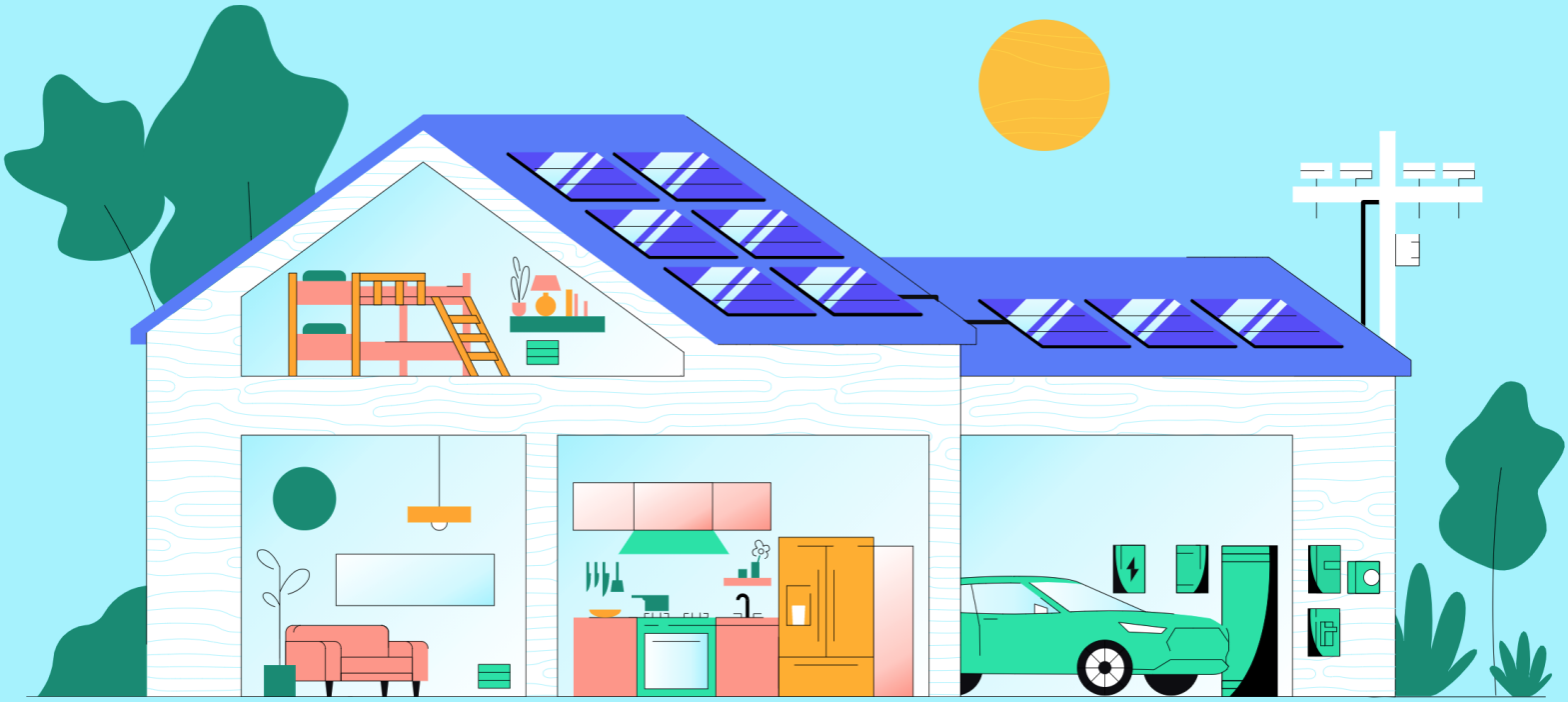


Bringing Infrastructure Home

A 50-STATE REPORT ON U.S. HOME ELECTRIFICATION

REWIRING AMERICA

https://www.rewiringamerica.org

Bringing Infrastructure Home

A 50-State Report on U.S. Home Electrification

INTRODUCTION

There may be a sweet spot in the U.S. infrastructure debate. Some define infrastructure narrowly as roads, bridges, ports, and airports -- the domains of transportation and commerce. Some would add hard assets such as water pipes, broadband, and the electric grid. Some have a broader vision still, defining investments that would more equitably enable our economy, such as child care and elder care, as critical national infrastructure. Some put climate as the top priority; others focus more on economic return on investment.

At Rewiring America, we believe **we must electrify everything in the U.S. economy to have a shot at meeting our national (and global) climate goals** of a clean grid by 2035 and zero emissions by 2050, keeping global warming under 1.5°C / 2.7°F. And since 42 percent of our nation's energy-related emissions come from decisions made at our kitchen tables, we believe it is essential for policymakers to focus on the home.

The American home is the keystone of our national infrastructure. We spend a lot more time in our homes than on our highways -- more time on our porches than in our ports. The great news is that a public investment in electrifying our 121 million American households can reap significant benefits for every American. We do not need a moonshot. All of the technology we need to electrify our homes already exists.

There is no other public infrastructure investment that can so efficiently deliver monthly cost savings to consumers, improve our air quality indoors and out, create jobs in every zip code in the country, and cut so much in carbon emissions. If Congress took action to level the cost of efficient, electric appliances with those they replace through investments like point-of-sale rebates, the retrofit and new construction markets could be transformed to make electrified homes as commonplace as cars at the end of the horse-drawn carriage era (a transition that happened within a decade of Ford’s moving assembly line speeding mass production).

This approach also makes political sense because it speaks to bipartisan interests. Democrats could get behind bold climate action -- and economic justice for low- and moderate-income households. Republicans could get behind lower bills, more jobs, a safer and more reliable energy future because millions of American homes start producing their own power and feeding it back into the grid. Everyone could get behind not having to give up the kinds of cars we like to drive, change the size or comforts of our homes, or make sacrifices in our lifestyles.

This report highlights the benefits of household electrification in terms of climate, household savings, and job creation, as well as **the health benefits of improving indoor and outdoor air quality** -- and then breaks it down into **fact sheets for all 50 states and the District of Columbia** -- giving all Americans the arguments they need to advocate for its inclusion in our federal infrastructure investment.

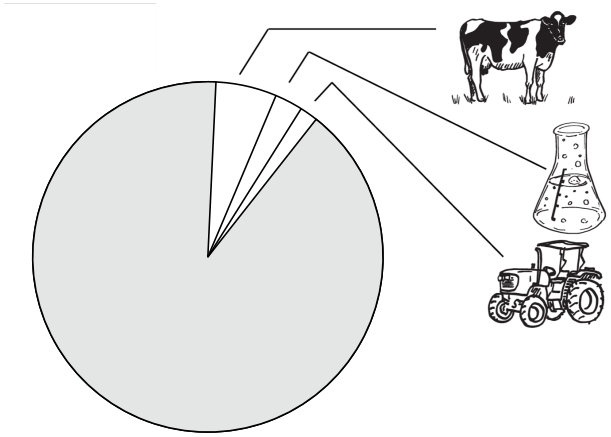
It is an optimistic vision. It is an ambitious vision. It is a doable vision. And it is one we should immediately pursue.

THE CLIMATE BENEFITS OF HOME ELECTRIFICATION

The simple truth is that our carbon crisis is an energy crisis. Eighty-seven percent of climate-altering U.S. carbon emissions are from energy, which means most agricultural impacts and certain chemical impacts from our industrial sector account for just 13 percent of the problem. Managing these non-energy emissions will be a crucial part of any climate plan, but really, the heart of the problem lies in supplying decarbonized energy to run our lives. People and households live on the demand side of the problem, and consequently we need our households and the machines in and attached to them, to be prepared to run on a clean grid.

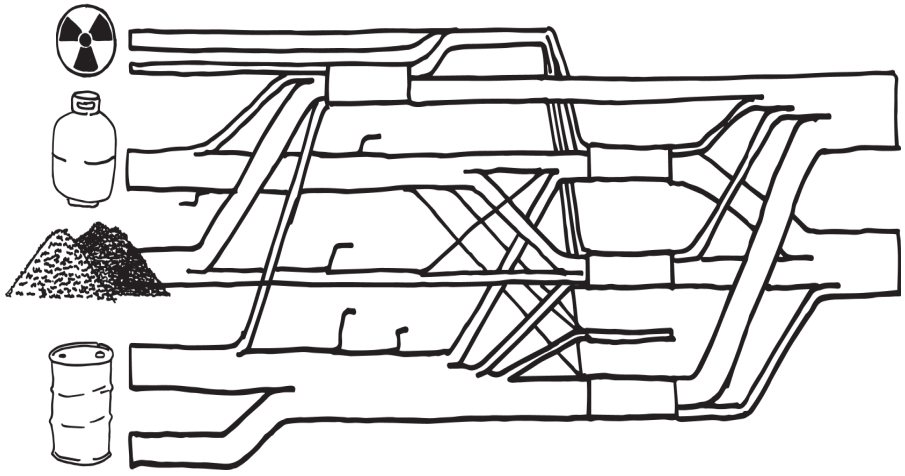
We have been diagramming the supply, distribution, and demand in our energy use for decades: hydro, nuclear, solar, gas, propane, coal, and oil are processed, conveyed, and consumed by buildings, vehicles, and other machines. It is a method that was born of the 1970s oil crisis. Beyond tracking energy flows, it was meant to help us think about energy efficiency as a means of preserving energy supply.

87% OF EMISSIONS ARE FROM ENERGY



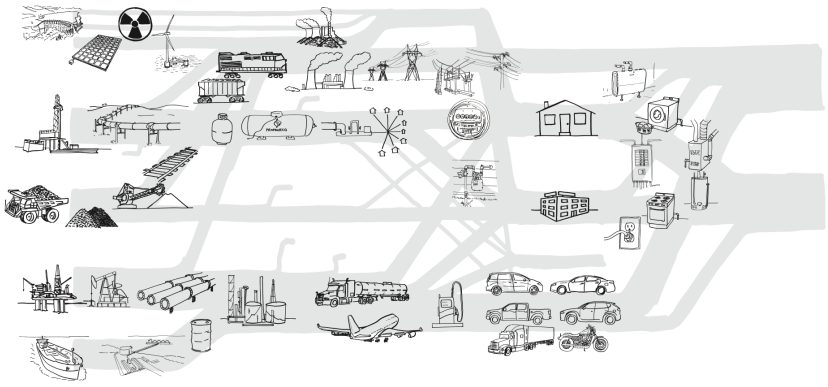
Tracking energy flows makes sense for an energy supply crisis mindset, but that is not our challenge today. Ours is a climate crisis that is driven by what kind of energy we produce, which is dictated by what kind of machines we manufacture and use.

U.S. ENERGY FLOW (1976)



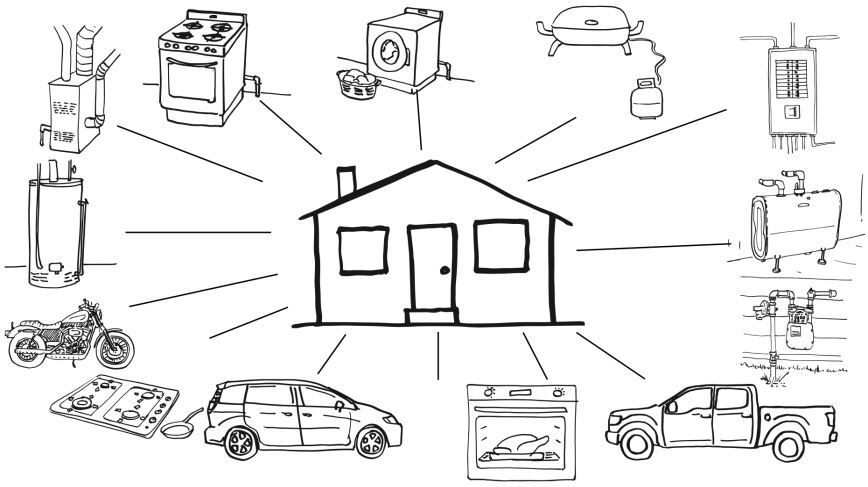
If we take a demand-level view of our energy economy, we start to understand a very important truth: to solve the climate crisis, we need to relentlessly focus on the machines. We have national goals of getting to a clean grid by 2035, and a net zero economy by 2050. But the “last mile” of that grid is where it plugs into every home -- and decisions that are made in that home govern what kind

of energy the grid must supply. If, for instance, Americans keep replacing gas furnaces with new gas furnaces, our emissions will persist on both the demand side (the furnace burning the gas) and the supply side (the plant making the energy). Said another way, we need to follow the machines. At the grid level, that means transforming a relatively small number of large machines, like power plants, making them generators of clean electricity. But in order for us to truly solve the climate crisis, we must also transition a very large number of small machines, electrifying all of them.



THE HOUSEHOLD AS THE KEYSTONE OF AMERICAN INFRASTRUCTURE

Of all energy-related emissions, 42 percent are the result of decisions we make around the kitchen table: basically, how we power our cars and homes, heat our air and water, cook our food, and dry our laundry.



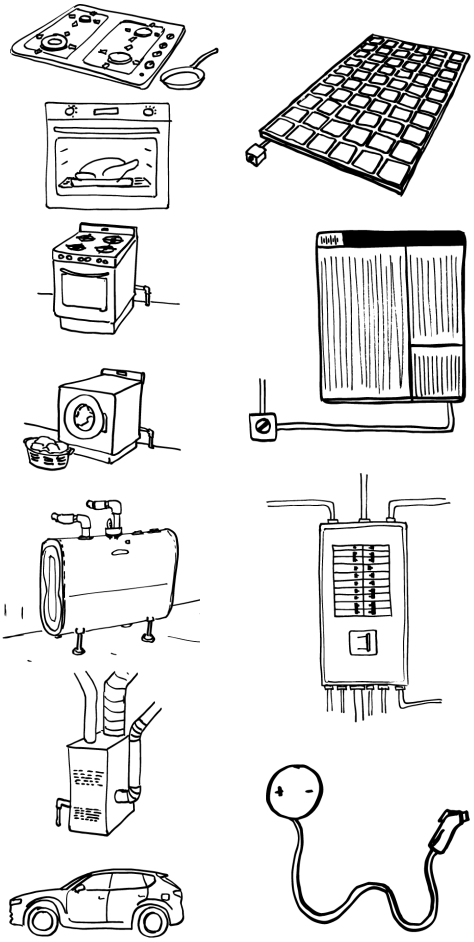
We have been told we need to turn the thermostat down or up, turn off lights, rideshare, or any number of other behavioral changes, many of which feel like we are being asked to make sacrifices. These messages divide Americans.

Or we are told to wait: a new technology is just around the corner.

The truth is we already have all the technology we need to solve the problem, without sacrifice, lifestyle changes, or divisive partisan fights. We need to change the machines we use in our lives. And we do not have to do it all at once. We just need to replace the machines as they fail, installing the efficient, electric alternative in their place.

ADDING UP ALL THE MACHINES

Type	Machines (Millions)
Fossil space heating	69
Fossil water heating	63
Clothes drying	19
Cooking	95
Vehicles	222
Breaker boxes	100
Vehicle chargers	222
Rooftop solar	55
Home battery storage	29
Total Electrification	**874**
Elect. Resist. space heating	29
Elect. Resist. water heating	54
Total Electrification & Upgrade	**957**



121 MILLION HOUSEHOLDS

The most important part of addressing this challenge is that we start now. We cannot get to zero with small efficiency improvements, and each one of these machines lasts for a long time -- a decade or more. Every time a water heater breaks in America and is replaced with a new fossil fuel machine, we lose at least another decade on electrifying everything.

AVERAGE LIFETIMES OF SELECT MACHINES

Cars and Light Trucks: 20-25 years

Furnaces: 15-20 years

Gas Water Heaters: 8-12 years

Electric Water Heaters: 10-15 years

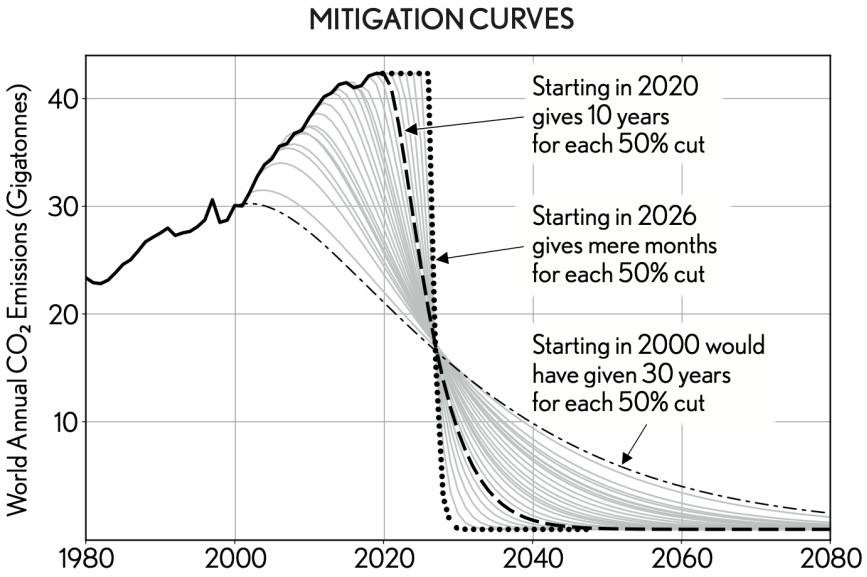
Kitchen Ranges: 13-15 years

Clothes Dryers: 10-13 years

Load Center: 20-25 years

The reality is that we do not have another decade to spare. To hit our goal of a zero emissions economy by 2050 -- the only way to have a shot at 1.5°C / 2.7°F -- we need to electrify all of those 1 billion machines over the next thirty years. That means 4+ million machines every month over the next 20 years. To do this, we need to mobilize with the pace, scale, and ambition of America during WWII. It is possible to hit these goals and transform the market. We just need to make the commitment and investments to do so.

THERE IS NO TIME OTHER THAN NOW



THE HOUSEHOLD SAVINGS OF HOME ELECTRIFICATION

Converting to electric is possible today, but is an expensive proposition for a single household, especially for those with big energy needs. The problem is a barrier to entry. Our analysis shows that at least **103 million out of 121 million households could save money on their energy bills if they electrified today**. But the front-end cost of the purchase and installation of these machines is currently higher than their fossil-fueled counterparts. This creates a vicious cycle. Families do not purchase these machines because they are more expensive. Contractors are not familiar with them or trained in how to install them and so do not sell them. As a consequence, manufacturers do not make enough of them, perpetuating their higher costs.

But the savings are material. The average household today **could save $362 per year** if the front-end costs of these efficient, electric machines were the same as those they are replacing. And, with key changes to building codes, regulations, financing, and the electricity market along with industrial scale, our analysis shows that **the average American household would save $2,500, with some saving over $4,000.**

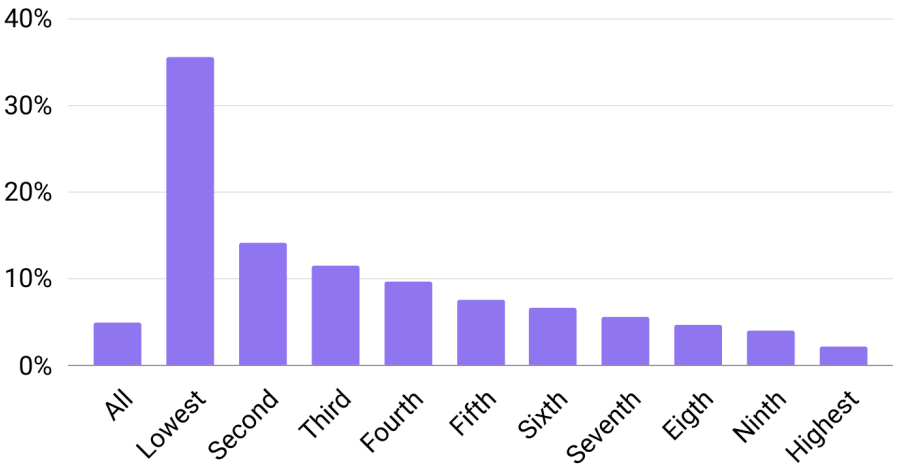
For perspective on that savings, we currently spend more on electricity than education, natural gas than dentistry, and more on gasoline than meat, poultry, fish, fruits, and vegetables -- combined.

AVERAGE ANNUAL EXPENDITURES OF US HOUSEHOLDS

Electricity	$1,496	Education	$1,407
Natural Gas	$409	Dentistry	$315
Gasoline	$1,929	Meat, Poultry, Fish, Fruits, and Vegetables	$1,817

As a percent of household income, energy bills disproportionately impact the lowest percentile earners, so **reducing monthly energy costs is a significant means of addressing income inequality.**

ENERGY EXPENDITURES AS PERCENTAGE OF HOUSEHOLD INCOME (BY INCOME DECILE)



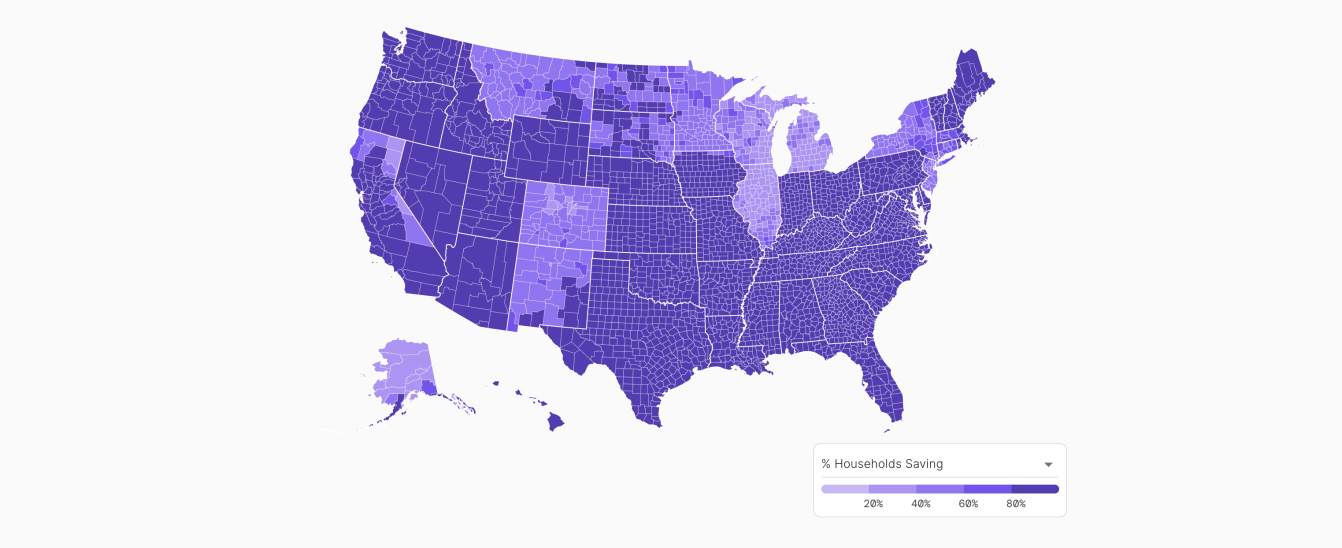
Source: Bureau of Labor Statistics, Consumer Expenditure Survey (CEX), Table 1110.

Low-cost financing will be crucial to this shift, and as the consumer, contractor, and builder demand grows for electrified appliances, unit costs will drop just as they have for rooftop solar, battery storage, and electric vehicles (EVs). But as with rooftop solar, battery storage and EVs, government incentives to make the switch can drive the needed market acceleration.

