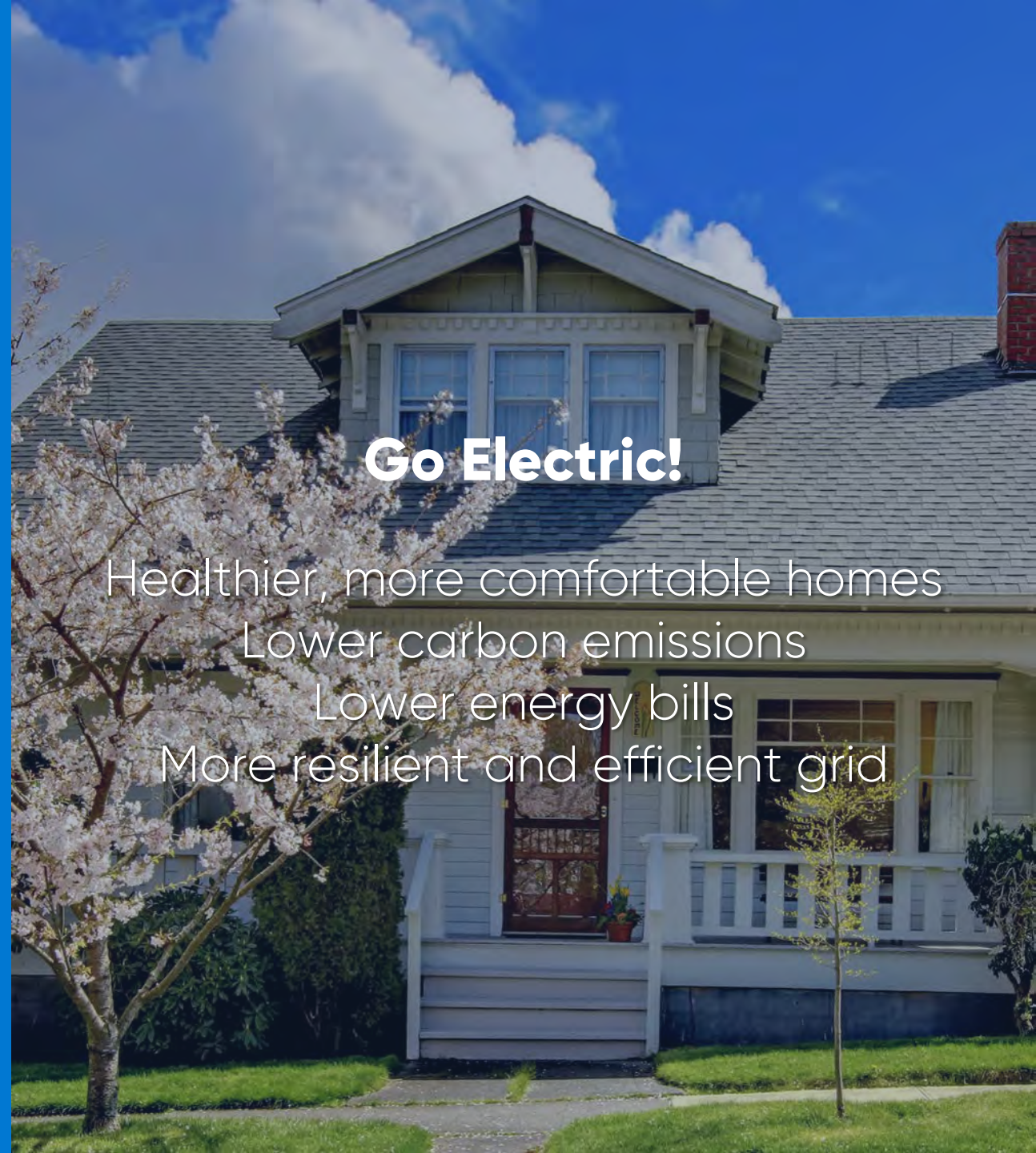




Go Electric!

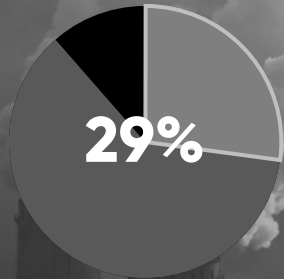
Healthier, more comfortable homes
Lower carbon emissions
Lower energy bills
More resilient and efficient grid





