



Wealth Inequality:

The Hidden Cost of New York City's Natural Gas Ban

CONSUMER ENERGY ALLIANCE
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In the middle of a harsh winter, New York City Mayor Bill de Blasio announced that natural gas connections will be banned for new buildings starting in 2030. This comes in addition to policies announced in 2020 that would ban natural gas and other fossil fuels in large buildings by 2040, and block any new pipeline infrastructure. The Mayor's office says it plans to ensure the policy does not "negatively impact renters and low-income homeowners" but the consequences of policies that ban affordable energy always hits hardest those who can least afford it. These developments are especially troubling as the city and the State of New York grapple with recovery efforts from the COVID-19 pandemic. And as the nation has recently seen with grid reliability challenges in Texas, consumers need always-on options like natural gas to ensure they have the power and heat they need to weather freezing winter temperatures.

Using open-source consumer data, CEA developed a cost calculator to provide an estimate of what a typical household in New York City could expect to pay as a result of such short-sighted policies to ban natural gas service and use. If forced onto families, the cost to consumers would be astronomical.

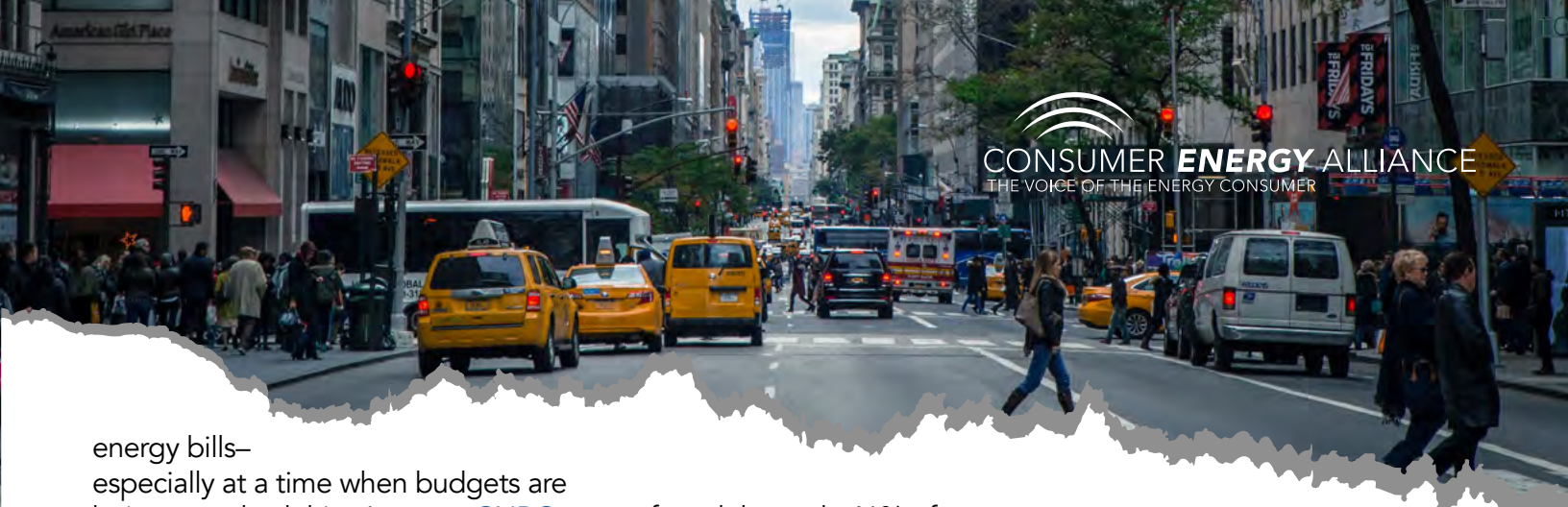
Depending on the appliance models, home configuration, labor, and reliance on natural gas, and energy ban could cost more than \$25,600 for a New York City household. These findings dovetail with previous research performed by CEA which found that the cost to replace just major gas appliances in homes nationwide would be more than \$250 billion.

The Consequences of Energy Bans

Unfortunately, the actions taken in New York City are symptomatic of a nationwide effort to force reckless and irresponsible energy bans onto communities – often with little public input, much less voter approval. The effect is to deny homeowners and businesses the service they need, want and most commonly use to power their lives, heat their homes and run their operations. These energy bans dictate choices to consumers, and supporters of these efforts ignore science and leave out pertinent facts – that forcing people to change all their appliances to electric only is expensive. Namely, that forcing people to change their appliances to electric-only isn't free.

Arbitrarily limiting energy choice would increase costs and disproportionately affect consumers and households on fixed incomes.

With over 40% of New York's power generation coming from natural gas, as well as three out of five households reliant on it for home heating, these harmful policies could lead to huge sticker shocks on future



energy bills—especially at a time when budgets are being stretched thin. A recent [CNBC survey](#) found that only 41% of Americans had enough savings to cover a \$1,000 emergency.