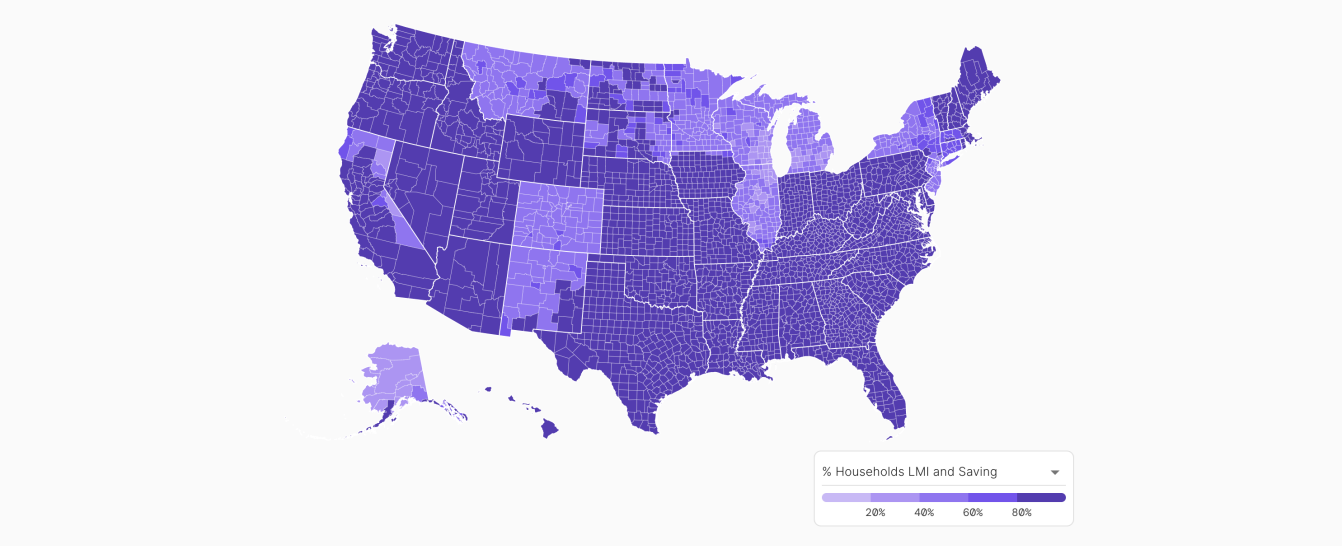
A critical piece of the federal infrastructure debate must therefore be point-of-sale rebates to lower the upfront purchase and installation costs to put electric appliances on par with their fossil-fueled counterparts. Decisions about appliances are made in the moment of need, when a water heater bursts, a furnace fails, or as part of a kitchen remodel where an oven and stove are chosen for aesthetics, perceived resale value, or to fit within a project budget.

Replacing furnaces and water heaters alone offers significant savings on utility bills -- which could immediately lower costs for 103 million of America's 121 million homes in every zip code, generating $37.3 billion in additional discretionary income across the country per year. 45.6 million (or 85.6 percent) of low-to-moderate income (LMI) households would save $17.2 billion on their energy bills each year, just by replacing their furnace and hot water heater with efficient, electric alternatives.

103 MILLION HOUSEHOLDS ACROSS AMERICA COULD SAVE $37.3 BILLION PER YEAR



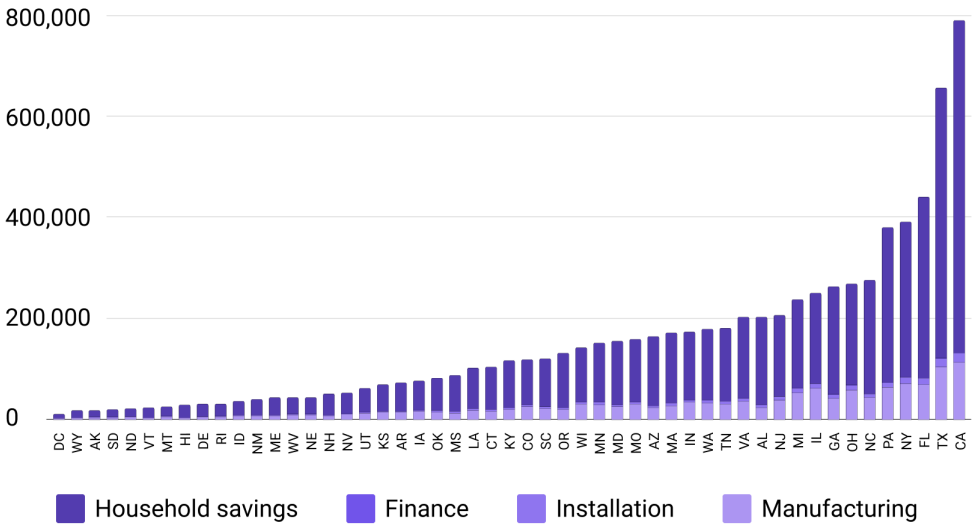
45.6 MILLION LOW- AND MODERATE-INCOME HOUSEHOLDS ACROSS AMERICA COULD SAVE $17.2 BILLION PER YEAR



THE JOB CREATION POTENTIAL OF HOME ELECTRIFICATION

Making this transition will **create millions of jobs**. Many are jobs on rooftops installing solar, electrician and plumber jobs installing heat pumps, water heaters, load centers, and car chargers. These **jobs are necessarily local and impossible to automate or offshore.** The lion's share of jobs -- those generated by household savings being spent -- are likely to have local impact as well. Which states or nations get the manufacturing and financing jobs is a question of industrial policy and state incentives.

JOBS CREATED BY STATE UNDER HOUSEHOLD ELECTRIFICATION PROGRAM



The following fact sheets for 50 States plus the District of Columbia will show job creation estimates from a ten-year program driving the installation of just four key appliances (heat pump space and water heaters, upgraded breaker boxes, and induction cooktops/ranges), **with a direct impact of more than 200,000 installation jobs that cannot be automated or offshored, and another 100,000 potential manufacturing jobs** if federal and state policies induced them to be created in the United States.

THE CASE FOR IMPROVED HEALTH BENEFITS OF HOUSEHOLD ELECTRIFICATION

Gas stoves can emit indoor nitrogen dioxide (NO2) and particulate levels often exceeding indoor guidelines and outdoor standards, particularly poorly maintained units in poorly ventilated homes. Children are especially vulnerable to respiratory problems, cardiovascular impacts, and increased sensitivities to allergens. In terms of outdoor air quality, residential buildings are now responsible for approximately 15,500 early deaths annually, according to a Harvard study and RMI.[1]

[1] These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

As with the disproportionate impact of energy bills on LMI households' economic security, smaller and less well ventilated kitchens exacerbate the air quality concerns for LMI families, making the health case an equity issue as well.

THE BENEFITS OF HOUSEHOLD ELECTRIFICATION OF SPACE AND WATER HEATING ACROSS 50 STATES AND THE DISTRICT OF COLUMBIA

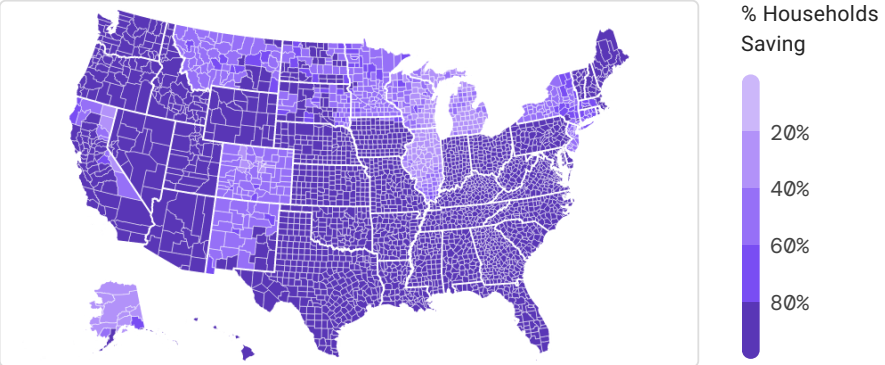
Fact sheets for all 50 States and the District of Columbia localize the benefits of household electrification of space and water heating. Other upgrades, including electric vehicles and chargers and rooftop solar, can provide even greater savings on bills and emissions, more jobs, and improved air quality.

The fact sheets show how every member of Congress can support benefits for their constituents, including monthly utility bill savings for 103 out of 121 million American homes, savings that will only grow as technology improves as a result of market demand from electrifying the rest of the machines in our homes. Investing in the infrastructure that impacts our lives most directly -- our own homes -- could change the politics around infrastructure.

United States Household Savings

LOWER BILLS

At least **85% of households in the United States** — 103.0 million — could **save $37.3 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **64.9 million households in the United States** across every county who are currently using electric resistance, fuel oil, or propane and would **save $496 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	33.83M	**$300 / yr**	54.16M	**$282 / yr**
Fuel Oil	5.69M	**$407 / yr**	3.40M	**$174 / yr**
Propane	5.75M	**$447 / yr**	4.31M	**$303 / yr**

67% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

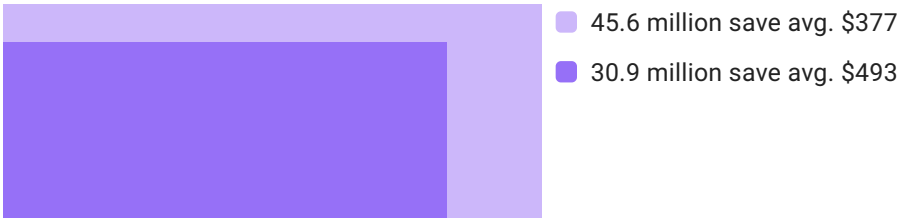
EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $377. Many would save **up to $493 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in the United States are LMI

LMI households that save



REWIRING AMERICA

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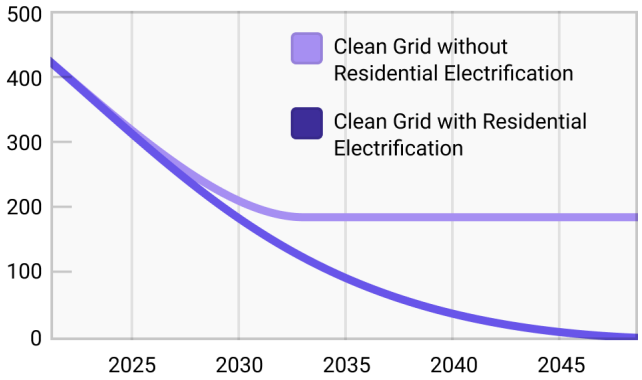
United States Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **462,430 installation jobs** in the United States. In addition, it would further generate **80,000 manufacturing jobs** and **800,000 indirect and induced jobs**.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **15,500 premature deaths in the United States** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

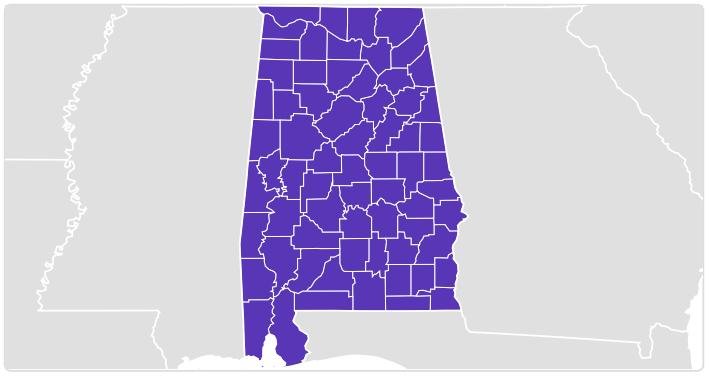
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Alabama Household Savings

LOWER BILLS

99% of households in Alabama — 1.9 million — could **save $899 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.3 million households in Alabama** across every county who are currently using electric resistance, fuel oil, or propane and would **save $537 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.77M	**$367 / yr**	1.30M	**$305 / yr**
Fuel Oil	2.7K	**$316 / yr**	0	**$0 / yr**
Propane	0.11M	**$278 / yr**	46.0K	**$300 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would **save an average of $513**.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Alabama are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

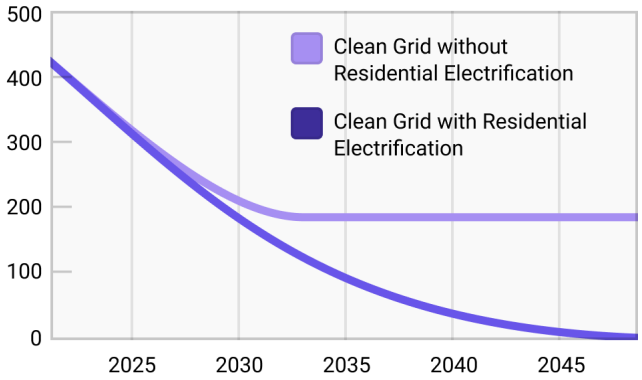
Source: Federal Reserve

Alabama Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **3,600 installation jobs** in Alabama. Nationwide, it would further generate **227,700 additional installation jobs**, **80,000 manufacturing jobs** that Alabama can compete for, and **800,000 indirect and induced jobs**, including in Alabama.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **122 premature deaths in Alabama** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

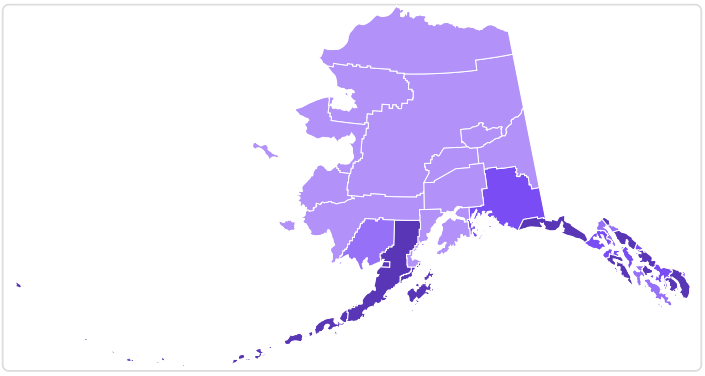
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Alaska Household Savings

LOWER BILLS

At least **40% of households in Alaska** — 102 thousand — could **save $54 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $530 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	28.9K	**$430 / yr**	75.1K	**$463 / yr**
Fuel Oil	35.1K	**$116 / yr**	146	**$87 / yr**
Propane	4.6K	**$238 / yr**	6.9K	**$231 / yr**

* Alaska is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **45% are low- and moderate-income**. Each year, they would **save an average of $549**.

Low- and moderate-income households are those making up to 80% of local area median income

45% of households that save in Alaska are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

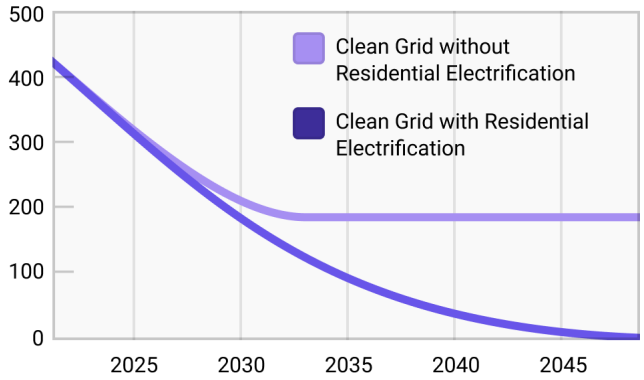
Source: Federal Reserve

Alaska Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **500 installation jobs** in Alaska. Nationwide, it would further generate **230,800 additional installation jobs**, **80,000 manufacturing jobs** that Alaska can compete for, and **800,000 indirect and induced jobs**, including in Alaska.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Sources: Utrecht University, UCLA, Harvard University

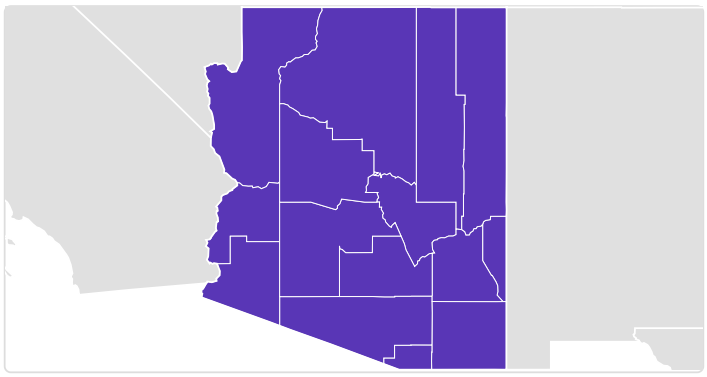
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Arizona Household Savings

LOWER BILLS

100% of households in Arizona — 2.6 million — could **save $965 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.3 million households in Arizona** across every county who are currently using electric resistance, fuel oil, or propane and would **save $446 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	1.13M	**$220 / yr**	0.94M	**$257 / yr**
Fuel Oil	2.2K	**$463 / yr**	0	**$0 / yr**
Propane	71.4K	**$396 / yr**	0.14M	**$347 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

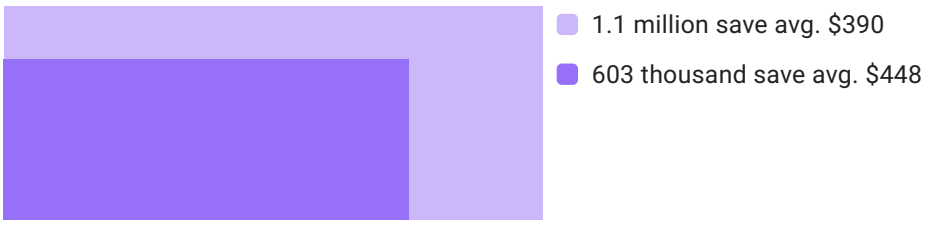
EVERYONE BENEFITS

Of the households that save, **42% are low- and moderate-income**. Each year, they would save an average of $390. Many would save **up to $448 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Arizona are LMI

LMI households that save



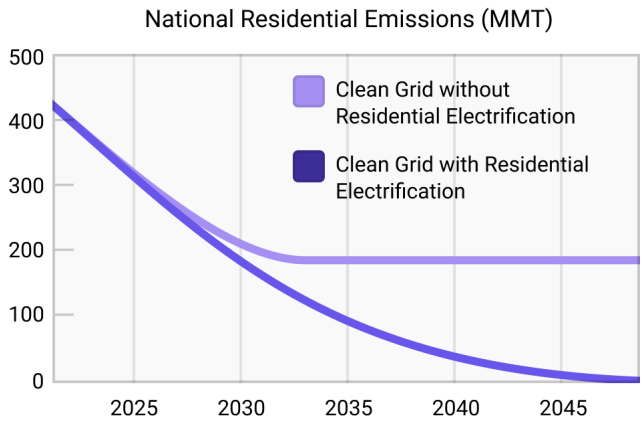
REWIRING AMERICA

Read our policy framework at www.rewiringamerica.org

Arizona Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **4,900 installation jobs** in Arizona. Nationwide, it would further generate **226,400 additional installation jobs**, **80,000 manufacturing jobs** that Arizona can compete for, and **800,000 indirect and induced jobs**, including in Arizona.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **52 premature deaths in Arizona** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

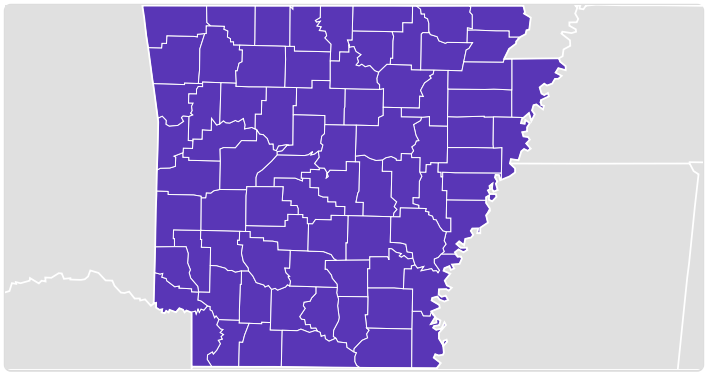
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Arkansas Household Savings

LOWER BILLS

99% of households in Arkansas — 1.2 million — could **save $422 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **702 thousand households in Arkansas** across every county who are currently using electric resistance, fuel oil, or propane and would **save $451 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.51M	**$252 / yr**	0.66M	**$213 / yr**
Fuel Oil	1.1K	**$404 / yr**	0	**$0 / yr**
Propane	79.6K	**$486 / yr**	31.8K	**$256 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

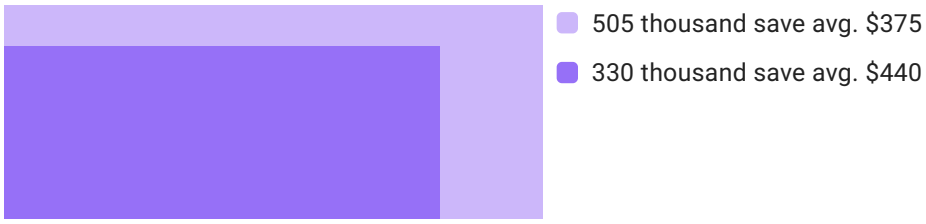
EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $375. Many would save **up to $440 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Arkansas are LMI

LMI households that save



REWIRING AMERICA

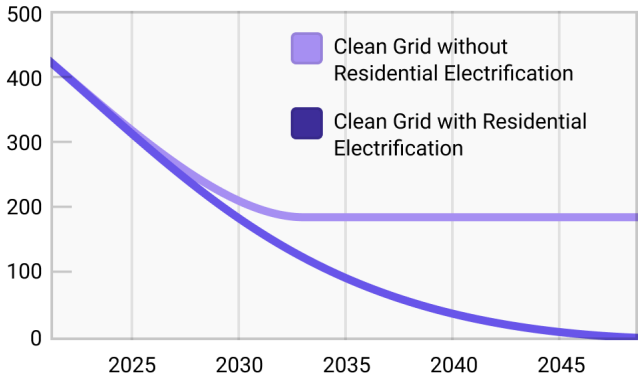
Read our policy framework at www.rewiringamerica.org

Arkansas Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,200 installation jobs** in Arkansas. Nationwide, it would further generate **229,100 additional installation jobs**, **80,000 manufacturing jobs** that Arkansas can compete for, and **800,000 indirect and induced jobs**, including in Arkansas.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **103 premature deaths in Arkansas** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

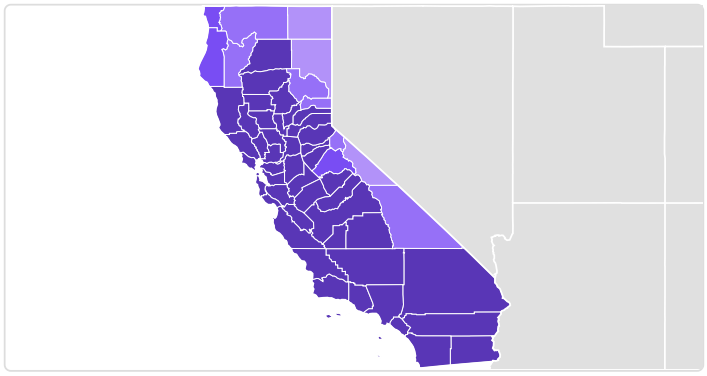
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

California Household Savings

LOWER BILLS

98% of households in California — 12.8 million — could **save $3.5 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **4.3 million households in California** across every county who are currently using electric resistance, fuel oil, or propane and would **save $757 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	3.11M	**$419 / yr**	3.86M	**$444 / yr**
Fuel Oil	31.5K	**$384 / yr**	7.3K	**$206 / yr**
Propane	0.42M	**$352 / yr**	0.36M	**$279 / yr**

98% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

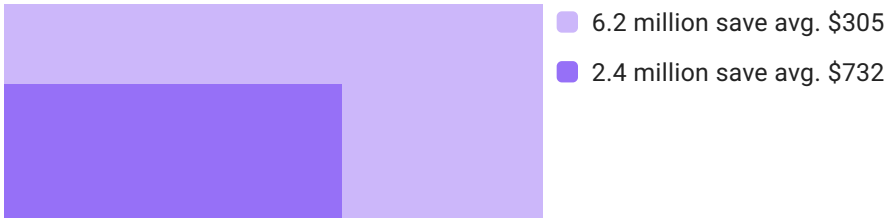
EVERYONE BENEFITS

Of the households that save, **48% are low- and moderate-income**. Each year, they would save an average of $305. Many would save **up to $732 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

48% of households that save in California are LMI

LMI households that save



REWIRING AMERICA

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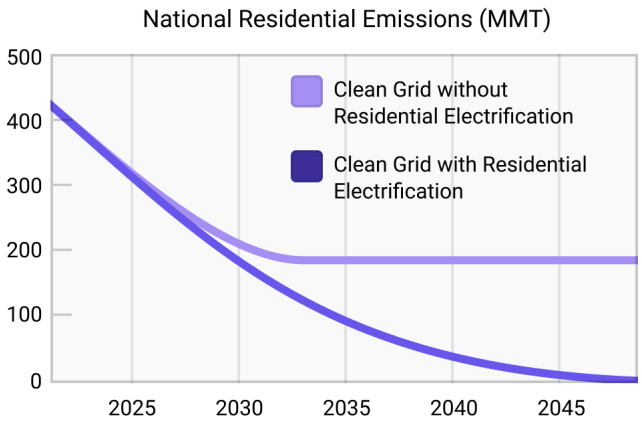
California Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **25,000 installation jobs** in California. Nationwide, it would further generate **206,300 additional installation jobs**, **80,000 manufacturing jobs** that California can compete for, and **800,000 indirect and induced jobs**, including in California.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **1,277 premature deaths in California** per year[1].