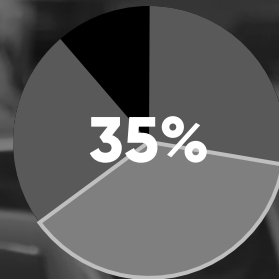
Electricity

Coal & Natural Gas



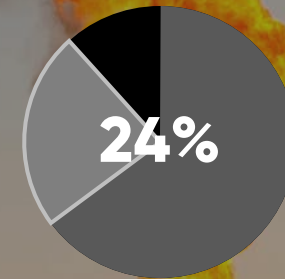
Transportation

Gasoline / Diesel



Heat

Natural Gas



Similar or worse than coal
Major source of air pollution

Renewable Natural Gas
will not save the day

Bad News

We have to stop burning fossil fuels

From Oregon DEQ - Oregon State GHG Emissions 2019

Good News

Wind and solar are now the lowest cost sources of new energy

Solar \$355

Wind \$135

Gas Peaker \$124 - 159

Nuclear \$118-192

Coal \$66-152

Gas CC \$41-62

Solar \$30-41

Wind \$26-50

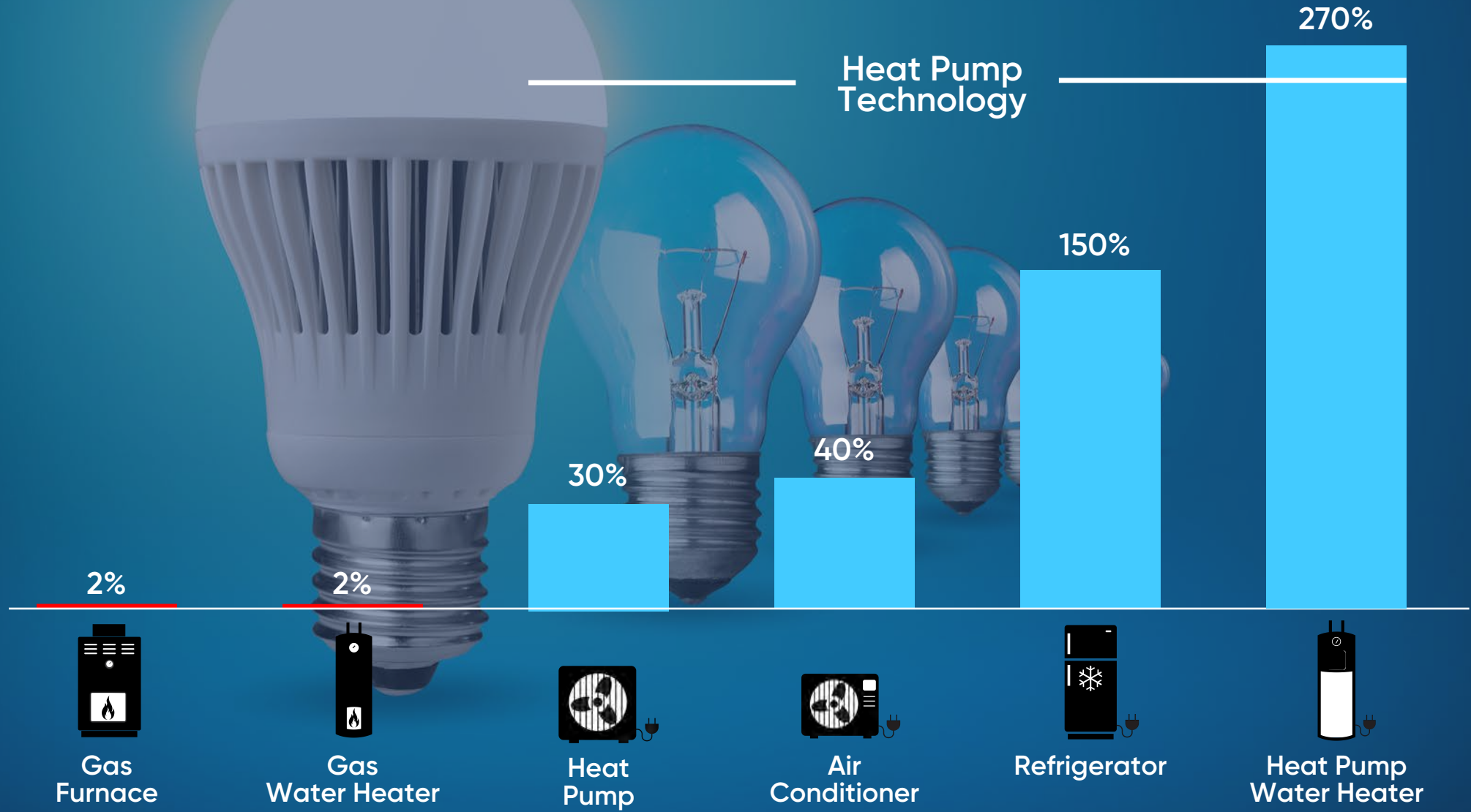
2009 \$/MWh

2021 \$/MWh



Electric Appliances are now dramatically more efficient

30 Year Energy Efficiency Increases



Electricity gets cleaner every year

Metric Tons
CO₂e Produced

TWh
Generated

2.5 B

4,000

2.0 B

3,500

1.5 B

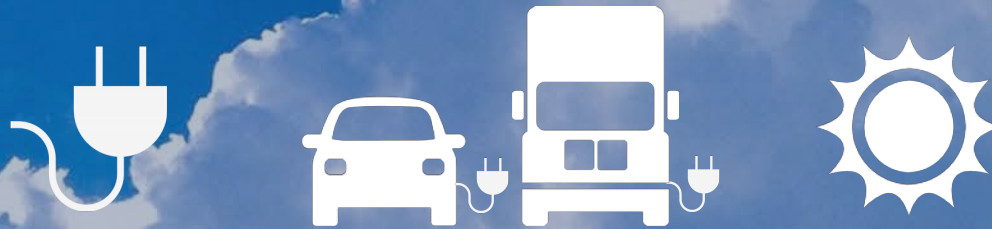
2000

2020

from US EIA – US Electricity Generation

Electrify Everything

A sustainable future where the wind and sun powers **ALL** our primary energy needs



energy cost **Savings**
cleaner **Air**
cleaner **Water**
healthier **People**
stronger **Economy**



Electricity
3-6 Tons CO₂e/yr



Gas Car
4-8 Tons CO₂e/yr



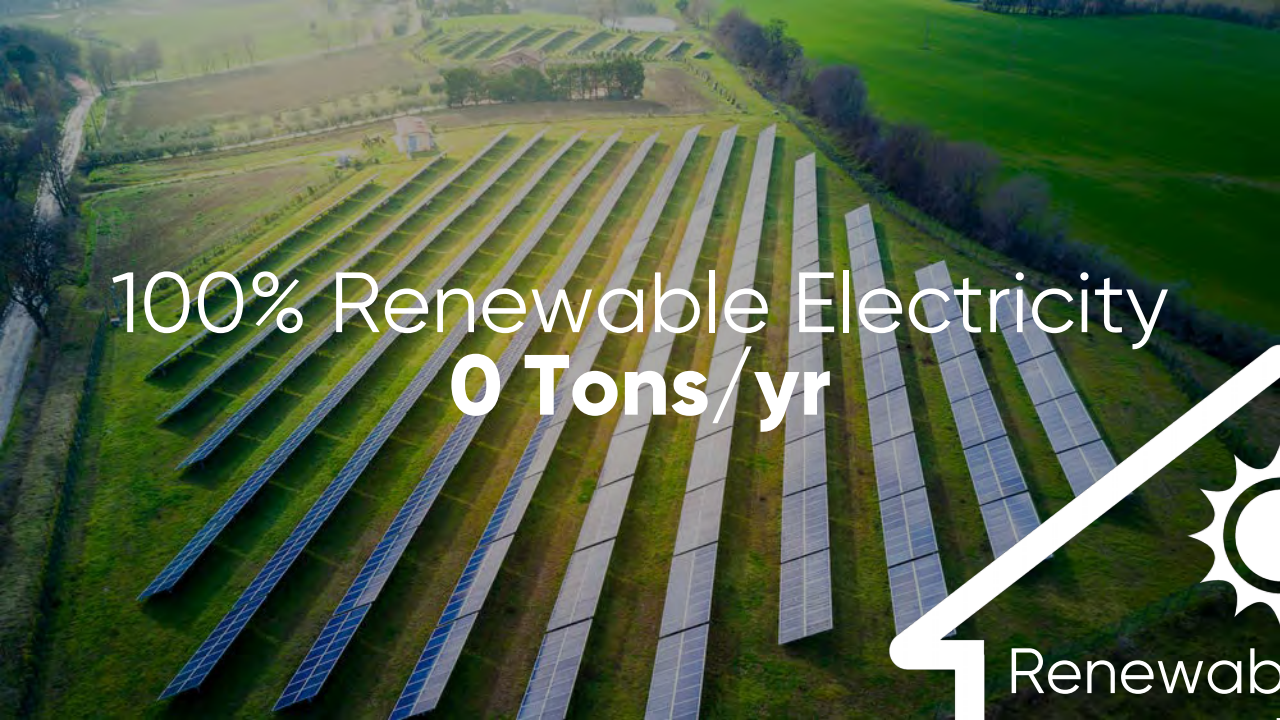
Energy from
Fossil Fuels
= 60%
of household
emissions



Gas Furnace
4-8 Tons CO₂e/yr



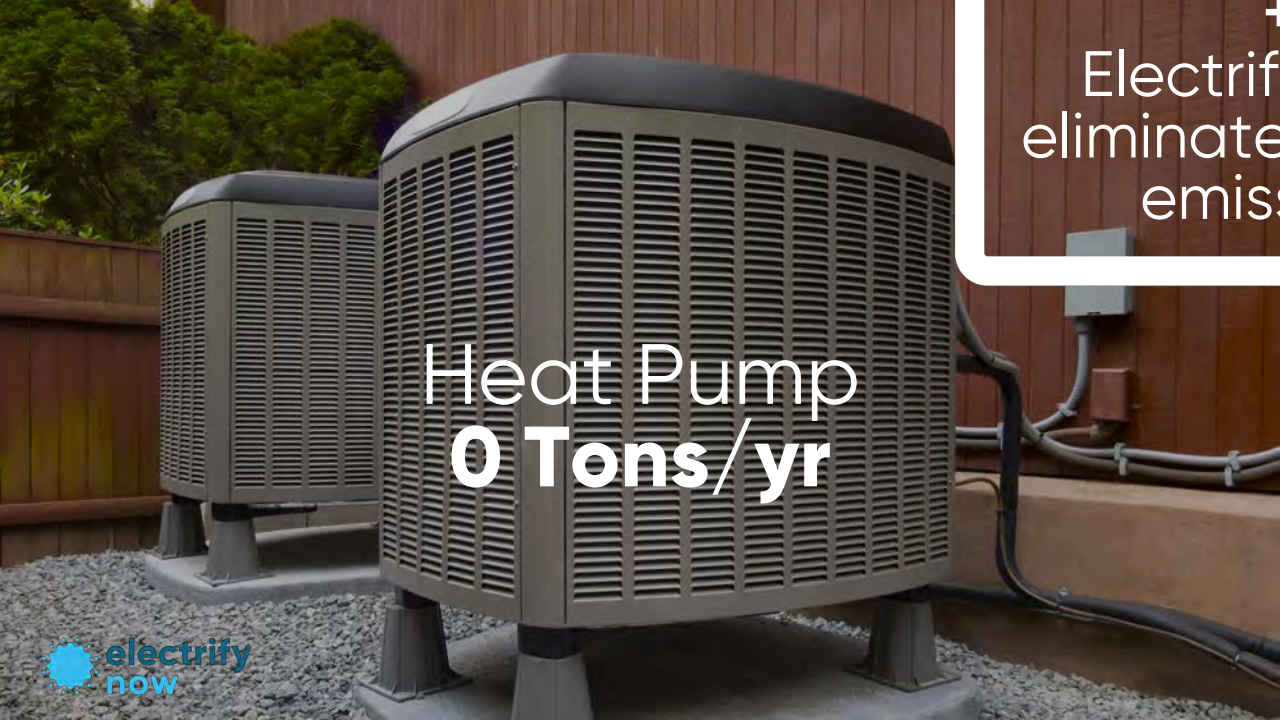
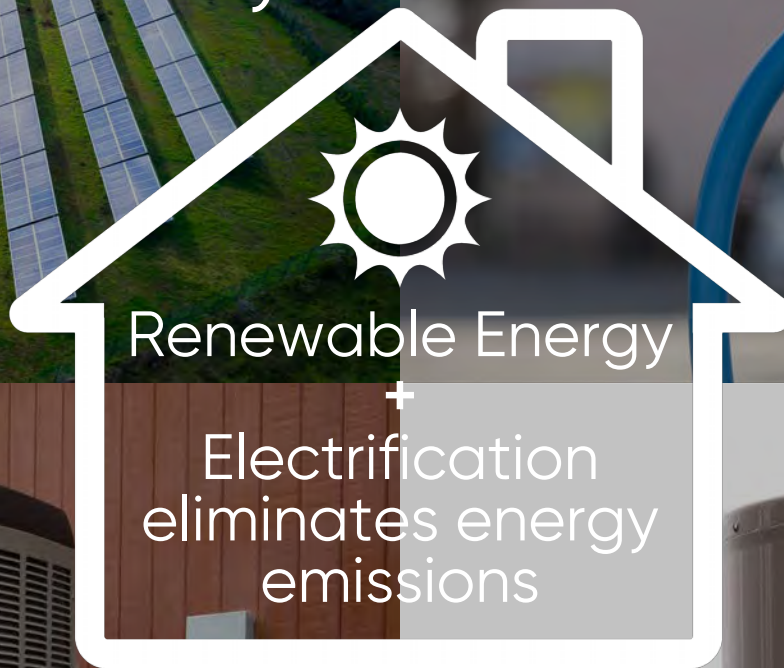
Gas Water Heater
1-3 Tons CO₂e/yr



