Electrification advocates open new front in fight over gas use: public health

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Building electrification advocates are trying a new tack in the campaign to phase out natural gas use in homes and businesses, compiling decades of research and conducting new analysis to highlight health risks linked to gas appliances.

A substantial body of research indicates that cooking with gas emits pollutants that contribute to respiratory illness and other health impacts, the Sierra Club and Rocky Mountain Institute, or RMI, argued in a pair of recent reports. Factors including insufficient ventilation and stove maintenance can cause indoor air quality to reach levels that would be illegal if measured outdoors, the groups said.

Much of the research has remained fragmented across specialist domains and siloed in academic circles. By pulling it together and presenting it in plain English, climate activists aim to spur federal and state policymakers to regulate indoor air quality and encourage consumers to think twice about purchasing gas appliances.



"There's health data that's been hiding in plain sight for decades on the impact of burning gas, particularly as it relates to air quality," Evan Gillespie, Western region director for Sierra Club's Beyond Coal Campaign, said. "We were hoping to do a few things. The first is just offer a mix of brand new and refreshed data that really help the public, help decision makers understand the impact of burning gas in your home."

The Sierra Club commissioned UCLA researchers to model health impacts from gas stove combustion in California homes. Among the key findings in the April 28 report: Out of 1,000 simulated scenarios, running a gas stove and oven for one hour produced peak nitrogen dioxide concentrations that exceed acute national and California outdoor air quality thresholds 90% of the time.

"If you have a young family and you're looking to buy a new stove, we want to make sure that folks are educated about the health choices that are embedded in the appliances," Sierra Club's Evan Gillespie said.

"The simple takeaway is if you are cooking for more than an hour in your kitchen, there's a very strong likelihood that the air quality inside your kitchen is not safe to breath," Gillespie said.

The new strategy comes at a time when the gas industry is already fending off rising anti-gas sentiment among climate activists, ongoing pipeline opposition and the rise of local ordinances to prohibit gas hookups in new buildings.

Source: Thinkstock

"It is disappointing, but not surprising, to see another study with no new data supporting the same political goal while American clean natural gas is fueling our homes and businesses during the COVID-19 pandemic," Karen Harbert, president and CEO of the American Gas Association, or AGA, said in a statement. "We will continue to invest billions of dollars in efficiency programs and new sophisticated natural gas appliances, reducing our nation's carbon footprint and keeping energy bills affordable at the same time — no other fuel can offer that."

In a May 27 blog post, AGA noted that neither the U.S. Environmental Protection Agency nor the U.S. Consumer Product Safety Commission identify health concerns associated with gas cooking appliances. Similarly, national health authorities have not linked asthma development to combustion emissions from gas cooking, AGA said.

But that is exactly what the Sierra Club and RMI, along with Mothers Out Front and Physicians for Social Responsibility, hope to change.

A report from the groups released on May 5 presented eight conclusions from a review of 20 years of peer-reviewed research and comprehensive EPA and Health Canada studies. They include that indoor air quality is largely unregulated, gas stoves may be a source of toxic pollutants and children have a higher risk of respiratory illness associated with those pollutants, particularly asthma.

"When we were doing the research and talking to experts, we kept waiting for the shoe to drop, and someone to tell us that, 'No, you're wrong. Gas stoves aren't that bad,' and really it was the opposite," Brady Seals, a senior associate in RMI's building electrification program who co-authored the report, said. "The deeper we went, the further we got, we just found out that this issue has been around for so long and there's been very little done about it."

In light of the findings, the report called on the Consumer Product Safety Commission to establish indoor air quality guidelines and require manufacturers and installers to certify new gas stoves will not produce harmful emissions. It recommended the commission initiate a review to explore other options, including mandating safety warnings for gas stoves and replacing gas appliances in some cases.

The authors suggested cities and states take similar actions, and also reform building codes to require ventilation, eliminate gas stove pollution in public buildings and offer financial incentives to fund electric conversions. The study asked health organizations to assess and formally recognize the risks of gas stoves and to issue guidance to doctors. It likewise urged researchers to conduct new studies and quantify the costs of exposure to gas stove pollution.

The campaign is still young, but the groups said the reports have already drummed up public attention and interest among regulators. They have held webinars for physicians, climate activists and decision-makers. Seals discussed the issue at the California Air Resources Board's April 23 meeting, where she urged the body to set indoor air quality guidelines.

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