Sources: Utrecht University, UCLA, Harvard University

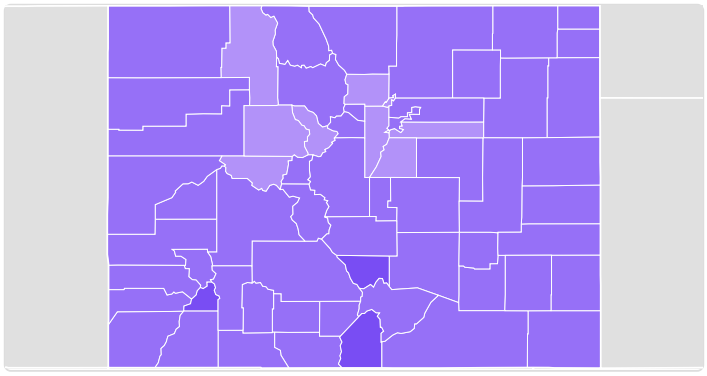
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Colorado Household Savings

LOWER BILLS

At least **41% of households in Colorado** — 874 thousand — could **save $313 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $358 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.35M	**$218 / yr**	0.75M	**$240 / yr**
Fuel Oil	2.1K	**$338 / yr**	0	**$0 / yr**
Propane	0.10M	**$264 / yr**	0.12M	**$228 / yr**

* Colorado is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **49% are low- and moderate-income**. Each year, they would **save an average of $349**.

Low- and moderate-income households are those making up to 80% of local area median income

49% of households that save in Colorado are LMI

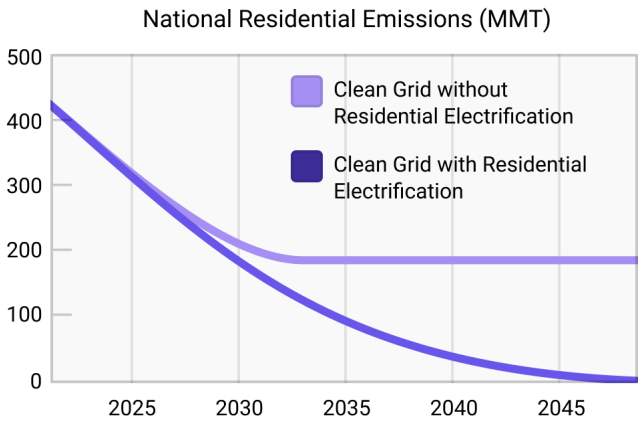
4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

Colorado Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **4,100 installation jobs** in Colorado. Nationwide, it would further generate **227,200 additional installation jobs**, **80,000 manufacturing jobs** that Colorado can compete for, and **800,000 indirect and induced jobs**, including in Colorado.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **172 premature deaths in Colorado** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

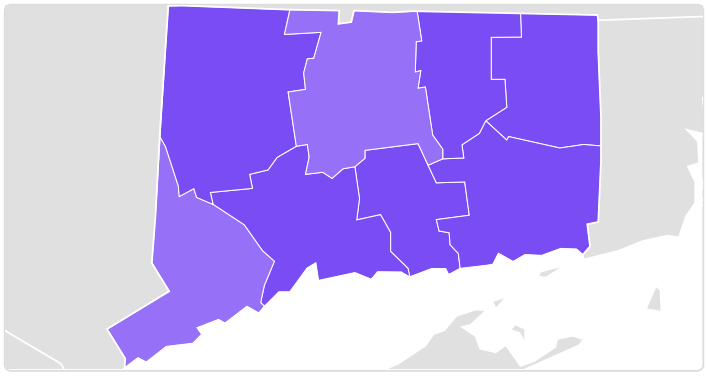
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Connecticut Household Savings

LOWER BILLS

At least **64% of households in Connecticut** — 881 thousand — could **save $525 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $596 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.20M	**$314 / yr**	0.38M	**$392 / yr**
Fuel Oil	0.56M	**$372 / yr**	0.35M	**$124 / yr**
Propane	58.7K	**$613 / yr**	84.8K	**$322 / yr**

* Connecticut is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would **save an average of $596**.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Connecticut are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

REWIRING AMERICA

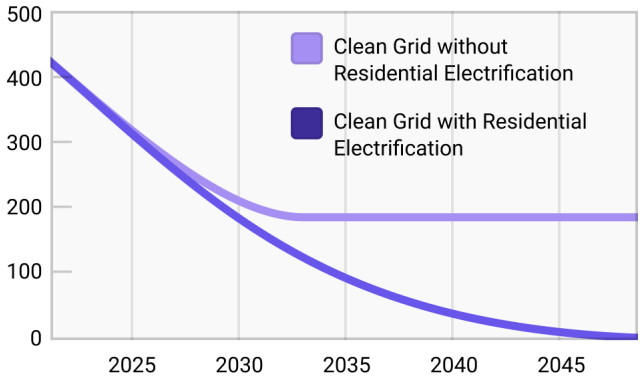
Read our policy framework at www.rewiringamerica.org

Connecticut Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,600 installation jobs** in Connecticut. Nationwide, it would further generate **228,700 additional installation jobs**, **80,000 manufacturing jobs** that Connecticut can compete for, and **800,000 indirect and induced jobs**, including in Connecticut.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **284 premature deaths in Connecticut** per year[1].

Sources: Utrecht University, UCLA, Harvard University

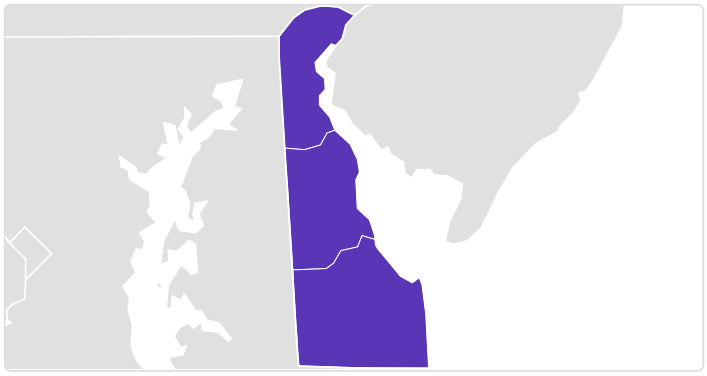
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Delaware Household Savings

LOWER BILLS

99% of households in Delaware — 361 thousand — could **save $153 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **274 thousand households in Delaware** across every county who are currently using electric resistance, fuel oil, or propane and would **save $478 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	63.9K	**$295 / yr**	0.27M	**$269 / yr**
Fuel Oil	41.6K	**$434 / yr**	1.2K	**$228 / yr**
Propane	36.8K	**$526 / yr**	7.1K	**$437 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **42% are low- and moderate-income**. Each year, they would **save an average of $441**.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Delaware are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

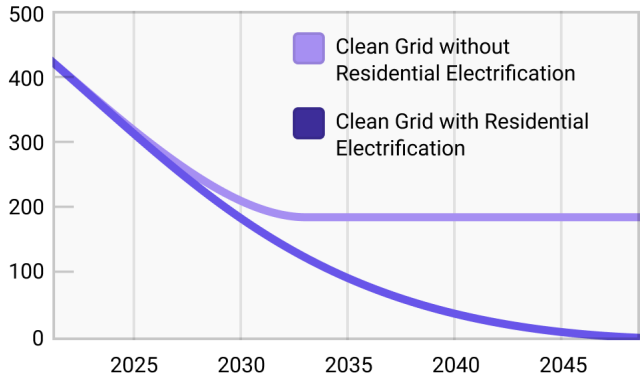
Source: Federal Reserve

Delaware Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **700 installation jobs** in Delaware. Nationwide, it would further generate **230,600 additional installation jobs**, **80,000 manufacturing jobs** that Delaware can compete for, and **800,000 indirect and induced jobs**, including in Delaware.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **36 premature deaths in Delaware** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

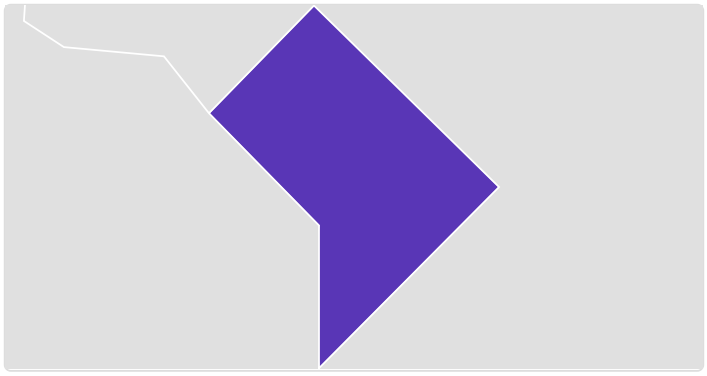
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

District of Columbia Household Savings

LOWER BILLS

99% of households in District of Columbia — 282 thousand — could **save $100 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **206 thousand households in District of Columbia** across every county who are currently using electric resistance, fuel oil, or propane and would **save $382 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	64.0K	**$291 / yr**	0.20M	**$266 / yr**
Fuel Oil	3.7K	**$489 / yr**	1.0K	**$253 / yr**
Propane	2.9K	**$599 / yr**	6.8K	**$501 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **39% are low- and moderate-income**. Each year, they would **save an average of $378**.

Low- and moderate-income households are those making up to 80% of local area median income

39% of households that save in District of Columbia are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

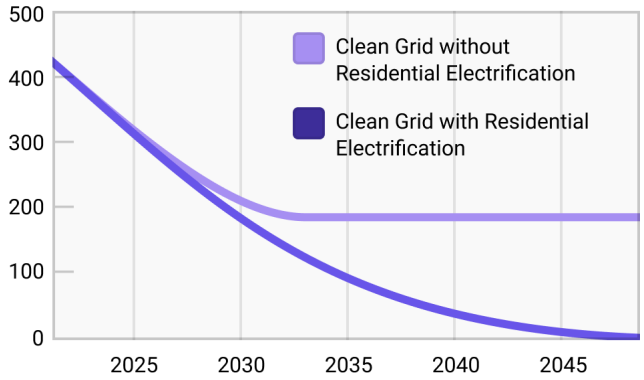
Source: Federal Reserve

District of Columbia Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **500 installation jobs** in District of Columbia. Nationwide, it would further generate **230,800 additional installation jobs**, **80,000 manufacturing jobs** that District of Columbia can compete for, and **800,000 indirect and induced jobs**, including in District of Columbia.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **32 premature deaths in District of Columbia** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

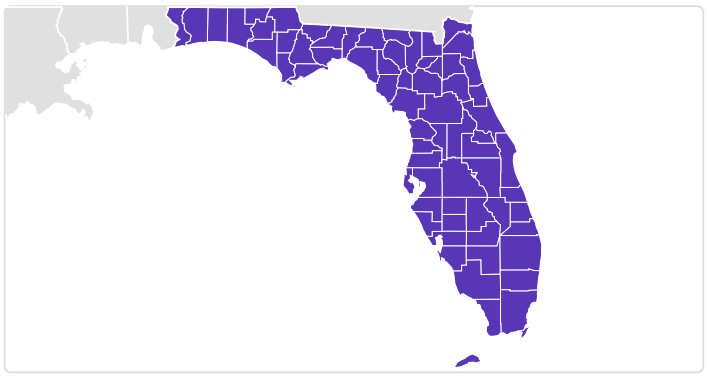
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Florida Household Savings

LOWER BILLS

99% of households in Florida — 7.7 million — could **save $3.2 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **5.9 million households in Florida** across every county who are currently using electric resistance, fuel oil, or propane and would **save $447 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	3.77M	**$266 / yr**	5.77M	**$257 / yr**
Fuel Oil	10.6K	**$462 / yr**	24.4K	**$256 / yr**
Propane	67.8K	**$828 / yr**	0.15M	**$704 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would **save an average of $432**.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Florida are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

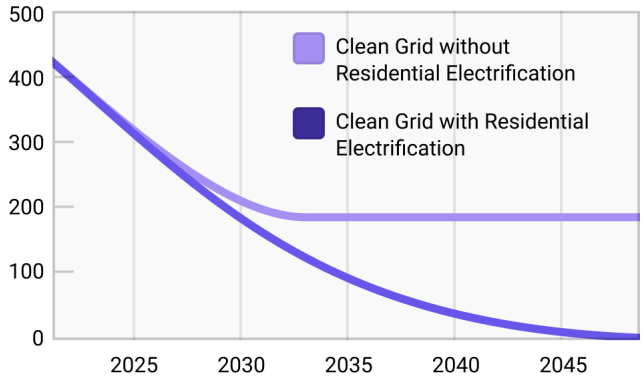
Source: Federal Reserve

Florida Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **14,800 installation jobs** in Florida. Nationwide, it would further generate **216,500 additional installation jobs**, **80,000 manufacturing jobs** that Florida can compete for, and **800,000 indirect and induced jobs**, including in Florida.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **449 premature deaths in Florida** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

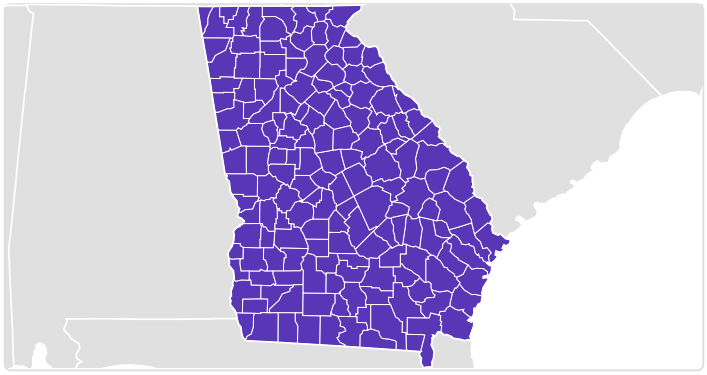
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Georgia Household Savings

LOWER BILLS

99% of households in Georgia — 3.7 million — could **save $1.6 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **2.9 million households in Georgia** across every county who are currently using electric resistance, fuel oil, or propane and would **save $394 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	1.10M	**$269 / yr**	2.78M	**$250 / yr**
Fuel Oil	6.2K	**$433 / yr**	12.1K	**$232 / yr**
Propane	0.17M	**$564 / yr**	72.5K	**$479 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **42% are low- and moderate-income**. Each year, they would **save an average of $442**.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Georgia are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

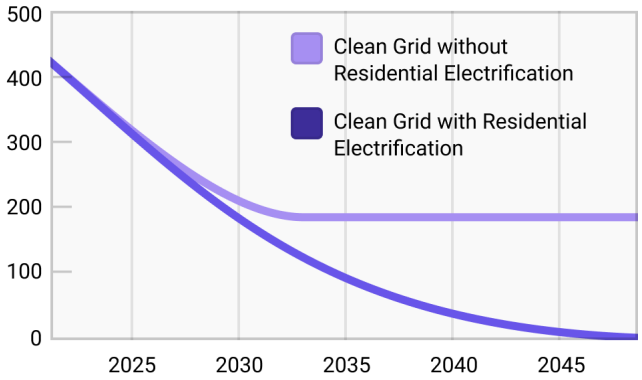
Source: Federal Reserve

Georgia Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **7,200 installation jobs** in Georgia. Nationwide, it would further generate **224,100 additional installation jobs**, **80,000 manufacturing jobs** that Georgia can compete for, and **800,000 indirect and induced jobs**, including in Georgia.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **317 premature deaths in Georgia** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Hawaii Household Savings

LOWER BILLS

99% of households in Hawaii — 453 thousand — could **save $324 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.

LARGE SAVINGS

The savings are biggest for the **147 thousand households in Hawaii** across every county who are currently using electric resistance, fuel oil, or propane and would **save $1,244 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.12M	**$584 / yr**	0.13M	**$762 / yr**
Fuel Oil	0	**$0 / yr**	0	**$0 / yr**
Propane	6.1K	**$406 / yr**	12.7K	**$506 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

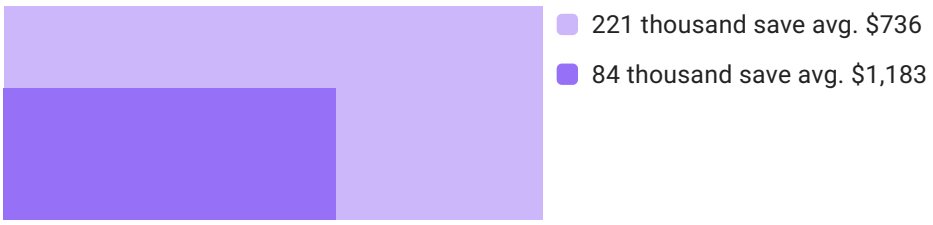
EVERYONE BENEFITS

Of the households that save, **49% are low- and moderate-income**. Each year, they would save an average of $736. Many would save **up to $1,183 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

49% of households that save in Hawaii are LMI

LMI households that save



REWIRING AMERICA

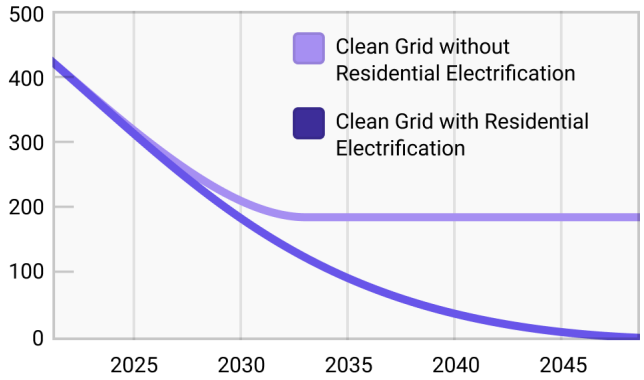
Read our policy framework at www.rewiringamerica.org

Hawaii Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **900 installation jobs** in Hawaii. Nationwide, it would further generate **230,400 additional installation jobs**, **80,000 manufacturing jobs** that Hawaii can compete for, and **800,000 indirect and induced jobs**, including in Hawaii.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Sources: Utrecht University, UCLA, Harvard University

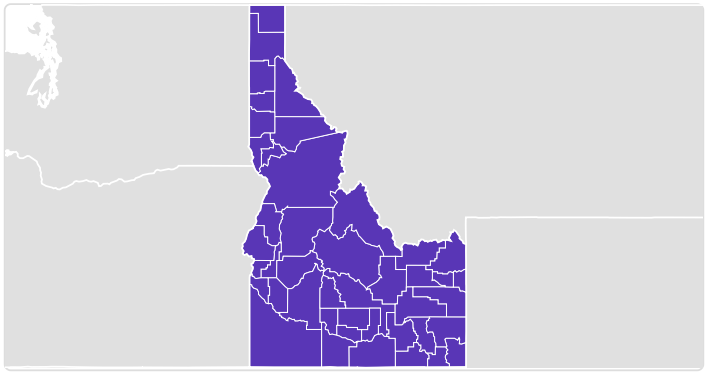
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Idaho Household Savings

LOWER BILLS

100% of households in Idaho — 627 thousand — could **save $108 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **276 thousand households in Idaho** across every county who are currently using electric resistance, fuel oil, or propane and would **save $355 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.16M	**$180 / yr**	0.23M	**$196 / yr**
Fuel Oil	9.0K	**$423 / yr**	0	**$0 / yr**
Propane	31.5K	**$338 / yr**	33.4K	**$285 / yr**

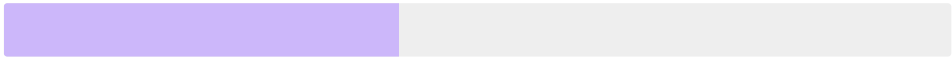
100% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **42% are low- and moderate-income**. Each year, they would save an average of $193. Many would save **up to $345 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Idaho are LMI



LMI households that save

REWIRING AMERICA

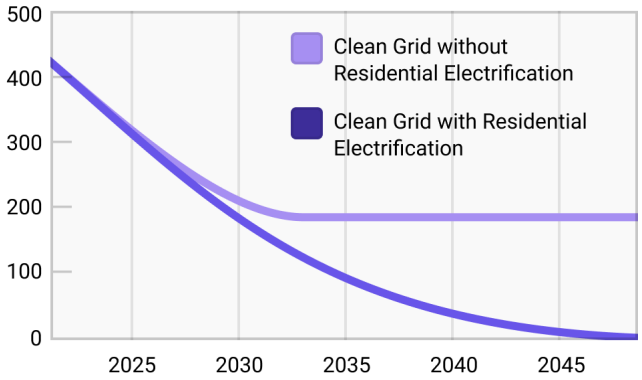
Read our policy framework at www.rewiringamerica.org

Idaho Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **1,200 installation jobs** in Idaho. Nationwide, it would further generate **230,100 additional installation jobs**, **80,000 manufacturing jobs** that Idaho can compete for, and **800,000 indirect and induced jobs**, including in Idaho.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **24 premature deaths in Idaho** per year[1].

