

UNFORESEEN CONSEQUENCES

Policy memo on NY Home Energy Affordable Transition Act ([HEAT Act](#)) [S4158](#)

We acknowledge that the impact of these measures will be determined by their scope, implementation timeline, pace, and advancements in technology, infrastructure, and market dynamics.

In this memo the Empire Center for Public Policy is sharing insights into these key aspects of the HEAT Act:

- Transitioning residential heating from natural gas to electricity.
- Introducing energy subsidies by capping household energy costs at 6% of income.
- Restricting growth, downsizing, or dismantling of natural gas infrastructure.

Here are important factors to consider:

1. Electricity prices in New York are high and rising rapidly
2. Decreasing generation and influx of energy-intensive industries may create upward pressure on electricity prices
3. Transitioning residential heating from natural gas to electric heat will increase the demand for electricity and put additional upward pressure on prices
4. Increases in the price of electricity might reduce the economic case for switching to electric heat
5. Transition to electric heat creates upfront costs for households
6. Weatherization of homes and more efficient heating appliances would have positive effects without the electrification of heating
7. Subsidizing energy use by capping energy expenditure goes against the goals of reducing greenhouse gas (GHG) emissions
8. Financing of energy subsidies will place a financial burden on other consumers, companies, or taxpayers
9. Subsidizing energy use could lead to even more government intervention and energy rationing
10. Phasing out natural gas reduces the energy security of New York State

TRANSITIONING RESIDENTIAL HEATING FROM NATURAL GAS TO ELECTRICITY

Electricity prices in New York are high and rising rapidly

Currently, the average electricity price in New York stands at \$0.26 per kWh for residential users and \$0.12 per kWh for industrial users. These figures far exceed the U.S. averages of \$0.16 per kWh and \$0.08 per kWh, respectively¹. New York households pay 62% more, and industrial consumers pay 50% more per kWh than the national average.

Furthermore, between 2024 and 2025, electricity prices in New York increased at a faster rate than the national average: an 8% rise for residential consumers and a 37% increase for industrial users, compared to the U.S. average increases of 2% and 5.5%.

Decreasing generation and influx of energy-intensive industries may create upward pressure on electricity prices

NYISO warns that New York is on a path to losing more generation capacity than it is adding^{2,3}, with 5207 MW of deactivations and 2256 MW of additions since 2019.

Bringing energy-intensive industries to New York could exert upward pressure on the prices of electricity. For instance, the proposed Micron plant in Onondaga County is anticipated to require 16,000 GWh of electricity by itself⁴.

Transitioning residential heating from natural gas to electric heat will increase the demand for electricity and put additional upward pressure on prices

At present, approximately one-sixth of households in New York rely on electric heating⁵. Shifting the remaining five-sixths to electric heating would result in a significant surge in electricity demand.

Similarly, in 2021, households in New York consumed 459 trillion BTUs of natural gas and 178 trillion BTUs (52 GWh) of electricity⁶. Replacing 459 trillion BTUs of natural gas with energy from electricity would increase household electricity demand significantly. Even with improvements in energy efficiency, insulation of homes, and use of energy-efficient

¹ Source: US Energy Information Administration [Electric Power Monthly](#)

² Source: NYISO [Relying on the Grid's Graying Generation](#)

³ Source: NYISO [2024 Reliability Needs Assessment Report](#)

⁴ Source: [p. 217](#), Application for Financial Assistance, Onondaga County Industrial Development Agency

⁵ Source: United States Census Bureau [B25040: House Heating Fuel](#)

⁶ Source: NYSEERDA, New York State Energy Profiles, 2007-2021, [Tables 3- 9a and 3-9b](#)

heating appliances, the residential building electrification could require up to 86,600 GWh of electric energy⁷.

If the supply of affordable and abundant electric energy does not keep pace with rising electricity demand, consumers may face higher energy prices.

Notably, Pennsylvania is a major exporter of electricity to New York⁸ yet, more than half of Pennsylvania's electricity is produced from greenhouse gas-emitting sources, including natural gas and coal⁹.

Increases in the price of electricity might reduce the economic case for switching to electric heat

If prices for electricity increase, especially compared to natural gas or similar fuels, the economic case for switching to electric heat could deteriorate further or even become unfeasible.

Transition to electric heat creates upfront costs for households

Replacing current household heating systems with electric ones requires substantial upfront investments from households. Furthermore, lower-income families are more likely to be living in older, less energy-efficient homes¹⁰ and may face even greater costs for weatherization and other upgrades, potentially making the investment unattainable for them.

