

**Before the Subcommittee on Economic Growth, Energy Policy, and
Regulatory Affairs**

Committee on Oversight and Government Reform

United States House of Representatives

Hearing to Address

How State and Local Bans on Natural Gas Increase Costs
September 2, 2026

Prepared Testimony of
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Chairman Burlison, Ranking Member Frost, and members of the subcommittee, I am grateful for the opportunity to appear before you to contribute to your consideration of how bans on the use of natural gas increase costs. A few states and more than 100 local units of government have adopted such bans within their jurisdictions, often attempting to deflect the coercive nature of their action with euphemisms such as “electrification” or “zero emission building” (ZEB) ordinances.¹ Local and state bans (or electrification or ZEB provisions) are raising monetary and non-monetary costs on Americans while denying people the opportunity to install appliances and equipment of their own choice in the buildings where they live and work. Moreover, if fully implemented,² such bans have near zero effect on global carbon dioxide or methane emissions, even though having such an effect is a major stated reason for their enactment.

To be clear, “[w]hen market-driven, electrifying end-uses previously fueled by combustion can deliver greater convenience and efficiency, among other benefits.”³ Electrification is happening naturally.⁴ And electrification should and will continue for uses and at costs that people choose. However, free customer choice should be the driving force, not government mandates aimed to serve a false narrative of “energy transition.”

Background. I am Patrick McCormick, a member of the bar who stepped down late last year as Chief Counsel of the Committee on Energy and Natural Resources of the United States Senate. I am appearing in my personal capacity, although I serve as a Senior Fellow with the National Center for Energy Analytics or NCEA. NCEA is a national energy think tank focused on data-driven analysis of energy policies, technologies, and infrastructure and dedicated to the use and supply of energy essential for human flourishing. Separately, I also provide advice on energy

¹ See [Zero Emission Building Ordinances - Building Decarbonization Coalition](#). Assuming without conceding that the Building Decarbonization Coalition’s data is correct, one can infer, as the coalition maintains, that as of 2025 approximately one quarter of the population of the United States lives in a jurisdiction that has some form of a ZEB mandate. Notably, also as of 2025, 27 states have adopted laws that prevent local bans on new construction served by natural gas, according to the American Gas Association.

² Many of these laws have yet to take full effect, either because by their terms they are “phased in,” subsequent enactments extended compliance deadlines, or courts have stayed their effect pending the outcome of litigation.

³ See [America's Electricity Grids: Challenges and Solutions | National Center for Energy Analytics](#)

⁴ See, e.g., [What Matters for Electrification? Evidence from 70 Years of U.S. Home Heating Choices](#) “The percentage of U.S. homes heated with electricity has increased steadily from 1% in 1950, to 8% in 1970, to 26% in 1990, to 40% in 2020.” at p. 2.

policy matters. I am not currently engaged in the practice of law. No commercial interest suggested that I testify, and the views I am expressing are my own.

The United States Court of Appeals for the Ninth Circuit properly struck down the first of the bans that are the subject of your hearing today. Seven years ago, Berkeley California, as the Court put it, “completely prohibit[ed] the installation of natural gas piping within newly constructed buildings [in] the City.”⁵ The Ninth Circuit court found that the parties bringing the case suffered a justiciable harm from the ban. It concluded that Berkeley’s ordinance was preempted by Federal law, specifically, the Energy Policy and Conservation Act or EPCA. However, clever lawyers continue to devise ways to navigate around EPCA and preemption doctrine, which is why today’s hearing is important. Just recently, for example, a panel of the United States Court of Appeals for the Second Circuit found that EPCA *did not* preempt laws New York City and New York State enacted effectively to prohibit the use of fossil-fuel-burning appliances in new buildings. The trade union and trade associations that brought the case asked the full Second Circuit court to rehear the matter; unfortunately, the full court denied rehearing last week. Thus, the panel’s decision controls in the Second Circuit, and there now is a “split in the Circuits.”⁶ Not surprisingly, according to a press reports on August 31, 2026, the New York State Gas Association and the National Propane Gas Association, among others, intend to petition the United States Supreme Court for a writ of certiorari.⁷

Natural Gas Bans Raise Costs. Common Sense tells us that banning widely used and reliable energy sources along with well-established technologies while reducing competition for equipment sales will cause costs to rise. Studies also show the likely effect of these comparatively recent state and local enactments.⁸ For example, in the context of attempting to determine how

⁵ California Restaurant Association v. City of Berkeley. [21-16278.pdf](#)

⁶ [Order Denying Rehearing -- Docket No.25-977 United States Court of Appeals for the Second Circuit.pdf](#)

⁷ See [Appeal planned in gas ban case - POLITICO](#)

⁸ To my knowledge, a rigorous study measuring realized economic costs in cities that enacted natural gas bans has yet to be conducted. The enactment of such bans is a relatively recent phenomenon and the jurisdictions that have enacted such measures generally but not exclusively have milder weather (*e.g.*, the City and State of New York and New England jurisdictions are exceptions) and are comparatively wealthy.