Sources: Utrecht University, UCLA, Harvard University

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

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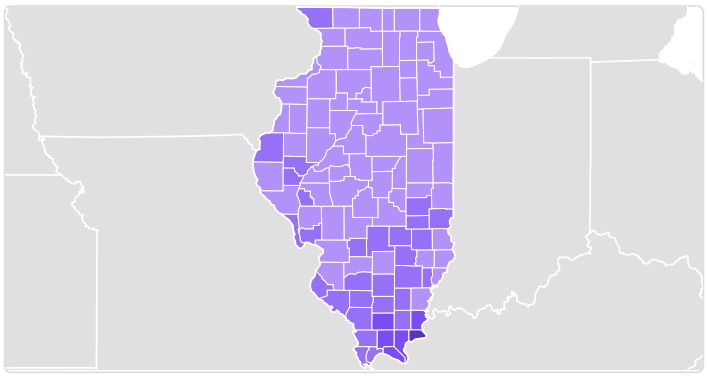
Illinois Household Savings

LOWER BILLS

At least **35% of households in Illinois** — 1.7 million — could **save $725 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.7 million households in Illinois** across every county who are currently using electric resistance, fuel oil, or propane and would **save $434 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.70M	**$331 / yr**	1.41M	**$280 / yr**
Fuel Oil	7.0K	**$363 / yr**	5.0K	**$215 / yr**
Propane	0.20M	**$313 / yr**	0.21M	**$164 / yr**

Some households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **51% are low- and moderate-income**. Each year, they would **save an average of $423**.

Low- and moderate-income households are those making up to 80% of local area median income

51% of households that save in Illinois are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

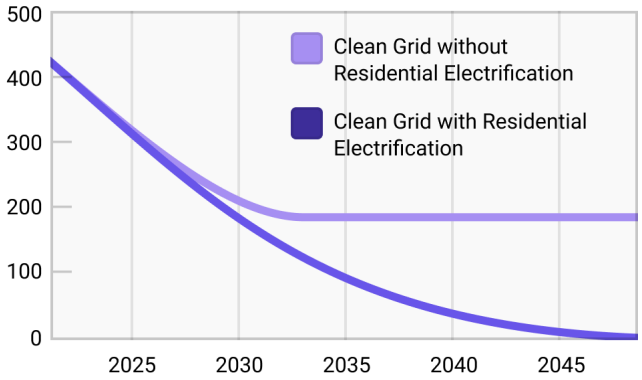
Source: Federal Reserve

Illinois Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **9,300 installation jobs** in Illinois. Nationwide, it would further generate **222,000 additional installation jobs**, **80,000 manufacturing jobs** that Illinois can compete for, and **800,000 indirect and induced jobs**, including in Illinois.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **888 premature deaths in Illinois** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

Sources: Utrecht University, UCLA, Harvard University

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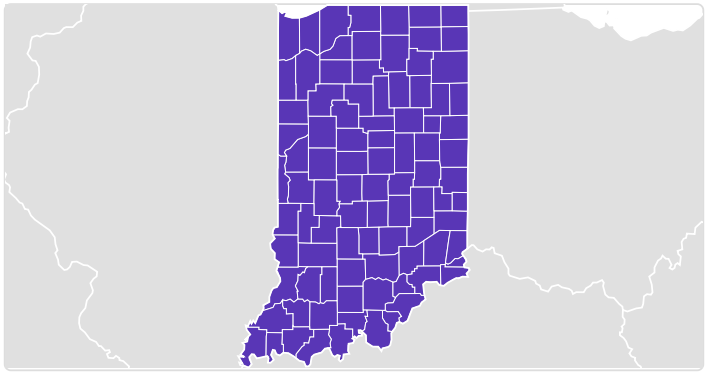
Indiana Household Savings

LOWER BILLS

99% of households in Indiana — 2.6 million — could **save $565 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.0 million households in Indiana** across every county who are currently using electric resistance, fuel oil, or propane and would **save $540 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.66M	**$319 / yr**	0.79M	**$269 / yr**
Fuel Oil	16.8K	**$400 / yr**	2.5K	**$226 / yr**
Propane	0.18M	**$499 / yr**	0.11M	**$237 / yr**

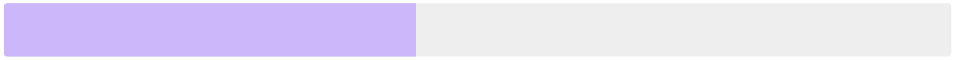
93% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

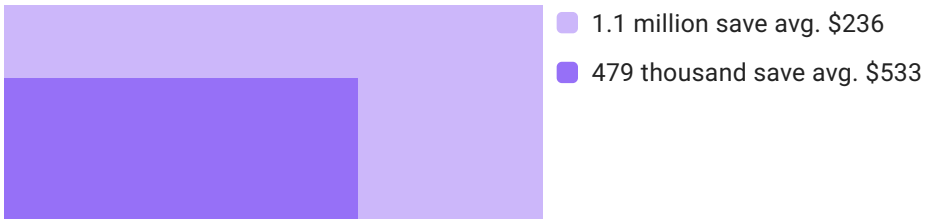
Of the households that save, **43% are low- and moderate-income**. Each year, they would save an average of $236. Many would save **up to $533 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Indiana are LMI



LMI households that save



REWIRING AMERICA

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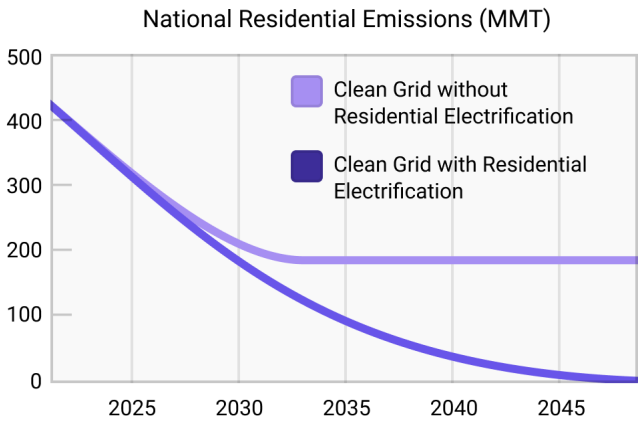
Indiana Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **4,900 installation jobs** in Indiana. Nationwide, it would further generate **226,400 additional installation jobs**, **80,000 manufacturing jobs** that Indiana can compete for, and **800,000 indirect and induced jobs**, including in Indiana.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **329 premature deaths in Indiana** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

Sources: Utrecht University, UCLA, Harvard University

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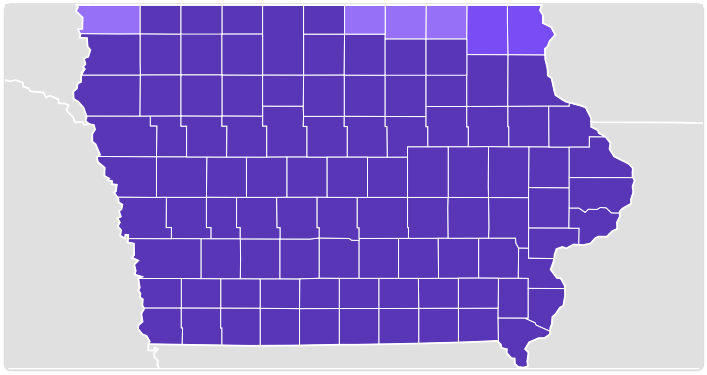
Iowa Household Savings

LOWER BILLS

99% of households in Iowa — 1.2 million — could **save $250 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **584 thousand households in Iowa** across every county who are currently using electric resistance, fuel oil, or propane and would **save $424 per year** on average.

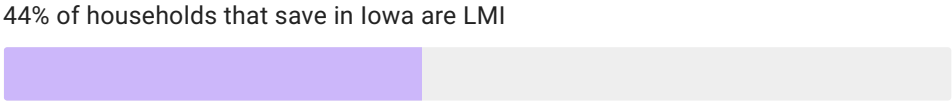
	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.24M	**$342 / yr**	0.50M	**$257 / yr**
Fuel Oil	6.2K	**$376 / yr**	372	**$216 / yr**
Propane	0.16M	**$152 / yr**	80.7K	**$113 / yr**

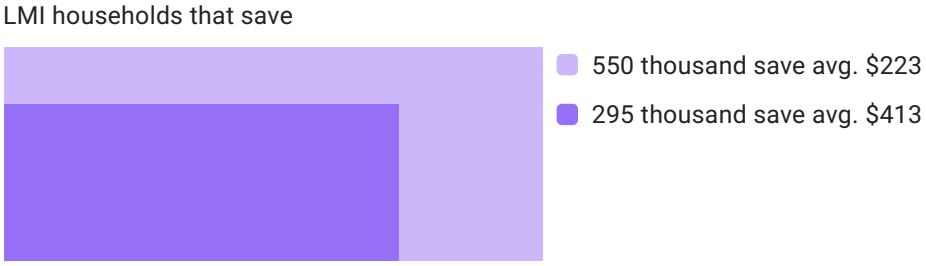
84% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $223. Many would save **up to $413 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income





REWIRING AMERICA

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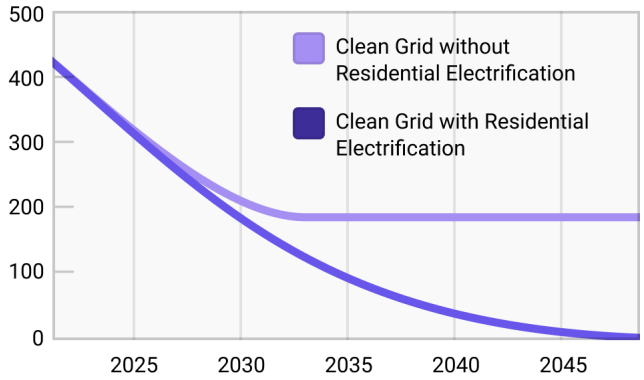
Iowa Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,400 installation jobs** in Iowa. Nationwide, it would further generate **228,900 additional installation jobs**, **80,000 manufacturing jobs** that Iowa can compete for, and **800,000 indirect and induced jobs**, including in Iowa.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **94 premature deaths in Iowa** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

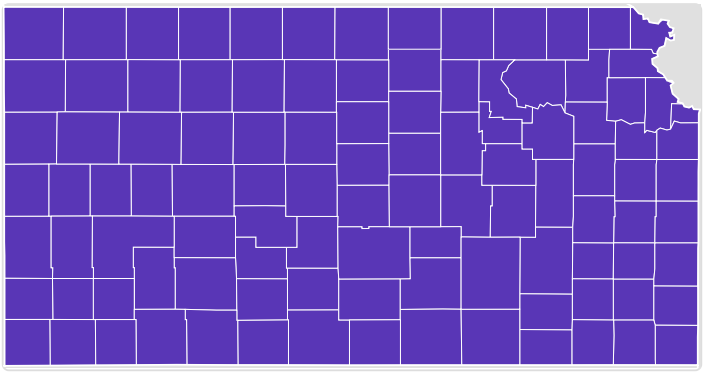
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Kansas Household Savings

LOWER BILLS

100% of households in Kansas — 1.1 million — could **save $255 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **519 thousand households in Kansas** across every county who are currently using electric resistance, fuel oil, or propane and would **save $459 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.23M	**$356 / yr**	0.44M	**$270 / yr**
Fuel Oil	1.7K	**$360 / yr**	325	**$212 / yr**
Propane	86.1K	**$253 / yr**	72.0K	**$172 / yr**

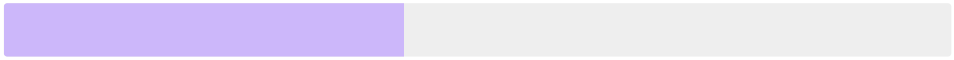
82% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

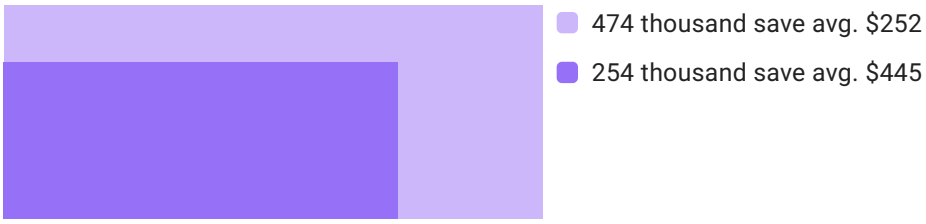
Of the households that save, **42% are low- and moderate-income**. Each year, they would save an average of $252. Many would save **up to $445 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Kansas are LMI



LMI households that save



REWIRING AMERICA

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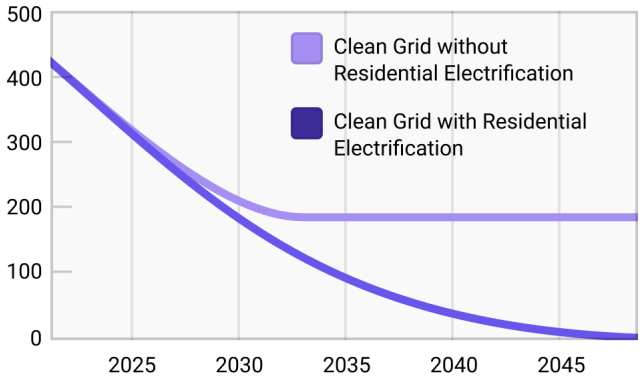
Kansas Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,200 installation jobs** in Kansas. Nationwide, it would further generate **229,100 additional installation jobs**, **80,000 manufacturing jobs** that Kansas can compete for, and **800,000 indirect and induced jobs**, including in Kansas.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **92 premature deaths in Kansas** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

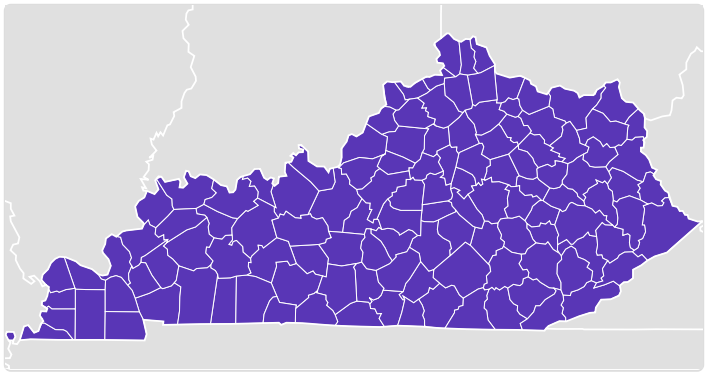
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Kentucky Household Savings

LOWER BILLS

99% of households in Kentucky — 1.7 million — could **save $629 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.3 million households in Kentucky** across every county who are currently using electric resistance, fuel oil, or propane and would **save $426 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.57M	**$314 / yr**	1.21M	**$256 / yr**
Fuel Oil	14.1K	**$449 / yr**	0	**$0 / yr**
Propane	0.11M	**$245 / yr**	42.8K	**$261 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **45% are low- and moderate-income**. Each year, they would **save an average of $387**.

Low- and moderate-income households are those making up to 80% of local area median income

45% of households that save in Kentucky are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

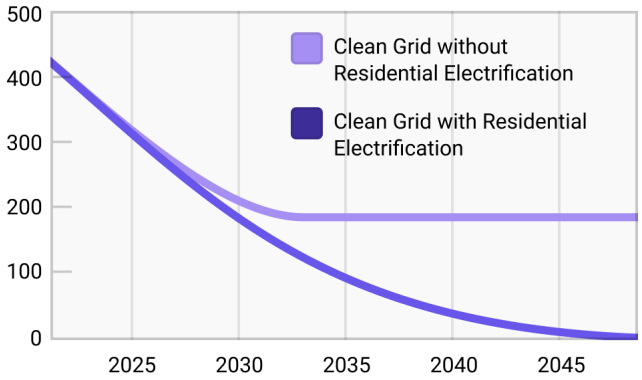
Source: Federal Reserve

Kentucky Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **3,300 installation jobs** in Kentucky. Nationwide, it would further generate **228,000 additional installation jobs**, **80,000 manufacturing jobs** that Kentucky can compete for, and **800,000 indirect and induced jobs**, including in Kentucky.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **227 premature deaths in Kentucky** per year[1].

Sources: Utrecht University, UCLA, Harvard University

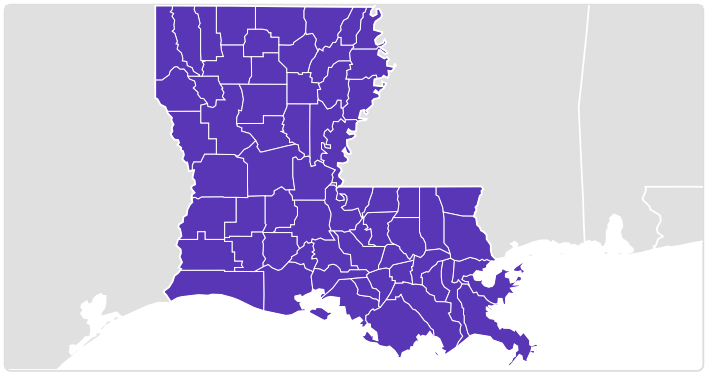
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Louisiana Household Savings

LOWER BILLS

99% of households in Louisiana — 1.7 million — could **save $654 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.1 million households in Louisiana** across every county who are currently using electric resistance, fuel oil, or propane and would **save $455 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.96M	**$250 / yr**	0.98M	**$210 / yr**
Fuel Oil	755	**$430 / yr**	0	**$0 / yr**
Propane	35.0K	**$632 / yr**	48.1K	**$327 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

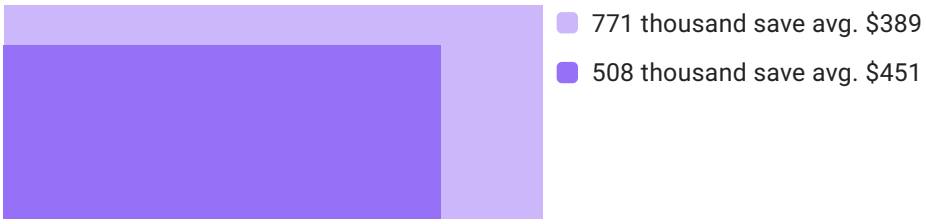
EVERYONE BENEFITS

Of the households that save, **45% are low- and moderate-income**. Each year, they would save an average of $389. Many would save **up to $451 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

45% of households that save in Louisiana are LMI

LMI households that save



REWIRING AMERICA

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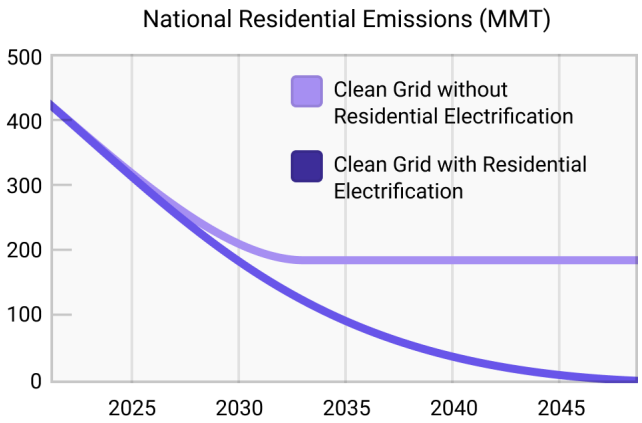
Louisiana Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **3,300 installation jobs** in Louisiana. Nationwide, it would further generate **228,000 additional installation jobs**, **80,000 manufacturing jobs** that Louisiana can compete for, and **800,000 indirect and induced jobs**, including in Louisiana.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **51 premature deaths in Louisiana** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

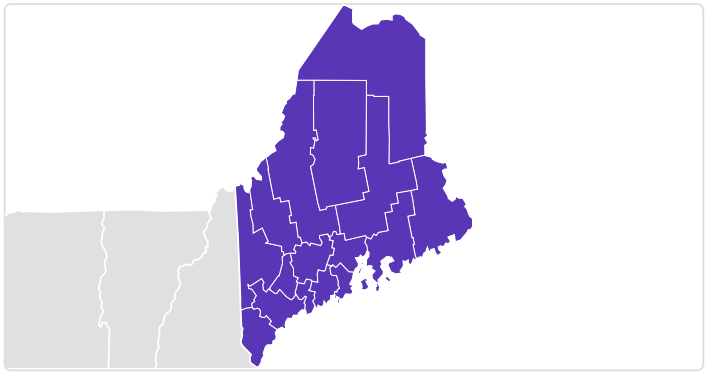
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Maine Household Savings

LOWER BILLS

99% of households in Maine — 556 thousand — could **save $335 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **439 thousand households in Maine** across every county who are currently using electric resistance, fuel oil, or propane and would **save $706 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	34.6K	**$242 / yr**	0.17M	**$303 / yr**
Fuel Oil	0.34M	**$539 / yr**	0.14M	**$166 / yr**
Propane	60.3K	**$541 / yr**	34.6K	**$285 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would **save an average of $606**.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Maine are LMI

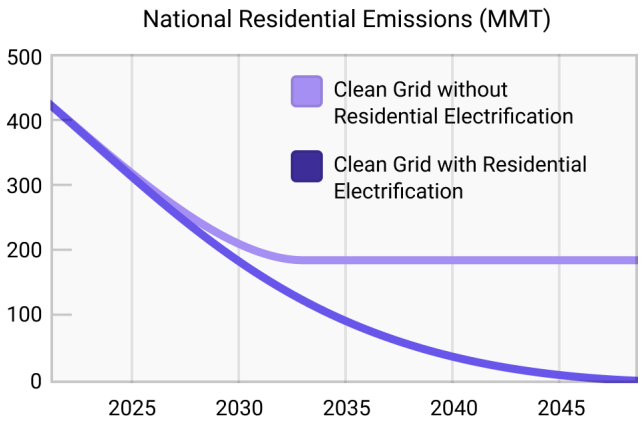
4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

Maine Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **1,100 installation jobs** in Maine. Nationwide, it would further generate **230,200 additional installation jobs**, **80,000 manufacturing jobs** that Maine can compete for, and **800,000 indirect and induced jobs**, including in Maine.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **78 premature deaths in Maine** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

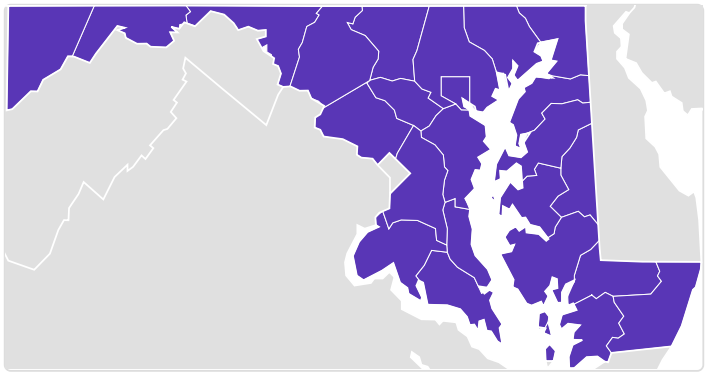
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Maryland Household Savings

LOWER BILLS

99% of households in Maryland — 2.2 million — could **save $863 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.6 million households in Maryland** across every county who are currently using electric resistance, fuel oil, or propane and would **save $462 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.47M	**$309 / yr**	1.55M	**$282 / yr**
Fuel Oil	0.19M	**$472 / yr**	8.0K	**$246 / yr**
Propane	76.3K	**$590 / yr**	48.0K	**$493 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **39% are low- and moderate-income**. Each year, they would **save an average of $414**.

