

Natural gas bans are new front in effort to curb emissions

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Credit: Petr Kratochvil/Public Domain

Lawmakers in New York are considering the nation's first statewide ban on natural gas connections in new buildings, following dozens of local governments that have passed similar policies in the past two years.

But as New York and other left-leaning states consider ways to limit natural gas and the [greenhouse gas emissions](#) it creates, 20 mostly

Republican states have passed laws barring cities and counties from blocking gas hookups.

"Growing the demand for natural gas is exactly what the world does not need right now," said New York state Sen. Brian Kavanagh, the Democrat who sponsored the natural gas phaseout legislation. "If you build buildings that rely on fossil fuels, you are baking in very long-term needs."

Fossil fuel combustion in buildings, mostly for heating, is responsible for about 13% of greenhouse gas emissions in the United States, according to 2019 figures from the U.S. Environmental Protection Agency.

Kavanagh's bill would mandate all-electric buildings after 2023, except in cases where local permitting authorities determine they're not feasible, which may depend on the availability of equipment and labor. His efforts were bolstered late last month when council members in New York City voted to pass a similar ban, albeit on a slower timeline, by 2027. New York legislative leaders did not respond to requests for comment about the prospects for Kavanagh's bill in this year's session.

The New York City vote in December was by far the biggest victory for advocates of natural gas bans. They say it's a necessary step to curb future demand for fossil fuels and to limit the growth of climate change-causing carbon emissions.

Gas industry leaders and their political allies say the bans will raise construction costs and utility bills, while doing little to stop climate change.

"This is not really a climate solution," said Daniel Lapato, senior director of state affairs with the American Gas Association, an advocacy group for the natural gas industry. "When you start eliminating these options,

you have to look at the cost implications to the homeowner."

Lapato pointed to gas companies' efforts to produce more renewable natural gas, which is methane captured from landfills, farms and other sources. Laws to force electrification could stifle industry efforts to scale up that more climate-friendly option, he said.

Phasing out natural gas also will require an increase in [electricity production](#) and transmission as buildings consume more power for their heating systems. Unless that electricity is produced from clean sources, gas bans will simply shift emissions rather than reducing them. Most of the nation's electricity still comes from [fossil fuels](#), although the use of coal—which has some of the highest emissions—is rapidly shrinking and it now produces less electricity than renewables. Carbon-free electricity from wind, solar, hydropower and nuclear projects now makes up about 40% of the nation's electricity supply, according to the U.S. Energy Information Administration.

Lawmakers pushing the bans say their plans will be phased in gradually enough to allow [energy companies](#) to meet the added demand with renewable electricity.

Natural gas bans also have drawn the ire of some restaurant industry groups, which say that chefs rely on flame cooking and temperature control that can't be easily replicated from electric sources. Some laws have specifically exempted gas stoves, which produce minimal emissions compared with building and water heating.

New York City's decision to ban natural gas connections in new construction was significant not only because the city is the largest in the United States, but also because it's a cold-weather city that relies extensively on natural gas for heating. Many of the cities that have enacted similar bans are on the West Coast—starting with Berkeley,

California, in 2019—with warmer climates and less intensive gas use.

"New York City is a four-season city. We have very cold winters and hot summers, and we're saying all-electric is possible," said Annie Carforo, an organizer with WE ACT for Environmental Justice, a Manhattan-based community organization that supported the ban. "The number one polluters in New York are big buildings, and there's a heavy reliance on natural gas."

The law will require newly permitted buildings shorter than seven stories to go all-electric by 2024, with taller buildings following in 2027. The ban applies to heating and clothes dryers, but currently exempts water heaters, which will eventually be included.

Council member James Gennaro, who chairs the council's Committee on Environmental Protection, said he consulted the construction industry and electrical utilities in crafting his proposal.

"We're walking slowly into this. We're not doing a cannonball, but we're sending a clear signal that this is how it's going to be," he said. "We're giving technologies an opportunity to mature and meet the challenge and for the grid to expand capacity and become fully renewable. But we can't stay here forever in a fossil fuel world."

Seattle leaders took similar action last year by strengthening existing restrictions on natural gas in new commercial and multifamily buildings. The city now bans the use of natural gas for heating and restricts gas-fueled water heating to certain building types.