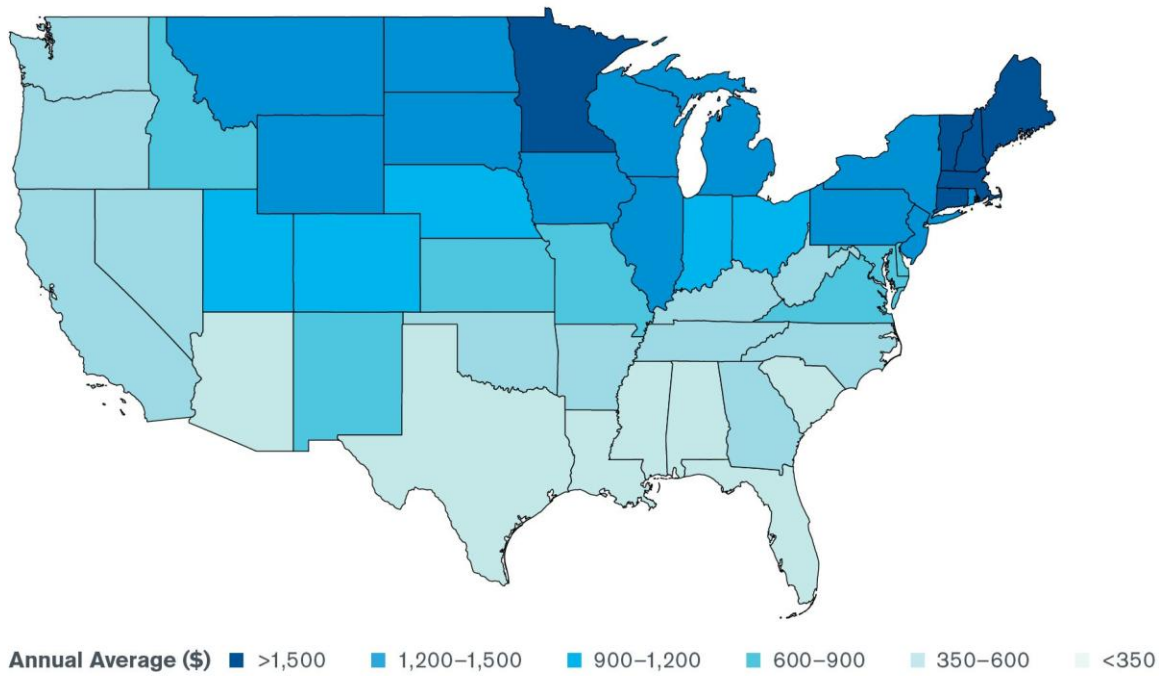
much households in the United States would be willing-to-pay to avoid an electrification mandate for new homes, Dr. Lucas W. Davis of the Haas School of Business of the University of California reviewed data on electrification over a 70 year period and developed a framework to calculate the economic cost of an electrification mandate for new homes. He found that “[h]ouseholds in warm states tend to prefer electricity anyway, so would be made worse off by less than \$350 annually on average. Households in cold states, however, tend to strongly prefer natural gas, so would be made worse off by \$1000 or more annually.”⁹ The extent to which a household would be “made worse off” is a reasonable proxy for the cost of a ban on natural gas. Dr. Lucas has presented “willingness to pay” to avoid an electrification mandate (WTP) data in a helpful national map:¹⁰

The New York statute that was challenged in the Second Circuit directs the State Fire Prevention and Building Code Council, a body within New York’s Department of State, to adopt regulations prohibiting the installation of appliances that burn fossil fuels in new buildings. *Ass’n of Contracting Plumbers v. City of New York*, No. 25-977, slip op. at 5 (2d Cir. June 30, 2026) (discussing N.Y. Energy Law § 11-104(6)–(8) and N.Y. Exec. Law § 378(19)). The effects of that law warrant a thorough study.

⁹ [What Matters for Electrification? Evidence from 70 Years of U.S. Home Heating Choices](#) at pp. 3,30.

¹⁰ [The Economics of Building Electrification - Kleinman Center for Energy Policy](#)

FIGURE 3: WILLINGNESS TO PAY TO AVOID AN ELECTRIFICATION MANDATE



As the map shows, the projected WTP to avoid an electrification mandate (a proxy for the costs of electrification mandates/natural gas bans) varies with geography. It is highest in cold northern states, reaching as much as greater than \$1500 annually. However, even in warm states the annual WTP figure is significant. It is important to note that these figures are focused on new construction and do not attempt to model the cost impacts of retrofitted heating systems or other appliances in jurisdictions that ban natural gas, which are likely to be much higher.

Natural Gas Bans Have Been Mainly a Project of Affluent Jurisdictions, Most of Which Have Comparatively Mild Weather; Higher Energy Bills Remain a Risk. The jurisdictions that have adopted bans tend to be more affluent and have milder winters. Although Washington, D.C. and Montgomery County, Maryland in its suburbs have moderate winters, they are nearby examples.¹¹ In those jurisdictions and ones with warmer weather such as in California,

¹¹ The D.C. and Montgomery County ordinances have been upheld at the district-court level, but the decisions have been appealed to the United States Court of Appeals for the D.C. and Fourth Circuits, respectively. *Nat'l Ass'n of*

it appears that the practical impact of the costs of a ZEB mandate on residents, especially low-income residents, has received far less attention than the putative environmental benefits that more organized interests favor.

The District of Columbia enactment, the *Clean Energy DC Building Code Amendment Act*, is a case in point. The Committee on Transportation and the Environment of the Council of the District of Columbia (“Council Committee”) considered and reported the legislation. According to the Council Committee’s formal Committee Report (Report), the legislation “effectively require[d] all new and substantially renovated buildings in the District, other than single-family homes under four stories tall, to satisfy a net zero-energy standard” by a date certain.¹² The Report observes, [t]he emissions reductions and resilience benefits that we will see from net-zero-energy buildings were by far the most important factors in the Committee’s consideration, given the urgency of addressing climate change.”¹³ It covers a limited discussion of costs for residents in a few sentences within just five paragraphs under the heading, *Benefits to Residents of Net-Zero-Energy Buildings*.