100% Renewable Electricity
0 Tons/yr



EV
0 Tons/yr



Heat Pump
0 Tons/yr



Heat Pump Water Heater
0 Tons/yr



Typical Household
Energy Emissions

15–25 Tons CO₂/yr

\$7,500/yr



Renewable Energy
+ Electrification

0 Tons CO₂/yr

\$3,000/yr



Oregon is headed to 100% Clean Energy by 2040

**Any Pacific Power or PGE customer can get 100%
clean energy right now with Community Solar**

Essential Electric Technologies

Ultra High Efficiency – High Performance – Low Carbon

Heat Pump
Water
Heater



Heat Pump
Space
Heating/AC



Induction
Range/
Cooktop



Electric
Fireplace,
HP Dryer



Electric
Vehicle





Heat Pump Water Heater

Reliable hot water
3-5 times more energy efficient
Lowest cost of operation
Longest product warranties
Grid interactive

10 year warranties

Rheem

AO Smith

Bradford
White



Heat Pump Water Heater

3-5 times more energy efficient

Lowest cost hot water

Demand-response ready

Cost to operate

\$420/yr

\$395/yr

\$330/yr

\$100/yr

Electric
Storage

Gas
Storage

Gas
Tankless

Heat
Pump



10 year warranties

Rheem

AO Smith

Bradford White

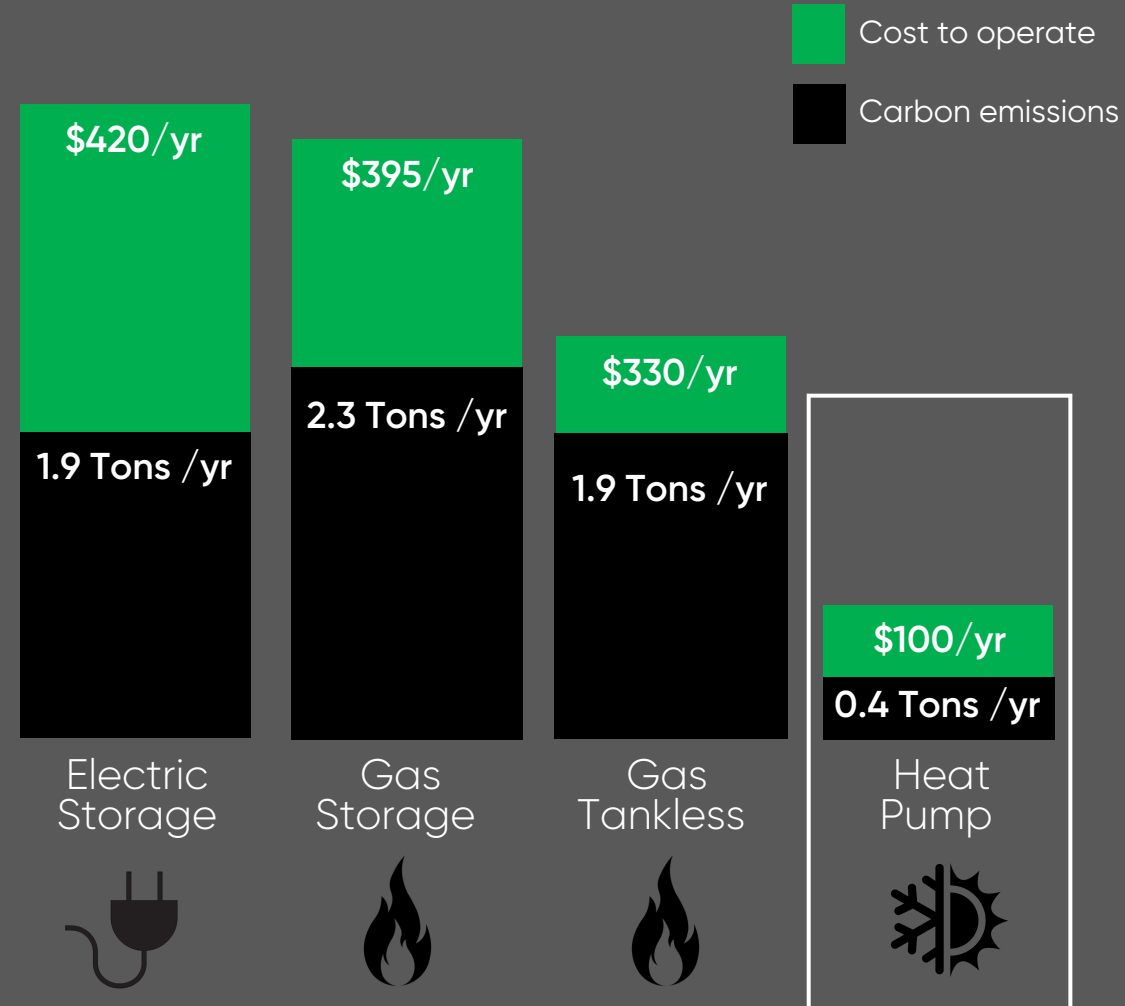


Heat Pump Water Heater

3-5 times more energy efficient

Lowest cost hot water

Demand-response ready



10 year warranties

Rheem

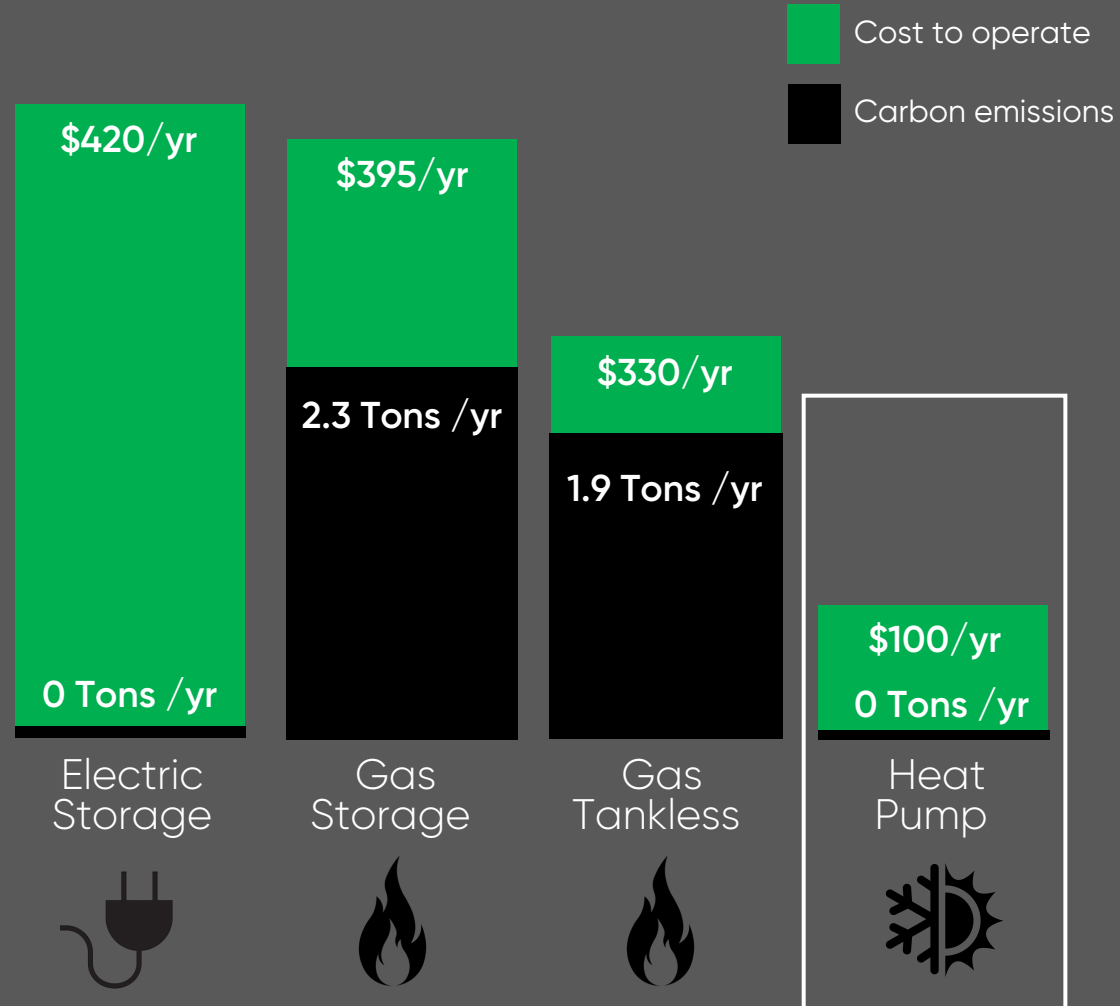
AO Smith

Bradford White



Heat Pump Water Heater

3-5 times more energy efficient
Lowest cost hot water
With renewable energy



Heat Pump Space Heating/AC

Heating and Cooling with one system

More constant temperatures

More continuous air movement

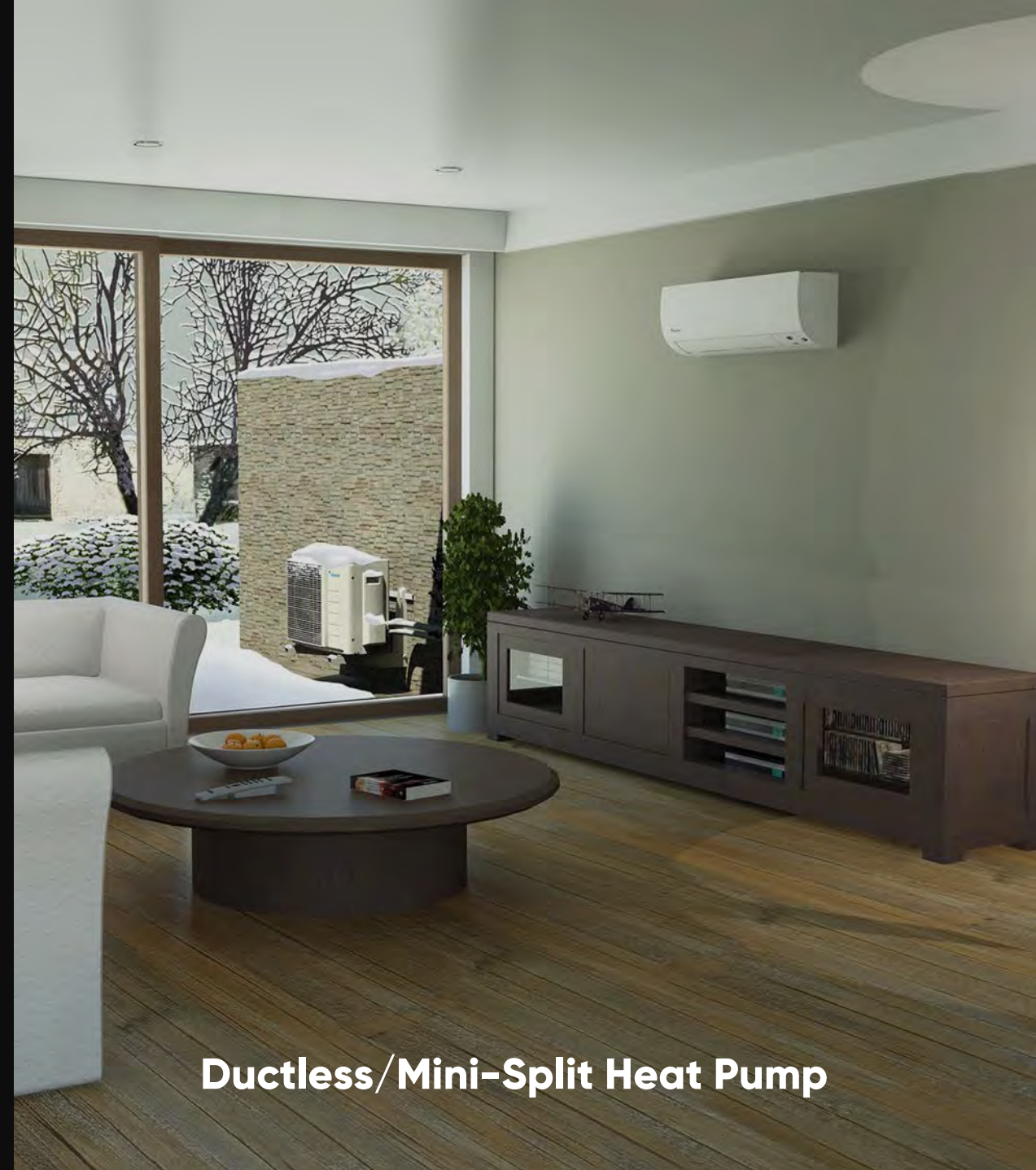
More air filtration

Superior Comfort

Avoid 4-8 Tons carbon emissions



Ducted/Central Heat Pump



Ductless/Mini-Split Heat Pump

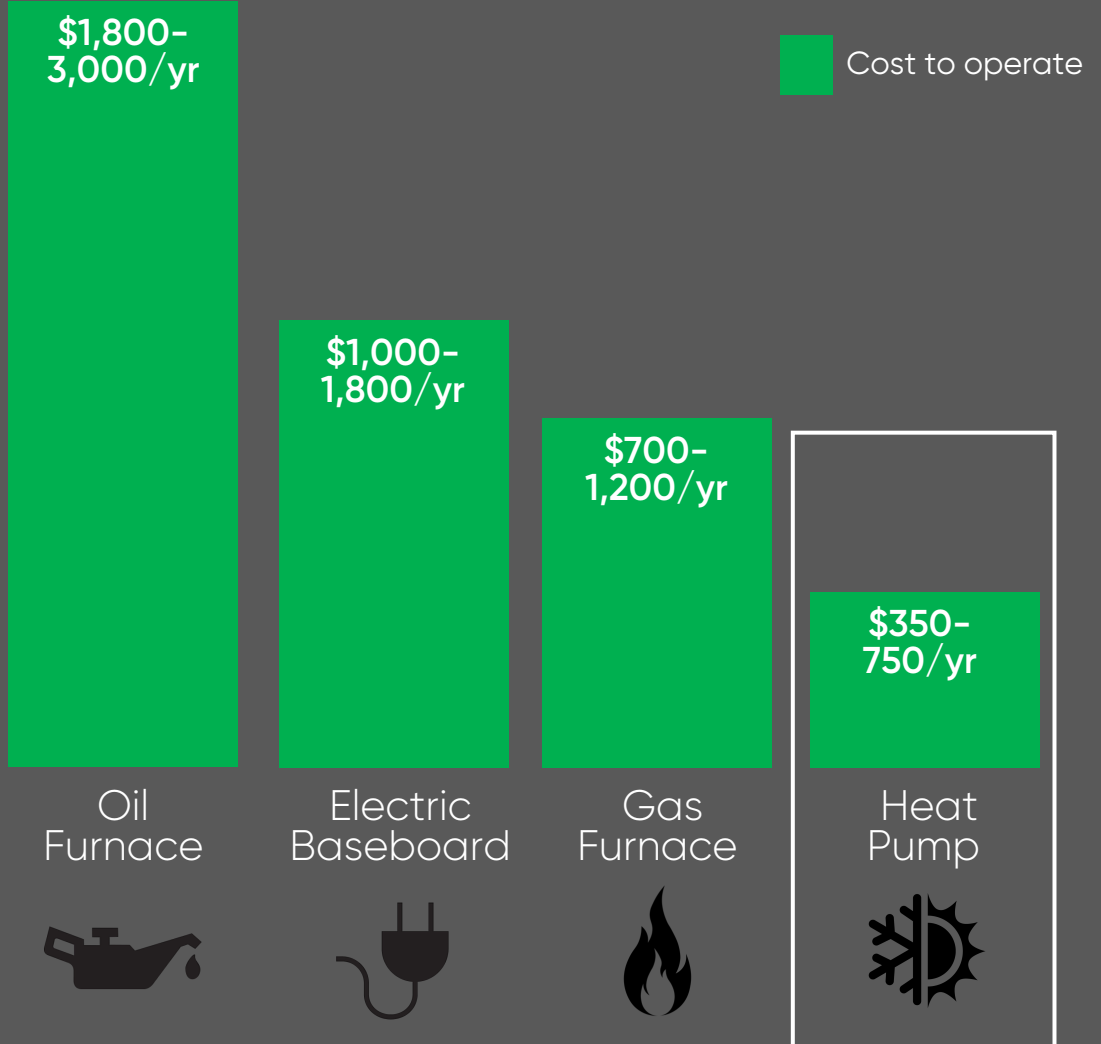


No gas backup needed!