Low- and moderate-income households are those making up to 80% of local area median income

39% of households that save in Maryland are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

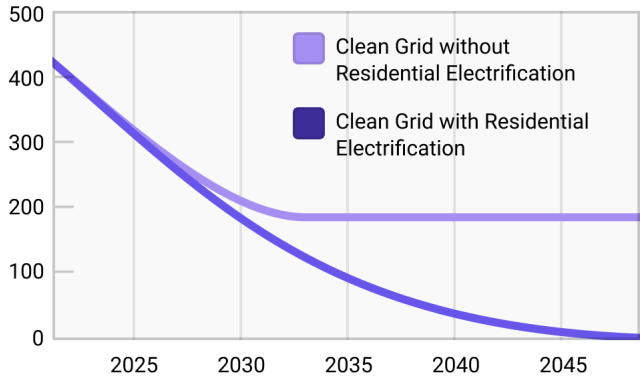
Source: Federal Reserve

Maryland Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **4,200 installation jobs** in Maryland. Nationwide, it would further generate **227,100 additional installation jobs**, **80,000 manufacturing jobs** that Maryland can compete for, and **800,000 indirect and induced jobs**, including in Maryland.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **512 premature deaths in Maryland** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

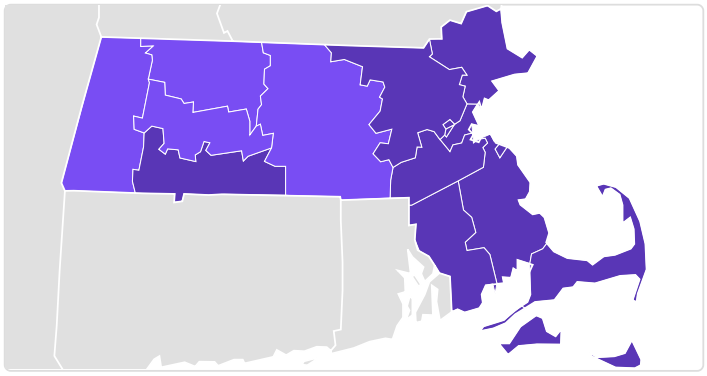
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Massachusetts Household Savings

LOWER BILLS

93% of households in Massachusetts — 2.4 million — could **save $877 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.6 million households in Massachusetts** across every county who are currently using electric resistance, fuel oil, or propane and would **save $556 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.37M	**$312 / yr**	0.72M	**$386 / yr**
Fuel Oil	0.68M	**$392 / yr**	0.68M	**$126 / yr**
Propane	88.8K	**$738 / yr**	0.16M	**$379 / yr**

64% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

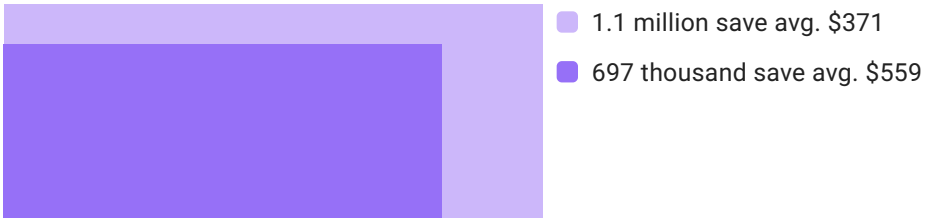
EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would save an average of $371. Many would save **up to $559 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Massachusetts are LMI

LMI households that save



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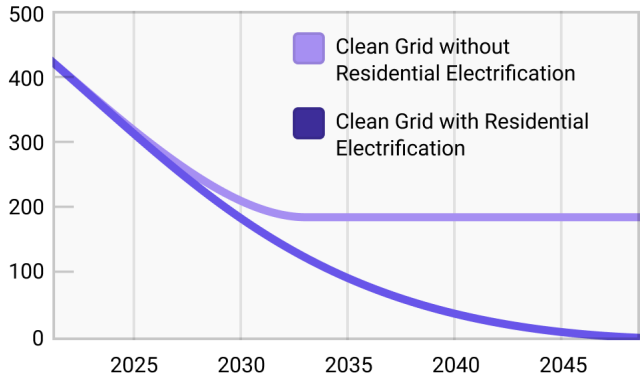
Massachusetts Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **5,000 installation jobs** in Massachusetts. Nationwide, it would further generate **226,300 additional installation jobs**, **80,000 manufacturing jobs** that Massachusetts can compete for, and **800,000 indirect and induced jobs**, including in Massachusetts.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **570 premature deaths in Massachusetts** per year[1].

Sources: Utrecht University, UCLA, Harvard University

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
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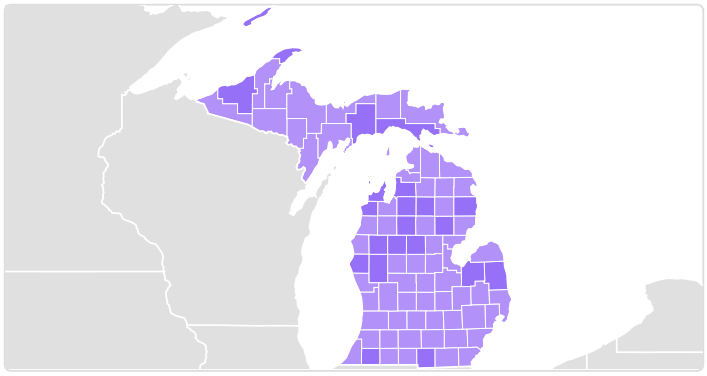
Michigan Household Savings

LOWER BILLS

At least **35% of households in Michigan** — 1.4 million — could **save $710 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $513 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.34M	**$409 / yr**	1.19M	**$339 / yr**
Fuel Oil	42.6K	**$290 / yr**	3.9K	**$177 / yr**
Propane	0.33M	**$375 / yr**	0.17M	**$189 / yr**

* Michigan is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **50% are low- and moderate-income**. Each year, they would **save an average of $498**.

Low- and moderate-income households are those making up to 80% of local area median income

50% of households that save in Michigan are LMI

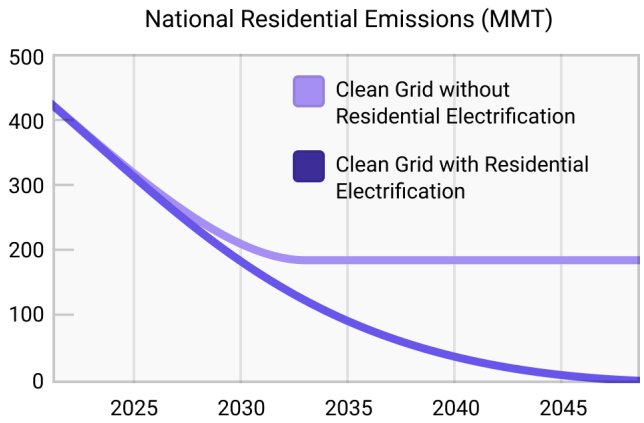
4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

Michigan Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **7,500 installation jobs** in Michigan. Nationwide, it would further generate **223,800 additional installation jobs**, **80,000 manufacturing jobs** that Michigan can compete for, and **800,000 indirect and induced jobs**, including in Michigan.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **727 premature deaths in Michigan** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

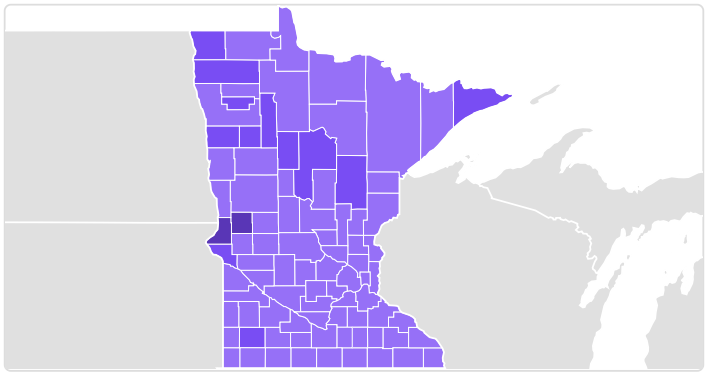
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Minnesota Household Savings

LOWER BILLS

At least **46% of households in Minnesota** — 998 thousand — could **save $421 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $422 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.32M	**$349 / yr**	0.83M	**$264 / yr**
Fuel Oil	37.6K	**$344 / yr**	573	**$209 / yr**
Propane	0.23M	**$229 / yr**	0.14M	**$163 / yr**

* Minnesota is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **48% are low- and moderate-income**. Each year, they would **save an average of $420**.

Low- and moderate-income households are those making up to 80% of local area median income

48% of households that save in Minnesota are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

REWIRING AMERICA

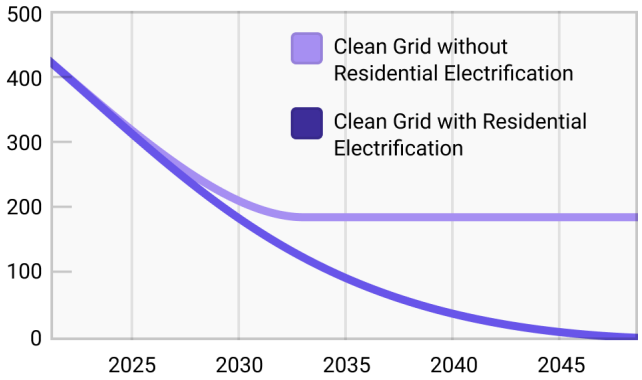
Read our policy framework at www.rewiringamerica.org

Minnesota Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **4,200 installation jobs** in Minnesota. Nationwide, it would further generate **227,100 additional installation jobs**, **80,000 manufacturing jobs** that Minnesota can compete for, and **800,000 indirect and induced jobs**, including in Minnesota.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **852 premature deaths in Minnesota** per year[1].

Sources: Utrecht University, UCLA, Harvard University

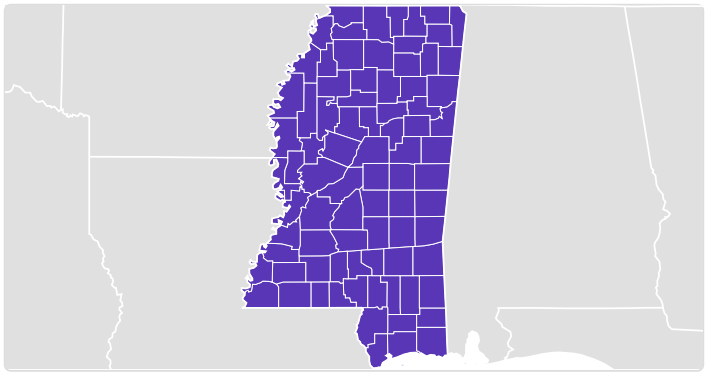
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Mississippi Household Savings

LOWER BILLS

99% of households in Mississippi — 1.1 million — could **save $450 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **805 thousand households in Mississippi** across every county who are currently using electric resistance, fuel oil, or propane and would **save $491 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.40M	**$331 / yr**	0.78M	**$273 / yr**
Fuel Oil	2.6K	**$380 / yr**	0	**$0 / yr**
Propane	0.13M	**$325 / yr**	28.1K	**$344 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **45% are low- and moderate-income**. Each year, they would **save an average of $435**.

Low- and moderate-income households are those making up to 80% of local area median income

45% of households that save in Mississippi are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

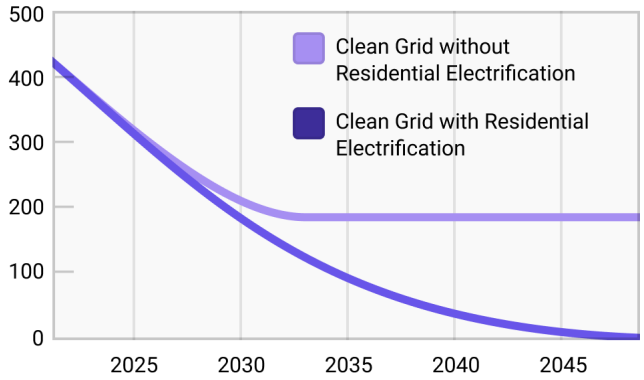
Source: Federal Reserve

Mississippi Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,100 installation jobs** in Mississippi. Nationwide, it would further generate **229,200 additional installation jobs**, **80,000 manufacturing jobs** that Mississippi can compete for, and **800,000 indirect and induced jobs**, including in Mississippi.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **67 premature deaths in Mississippi** per year[1].

Sources: Utrecht University, UCLA, Harvard University

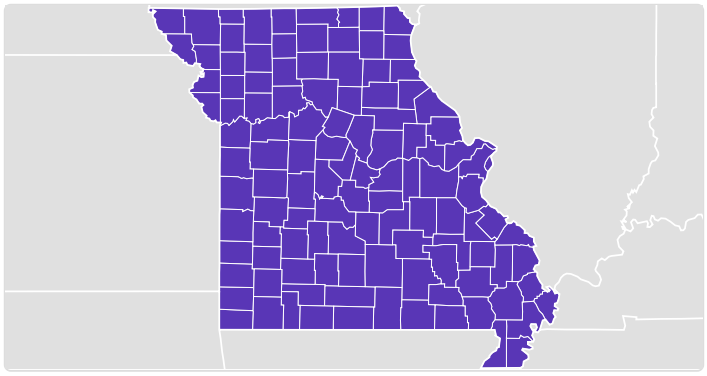
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Missouri Household Savings

LOWER BILLS

100% of households in Missouri — 2.4 million — could **save $767 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.2 million households in Missouri** across every county who are currently using electric resistance, fuel oil, or propane and would **save $450 per year** on average.

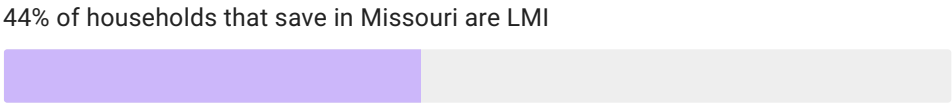
	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.75M	**$308 / yr**	0.96M	**$233 / yr**
Fuel Oil	5.0K	**$397 / yr**	696	**$225 / yr**
Propane	0.21M	**$325 / yr**	0.15M	**$204 / yr**

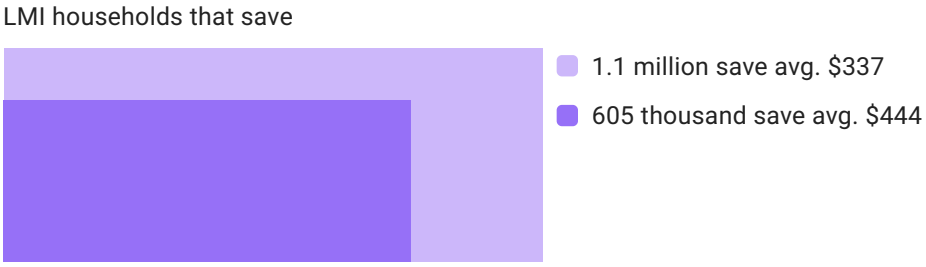
100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $337. Many would save **up to $444 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income





REWIRING AMERICA

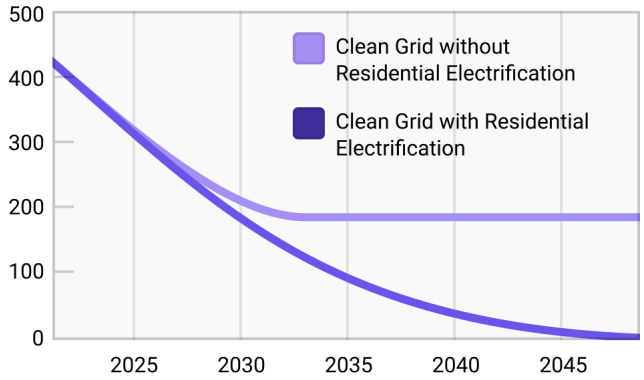
Read our policy framework at www.rewiringamerica.org

Missouri Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **4,600 installation jobs** in Missouri. Nationwide, it would further generate **226,700 additional installation jobs**, **80,000 manufacturing jobs** that Missouri can compete for, and **800,000 indirect and induced jobs**, including in Missouri.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **493 premature deaths in Missouri** per year[1].

Sources: Utrecht University, UCLA, Harvard University

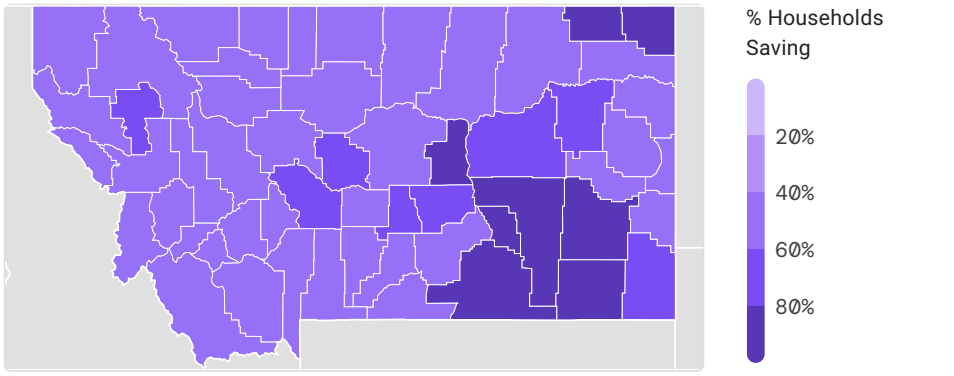
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Montana Household Savings

LOWER BILLS

At least **47% of households in Montana** — 202 thousand — could **save $68 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **191 thousand households in Montana** across every county who are currently using electric resistance, fuel oil, or propane and would **save $355 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	77.0K	**$193 / yr**	0.16M	**$213 / yr**
Fuel Oil	4.0K	**$329 / yr**	0	**$0 / yr**
Propane	53.7K	**$237 / yr**	22.6K	**$206 / yr**

Some households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **52% are low- and moderate-income**. Each year, they would **save an average of $330**.

Low- and moderate-income households are those making up to 80% of local area median income

52% of households that save in Montana are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

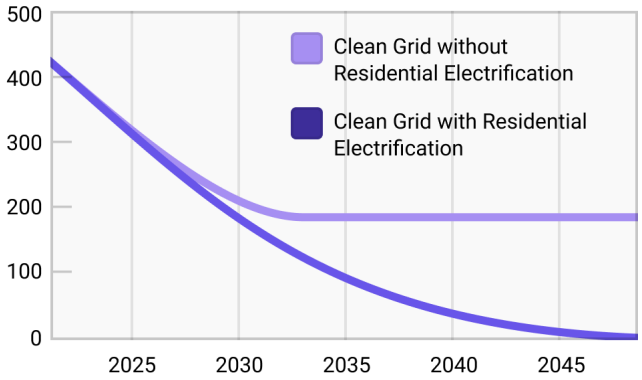
Source: Federal Reserve

Montana Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **800 installation jobs** in Montana. Nationwide, it would further generate **230,500 additional installation jobs**, **80,000 manufacturing jobs** that Montana can compete for, and **800,000 indirect and induced jobs**, including in Montana.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **13 premature deaths in Montana** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

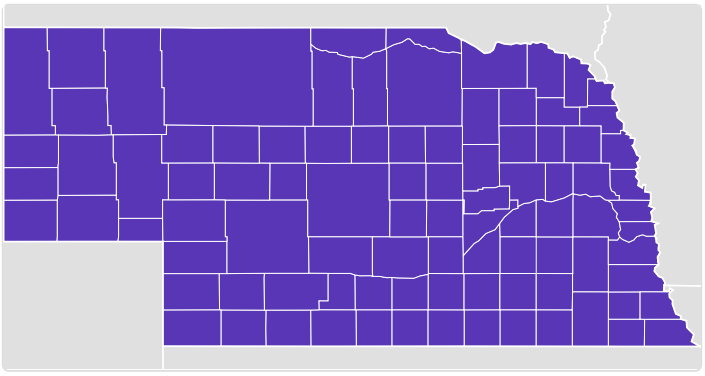
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Nebraska Household Savings

LOWER BILLS

100% of households in Nebraska — 756 thousand — could **save $158 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **357 thousand households in Nebraska** across every county who are currently using electric resistance, fuel oil, or propane and would **save $417 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.20M	**$304 / yr**	0.30M	**$227 / yr**
Fuel Oil	2.9K	**$430 / yr**	218	**$235 / yr**
Propane	56.0K	**$233 / yr**	48.4K	**$147 / yr**

87% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

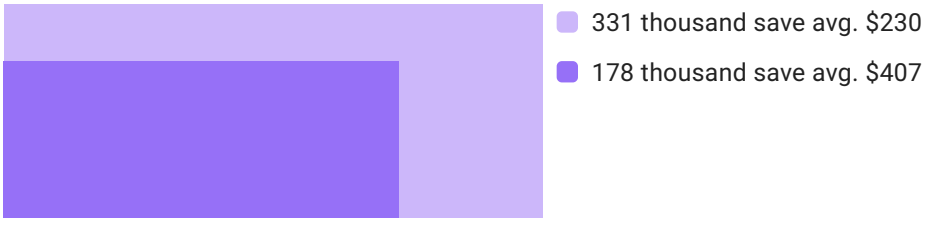
EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $230. Many would save **up to $407 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Nebraska are LMI

LMI households that save



REWIRING AMERICA

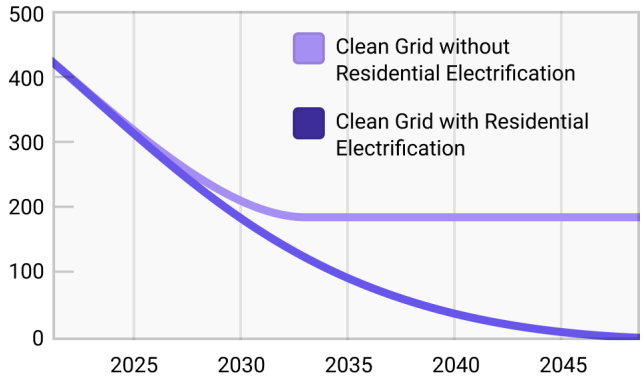
Read our policy framework at www.rewiringamerica.org

Nebraska Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **1,500 installation jobs** in Nebraska. Nationwide, it would further generate **229,800 additional installation jobs**, **80,000 manufacturing jobs** that Nebraska can compete for, and **800,000 indirect and induced jobs**, including in Nebraska.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **42 premature deaths in Nebraska** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

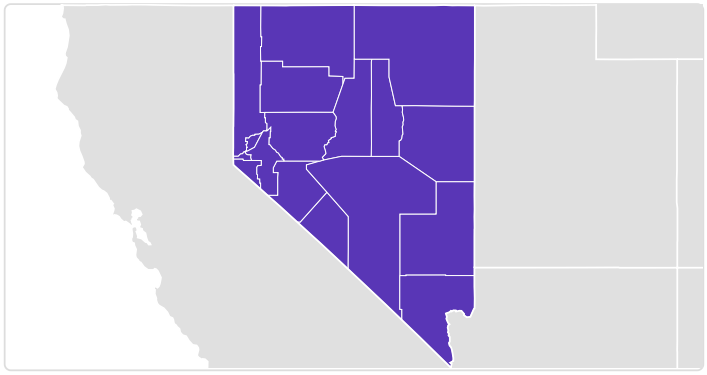
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Nevada Household Savings

LOWER BILLS

100% of households in Nevada — 1.1 million — could **save $248 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **465 thousand households in Nevada** across every county who are currently using electric resistance, fuel oil, or propane and would **save $410 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.29M	**$210 / yr**	0.40M	**$237 / yr**
Fuel Oil	6.5K	**$514 / yr**	0	**$0 / yr**
Propane	28.2K	**$417 / yr**	58.9K	**$348 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

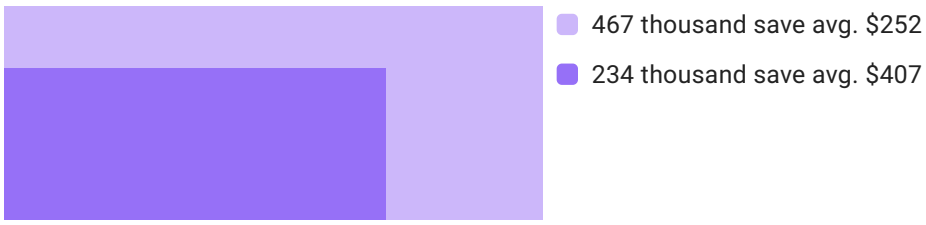
EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would save an average of $252. Many would save **up to $407 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Nevada are LMI

LMI households that save



REWIRING AMERICA

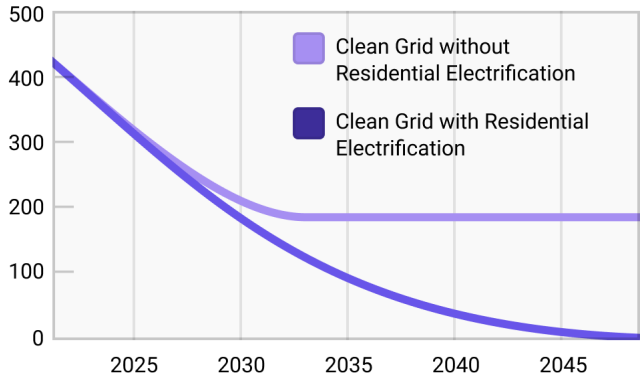
Read our policy framework at www.rewiringamerica.org

Nevada Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,100 installation jobs** in Nevada. Nationwide, it would further generate **229,200 additional installation jobs**, **80,000 manufacturing jobs** that Nevada can compete for, and **800,000 indirect and induced jobs**, including in Nevada.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **31 premature deaths in Nevada** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

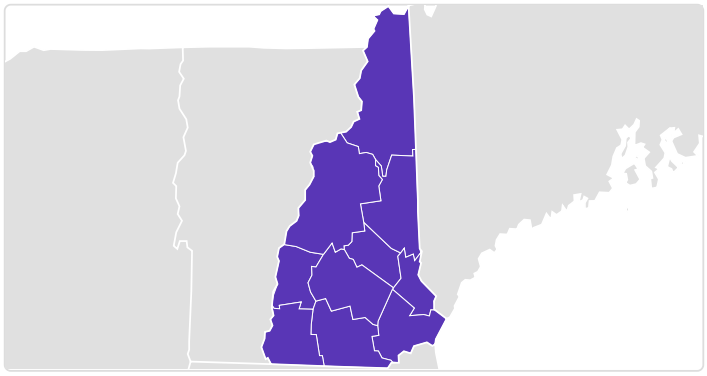
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

New Hampshire Household Savings

LOWER BILLS

99% of households in New Hampshire — 528 thousand — could **save $226 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **372 thousand households in New Hampshire** across every county who are currently using electric resistance, fuel oil, or propane and would **save $570 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	43.7K	**$281 / yr**	0.15M	**$352 / yr**
Fuel Oil	0.23M	**$318 / yr**	0.14M	**$119 / yr**
Propane	86.4K	**$549 / yr**	33.8K	**$297 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **40% are low- and moderate-income**. Each year, they would **save an average of $434**.