According to the Report, the “Committee heard two suggestions for exemptions to the bill, for commercial kitchens and for critical infrastructure.”¹⁴ The Committee was “inclined to provide a limited exception for certain facilities that are essential to protecting public health and safety,” but declined any relief for commercial kitchens, stating, with no cited reference:

The Committee understands that many restaurant owners may be unfamiliar with the state-of-the-art electric induction stove technology that is now available. However, this is quickly changing as chefs and cooks familiarize themselves with the technology and realize that induction stoves are both safer and more responsive than gas stoves and make for more comfortable kitchens, and that they come with at most a small cost premium that

Home Builders of the U.S. v. District of Columbia, No. 1:24-cv-02942-ACR, 2026 WL 837674 (D.D.C. Mar. 26, 2026) (granting summary judgment to the District), appeal docketed, No. 26-7050 (D.C. Cir. Apr. 20, 2026). *Nat’l Ass’n of Home Builders of the U.S. v. Montgomery County, Maryland*, No. 8:24-cv-03024-PX, slip op. (D. Md. Mar. 25, 2026), appeal docketed, No. 26-1449 (4th Cir. Apr. 15, 2026). Both district-court decisions are nonfinal because these appeals remain pending. Litigation to preserve commercial options is also a feature and therefore an indirect cost of today’s landscape.

¹²See [B24-0420-Committee_Report1 DC Council 2022.pdf](#) at p.5

¹³ *Id.* at pp. 6-7.

¹⁴ *Id.* at p.8.

will likely be partially offset over time by reduced energy costs. And for restaurant owners who are particularly averse to electric cooktops, this legislation would not prohibit them from obtaining renewable natural gas to power a gas range. *Most importantly, though, this bill only applies to new construction and substantial renovations, so it will not affect existing restaurants.*¹⁵

Finally, the Report lists twelve witnesses who testified at the hearing on the bill or submitted testimony, all of whom testified in favor of its adoption.¹⁶

Nevertheless, even comparatively affluent jurisdictions include people with limited budgets or struggling to make ends meet. A study that claims, “[t]ransitioning away from directly burning natural gas (and other delivered fuels) in buildings is crucial for achieving climate goals in the U.S. and internationally,” acknowledges that: “across the U.S., over one in four households are energy insecure, with disproportionately higher rates for households of color. These households may forgo basic necessities to pay their energy bills or keep their homes at unsafe temperatures to reduce costs.”¹⁷

Although there may be fewer people in affluent jurisdictions who are struggling with energy bills, such people live there and likely go without heat without higher subsidies than those currently available. Not surprisingly, experts who appear to favor greater electrification have observed, “[o]ver the next decade, policies can reduce the risk of increasing energy burdens by providing electrification programs for low- to moderate-income households.”¹⁸ With or without subsidies, electrification mandates can be expensive and regressive.¹⁹ It is foreseeable that the

¹⁵ *Id.* at pp.8-9 (Emphasis in original; internal citations omitted.) Notably, a “substantial improvement” is defined for this purpose as: “any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50% of the market value of the building or structure before the repair, alteration, addition, or improvement is started.” D.C. Official Code § 6-1451.01(40); definition incorporated by reference.

¹⁶ *Id.* at pp.12-14. Two witnesses represented themselves. Each of the remaining ten witnesses represented one of the following organizations: Chesapeake Solar and Storage Association; Redstone Global Center for Prevention and Wellness, George Washington University; Sierra Club; Institute for Market Transformation; Interfaith Power & Light (DMV); Audubon Naturalist Society; Metropolitan Washington Council of Governments Climate, Energy, and Environment Policy Committee; Center for Biological Diversity; Ward 3 Democratic Committee; and Chesapeake Climate Action Network.

¹⁷ See [Effects of uncoordinated electrification on energy burdens for natural gas customers | Scientific Reports](#) at pp. (Emphasis in original; internal citations omitted.)

¹⁸ *Id.*

¹⁹ Dr. Lucas’s study cited above at notes 3 and 6, notes, cites p. 2 critics of electrification mandates: “Towns Trying to Ban Natural Gas Face Resistance in Their Push for All-Electric Homes” Wall Street Journal, July 31, 2021. “Should Cities Phase Out Gas Appliances and Require New Buildings to Be All Electric?” Wall Street Journal,

imposition of higher costs from electrification mandates will build pressure for accompanying subsidies. Subsidies, of necessity, only shift higher costs to others, are rarely sufficient to meet the needs, and put difficult demands on local and state budgets.

An examination of the impact of natural gas bans and compelled electrification on the pressure for subsidies and their impact is well beyond the scope of this testimony. Nevertheless, indications of an “Electrification Policy-Subsidy Pressure Feedback Loop” (EPSP Feedback Loop) in at least the form of potential correlation between electrification mandates and subsidies to mitigate the costs imposed by such mandates appear to be emerging. The potential EPSP Feedback Loop appears to have the following stages: 1) electrification mandate → capital expenditures for the electric grid; 2) grid capital expenditure → higher electric revenue requirement; 3) higher revenue requirement → higher rates; 4) higher rates → greater household energy burden; 5) greater energy burden → expansion of affordability/subsidy programs; 6) expanded affordability programs → cost-shifting onto remaining ratepayers or public funding; 7) cost-shifting → additional rate pressure → loop repeats. The chart in Appendix A at the end of this testimony illustrates some potential correlations and is intended to be indicative rather than definitive.²⁰

Electric Heating Almost Always Costs More Than Natural Gas Per Unit. In April 2026, the Department of Energy (DOE) published its forecast of “the representative average unit costs of five residential energy sources for the year 2025” pursuant to EPCA. The five sources include electricity and natural gas. According to DOE, “[t]his cost information should be used by manufacturers to meet their obligations under [EPCA]. These costs are also used to comply with Federal Trade Commission (FTC) requirements for labeling. Manufacturers are required to use . . . DOE representative average unit costs when the FTC publishes new ranges of comparability for specific covered products.” In simple terms, DOE’s representative average unit costs are used to compare appliances that use different energy sources. The table below from the Federal Register

November 19, 2019. “Natural Gas Bans Will Worsen California’s Poverty Problem” Real Clear Energy, Robert Bryce, August 9, 2020.