Heat Pump Heating/AC

Cost effective and fewer emissions

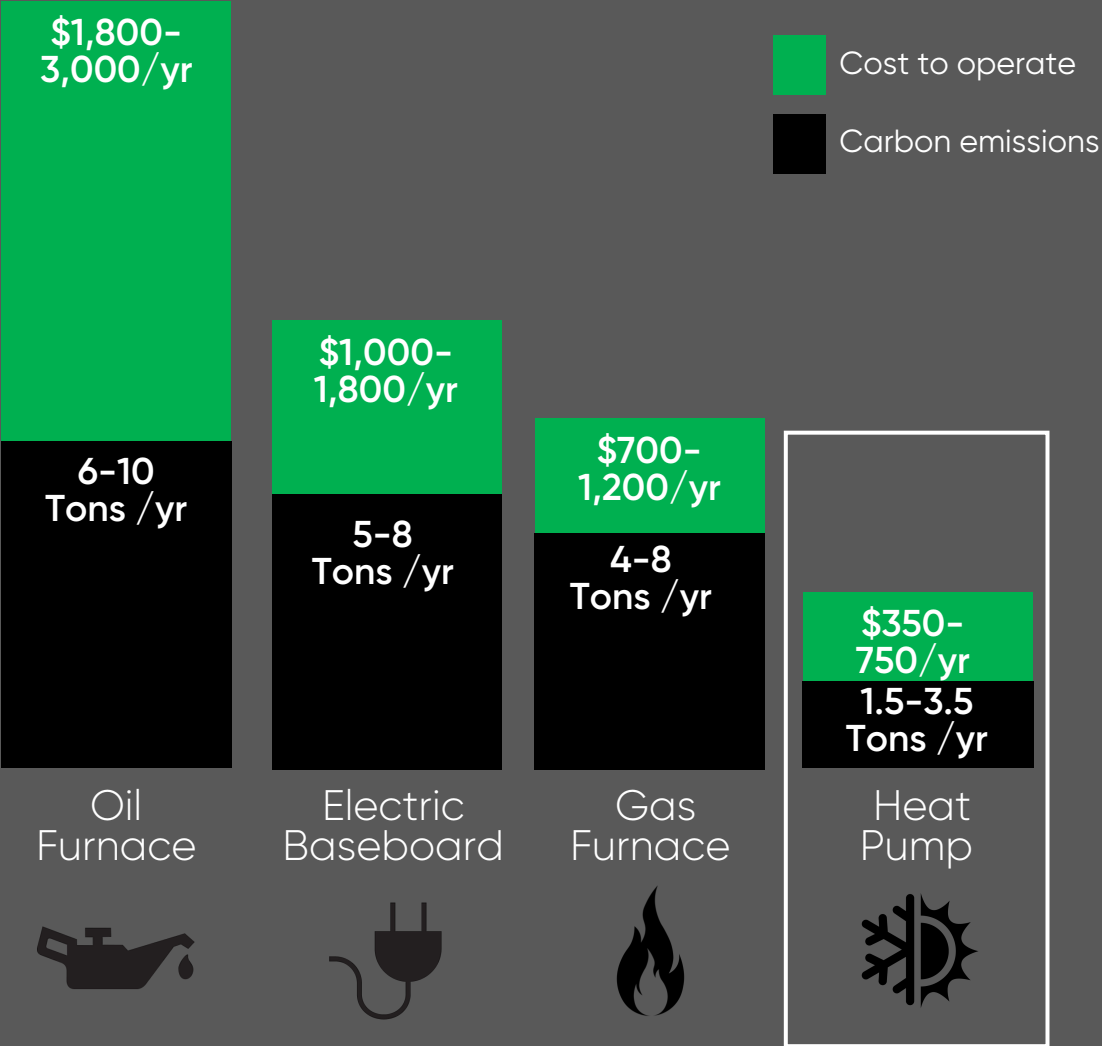


Heat Pump Heating/AC

Cost effective and fewer emissions



No gas backup needed!

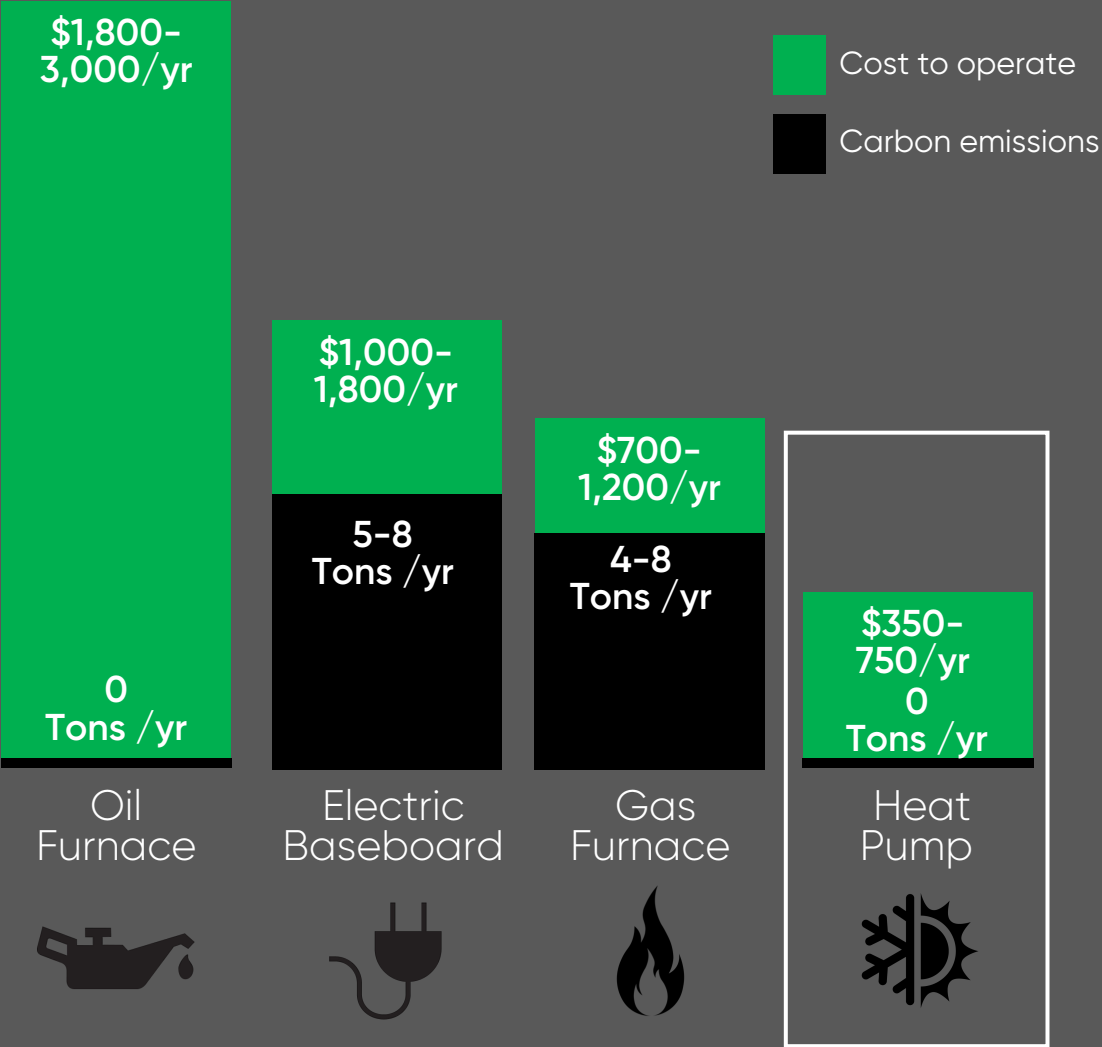


Heat Pump Heating/AC

Cost effective and fewer emissions
With renewable energy



No gas backup needed!