Before the full economic impact of the COVID-19 pandemic, federal data showed that 16% of New York City households lived at or below the poverty line. One [recent study](#) estimated that nearly 50,000 workers a week were losing jobs in June-July 2020, and that the unemployment rate in the Bronx was nearly 42%.

Besides the impact on low-income populations, energy bans would add major hardships to New York City's battered restaurant industry, which only recently has been allowed to have in-person dining again. A [survey](#) by the New York City Hospitality Alliance found that 92% of the businesses that responded could not pay full rent in December. Equally troubling is that these numbers have increased since the height of the pandemic last summer. These small businesses are the lifeblood of vibrant neighborhoods across the city and rely heavily on natural gas to cook food and operate. Short-sighted energy service bans would be another impediment to bringing back one of New York's most important economic generators.

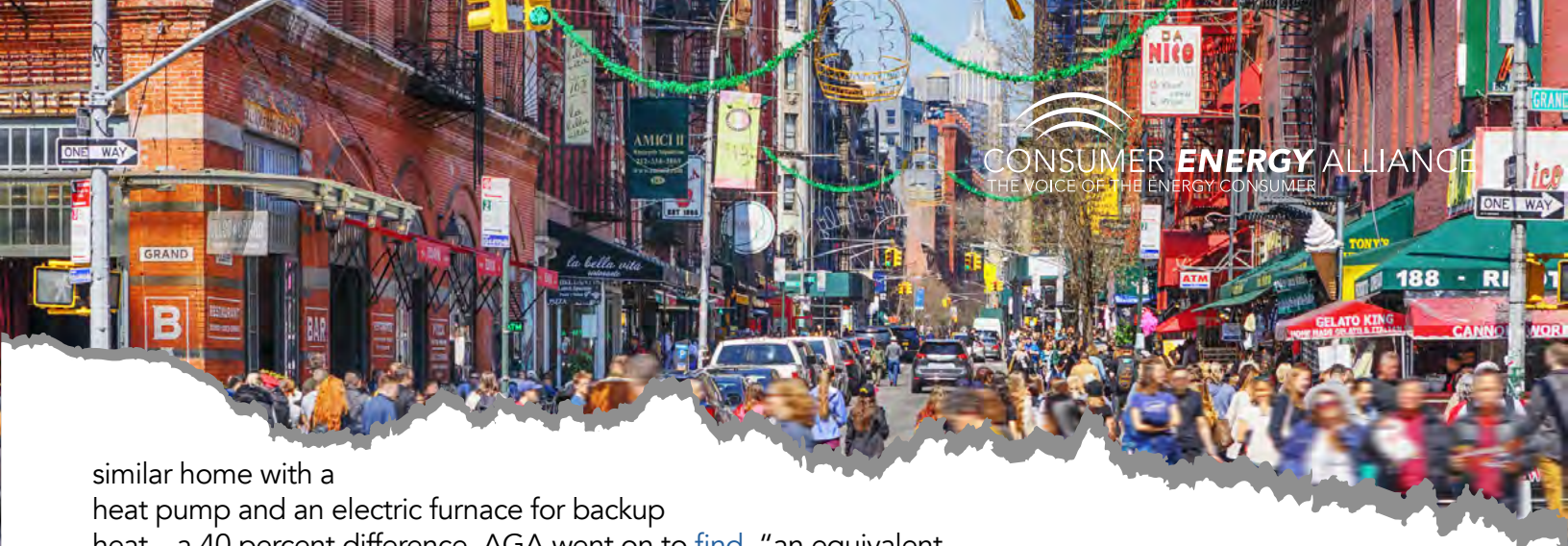
Natural Gas and New York

Nearly 60% of New York households rely on natural gas for home heating and it provides over 40% of the state's power generation. That reliance is even more acute in Downstate New York, where New York City, Long Island and Westchester make up the largest population base and the biggest load center for power consumption. According to [New York's grid regulator](#), Downstate New York is nearly 70% dependent on resources like natural gas for power generation. Due to the closure of the Indian Point Nuclear Power Plant, which provides about a third of the region's power supply, the critical need for natural gas and other baseload options like large-scale hydropower will become more acute.

Based on the Energy Information Administration's (EIA) winter fuels [forecast](#), the average U.S. residential gas customer will pay \$572 for winter energy compared with \$1,209 for households using electricity for heating—a difference of 111%. A recent [CEA report](#) found that New York families, seniors, small businesses, and manufacturers have saved over \$48 billion over the past decade because of the increased availability of affordable natural gas and related pipeline infrastructure.

Those benefits could be put in jeopardy for New York City households with a punitive natural gas ban. Not only would there be significant costs for new appliances, wiring upgrades and potential remodeling but it could potentially lead to higher monthly energy bills for home heating. According to data from the American Gas Association (AGA), average space heating customers in the Northeast could have bills topping out at nearly \$500 if they relied on heat pumps. They estimated average Northeastern gas customers would pay roughly \$150 over the same time period. This corresponds with their additional findings from the 2014 Polar Vortex where the average cost to heat a natural gas home in January 2014 was \$159 compared to \$267 for a





similar home with a heat pump and an electric furnace for backup heat – a 40 percent difference. AGA went on to [find](#), “an equivalent home with equal heating loads operating an electrical resistance furnace would have incurred a heating bill of \$445 on average.”