²⁰ See Appendix A. Separately, the potential EPSP Feedback Loop is distinct from the pressure forced electrification puts on natural gas distribution infrastructure and costs as customers are forced off the gas distribution system. This subject is also beyond the scope of this testimony.

shows the comparison between electricity and natural gas expressed in cost per million British Thermal Unit (Btu) of energy.

Table 1—Representative Average Unit Costs of Energy for Five Residential Energy Sources [2025]			
Type of energy	\$ Per million Btu ¹	In commonly used terms	As required by test procedure
Electricity	50.47	17.22 ¢/kWh ^{2 3}	\$0.1722/kWh.
Natural Gas	14.37	\$1.43/therm ⁴ or \$14.9/MCF ^{5 6}	\$0.00001437/Btu.
No. 2 Heating Oil	25.91	\$3.56/gallon ⁷	\$0.00002591/Btu.
Propane	25.68	\$2.35/gallon ⁸	\$0.00002568/Btu.
Kerosene	25.11	\$3.39/gallon ⁹	\$0.00002511/Btu.

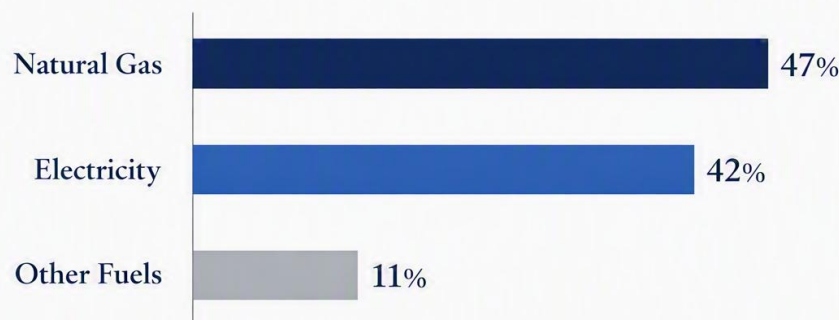
Sources: U.S. Energy Information Administration, *Short-Term Energy Outlook* (September 9, 2025) and *Annual Energy Outlook* (April 15, 2025). [Reprinted from the Federal Register.]

The cost of delivered natural gas is generally lower than the cost of delivered electricity when both are expressed in Btu terms. As a result, depending on the efficiency of the heating equipment, heating with natural gas is almost always less expensive than heating with electricity. Electric resistance heat is significantly more expensive than heat from a natural gas furnace on a Btu basis, while electric heat from a heat pump is more competitive. These comparisons are based on new units. Retrofit costs are higher.

Natural Gas Bans Limit Peoples’ Choices, Pick “Winners and Losers,” and Foreclose Competition in Markets for Equipment. A prohibition on the use of natural gas compels the substitution of one energy source for another. Consequently, it removes from consumers and builders the option to compare competing technologies on purchase price, operating cost,

reliability, performance, and local conditions. It also directs demand toward electric equipment while excluding gas-fired furnaces, boilers, water heaters, ranges, and related products from covered projects. The home-heating market illustrates the scale of the choice being displaced: in 2024, natural gas remained the principal space-heating fuel for 47 percent of U.S. households, while electricity served 42 percent; all other fuels together accounted for roughly 11percent.²¹

Primary Home-Heating Fuel in U.S. Households, 2024



Source: U.S. Energy Information Administration, citing U.S. Census Bureau American Community Survey.

This division shows that there is strong competition underway today and that neither technology should be protected from competition with the other. Moreover, the Rocky Mountain Institute (RMI), which describes itself as a “nonprofit that transforms global energy systems through market-driven solutions” claims that “publicly available national HVAC . . . shipment data from the Air Conditioning, Heating, & Refrigeration Institute (AHRI)” shows that “[i]n 2025, manufacturers shipped 12% more heat pumps than gas furnaces (3.6M units versus 3.2M units).

²¹ U.S. Energy Information Administration, [Electricity use is becoming more common for residential heating](#). [eia.gov] (Oct. 10, 2025), reporting 2024 American Community Survey estimates that electricity was the main space-heating fuel for 42 percent of U.S. households and natural gas for 47 percent.

Heat pumps are averaging 3.9 million sales this decade, compared to 3.5 million average annual sales of gas furnaces.”²²

These figures are evidence that market competition for new equipment is intense; households make different choices; and both gas and electric systems serve large, established markets. A mandate that eliminates one option therefore redistributes opportunity among manufacturers, contractors, utilities, and consumers by law rather than by performance and price. It can strand existing skills and infrastructure, narrow product choice, and reduce pressure on the remaining suppliers to compete for the customer’s business. By impacting national markets of appliances and equipment, state and local natural gas bans also burden interstate commerce.

Natural Gas Bans Compel Increases in Electric Demand That Add Stress to Electric Systems Already Challenged to Serve Other Sources of Rising Demand. Building electrification is not merely a change in appliance technology; it transfers energy demand from gas-delivery infrastructure to the electric system. The Energy Systems Integration Group’s 2024 grid planning report explains that space heating is the building end use most likely to affect electric demand, that electrification can increase the seasonality and weather dependence of load, and that planners may not see its full significance until the coldest winter days.²³ Depending upon technology adoption and efficiency, the report estimates that electrifying building end uses could require between 10 percent and 70 percent more electricity-generation capacity than exists today.