Induction Cooking

Better performance/ Superior indoor air quality

Precise temperature control
Faster heating and cooldown
Much easier to clean
Safer





Stanford
University

Use of a gas stove increases household air pollution and the risk of childhood asthma and asthma severity.

A single gas stove burner can create higher indoor concentrations of cancer causing benzene than second hand tobacco smoke

Indoor air pollution from gas stoves can reach levels that would be illegal outdoors

from: American Medical Association, RMI, Physicians for Social Responsibility, Sierra Club, Mothers Out Front, Stanford University

Safer

ZERO CO and NO₂ emissions
No leaking methane
Surface stays cool to the touch



Superior Performance

Time to boil 8 quarts of Water



9.3 min



Electric
Induction



17.8 min



Electric
Resistance



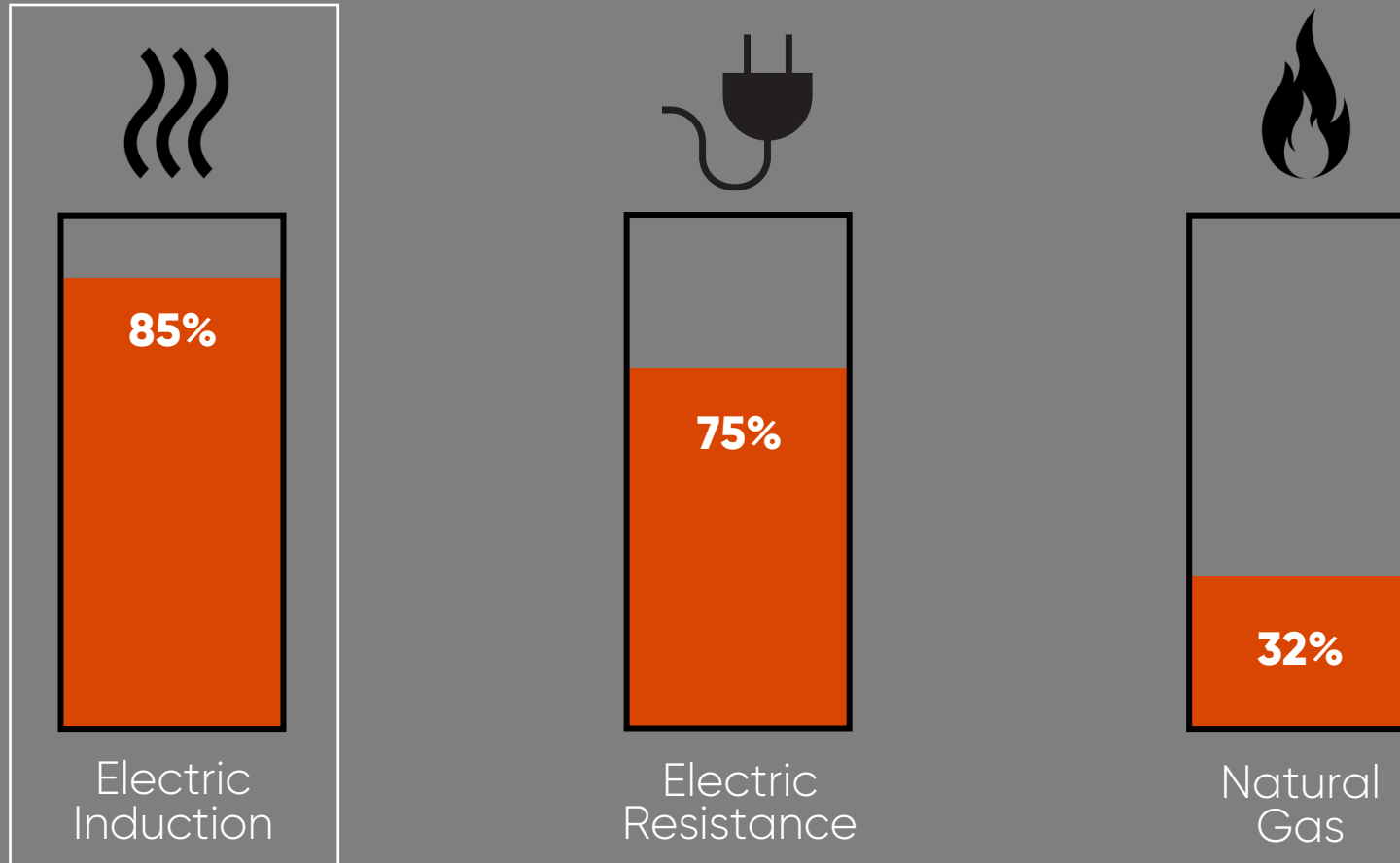
18.6min



Natural
Gas

Superior Efficiency

More useful energy delivered





Induction Hot Plate

- Countertop unit
- All the speed and control of induction
- Cost around \$100 or less

Electric Vehicles

Better Performance
Dramatically lower operating costs
Charge from home
Very little maintenance
No gas stations!!!

