₂ on children's neurodevelopment: a systematic review and meta-analysis, Environmental Science and Pollution Research International, April 20, 2020

⁶ <https://rmi.org/insight/the-new-economics-of-electrifying-buildings?submitted=1983dhtw8>