

Catalyzing the electrification of buildings

Heat pumps and other electric appliances are zero-emissions, energy-efficient, and deliver windfall cost savings to low- and middle-income households.



Electrifying our building stock will significantly lower emissions. Direct fossil fuel use in heating and cooking accounts for 10-15% of U.S. emissions. Research shows that heat pump technology has matured to the point of being more efficient than gas heat in almost every state, even in cold weather. Current heat pumps range from 2.2 to 4.5x more efficient than Energy Star gas furnaces.



There are massive economic benefits to building electrification. Research shows that nationwide home electrification could directly and indirectly create over 1.3 million jobs. It would save a collective \$37.3 billion per year in energy costs, distributed across 85% of U.S. households, including substantial savings for low- and middle-income households. That's an average of about \$500 per year, per household.



Timing matters for heat electrification. Because furnaces and water heaters have extremely long lifespans, every new gas heating unit sold is a 15-year missed opportunity for electric heat. Each year, 5 to 8 million buildings in the U.S. add or replace heating equipment, so we need to rapidly scale the availability of affordable electric units when building owners are making those purchasing decisions.



Electrified buildings are better for human health. Electrifying indoor appliances would address the 42% increased risk of childhood asthma caused by gas stoves alone. Meanwhile, it would reduce premature deaths from the outdoor air pollution caused by building emissions, which currently total over 15,000 per year in the U.S.

Two bills to scale building electrification by lowering the cost of heat pumps and other electric appliances:

The Zero-Emissions Homes Act, or ZEHA (S.2370/HR.4872) | Sponsors: Heinrich / Castor

To stimulate demand for electric appliances that replace in-home fossil fuel use (think gas stoves, furnaces, and water heaters), the Zero-Emissions Homes Act would provide point-of-sale rebates up to \$14,000 per household. It centers equity by allocating a greater rebate amount to low-income households. Qualifying purchases include heat pump HVAC systems and water heaters, electric stoves, electric clothes dryers, and some technical retrofits required to switch a home over from gas or oil to electricity.

The Heating Efficiency and Affordability through Tax Relief, or HEATR Act (S.4139) | Sponsor: Klobuchar

To incentivize the production (thereby increasing the supply) of electric heat pumps, the HEATR Act creates a manufacturer tax credit. The tax credit has the dual benefit of lowering prices for consumers who are seeking to electrify their homes and businesses and stimulating the domestic manufacturing sector.