What is often left out of the public policy conversation is that as natural gas use has grown and expanded across New York, carbon emissions and total air emissions from criteria pollutants covered by the Environmental Protection Agency (EPA) have [fallen](#) dramatically.

From 1990 to 2015, total emissions from the electricity generation sector fell 42% while natural gas use for power generation increased more than 150% during that same period, according to data from the New York State Energy Research and Development Authority.

Based on [data](#) from the EPA, from 1990 to 2019 New York’s emissions of key pollutants have decreased across the board, with a:

- 78% reduction in nitrogen oxides (NOx)
- 97.2% reduction in sulfur dioxide (SO2)


Even more remarkable – carbon emissions (CO₂) since 1990 [dropped](#) over 24% in conjunction with increased natural gas use, pipeline infrastructure expansion and an improved grid, and New York’s economy surged. Usually, economic growth equals higher emissions.

Impacts on NYC Households

The harmful impacts to homeowners, households, and renters in New York from a natural gas and traditional fuel service ban are substantial and real. A ban or mandate to replace natural gas appliances could be potentially ruinous for many New Yorkers by hitting them with surprise bills. CEA developed its cost calculator by examining open-source information from consumer websites on average pricing information for the replacement of natural gas appliances, remodeling, construction, wiring, and labor costs that would be forced upon homeowners and landlords – which would then be passed on to renters.

According to the consumer website [HomeAdvisor](#), the average price nationwide for a new heat pump is over \$5,600, and total expenses “(a)fter labor, fees and permits, costs can hit \$20,000 or more, not including ducts.” This is just to replace a furnace and does not include other appliance replacement costs nor the re-wiring needed for conversion. Further, heat pumps can be more expensive to use because they require electricity to operate. They also work better in warm or temperate regions of the country and are not effective as furnaces during severe cold snaps. Depending on the models chosen, mandates requiring the replacement





of major appliances like hot water heaters, furnaces, gas stoves, gas dryers could top out at more than \$25,600 for a New York City household.

Cleaner Futures Without Consumer Pain

CEA wants to see a clean future with lower emissions. We can get there without dictating energy choices to families, seniors and neighbors along the way. Exciting technologies like renewable natural gas (RNG) can help reduce potent methane emissions and improve water quality all while still using existing infrastructure. RNG captures harmful methane emissions from landfills, municipal water systems or farm operations and transform it into useable fuel that can be transported in our existing pipeline network. Large-scale renewable opportunities from offshore wind and hydropower, along with battery storage technology, are other options on the horizon that will help further drive down the Empire State's emissions profile. However, misguided attempts to ban energy services will lead to astronomical costs and jeopardize energy resources that are helping reduce harmful emissions in New York.

Protections are needed to prevent our neighbors and communities from being hit with surprise bills and service disruptions as a result of these bans – especially as they try and recover from the incredible economic harm of COVID-19. It should be up to consumers to decide what types of appliances they want, not activists.

Cost Calculator of an NYC Energy Service Ban

Heat Pump Installation: \$5,700 (national average)
<https://www.homeadvisor.com/cost/heating-and-cooling/install-a-heat-pump/>

Total Costs: \$20,000 potentially depending on labor, fees and permits
<https://www.homeadvisor.com/cost/heating-and-cooling/install-a-heat-pump/#calculator>

Electric Panel Upgrade (200 Amps): Ranges up to \$2,300 in NYC or more/ \$1,424 (national average) <https://www.homeadvisor.com/tloc/New-York-NY/Electrical-Wiring-or-Panel-Upgrade/>

Hot Water Heater Replacement: \$1,027 (national average)
<https://www.homeadvisor.com/tloc/Cincinnati-OH/Water-Heater-Install-or-Replace/>

Installing an outlet/switch: Ranges up to \$543 in NYC or more, \$374 per outlet nationally
<https://www.homeadvisor.com/tloc/New-York-NY/Install-or-Repair-Electrical-Switches-and-Outlets/>

Hot water heater removal: \$57-\$243
https://www.homewyse.com/services/cost_to_remove_water_heater.html

Electric Stove: \$700
<https://www.fixr.com/comparisons/gas-vs-electric-stove>

Electric Dryer: \$600-\$700 (mid-range avg)
https://www.homedepot.com/p/Maytag-7-0-cu-ft-240-Volt-White-Electric-Vented-Dryer-with-Wrinkle-Control-MEDC465HW/304751694?irgwc=1&cm_mmc=a-fl-ir-29332-456723-1083244&clickid=Uj2XtL1v5xyLUBBwUx0M03ZwUkERBr0aSSLDyU0_

Installing Electric Clothes Dryer: \$700 (national average)
<https://www.fixr.com/costs/dryer-installation>