That incremental heating load would arrive while the grid is already being asked to serve unusually rapid growth from digital infrastructure, advanced manufacturing, and other large loads. The North American Electric Reliability Corporation’s 2025 Long-Term Reliability assessment forecasts 224 gigawatts of summer peak-demand growth and 246 gigawatts of winter peak-demand growth over the next decade, while warning that uncertainty and delays in new resource additions create heightened concern that supply may not keep pace.²⁴ Natural gas bans therefore add a

²² See [About - RMI](#) and [Tracking the Heat Pump & Water Heater Market in the United States - RMI](#)

²³ See [ESIG-Grid-Planning-Building-Electrification-report-2024.pdf](#) at p. vii

²⁴ [Long-Term Reliability Assessments](#); [Long Term Reliability Assessment](#) at p. 8

policy-driven source of electric demand to a system already confronting generation, transmission, distribution, and interconnection challenges.²⁵ Whether that added demand threatens reliability in a particular place will depend on local load shape, weather, equipment efficiency, available capacity, and the timing of grid upgrades; but it should be evaluated expressly before a jurisdiction removes a major non-electric energy option.

In turn, to the extent new all-electric buildings become a burden on relevant grids by requiring upgrades to support reliability, such buildings have the effect of increasing the “delivery” (*i.e.*, transmission and distribution) charges that contribute to the total bill electric customers must pay. Unless regulators formally decide to adopt a specific rate to allocate costs differently, the burden of higher delivery charges would effectively spread beyond the owners of new buildings to the balance of electric customers, including those who have lower incomes.

Depending Upon the Predominant Sources of Primary Energy Generating Electricity for the Relevant Grid, Natural Gas Bans Increase Rather Than Decrease the Use of Natural Gas. In many jurisdictions, such as Washington, D.C. and New York City, mandating that consumers switch to natural gas will likely lead to greater consumption of natural gas. The reason for this counterintuitive outcome is that much of the electricity consumed in those jurisdictions is produced by natural gas-fired generators. Hence, rather than burning natural gas in a furnace or water heater that is 90% efficient, the natural gas used to make electricity is burned in a turbine that is 60% efficient. In addition, “line losses” of typically 5% - 7% occur in electric grids when the electricity is transmitted from generating plants to consumers. Thus, depending upon the generation mix of the electric grid covered by the electrification mandate, efforts to reduce emissions from natural gas -- almost universally the *sine qua non* of the mandate -- can end up leading to increases in those very emissions.²⁶

²⁵ Robert Bryce, Hydrocarbons, Nuclear, & The Future of American Power 13–20, presentation to the Western Petroleum Marketers Association (Feb. 19, 2026) (discussing accelerating electricity demand and the scale of natural-gas and nuclear capacity potentially required to serve new load) https://www.wpma.com/pdf/national_convention_2026/021826-R-Bryce--Slides-for-WPMA-Vegas-event-v2.pdf.

²⁶ See, e.g., [Natural Gas: Crucial for New Jersey’s Energy and Economic Future](#), (Sept. 2020), p. 14.

Natural Gas Bans are an Outfall of Claims of an “Energy Transition” that Empirical Evidence Does Not Support. For at least the last decade, the phrase “the Energy Transition” has come to mean a nearly complete shift away from hydrocarbons as a source of energy to sources that rely not at all on hydrocarbons or combustion.²⁷ Although energy systems and the patterns of use of forms of primary energy are always in transition, the transition has been consistently additive. Sources that predominated in prior eras remained in use. In fact, even if an energy source’s share of the energy stack declined, its use in absolute terms increased.²⁸ Energy systems change, but they do so slowly, unevenly, and at the scale of capital stock, infrastructure, fuels, end-use equipment, and consumer behavior. In that history, new energy sources usually enter the system by addition before they displace anything materially; older sources continue to serve large energy needs even after their relative share declines.²⁹ The following chart from Dr. Anna Mikulska’s recent paper cited in note 28 illustrates this point:

²⁷ See, e.g., Molly Seltzer, “Motivated to Decarbonize Energy Systems: Jenkins Speaks Out on Energy Transitions,” Princeton University (Sept. 17, 2019) (quoting Jesse D. Jenkins: “most strategies for addressing climate change and limiting global warming rely on transitioning to 100% carbon-free electricity sources, and then expanding the role electricity plays in society, such as in the industrial sector and transportation.”). [Motivated to decarbonize energy systems: Jenkins speaks out on energy transitions](#). Contrast Robert Bryce, The Energy Transition ... What Energy Transition? 13–18, presentation to the Tennessee Gas Association (June 4, 2025) (documenting rapid electricity-demand growth, including from artificial intelligence and data centers, and emphasizing the need for firm generation) <https://www.tngas.org/wp-content/uploads/2025/06/2025-AM-The-Energy-Transition-Robert-Bryce.pdf>