Low- and moderate-income households are those making up to 80% of local area median income

40% of households that save in New Hampshire are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

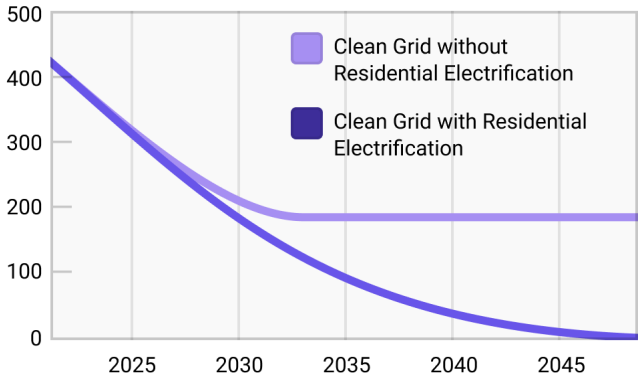
Source: Federal Reserve

New Hampshire Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **1,000 installation jobs** in New Hampshire. Nationwide, it would further generate **230,300 additional installation jobs**, **80,000 manufacturing jobs** that New Hampshire can compete for, and **800,000 indirect and induced jobs**, including in New Hampshire.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **164 premature deaths in New Hampshire** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

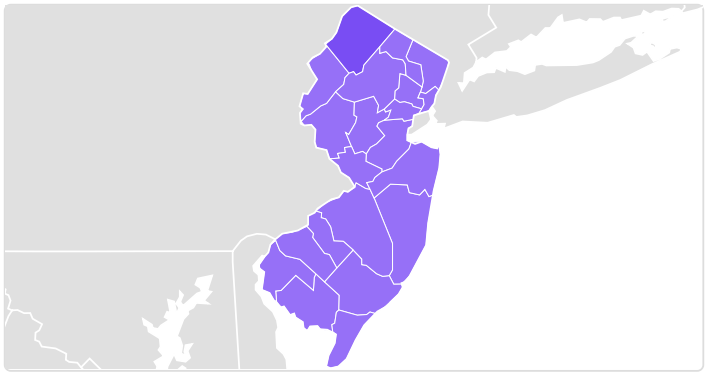
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

New Jersey Household Savings

LOWER BILLS

At least **44% of households in New Jersey** — 1.4 million — could **save $745 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $527 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.36M	**$354 / yr**	0.88M	**$337 / yr**
Fuel Oil	0.27M	**$439 / yr**	0.38M	**$216 / yr**
Propane	65.0K	**$950 / yr**	0.13M	**$440 / yr**

* New Jersey is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would **save an average of $525**.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in New Jersey are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

REWIRING AMERICA

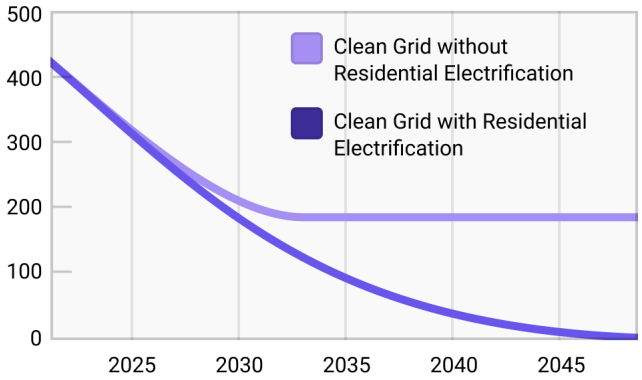
Read our policy framework at www.rewiringamerica.org

New Jersey Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **6,200 installation jobs** in New Jersey. Nationwide, it would further generate **225,100 additional installation jobs**, **80,000 manufacturing jobs** that New Jersey can compete for, and **800,000 indirect and induced jobs**, including in New Jersey.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **884 premature deaths in New Jersey** per year[1].

Sources: Utrecht University, UCLA, Harvard University

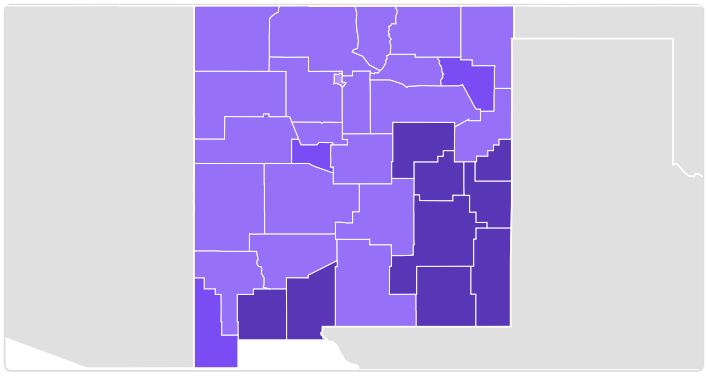
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

New Mexico Household Savings

LOWER BILLS

At least **57% of households in New Mexico** — 447 thousand — could **save $131 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **341 thousand households in New Mexico** across every county who are currently using electric resistance, fuel oil, or propane and would **save $385 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.11M	**$223 / yr**	0.30M	**$254 / yr**
Fuel Oil	1.1K	**$285 / yr**	0	**$0 / yr**
Propane	56.4K	**$318 / yr**	41.0K	**$277 / yr**

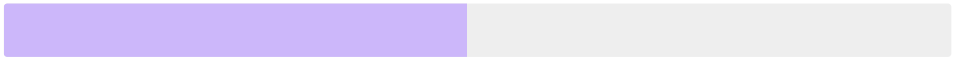
20% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **49% are low- and moderate-income**. Each year, they would **save an average of $304**.

Low- and moderate-income households are those making up to 80% of local area median income

49% of households that save in New Mexico are LMI



4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

REWIRING AMERICA

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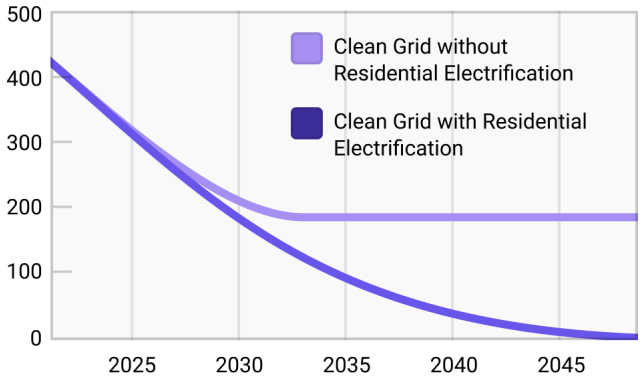
New Mexico Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **1,500 installation jobs** in New Mexico. Nationwide, it would further generate **229,800 additional installation jobs**, **80,000 manufacturing jobs** that New Mexico can compete for, and **800,000 indirect and induced jobs**, including in New Mexico.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **44 premature deaths in New Mexico** per year[1].

Sources: Utrecht University, UCLA, Harvard University

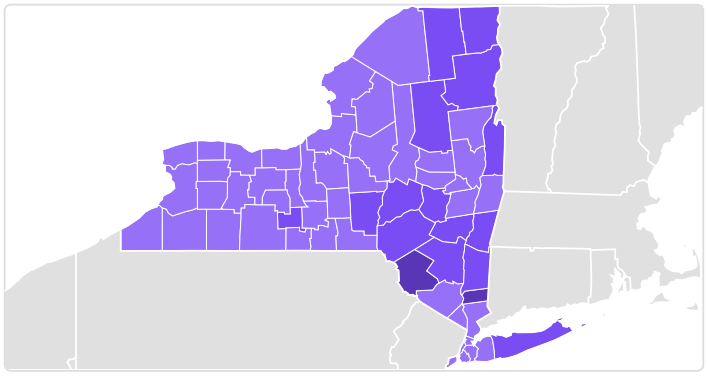
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

New York Household Savings

LOWER BILLS

At least **48% of households in New York** — 3.5 million — could **save $2.0 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **3.5 million households in New York** across every county who are currently using electric resistance, fuel oil, or propane and would **save $588 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.75M	**$411 / yr**	2.07M	**$390 / yr**
Fuel Oil	1.52M	**$321 / yr**	0.85M	**$176 / yr**
Propane	0.30M	**$678 / yr**	0.29M	**$324 / yr**

Some households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **50% are low- and moderate-income**. Each year, they would **save an average of $577**.

Low- and moderate-income households are those making up to 80% of local area median income

50% of households that save in New York are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

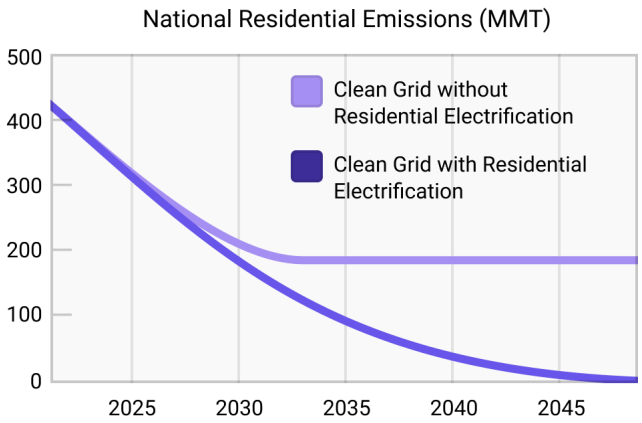
REWIRING AMERICA

Read our policy framework at www.rewiringamerica.org

New York Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **14,100 installation jobs** in New York. Nationwide, it would further generate **217,200 additional installation jobs**, **80,000 manufacturing jobs** that New York can compete for, and **800,000 indirect and induced jobs**, including in New York.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **1,484 premature deaths in New York** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

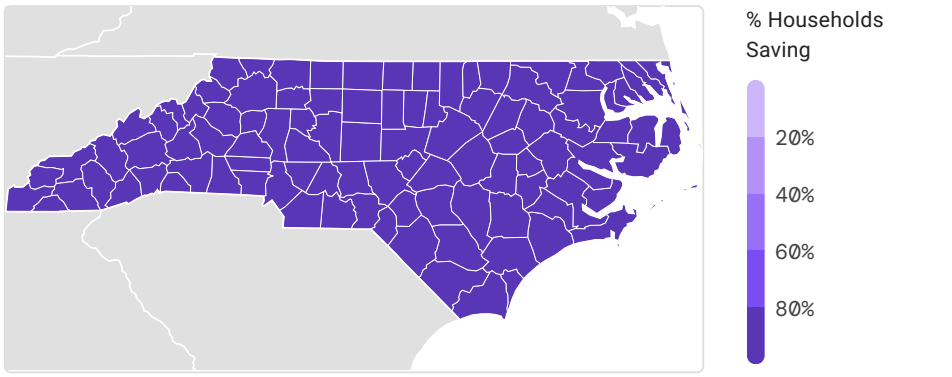
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

North Carolina Household Savings

LOWER BILLS

99% of households in North Carolina — 3.9 million — could **save $1.5 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **3.1 million households in North Carolina** across every county who are currently using electric resistance, fuel oil, or propane and would **save $423 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	1.34M	**$256 / yr**	2.96M	**$238 / yr**
Fuel Oil	0.12M	**$443 / yr**	12.4K	**$238 / yr**
Propane	0.27M	**$558 / yr**	74.4K	**$473 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would **save an average of $402**.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in North Carolina are LMI

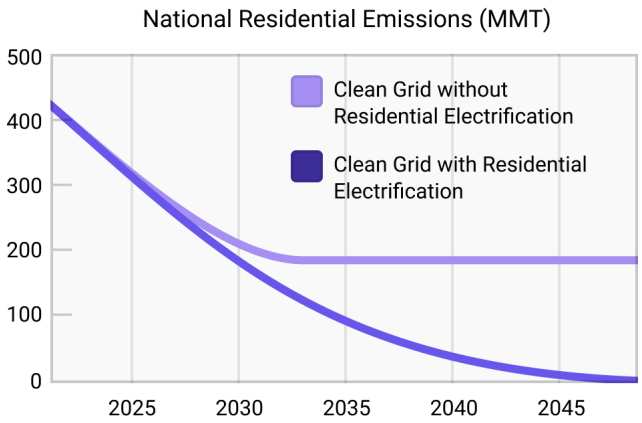
4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

North Carolina Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **7,600 installation jobs** in North Carolina. Nationwide, it would further generate **223,700 additional installation jobs**, **80,000 manufacturing jobs** that North Carolina can compete for, and **800,000 indirect and induced jobs**, including in North Carolina.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **318 premature deaths in North Carolina** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

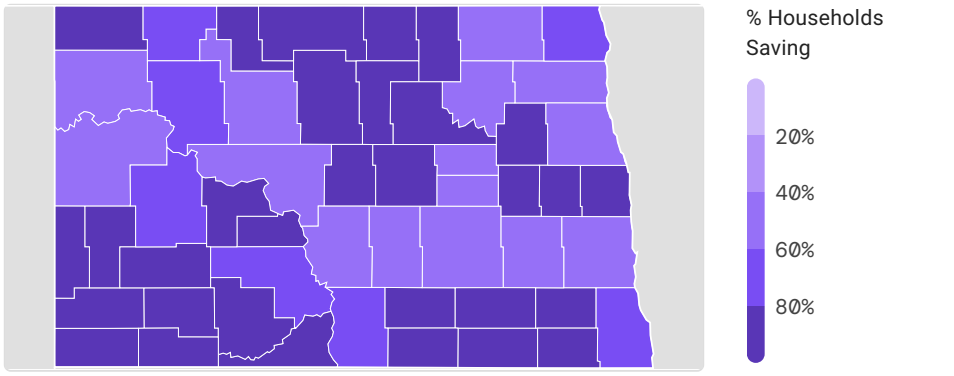
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

North Dakota Household Savings

LOWER BILLS

At least **59% of households in North Dakota** — 186 thousand — could **save $72 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **172 thousand households in North Dakota** across every county who are currently using electric resistance, fuel oil, or propane and would **save $417 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.11M	**$275 / yr**	0.12M	**$208 / yr**
Fuel Oil	7.8K	**$413 / yr**	89	**$233 / yr**
Propane	42.8K	**$228 / yr**	20.4K	**$152 / yr**

Some households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **49% are low- and moderate-income**. Each year, they would **save an average of $395**.

Low- and moderate-income households are those making up to 80% of local area median income

49% of households that save in North Dakota are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

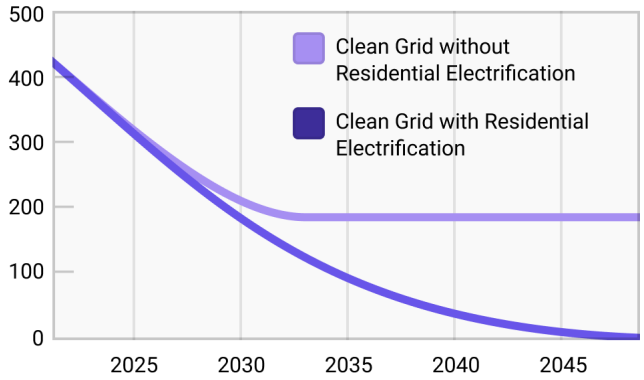
Source: Federal Reserve

North Dakota Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **600 installation jobs** in North Dakota. Nationwide, it would further generate **230,700 additional installation jobs**, **80,000 manufacturing jobs** that North Dakota can compete for, and **800,000 indirect and induced jobs**, including in North Dakota.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **5 premature deaths in North Dakota** per year[1].

Sources: Utrecht University, UCLA, Harvard University

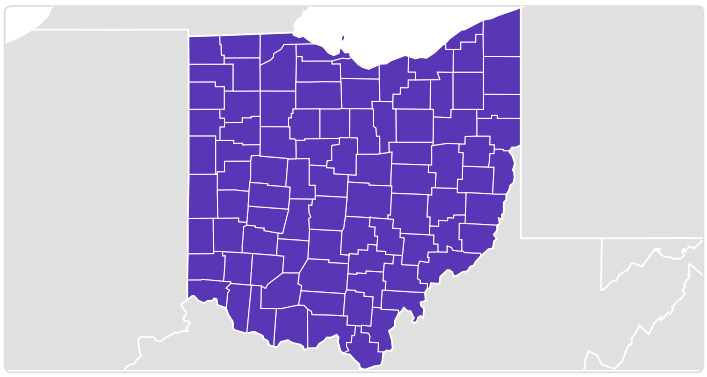
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Ohio Household Savings

LOWER BILLS

99% of households in Ohio — 4.6 million — could **save $1.1 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.8 million households in Ohio** across every county who are currently using electric resistance, fuel oil, or propane and would **save $571 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.98M	**$325 / yr**	1.43M	**$272 / yr**
Fuel Oil	99.3K	**$391 / yr**	4.6K	**$219 / yr**
Propane	0.25M	**$760 / yr**	0.20M	**$341 / yr**

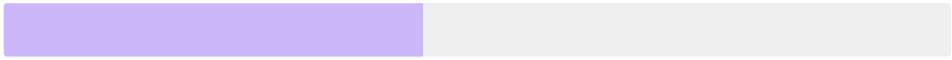
91% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

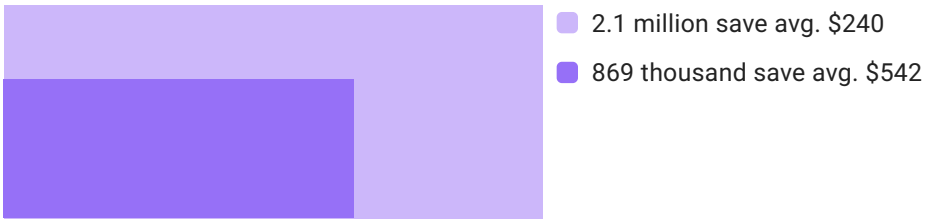
Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $240. Many would save **up to $542 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Ohio are LMI



LMI households that save



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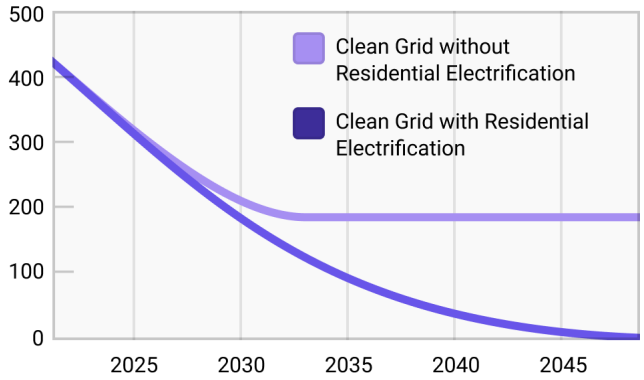
Ohio Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **9,000 installation jobs** in Ohio. Nationwide, it would further generate **222,300 additional installation jobs**, **80,000 manufacturing jobs** that Ohio can compete for, and **800,000 indirect and induced jobs**, including in Ohio.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **741 premature deaths in Ohio** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

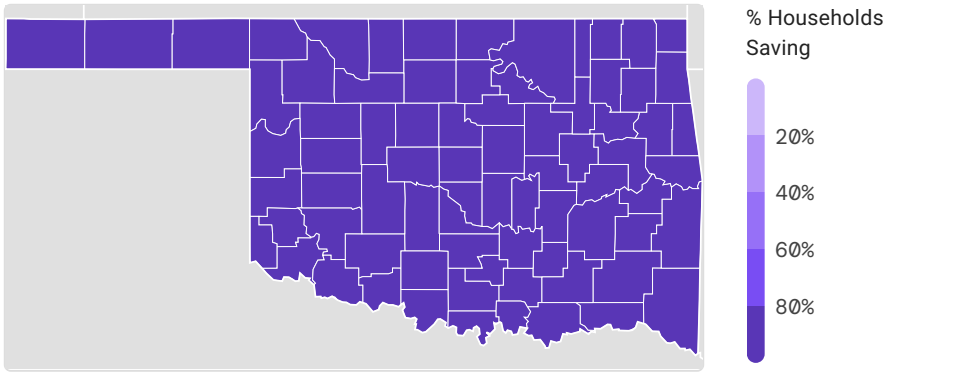
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Oklahoma Household Savings

LOWER BILLS

99% of households in Oklahoma — 1.5 million — could **save $451 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **883 thousand households in Oklahoma** across every county who are currently using electric resistance, fuel oil, or propane and would **save $395 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.50M	**$257 / yr**	0.84M	**$217 / yr**
Fuel Oil	3.0K	**$466 / yr**	0	**$0 / yr**
Propane	98.0K	**$313 / yr**	40.6K	**$169 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

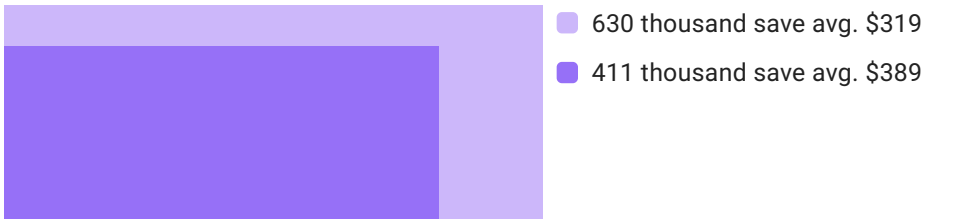
EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would save an average of $319. Many would save **up to $389 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Oklahoma are LMI

LMI households that save



REWIRING AMERICA

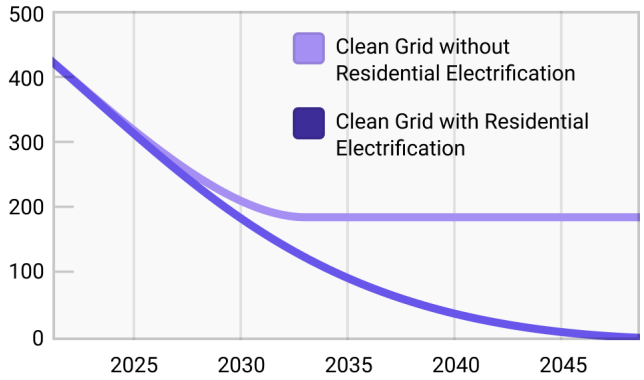
Read our policy framework at www.rewiringamerica.org

Oklahoma Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **2,800 installation jobs** in Oklahoma. Nationwide, it would further generate **228,500 additional installation jobs**, **80,000 manufacturing jobs** that Oklahoma can compete for, and **800,000 indirect and induced jobs**, including in Oklahoma.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **112 premature deaths in Oklahoma** per year[1].