EV's are far more energy efficient

More miles for the money

Hyundai Kona



66
miles

Hyundai Kona EV

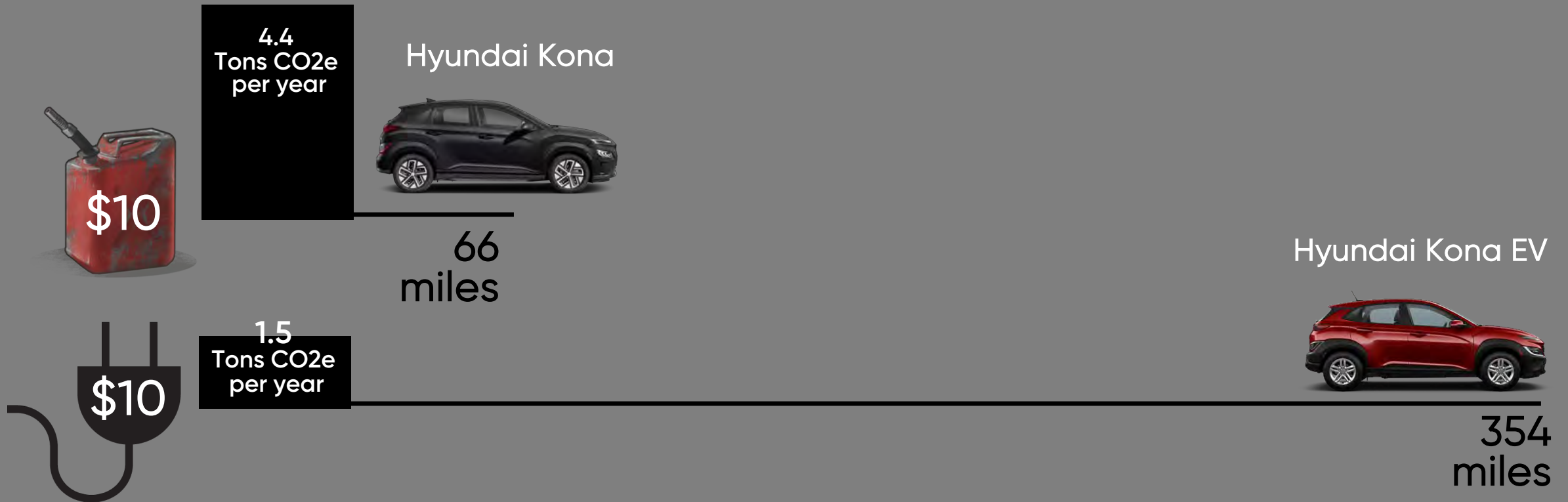


354
miles



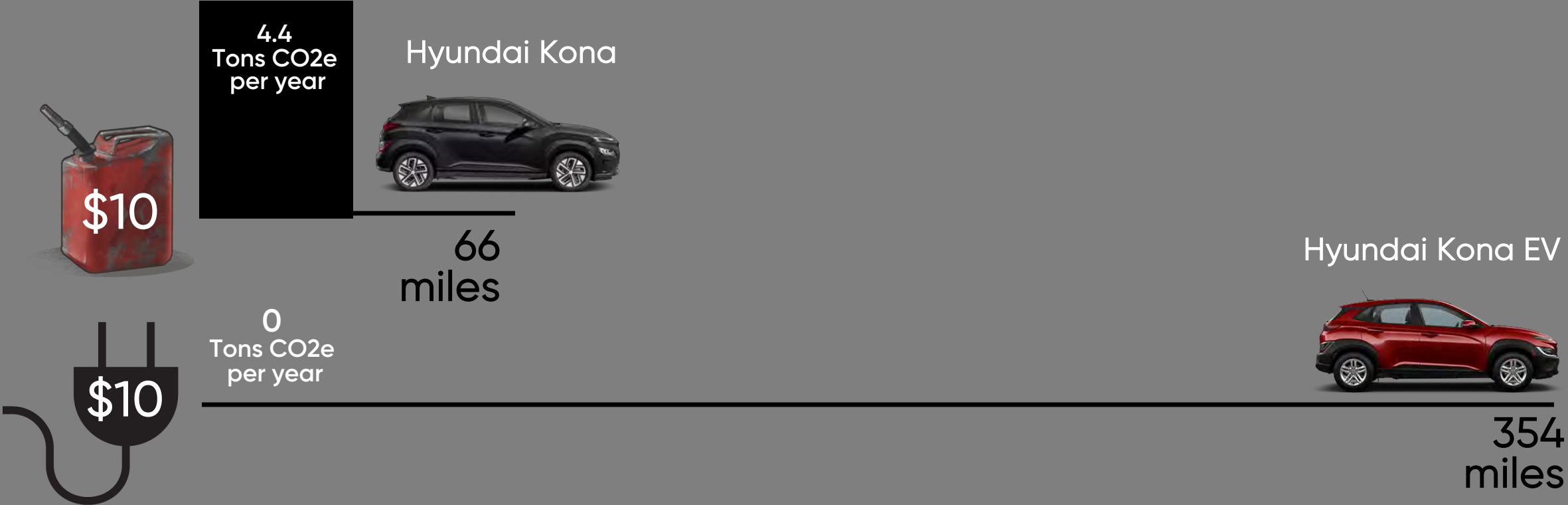
EV's are far more energy efficient

Fewer carbon emissions per mile



EV's are far more energy efficient

Zero emissions when charging with renewable energy



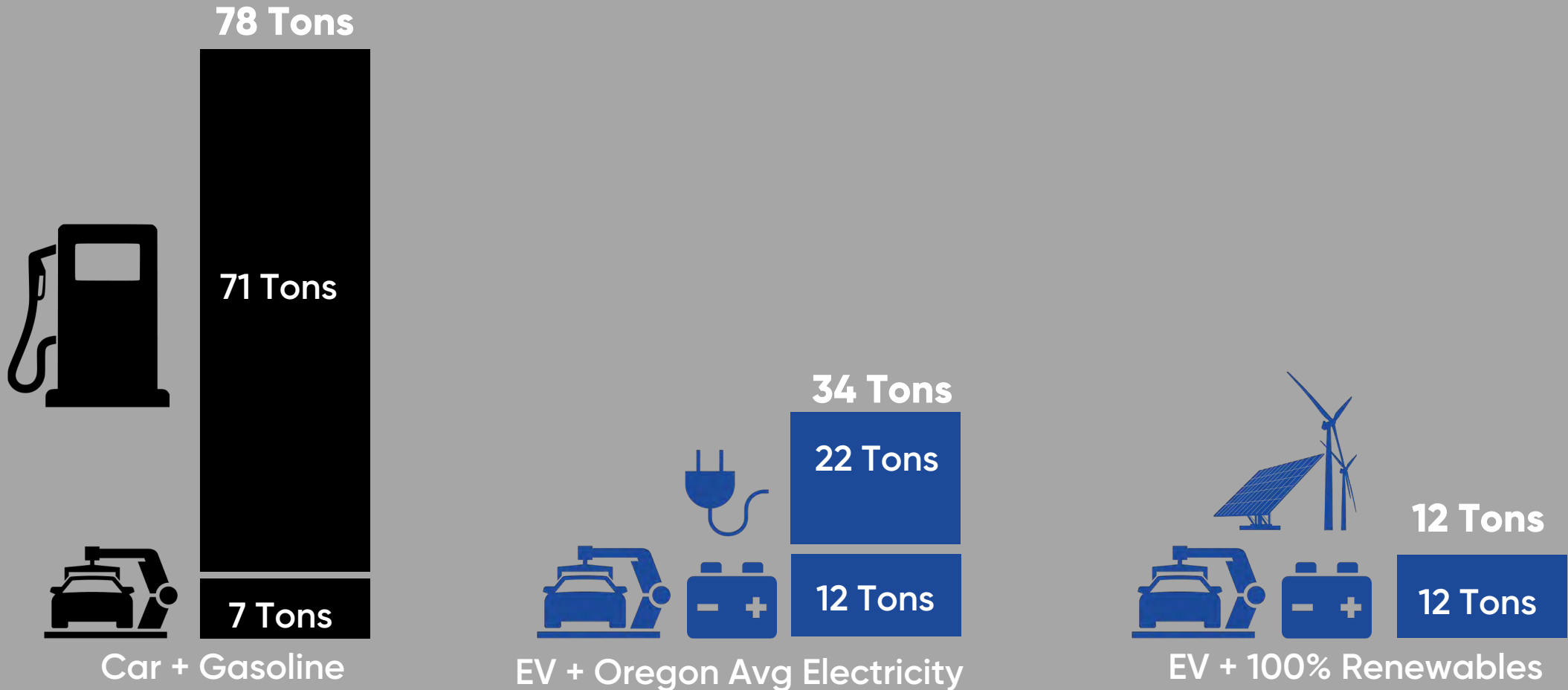
EV's are cheaper than you think!

	Kona	Kona EV
2023 List Price	\$23,950	\$33,550
Fed Tax Credit		-\$7,500
State Tax Credit		
	<hr/>	<hr/>
	\$23,950	\$26,050
5 yr fuel cost	\$8,850	\$1,770
5 yr maintenance	\$2,000	\$880
	<hr/>	<hr/>
Total 5 yr Cost	\$34,700	\$28,700

**You Save
\$6,000**

What about the manufacturing the batteries?

EV's produce far lower lifecycle emissions



Resilience and Grid Efficiency

Vehicle to Home
Vehicle to Grid

70 - 140kWh sitting in your driveway



x 50



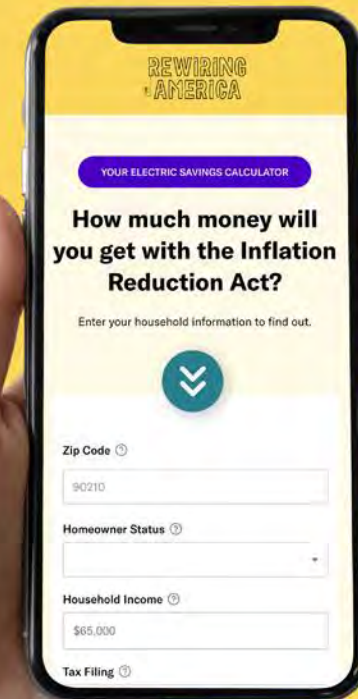
The Inflation Reduction Act

"...the single largest climate investment in American history"

\$ Billions in rebates, tax incentives, supply chain investments for:

Home energy upgrades
Clean energy infrastructure
Domestic manufacturing

REWIRING AMERICA




REWIRING AMERICA

YOUR ELECTRIC SAVINGS CALCULATOR

How much money will you get with the Inflation Reduction Act?

Enter your household information to find out.



Zip Code ⓘ
90210

Homeowner Status ⓘ
[Dropdown menu]

Household Income ⓘ
\$65,000

Tax Filing ⓘ



Household Electrification Incentives

All the savings you may be eligible for!

Tax Credits ⓘ

ITEM	AMOUNT
Battery Storage Installation	30%
Geothermal Heating Installation	30%
Electric Panel	\$600
New Electric Vehicle	\$7,500
Heat Pump Air Conditioner/Heater	\$2,000
Heat Pump Water Heater	\$2,000
Rooftop Solar Installation	30%
Weatherization	\$1,200
Electric Vehicle Charge	\$1,000
Used Electric Vehicle	\$5,000