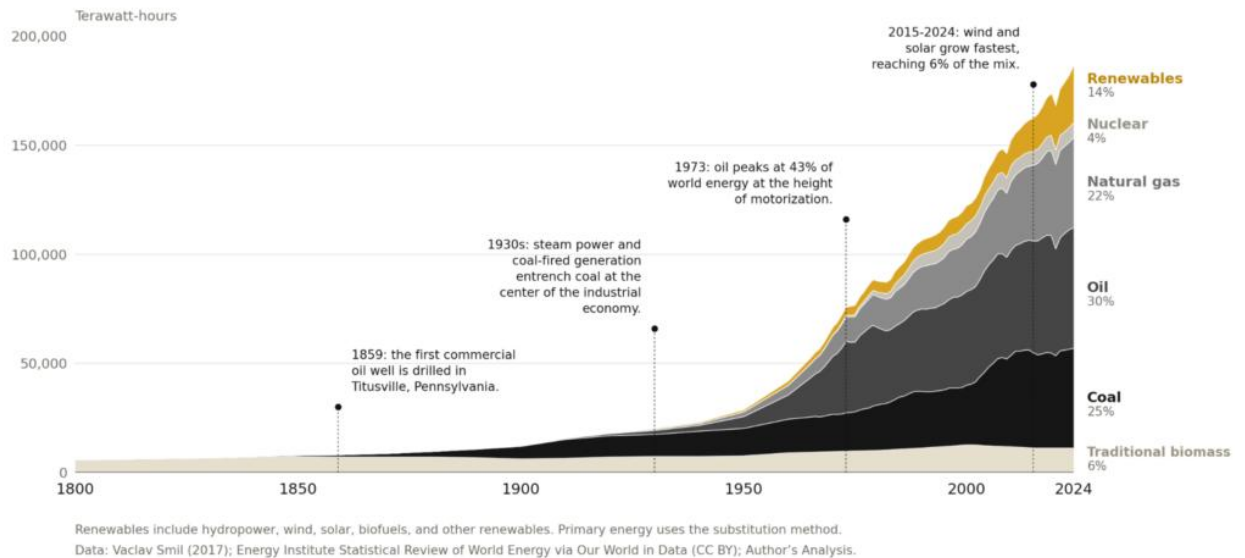
²⁸ Mark P. Mills, “The Myth of an Energy Transition,” City Journal (July 20, 2026) (noting that global oil use has risen with population growth, that natural-gas and coal use are also higher than two decades ago, and that new energy supplies have been additions rather than wholesale replacements) <https://www.city-journal.org/article/energy-transition-fossil-fuels-renewables> ; Anna B. Mikulska, “The Energy Transition Has a New Destination: Secure Fuels,” The National Interest (Aug. 12, 2026) (arguing that energy transitions are slow and additive and increasingly organized around secure fuels) <https://nationalinterest.org/blog/energy-world/the-energy-transition-has-a-new-destination-secure-fuels> ; Daniel Yergin, Peter Orszag & Atul Arya, “The Troubled Energy Transition: How to Find a Pragmatic Path Forward,” Foreign Affairs (Mar./Apr. 2025) (observing that oil and coal use reached record levels in 2024, hydrocarbons’ share of global primary energy has changed little since 1990, and past transitions added new sources without eliminating older ones) <https://www.foreignaffairs.com/united-states/troubled-energy-transition-yergin-orszag-arya> ;

²⁹ Vaclav Smil, Energy Transitions: History, Requirements, Prospects (Praeger 2010); Vaclav Smil, Energy Transitions: Global and National Perspectives (Praeger 2d ed. 2017); Vaclav Smil, “Energy Transitions,” World Economic Forum Industry Agenda (2014) (explaining that energy transitions unfold over long periods and that global resource transitions generally occur across generations) <https://vaclavsmil.com/publications/> https://vaclavsmil.com/wp-content/uploads/2024/10/WEF_EN_IndustryVision-12.pdf .

TWO CENTURIES OF GLOBAL ENERGY

Global primary energy consumption by source, 1800-2024 (substitution method)

76%
of world energy still came
from fossil fuels in 2024



That distinction matters for building policy. A local ordinance may be called a transition measure, but it does not build generation or transmission capacity, distribution upgrades, transformers, substations, skilled labor, or spare winter capacity. It simply moves a portion of household energy demand from one delivery network to another. If electrification of space and water heating is mandated faster than electric infrastructure is expanded, the policy increases dependence on the grid at the very times when reliability margins may be most stressed.³⁰

Mark Mills has emphasized a related physical constraint: electrification and renewable build-outs are not immaterial software substitutions. They require large quantities of concrete, steel, copper, aluminum, rare earths, lithium, nickel, cobalt, and other materials, together with mines, processing facilities, factories, rights-of-way, and construction crews. Policies that mandate

³⁰As noted above, Energy Systems Integration Group, Grid Planning for Building Electrification 6–9, 20–22 (2024) (describing space heating as a key driver of electrification-related winter peak impacts and estimating that building electrification could require 10% to 70% more generation capacity, depending on assumptions) <https://eta-publications.lbl.gov/sites/default/files/2024-12/esig-grid-planning-building-electrification-report-2024.pdf> ; N. Am. Elec. Reliability Corp., 2025 Long-Term Reliability Assessment 6–10 (2025) (identifying rapid load growth and resource-addition uncertainty as reliability concerns) https://prod.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf .

fuel substitution therefore shift costs and bottlenecks upstream into industrial supply chains as well as downstream into the electric grid.³¹

Experience increasingly shows that energy security and reasonable costs are imperatives. Households require energy that is available, accessible, and available at a reasonable price. A mandate that removes a functioning fuel option can weaken that balance, especially for customers who cannot easily absorb higher bills or equipment-conversion costs.

Hydrocarbons continue to supply most of the global primary energy, while electricity demand is growing rapidly. A natural gas ban assumes that electric supply and delivery can be expanded quickly enough to replace direct fuel use without sacrificing or raising costs beyond what people can reasonably pay. The burden should be on the proponent of such a mandate to prove that assumption using local load, capacity, and cost data, not claims about an imminent energy transition.³²

Not incidentally, natural gas bans and ZEB mandates have attracted sustained support from philanthropically funded organizations committed to building electrification and the displacement of fossil fuels from homes and businesses. Robert Bryce has identified a network of wealthy donors, fiscal sponsors, and advocacy organizations that he reports have financed and promoted campaigns for gas bans, appliance electrification, and related mandates. His reporting argues that

³¹ Mark P. Mills, *The Hard Math of Minerals*, Issues in Science & Technology (Jan. 27, 2022) (explaining that wind, solar, batteries, and electrification require substantially greater material inputs and specialty minerals than conventional energy systems) <https://issues.org/environmental-economic-costs-minerals-solar-wind-batteries-mills/> ; Mark P. Mills, *Unseen Costs of the Energy Transition: Minerals, Metals, and Construction Materials*, Manhattan Institute (Mar. 3, 2022) <https://manhattan.institute/article/unseen-costs-of-the-energy-transition-minerals-metals-and-construction-materials> .