Duane Jonlin, the city's energy code and energy conservation adviser, said roughly a third of Seattle's carbon emissions are from natural gas use in buildings.

"When you're trying to reduce your carbon footprint, you have to stop burning stuff in buildings," he said. "This should now be considered caveman technology."

Washington state also is considering statewide action on the issue. Gov. Jay Inslee, a Democrat, has proposed a measure that would require new buildings constructed after 2034 to reduce energy use intensity by 80%. While not an outright ban on natural gas, the measure would "require a significant shift towards zero emissions technologies," said Anna Lising, Inslee's senior energy adviser.

Nevertheless, gas proponents expect lawmakers to continue to push for a ban in the 2022 session.

"I think the move in the legislature is going to be to ban or remove natural gas as a source of heat in construction of new homes moving forward," said Jan Himebaugh, government affairs director with the Building Industry Association of Washington. "These policies have a large impact on the cost of housing in Washington, and it will drive up the cost of new homes."

But even as states such as New York and Washington consider laws to phase out natural gas, conservative states have moved rapidly to protect it. Since 2020, 20 states have passed laws to block local governments from banning the fuel.

Utah state Rep. Steve Handy, a Republican, said multistate utility Dominion Energy asked him to propose a "ban on bans" in his state. Handy, a former city council member, said preempting local governments was a "tricky place to be in," but that he wanted to preserve consumer choice.

"To dictate that to consumers and businesses—I wasn't comfortable with

that," he said. "I thought we ought to put a pause button on and let the market do this."

The gas industry argues that banning the fuel will increase [construction costs](#) and drive up utility prices in areas that are required to electrify.

Climate advocates counter that electric-powered heat pumps are becoming more and more affordable. RMI, the Colorado-based clean energy nonprofit, published an analysis in 2018 that found heat pumps—which handle both heating and cooling—are more cost-effective than the combined price of natural gas heating systems and air conditioning units. Electrification supporters also point to projections that show the price of natural gas increasing over the next decade.

"When people are saying it's going to raise costs, that's fearmongering," said Russell Unger, co-leader of RMI's Building Electrification Initiative. "In most of the country, costs are lower [for all-electric buildings]."

Jonlin, the Seattle official, said heat pumps are slightly more expensive to install in new buildings that don't have air conditioning, but not enough to affect the city's construction market. Utility bills are roughly equivalent, he said, but expected to favor electric buildings in the long term.

"Over time, it becomes more economical to heat with a heat pump," he said. "And it's dramatically less expensive to take new construction and do it the way we need to meet environmental goals now, instead of building it the wrong way and go through the expense of converting it in some future decade."

Another point of contention is the increase in electricity production and transmission that will be needed to heat homes from the grid rather than

natural gas pipelines.

"The electrical grid as it's built right now can't handle that degree of added demand," said Jake Rubin, a spokesperson for the American Gas Association. "It's going to cost billions of dollars to build out our electrical system to handle those new customers."

Climate advocates say that demand will be added gradually, at the same time as utilities are already making plans to expand their renewable energy production. They acknowledge that banning natural gas will be an effective climate policy only if the ramp-up in electricity production is fueled by clean sources.

"We can't wait to convert buildings until the [electricity] generation, transmission and storage infrastructure is sufficient to meet the demand, and we can't convert all the buildings without improving that infrastructure," said Kavanagh, the New York legislator. "They have to go together."

Gas defenders also say electrified buildings will leave people unable to heat their homes during extended power outages. But few gas-powered buildings can operate under those conditions either, said Andrew McAllister, a commissioner with the California Energy Commission.

"That's a red herring," he said. "Most furnaces aren't going to work without power. They have a fan, they have controls."

Buildings are responsible for about a quarter of California's emissions, McAllister said, with half of that total coming from on-site combustion such as natural gas heating. The other half comes from the energy used to generate the electricity to power those buildings. His agency has issued building codes giving new construction an "energy budget" that is difficult to meet with [natural gas](#), pushing a switch to heat pumps.

"The equipment managers and the labor community think they're up to the task," he said. "Having it in the [building](#) code will open up the marketplace quickly."

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