Local, State and Federal incentives add up to big savings



\$3,050
HP Water Heater



\$4,000
Heat Pump



\$0
Induction



\$0
Heat Pump Dryer



\$8,000
EV and Charger



\$150
Energy Audit



\$4,200
Weatherization



\$1,600
Wiring/ Panel

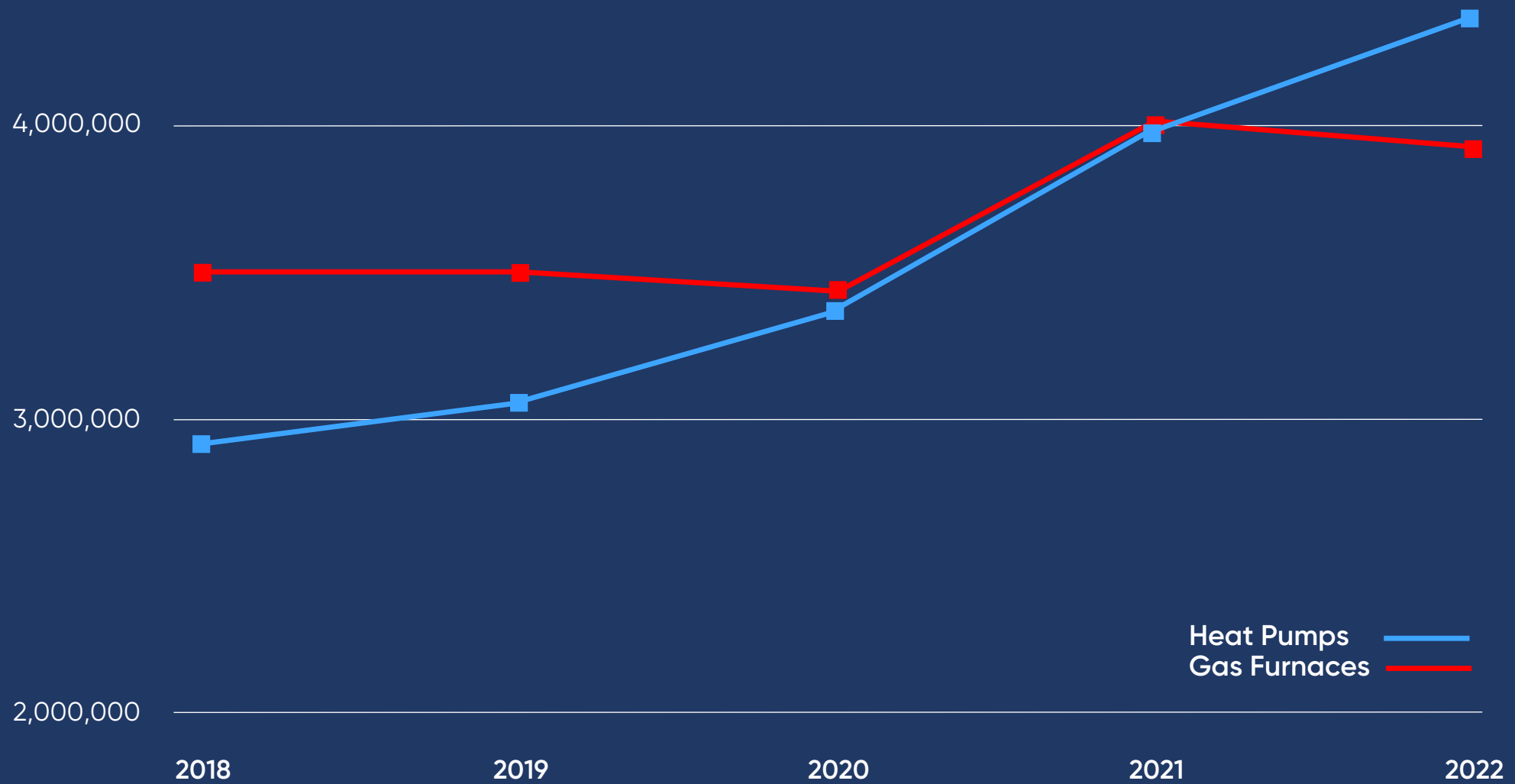


\$5,600
Rooftop Solar*



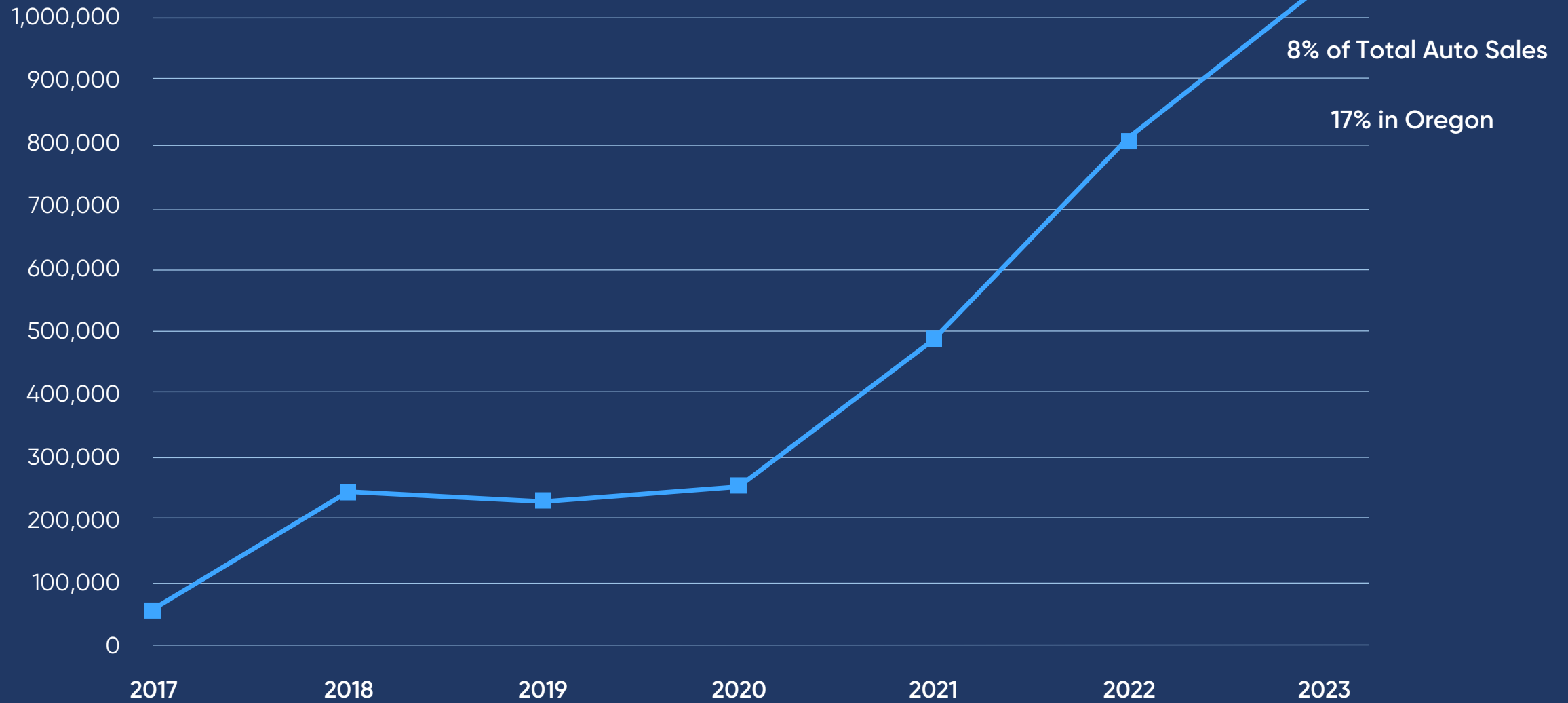
\$10,500
Battery Storage*

Americans prefer Heat Pumps!



US Heat Pump vs Gas Furnace Sales
AHRI Heating and Cooling Equipment Shipment Data

US EV Sales



Cox Automotive – US Auto Sales



1. Clean up your electric supply
2. Electrify your home
3. Electrify your ride
4. Electrify Everyone

electrifynow.net

Can Electrification Change the World?
Electrification and renewable energy are the most powerful and lowest cost tools to eliminate carbon emissions. But it is easy to overlook the other

induction stove buying guide

Its better and safer, but which one?
It would be hard to miss all the media attention on the dangers of gas cooking and advantages of induction, so if you are thinking about making the switch in your home, here are some resources to help you find the right solution.

Electric Kitchens is a website devoted to the advantages of going electric - they have great info and FAQs and rebate information if you live in California. Yale Appliances provides a great [buyers guide](#) as well as reliability data based on their own sales and service. [Consumer Reports](#) are very thorough and unbiased and cover the entry level offerings very well. (but you have to be a

electric power tool discounts

Exchange your gas tools for a discount on electric tools
PGE is sponsoring [outdoor power tool exchanges](#) this month in several locations in the Portland metro area. By registering for these events, you can bring a gas tool to be recycled and pick up a replacement electric tool at a substantial discount. You will get 15 - 20% off of the industry leading [EQO Power Tools](#), and get your dangerous air polluting gas tools recycled for free. It's a great way to start the summer with clean, maintenance free outdoor landscaping - this could be a great early father's day present too!

[Register now for a tool exchange and electric tool discount!](#)

The Dangers of Cooking with Gas

Central Heat Pumps

Home Backup Power

Heat Pump Water Heaters