³² Germany's experience is a cautionary indicator of the consequences of adopting a policy that must be reversed. Reportedly, "the government of Friedrich Merz pushed through a profound change to the so-called Heating Act, which is the most important instrument of the heating sector transformation policy. The previous version of the bill was one of the most controversial laws of the previous term – it was perceived as an attempt to ban the installation of . . . popular gas heating systems and to persuade people to choose heat pumps. The new law rehabilitates gas and oil boilers – it allows their installation again, but with obligatory admixtures of the so-called green fuels. In essence, this brings a change in the current approach to the decarbonization of heating (Wärmewende)." Michał Kędzierski, *Germany: New heating law softens Wärmewende. Merz's government slows down the pace of decarbonization of heating*, OSW Centre for Eastern Studies (Aug. 21, 2026), <https://www.osw.waw.pl/pl/publikacje/komentarze-osw/2026-08-21/niemcy-nowa-ustawa-grzewcza-lagodzi-warmewende-rzad-merz> (English translation provided by website.)

some of the organizations most active in this effort operate through funding structures that make the identity or amount of support from particular donors difficult for the public to determine.³³

The broader record confirms that building electrification is supported by organized and substantial public and private funding. The Building Decarbonization Coalition describes its work as using policy, research, market development, public engagement, and partnerships to eliminate fossil fuels from buildings. The Equitable Building Electrification Fund launched with \$1.8 million and issued a \$50 million call to philanthropy, while Rewiring America and partner organizations sought \$9.5 billion in federal funding for residential decarbonization and electrification. Maryland separately has funded outreach programs designed to educate residents about building electrification and encourage adoption.³⁴

These facts show that natural gas ban proposals are not merely spontaneous local responses to consumer demand; they are part of a coordinated and well-resourced policy campaign. The economic and reliability consequences of natural gas bans should be evaluated on their merits. On the basis of the evidence to date, natural gas bans/ZEB mandates, and the subset of the “energy transition” they represent are highly unlikely to deliver the benefits their sponsors claim, especially over the time periods that have been required frequently in state laws and local ordinances.

³³ Robert Bryce, “The Billionaires Behind the Gas Bans,” Substack (Jan. 27, 2023), <https://robertbryce.substack.com/p/the-billionaires-behind-the-gas-bans> ; Robert Bryce, “The Dark Money Behind the Gas Bans,” Substack (Mar. 19, 2023), <https://robertbryce.substack.com/p/the-dark-money-behind-the-gas-bans> .

³⁴ Building Decarbonization Coalition, “Driving the Future of Electrification,” <https://buildingdecarb.org/> (describing policy acceleration, market development, partnerships, and public engagement aimed at eliminating fossil fuels from buildings); Kresge Foundation, “New \$1.8 Million Fund Moves Power and Resources to Frontline Communities to Decarbonize Buildings” (Oct. 26, 2022), <https://kresge.org/news-views/new-1-8-million-fund-moves-power-and-resources-to-frontline-communities-to-decarbonize-buildings/> ; Rewiring America, “A New Coalition to Decarbonize U.S. Housing” (Oct. 12, 2023)(Maintaining that “over the next decade, the [Inflation Reduction Act (IRA)] could invest up to \$567 billion in residential decarbonization alone across 124 million households,” and announcing a new coalition, *Power Forward Communities*, “to apply for \$9.5 billion from the IRA’s Greenhouse Gas Reduction Fund (GGRF) for residential decarbonization and electrification.” <https://www.rewiringamerica.org/newsroom/press-releases/power-forward-communities-clean-energy-coalition> ; Maryland Energy Administration, FY25 Electrification Outreach Program Funding Opportunity Announcement (Feb. 24, 2025), <https://energy.maryland.gov/SiteAssets/Pages/EnergyOutreach/FY25%20Electrification%20Outreach%20FOA%20-%20Issued%202.24.25%20V2.pdf>.

Conclusion. Natural gas bans and zero-emission-building mandates raise economic and non-economic costs. They burden people with low incomes, especially those who live where the weather is cold. They also restrict consumer choice, distort competition, and transfer additional demand to electric systems already facing rapid load growth and reliability challenges. And, in many cases, they result in more natural gas being burned at electric generating plants than is reduced through end-use electrification.

These coercive measures rest on an asserted “energy transition.” In fact, both the American and global energy systems evolve more slowly, are additive, and more hydrocarbon-dependent than advocates for natural gas bans readily acknowledge. Voluntary or natural electrification is happening but applying the force of law to compel deeper or quicker market penetration is wrong, and has many negative consequences. Congress should protect the operation of EPCA as a federal energy law, require transparent assessment of costs imposed on local energy consumers, and preserve the ability of households and businesses to choose the energy sources and equipment that best meet their needs.

Appendix A: Summary Indications of an “Electrification Policy - Affordability Feedback Loop”

The following chart summarizes representative indicators that building electrification policies, electric-system costs, household affordability pressures, subsidy programs, and public or ratepayer funding demands can operate as a reinforcing feedback loop. It is intended to be illustrative only; It is not definitive. A definitive analysis showing more than correlation is beyond the scope of this testimony.