Sources: Utrecht University, UCLA, Harvard University

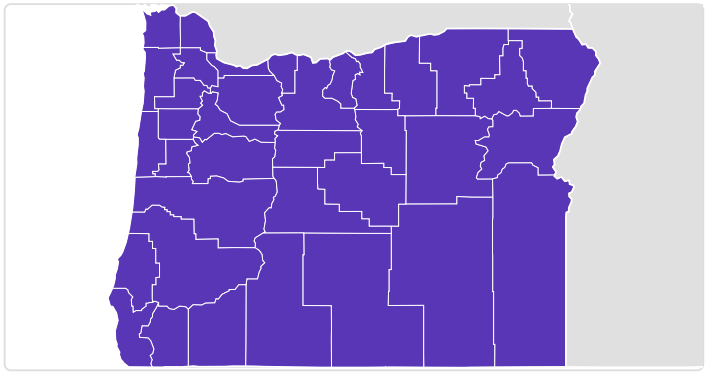
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Oregon Household Savings

LOWER BILLS

99% of households in Oregon — 1.6 million — could **save $441 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **794 thousand households in Oregon** across every county who are currently using electric resistance, fuel oil, or propane and would **save $427 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.74M	**$239 / yr**	0.50M	**$247 / yr**
Fuel Oil	29.7K	**$505 / yr**	969	**$256 / yr**
Propane	27.9K	**$396 / yr**	43.8K	**$313 / yr**

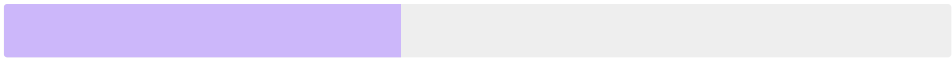
100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

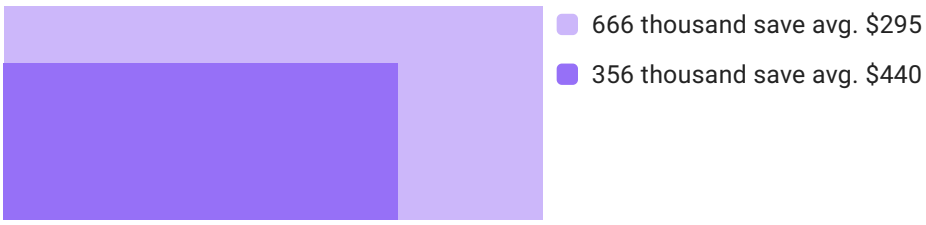
Of the households that save, **42% are low- and moderate-income**. Each year, they would save an average of $295. Many would save **up to $440 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Oregon are LMI



LMI households that save



REWIRING AMERICA

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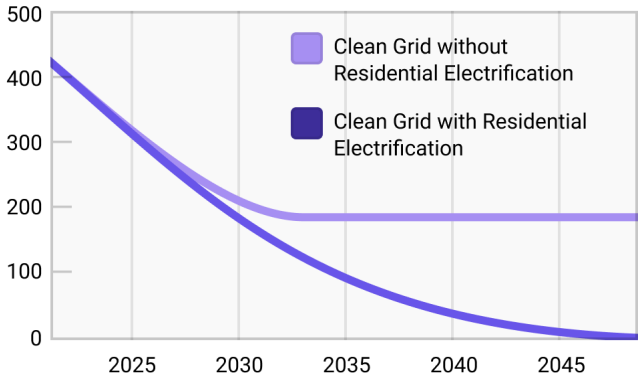
Oregon Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **3,100 installation jobs** in Oregon. Nationwide, it would further generate **228,200 additional installation jobs**, **80,000 manufacturing jobs** that Oregon can compete for, and **800,000 indirect and induced jobs**, including in Oregon.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **344 premature deaths in Oregon** per year[1].

Sources: Utrecht University, UCLA, Harvard University

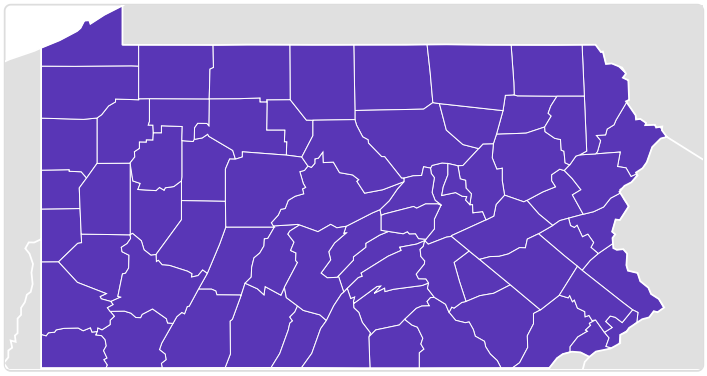
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Pennsylvania Household Savings

LOWER BILLS

99% of households in Pennsylvania — 5.0 million — could **save $1.8 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **2.5 million households in Pennsylvania** across every county who are currently using electric resistance, fuel oil, or propane and would **save $618 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	1.02M	**$320 / yr**	1.46M	**$300 / yr**
Fuel Oil	0.81M	**$537 / yr**	0.58M	**$241 / yr**
Propane	0.22M	**$752 / yr**	0.20M	**$343 / yr**

96% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

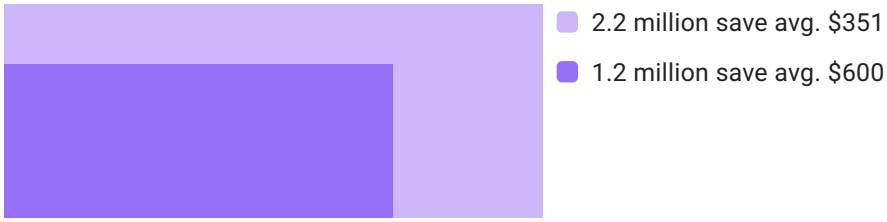
EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $351. Many would save **up to $600 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Pennsylvania are LMI

LMI households that save



REWIRING AMERICA

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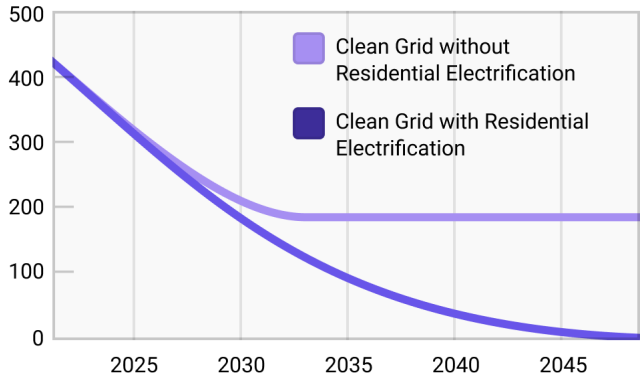
Pennsylvania Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **9,700 installation jobs** in Pennsylvania. Nationwide, it would further generate **221,600 additional installation jobs**, **80,000 manufacturing jobs** that Pennsylvania can compete for, and **800,000 indirect and induced jobs**, including in Pennsylvania.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **1,322 premature deaths in Pennsylvania** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Rhode Island Household Savings

LOWER BILLS

99% of households in Rhode Island — 407 thousand — could **save $164 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.

LARGE SAVINGS

The savings are biggest for the **251 thousand households in Rhode Island** across every county who are currently using electric resistance, fuel oil, or propane and would **save $602 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	38.0K	**$305 / yr**	0.12M	**$376 / yr**
Fuel Oil	0.12M	**$482 / yr**	0.10M	**$139 / yr**
Propane	12.3K	**$847 / yr**	25.5K	**$424 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

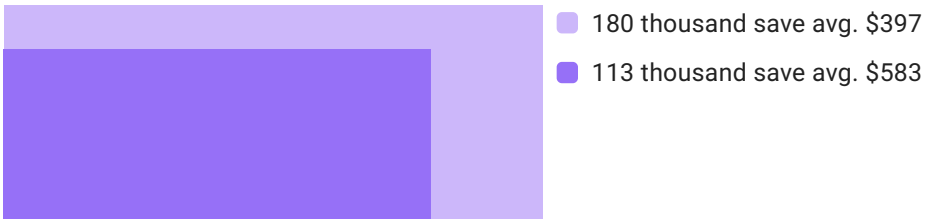
EVERYONE BENEFITS

Of the households that save, **44% are low- and moderate-income**. Each year, they would save an average of $397. Many would save **up to $583 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

44% of households that save in Rhode Island are LMI

LMI households that save



REWIRING AMERICA

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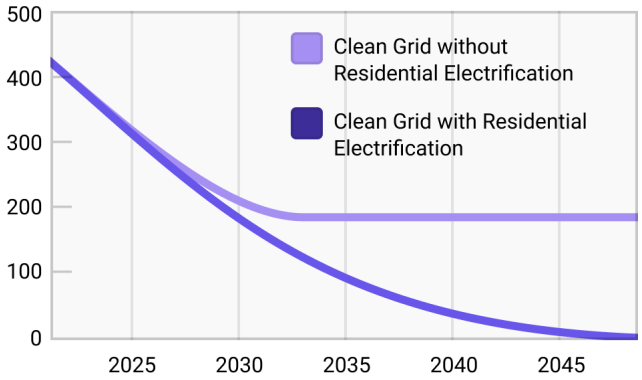
Rhode Island Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **800 installation jobs** in Rhode Island. Nationwide, it would further generate **230,500 additional installation jobs**, **80,000 manufacturing jobs** that Rhode Island can compete for, and **800,000 indirect and induced jobs**, including in Rhode Island.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **106 premature deaths in Rhode Island** per year[1].

Sources: Utrecht University, UCLA, Harvard University

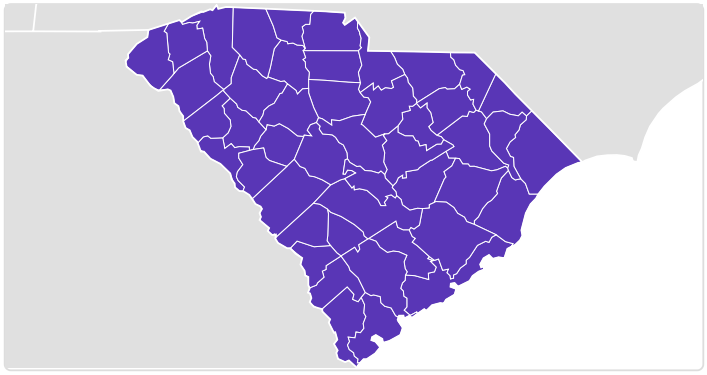
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

South Carolina Household Savings

LOWER BILLS

99% of households in South Carolina — 1.9 million — could **save $791 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.5 million households in South Carolina** across every county who are currently using electric resistance, fuel oil, or propane and would **save $460 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.73M	**$294 / yr**	1.44M	**$273 / yr**
Fuel Oil	15.5K	**$420 / yr**	6.0K	**$229 / yr**
Propane	70.7K	**$652 / yr**	35.7K	**$552 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would **save an average of $436**.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in South Carolina are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

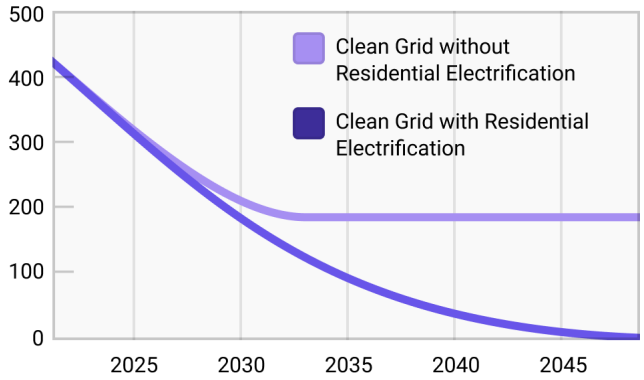
Source: Federal Reserve

South Carolina Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **3,700 installation jobs** in South Carolina. Nationwide, it would further generate **227,600 additional installation jobs**, **80,000 manufacturing jobs** that South Carolina can compete for, and **800,000 indirect and induced jobs**, including in South Carolina.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **70 premature deaths in South Carolina** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

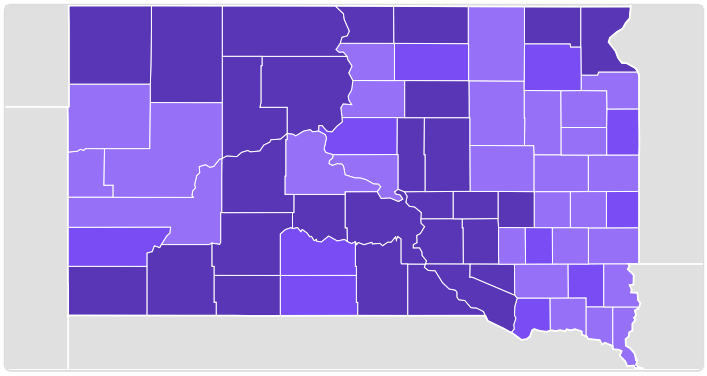
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

South Dakota Household Savings

LOWER BILLS

At least **53% of households in South Dakota** — 181 thousand — could **save $80 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $442 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	92.4K	**$318 / yr**	0.14M	**$239 / yr**
Fuel Oil	6.5K	**$382 / yr**	106	**$219 / yr**
Propane	54.5K	**$226 / yr**	22.1K	**$151 / yr**

* South Dakota is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **50% are low- and moderate-income**. Each year, they would **save an average of $437**.

Low- and moderate-income households are those making up to 80% of local area median income

50% of households that save in South Dakota are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

REWIRING AMERICA

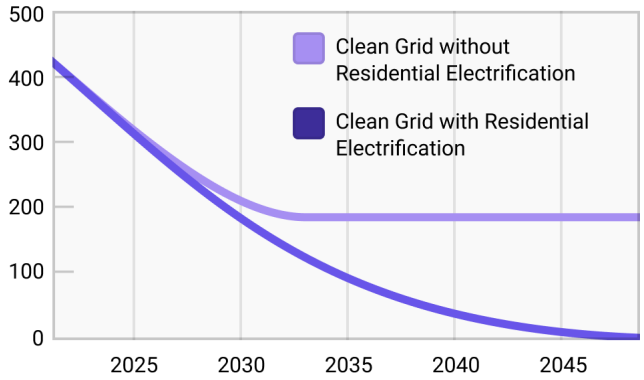
Read our policy framework at www.rewiringamerica.org

South Dakota Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **700 installation jobs** in South Dakota. Nationwide, it would further generate **230,600 additional installation jobs**, **80,000 manufacturing jobs** that South Dakota can compete for, and **800,000 indirect and induced jobs**, including in South Dakota.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **11 premature deaths in South Dakota** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

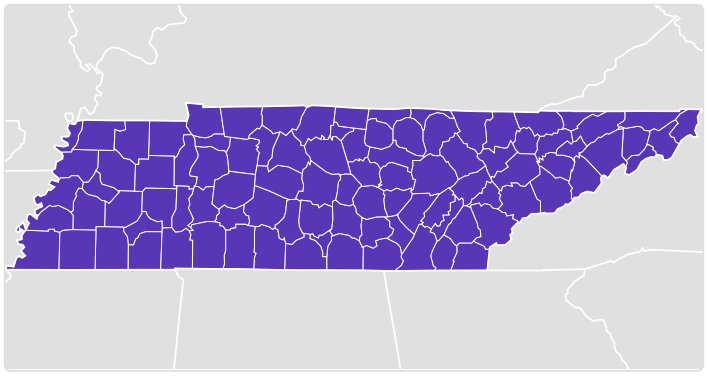
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Tennessee Household Savings

LOWER BILLS

99% of households in Tennessee — 2.6 million — could **save $913 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.9 million households in Tennessee** across every county who are currently using electric resistance, fuel oil, or propane and would **save $444 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	1.01M	**$313 / yr**	1.80M	**$258 / yr**
Fuel Oil	9.5K	**$461 / yr**	0	**$0 / yr**
Propane	97.2K	**$250 / yr**	62.9K	**$268 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **42% are low- and moderate-income**. Each year, they would **save an average of $383**.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Tennessee are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

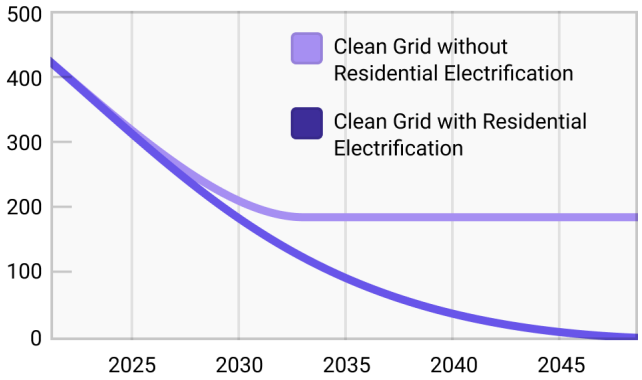
Source: Federal Reserve

Tennessee Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **5,000 installation jobs** in Tennessee. Nationwide, it would further generate **226,300 additional installation jobs**, **80,000 manufacturing jobs** that Tennessee can compete for, and **800,000 indirect and induced jobs**, including in Tennessee.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **182 premature deaths in Tennessee** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

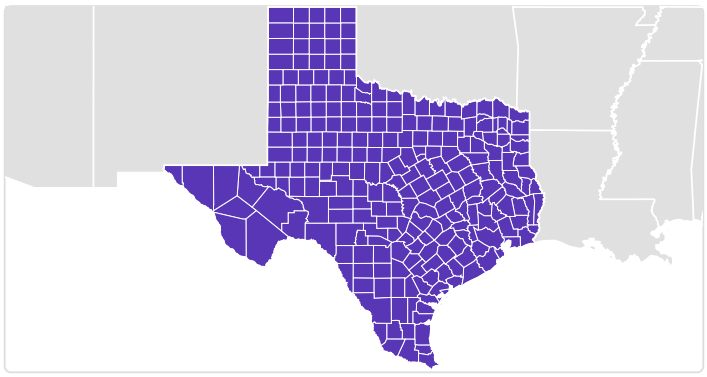
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Texas Household Savings

LOWER BILLS

100% of households in Texas — 9.6 million — could **save $3.8 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **5.9 million households in Texas** across every county who are currently using electric resistance, fuel oil, or propane and would **save $510 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	5.04M	**$290 / yr**	5.34M	**$248 / yr**
Fuel Oil	8.9K	**$376 / yr**	0	**$0 / yr**
Propane	0.28M	**$538 / yr**	0.27M	**$285 / yr**

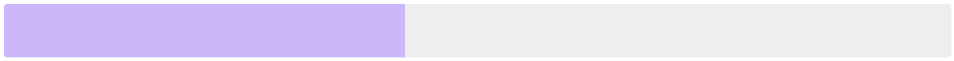
100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

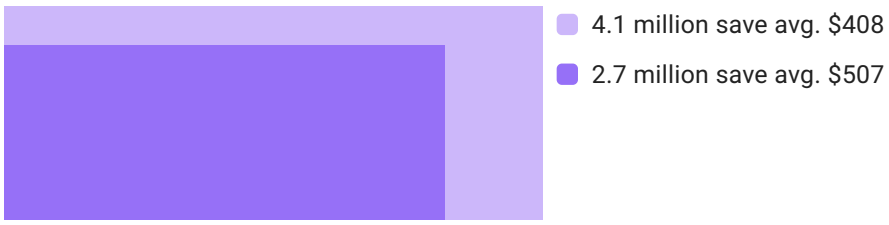
Of the households that save, **42% are low- and moderate-income**. Each year, they would save an average of $408. Many would save **up to $507 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

42% of households that save in Texas are LMI



LMI households that save



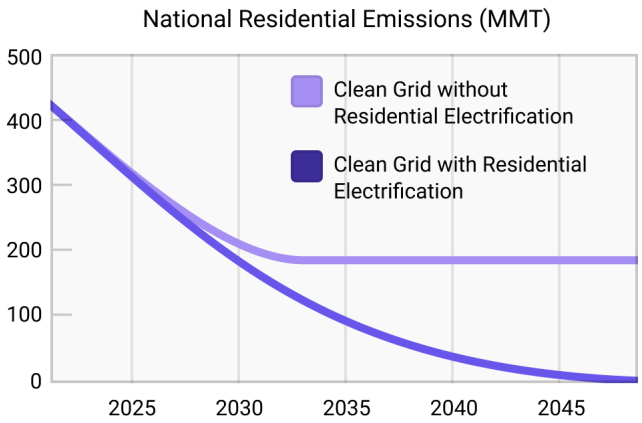
REWIRING AMERICA

Read our policy framework at www.rewiringamerica.org

Texas Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **18,600 installation jobs** in Texas. Nationwide, it would further generate **212,700 additional installation jobs**, **80,000 manufacturing jobs** that Texas can compete for, and **800,000 indirect and induced jobs**, including in Texas.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **226 premature deaths in Texas** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

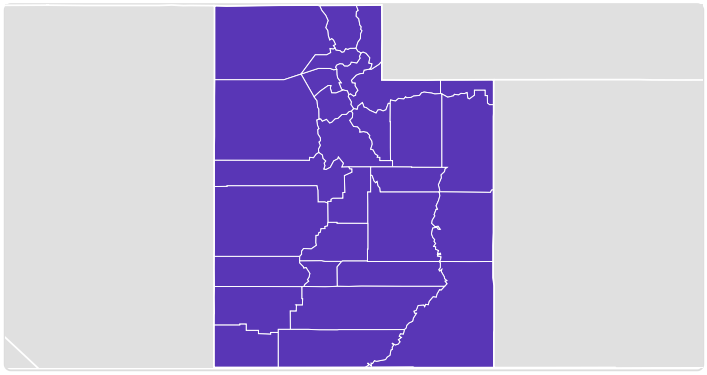
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Utah Household Savings