Weatherization of homes and more efficient heating appliances would have positive effects without the electrification of heating

Improving energy efficiency of homes—such as insulation and window replacement—and adopting more efficient heating appliances, like modern heaters, can reduce overall energy consumption, emissions of greenhouse gases and other particles.

However, these improvements can be achieved without requiring a switch to electric heating. Upgrading or replacing existing heating systems can also deliver environmental and health advantages. By mandating to switch to electric heat, the HEAT Act imposes an unreasonably restrictive mandate and favors one energy source (electricity) above others.

⁷ Source: NYISO, [2024 Gold Book Higher Demand Scenario Table](#)

⁸ Source: NYISO [2024 Load and Capacity Data, Gold Book, table III-3d](#)

⁹ Source: US Energy Information Administration, [State Profile and Energy Estimates](#)

¹⁰ Source: US Department of Energy, [Low-Income Household Energy Burden Varies Among States](#)

INTRODUCING ENERGY SUBSIDIES BY CAPPING HOUSEHOLD ENERGY COSTS AT 6% OF INCOME

Subsidizing energy use by capping energy expenditure goes against the goals of reducing greenhouse gas (GHG) emissions

Prices and their impact on household budgets are important factors affecting the use of energy. Regardless of energy or fuel source, not paying the full expense for energy reduces incentives to lower energy use or invest in energy-efficient technologies¹¹. For example, a study on the California Alternate Rates for Energy (CARE) program estimates that a 20% price subsidy led to an 8.5% increase in demand for energy¹², especially for poorer households.

Moreover, this energy subsidy could deter households from pursuing energy efficiency upgrades for their homes, as it diminishes the financial return on such investments and, in some cases, may render them entirely impractical.

As a result, implementing an energy subsidy that caps household energy expenditure at 6% of income risks undermining efforts to cut energy consumption and greenhouse gas emissions.

Financing of energy subsidies will place a financial burden on other consumers, companies, or taxpayers

Legislating a cap on household energy expenditures at 6% of income would inevitably shift the burden of paying for energy use exceeding that threshold to another party.

If the burden to finance this subsidy is placed on other residential consumers (like the HEAT Act suggests¹³) it would act as an additional surcharge on energy for households not exceeding the 6% threshold.

Alternatively, imposing a surcharge on industrial and commercial energy consumers to fund this subsidy could harm businesses and further diminish New York's competitiveness.

¹¹ Source: International Energy Agency, [Fossil Fuels Consumption Subsidies 2022](#)

¹² Source: National Bureau of Economic Research, [Efficiency and Equity Impacts of Energy Subsidies](#)

¹³ Paragraph 30, part 2, section 3(B) [NY State Senate Bill 2025-S4158](#)

If utilities and energy providers were tasked with covering the subsidy, it might lead to financial losses or result in costs being passed on to other consumers through higher energy prices.

Should the subsidy be financed through the state budget (i.e., taxpayers), it would divert resources from other critical budget priorities to support subsidized energy consumption.

Subsidizing energy use could lead to even more government intervention and energy rationing

The HEAT Act text already mentions the possibility of introducing energy quantity allowances for subsidized energy costs. This approach resembles energy rationing and establishes a troubling precedent of state interference in the daily choices of individuals.

RESTRICTING THE GROWTH, DOWNSIZING, OR DISMANTLING OF NATURAL GAS INFRASTRUCTURE

Phasing out natural gas reduces the energy security of New York State

Currently, natural gas accounts for 48%¹⁴ of electricity production and 40%¹⁵ of total energy consumption in New York. Reducing natural gas infrastructure, phasing out its use for heating, and transitioning to electricity diminishes the diversity of energy sources and delivery systems, thereby increasing the state's dependence on electricity.

In 2023, electric grid customers in New York experienced approximately 20 million hours of service disruptions, with severe weather events like Hurricane Sandy significantly exacerbating outages¹⁶. While gas infrastructure is not immune to service interruptions^{17,18} relying exclusively on electricity—rather than a combination of electricity and natural gas—could heighten vulnerability to energy outages for some consumers.

¹⁴ Source: US Energy Information Administration, [State Profile and Energy Estimates, New York](#)

¹⁵ Source: US Energy Information Administration, [State Profile and Energy Estimates, New York](#)

¹⁶ Source: Fig. 3 New York State Department of Public Service, [2023 Electric Reliability Performance Report](#)

¹⁷ Source: P. 16, Gas Technology Institute, [Assessment of Natural Gas and Electric Distribution Service Reliability](#)

¹⁸ Source: US Department of Energy, State of New York [Energy Sector Risk Profile](#)