Feedback-loop stage	Representative Indicators	Indicative Comparable Jurisdictions	Relevance to Feedback Loop
1. Electrification mandate or transition policy	NYC Local Law 154 prohibits onsite combustion in newly constructed buildings subject to phased implementation ⁱ , while other jurisdictions have adopted or pursued all-electric new-building requirements ⁱⁱ , renovation electrification measures ⁱⁱⁱ , net-zero zoning ^{iv} , emissions limits ^v , and existing-building transition strategies ^{vi} .	San Francisco; Oakland; Berkeley; Boston	Identifies the policy trigger that shifts buildings away from onsite combustion and toward electric systems.
2. Higher electric-system and rate pressure	New York residential electricity prices reached 29.99¢/kWh in February 2026 ^{vii} ; New York City also cited substantial Con Edison residential bill increases ^{viii} , and Seattle tied expanded utility assistance to rising utility-service costs ^{ix} .	Seattle	Identifies rate and cost conditions that can make electrification-related reliance on electricity an affordability concern.
3. Energy-burden response through affordability programs	New York State, through the Public Service Commission, authorized approximately \$1.57 billion for low- and moderate-income energy-efficiency and building-electrification programs over 2026–30 ^x . Separately, New York City-related utility affordability examples include Con Edison and National Grid bill-discount programs ^{xi} ; other jurisdictions offer subsidized heat-pump water heaters ^{xii} and utility-funded home or heating upgrades ^{xiii} .	Seattle; San Francisco; Oakland; Berkeley; Boston	Shows the policy response to household energy-burden concerns through subsidies, discounts, and transition assistance.

4. Fiscal or funding constraints	New York City reported an inherited two-year fiscal gap of roughly \$12 billion for FY2026–27; after savings, revenue adjustments, reserves, and State support, a remaining two-year gap of \$5.4 billion still had to be bridged.	San Francisco; Portland	Shows that expanded public or ratepayer-funded assistance may depend on constrained funding sources.
5. Cost-shifting / loop repetition	New York City directs income-qualified households to energy-affordability programs that provide monthly Con Edison and National Grid bill discounts; comparable responses to high costs in San Francisco, Seattle, Oakland, and Boston rely on public, utility, or ratepayer-supported funding, illustrating how mitigation costs can be shifted to constrained public budgets or other utility customers. ^{xiv}	San Francisco; New York; New York City; Seattle; Oakland; Boston	Completes the loop by showing that assistance costs must be recovered from public or ratepayer sources, potentially adding to budget or rate pressure.

Endnotes for foregoing chart follow:

ⁱ NYC Department of Buildings, Building Electrification (Local Law 154), <https://www.nyc.gov/site/buildings/codes/ll154.page>.

ⁱⁱ San Francisco Department of Building Inspection, All-Electric Buildings in San Francisco, <https://sf.gov/information/all-electric-buildings-san-francisco>.

ⁱⁱⁱ San Francisco Department of the Environment, Board of Supervisors Passes Major Renovations Ordinance Setting Course for All-Electric Future, <https://sfenvironment.org/news/board-supervisors-passes-major-renovations-ordinance-setting-course-all-electric-future>.

^{iv} City of Boston, Mayor Wu Announces Passage of Net Zero Carbon Zoning, <https://www.boston.gov/news/mayor-michelle-wu-announces-passage-groundbreaking-net-zero-carbon-zoning>.

^v City of Boston, Building Emissions Reduction and Disclosure, <https://www.boston.gov/departments/environment/building-emissions-reduction-and-disclosure>.

^{vi} City of Berkeley, Existing Buildings Electrification Strategy, <https://www.cityofberkeley.info/existing-buildings-electrification-strategy/>.

^{vii} Empire Center for Public Policy, Energy Data Bulletin: May 2026, <https://www.empirecenter.org/publications/energy-data-bulletin-may-2026/>.

^{viii} New York City Council, Resolution 0561-2026, <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=7063000&Options=&Search=>.

^{ix} Seattle Public Utilities and Seattle City Light, Expanding Assistance for Seattle City Light and Seattle Public Utilities Customers, <https://atyrservice.seattle.gov/2026/07/16/expanding-assistance-for-seattle-city-light-and-seattle-public-utilities-customers/>.

^x New York State Department of Public Service, Case 25-M-0249, LMI EE/BE Portfolio Implementation Plan, <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=25-M-0249>.

^{xi} New York City Council, Resolution 0561-2026, <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=7063000&Options=&Search=>.

^{xii} San Francisco Department of the Environment, Climate Equity Hub, <https://sfenvironment.org/climate-equity-hub>.

^{xiii} City of Boston, Partnership With Local Utility Companies to Reduce Energy Costs for Residents, <https://www.boston.gov/news/mayor-wu-announce-partnership-local-utility-companies-reduce-energy-costs-residents>.

^{xiv} New York City: NYC311, ‘Enhanced Energy Affordability Program,’ describing monthly utility discounts for income-qualified households, <https://portal.311.nyc.gov/article/?kanumber=KA-03723> ; San Francisco: San Francisco Department of the Environment, ‘Climate Equity Hub,’ stating that the program was paused while additional funding was secured, <https://sfenvironment.org/climate-equity-hub> ; Seattle: Seattle City Council, ‘City Council passes Strauss proposal to dramatically reduce utility costs for 31,000 low-income households,’ stating that the expanded discounts would be funded by small utility-rate increases, <https://council.seattle.gov/2026/07/14/city-council-passes-strauss-proposal-to-dramatically-reduce-utility-costs-for-31000-low-income-households/> ; Oakland: City of Oakland, ‘Building Electrification Incentives and Rebates,’ identifying BayREN as funded through utility ratepayer funds collected by PG&E, <https://www.oaklandca.gov/Government/Oakland-Improvement-Projects/Building-Electrification/Building-Electrification-Incentives-and-Rebates> ; Boston: City of Boston, ‘Mayor Wu to Announce Partnership With Local Utility Companies to Reduce Energy Costs for Residents,’ describing a \$150 million City-utility partnership and incentives, <https://www.boston.gov/news/mayor-wu-announce-partnership-local-utility-companies-reduce-energy-costs-residents> .