LOWER BILLS

100% of households in Utah — 973 thousand — could **save $155 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **396 thousand households in Utah** across every county who are currently using electric resistance, fuel oil, or propane and would **save $280 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	94.8K	**$189 / yr**	0.34M	**$210 / yr**
Fuel Oil	1.1K	**$400 / yr**	0	**$0 / yr**
Propane	20.6K	**$308 / yr**	53.9K	**$261 / yr**

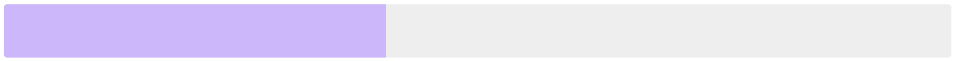
99% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

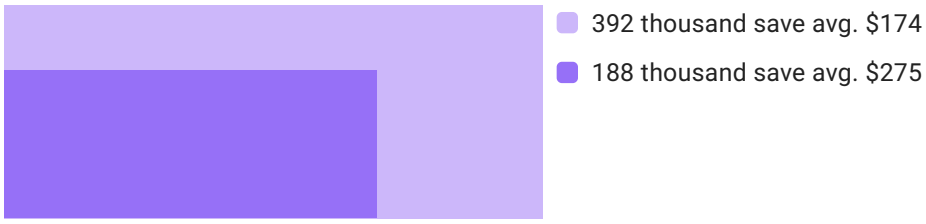
Of the households that save, **40% are low- and moderate-income**. Each year, they would save an average of $174. Many would save **up to $275 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

40% of households that save in Utah are LMI



LMI households that save



REWIRING AMERICA

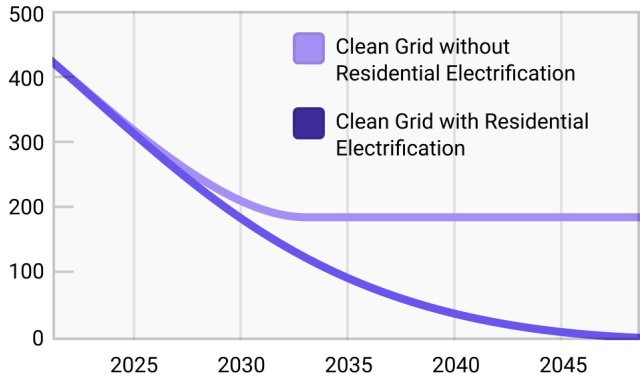
Read our policy framework at www.rewiringamerica.org

Utah Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **1,900 installation jobs** in Utah. Nationwide, it would further generate **229,400 additional installation jobs**, **80,000 manufacturing jobs** that Utah can compete for, and **800,000 indirect and induced jobs**, including in Utah.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **29 premature deaths in Utah** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

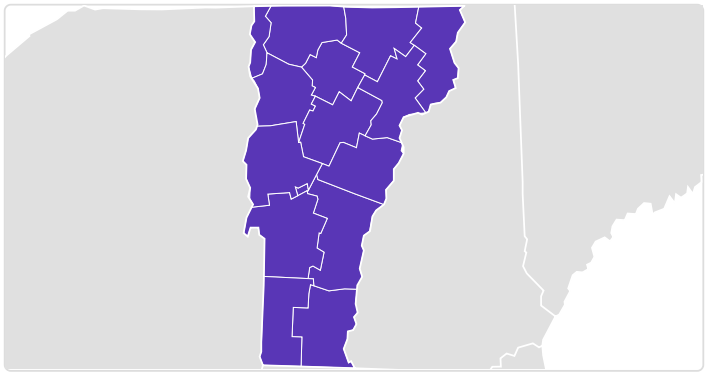
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Vermont Household Savings

LOWER BILLS

99% of households in Vermont — 258 thousand — could **save $119 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **184 thousand households in Vermont** across every county who are currently using electric resistance, fuel oil, or propane and would **save $629 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	12.7K	**$256 / yr**	76.4K	**$327 / yr**
Fuel Oil	0.11M	**$420 / yr**	64.9K	**$151 / yr**
Propane	44.1K	**$602 / yr**	16.3K	**$330 / yr**

89% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would **save an average of $474**.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Vermont are LMI

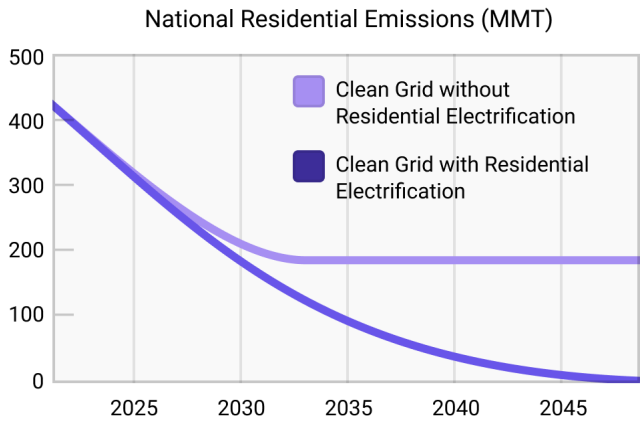
4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

Vermont Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **500 installation jobs** in Vermont. Nationwide, it would further generate **230,800 additional installation jobs**, **80,000 manufacturing jobs** that Vermont can compete for, and **800,000 indirect and induced jobs**, including in Vermont.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **54 premature deaths in Vermont** per year[1].

Sources: Utrecht University, UCLA, Harvard University

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

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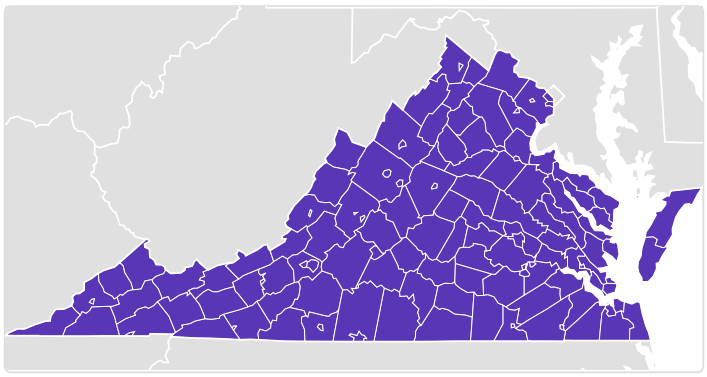
Virginia Household Savings

LOWER BILLS

99% of households in Virginia — 3.1 million — could **save $1.2 billion a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **2.3 million households in Virginia** across every county who are currently using electric resistance, fuel oil, or propane and would **save $420 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.90M	**$268 / yr**	2.26M	**$247 / yr**
Fuel Oil	0.14M	**$439 / yr**	10.9K	**$231 / yr**
Propane	0.14M	**$608 / yr**	65.9K	**$511 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **38% are low- and moderate-income**. Each year, they would **save an average of $393**.

Low- and moderate-income households are those making up to 80% of local area median income

38% of households that save in Virginia are LMI

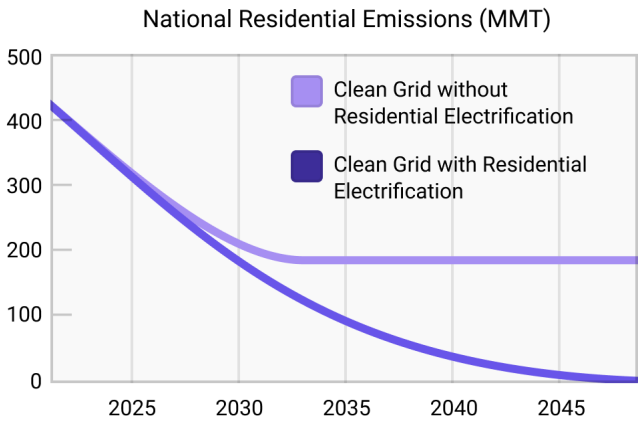
4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

Virginia Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.



CREATE JOBS

Electrification would create **6,000 installation jobs** in Virginia. Nationwide, it would further generate **225,300 additional installation jobs**, **80,000 manufacturing jobs** that Virginia can compete for, and **800,000 indirect and induced jobs**, including in Virginia.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **383 premature deaths in Virginia** per year[1].

Sources: Utrecht University, UCLA, Harvard University

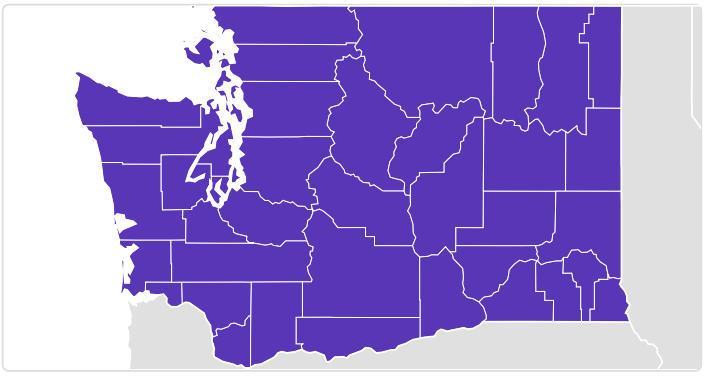
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Washington Household Savings

LOWER BILLS

99% of households in Washington — 2.8 million — could **save $751 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **1.6 million households in Washington** across every county who are currently using electric resistance, fuel oil, or propane and would **save $365 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	1.42M	**$210 / yr**	0.85M	**$218 / yr**
Fuel Oil	48.9K	**$582 / yr**	1.7K	**$294 / yr**
Propane	87.0K	**$370 / yr**	77.5K	**$292 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

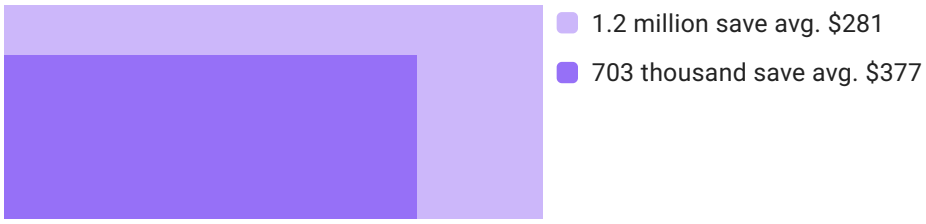
EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would save an average of $281. Many would save **up to $377 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Washington are LMI

LMI households that save



REWIRING AMERICA

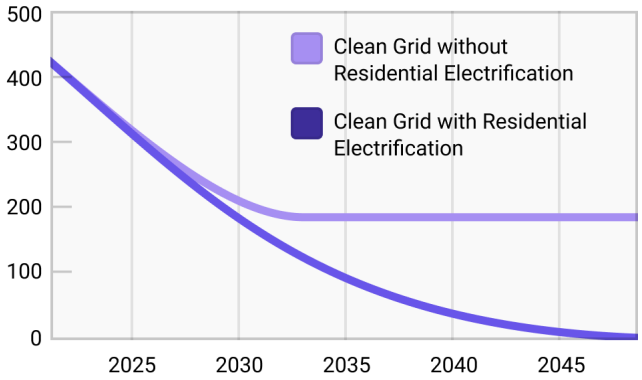
Read our policy framework at www.rewiringamerica.org

Washington Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **5,500 installation jobs** in Washington. Nationwide, it would further generate **225,800 additional installation jobs**, **80,000 manufacturing jobs** that Washington can compete for, and **800,000 indirect and induced jobs**, including in Washington.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **518 premature deaths in Washington** per year[1].

Sources: Utrecht University, UCLA, Harvard University

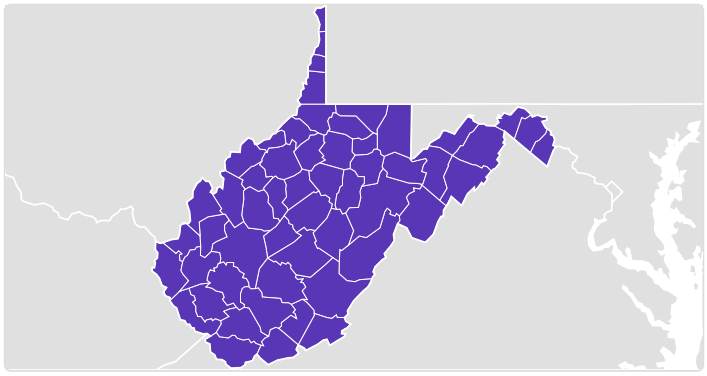
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

West Virginia Household Savings

LOWER BILLS

99% of households in West Virginia — 727 thousand — could **save $236 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **573 thousand households in West Virginia** across every county who are currently using electric resistance, fuel oil, or propane and would **save $383 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.18M	**$259 / yr**	0.56M	**$238 / yr**
Fuel Oil	20.7K	**$449 / yr**	2.2K	**$234 / yr**
Propane	36.6K	**$659 / yr**	13.2K	**$548 / yr**

100% of households using natural gas would also save on annual energy bills. The savings will continue to increase given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **45% are low- and moderate-income**. Each year, they would **save an average of $340**.

Low- and moderate-income households are those making up to 80% of local area median income

45% of households that save in West Virginia are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

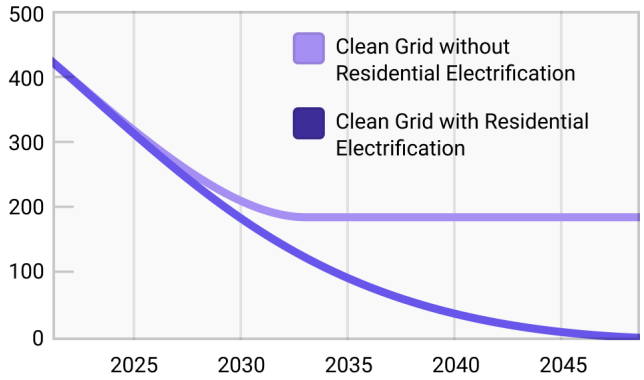
Source: Federal Reserve

West Virginia Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **1,400 installation jobs** in West Virginia. Nationwide, it would further generate **229,900 additional installation jobs**, **80,000 manufacturing jobs** that West Virginia can compete for, and **800,000 indirect and induced jobs**, including in West Virginia.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **232 premature deaths in West Virginia** per year[1].

Sources: Utrecht University, UCLA, Harvard University

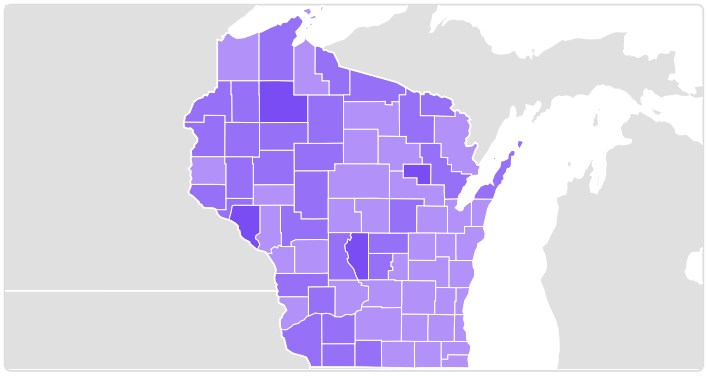
Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Wisconsin Household Savings

LOWER BILLS

At least **37% of households in Wisconsin** — 863 thousand — could **save $409 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

These households — which currently use electric resistance, fuel oil, or propane for heating — will **save an average of $474 per year**

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	0.33M	**$364 / yr**	0.71M	**$306 / yr**
Fuel Oil	47.0K	**$295 / yr**	2.3K	**$185 / yr**
Propane	0.27M	**$175 / yr**	0.10M	**$113 / yr**

* Wisconsin is one of the states where the ratio of natural gas to electricity prices is such that electrified heating is not yet cheaper. We expect this to change, given the trajectory of heat pump technology improvements.

EVERYONE BENEFITS

Of the households that save, **48% are low- and moderate-income**. Each year, they would **save an average of $475**.

Low- and moderate-income households are those making up to 80% of local area median income

48% of households that save in Wisconsin are LMI

4 in 10 adults would have difficulty covering an unexpected $400 expense.

Source: Federal Reserve

REWIRING AMERICA

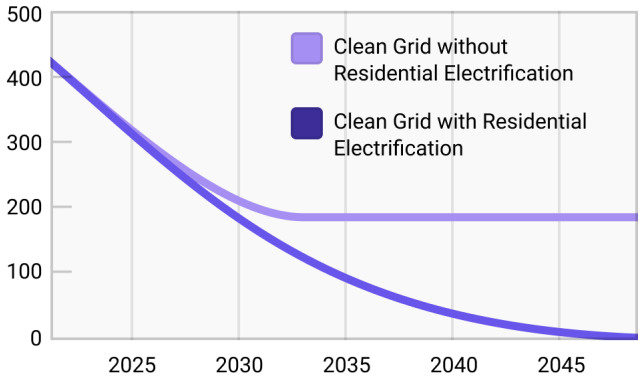
Read our policy framework at www.rewiringamerica.org

Wisconsin Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **4,500 installation jobs** in Wisconsin. Nationwide, it would further generate **226,800 additional installation jobs**, **80,000 manufacturing jobs** that Wisconsin can compete for, and **800,000 indirect and induced jobs**, including in Wisconsin.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **387 premature deaths in Wisconsin** per year[1].

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
CO	Carbon Monoxide
HCHO	Formaldehyde

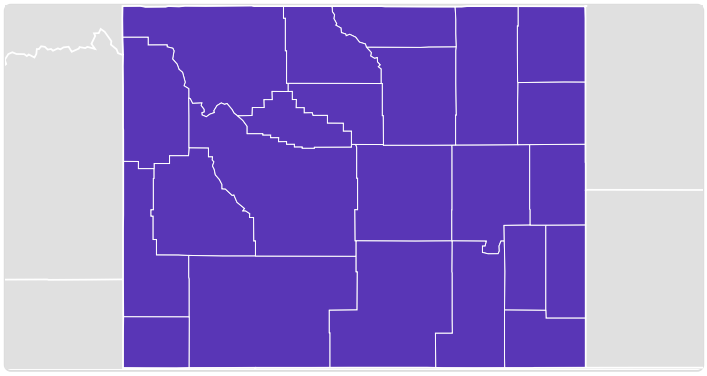
Sources: Utrecht University, UCLA, Harvard University

[1]These values are based on additional analysis from Jonathan Buonocore, Sc.D, the study's lead author, RMI used median estimates from the results of 3 reduced complexity models used in: Jonathan J Buonocore (Harvard T.H. Chan School of Public Health) et al, "A decade of the U.S. energy mix transitioning away from coal: historical reconstruction of the reductions in the public health burden of energy", 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c

Wyoming Household Savings

LOWER BILLS

100% of households in Wyoming — 229 thousand — could **save $37 million a year** on energy bills if they were using modern, electrified furnaces and water heaters instead of their current machines.



LARGE SAVINGS

The savings are biggest for the **98 thousand households in Wyoming** across every county who are currently using electric resistance, fuel oil, or propane and would **save $359 per year** on average.

	# of Furnaces	**Avg. savings if electrified**	# of Water Heaters	**Avg. savings if electrified**
Electric Resistance	37.1K	**$197 / yr**	83.3K	**$218 / yr**
Fuel Oil	556	**$355 / yr**	0	**$0 / yr**
Propane	23.6K	**$281 / yr**	12.5K	**$240 / yr**

89% of households using natural gas would also save on annual energy bills. The number of households that would save and the average savings will continue to increase given the trajectory of heat pump technology improvements.

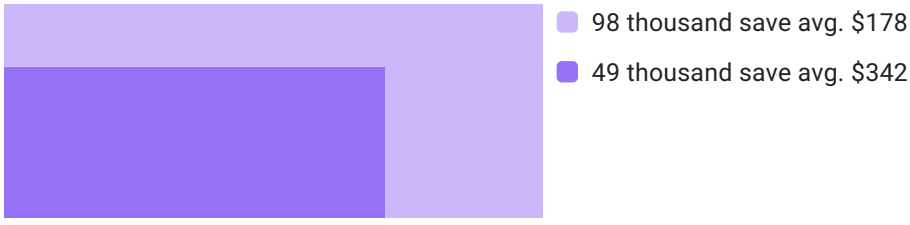
EVERYONE BENEFITS

Of the households that save, **43% are low- and moderate-income**. Each year, they would save an average of $178. Many would save **up to $342 per year** on average.

Low- and moderate-income households are those making up to 80% of local area median income

43% of households that save in Wyoming are LMI

LMI households that save

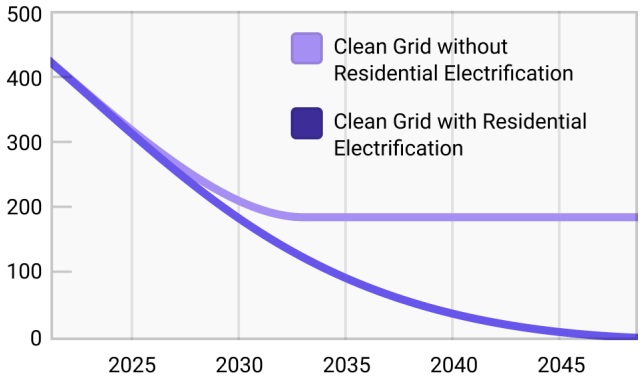


Wyoming Additional Benefits

REDUCE EMISSIONS

Furnaces, water heaters, dryers, and stoves account for at least **95% of residential building emissions** but are replaced just once every **10-25 years**. Unless we choose modern, electrified replacements for these machines, we will continue to need dirty infrastructure to power our homes, never getting to zero emissions.

National Residential Emissions (MMT)



CREATE JOBS

Electrification would create **400 installation jobs** in Wyoming. Nationwide, it would further generate **230,900 additional installation jobs**, **80,000 manufacturing jobs** that Wyoming can compete for, and **800,000 indirect and induced jobs**, including in Wyoming.

Installation	Electricians, plumbers, contractors...
Manufacturing	Factory, assembly line, and supply chain workers...
Indirect	Truck drivers, welders, mine engineers, accountants...
Induced	Service, retail, food & beverage workers, teachers...

IMPROVE HEALTH

Electrifying these appliances would address the **42% increased risk of children experiencing asthma symptoms** associated with gas stove use. Such indoor pollution disproportionately affects low-income households with smaller homes.

Furthermore, outdoor air pollution from residential buildings currently accounts for **1 premature deaths in Wyoming** per year[1].

Sources: Utrecht University, UCLA, Harvard University

Indoor Pollutants Emitted By Gas Stoves	
NO_2	Nitrogen Dioxide
$PM_{2.5}$	Particulate Matter (2.5 microns)
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ABOUT US

Rewiring America is a growing nonprofit, working to launch a movement that electrifies everything, starting with our 121 million households. Through accurate, accessible, and actionable data and storytelling tools that power smart, inclusive advocacy and market-transforming partnerships, Rewiring America aims to achieve national emissions goals, improve our health, lower monthly bills, and create millions of clean energy jobs. Join us at https://www.rewiringamerica.org and @rewiringamerica.

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All illustrations hand drawn by Saul Griffith.

For the data sources and methodology behind this report, visit https://map.rewiringamerica.org.