Climate Change & Public Health: Countering Misinformation

Let's Talk About It

Presented by Linda McGinnis
Senior Fellow, EAN (Energy Action Network)
April 26, 2025

ENERGY ACTION NETWORK

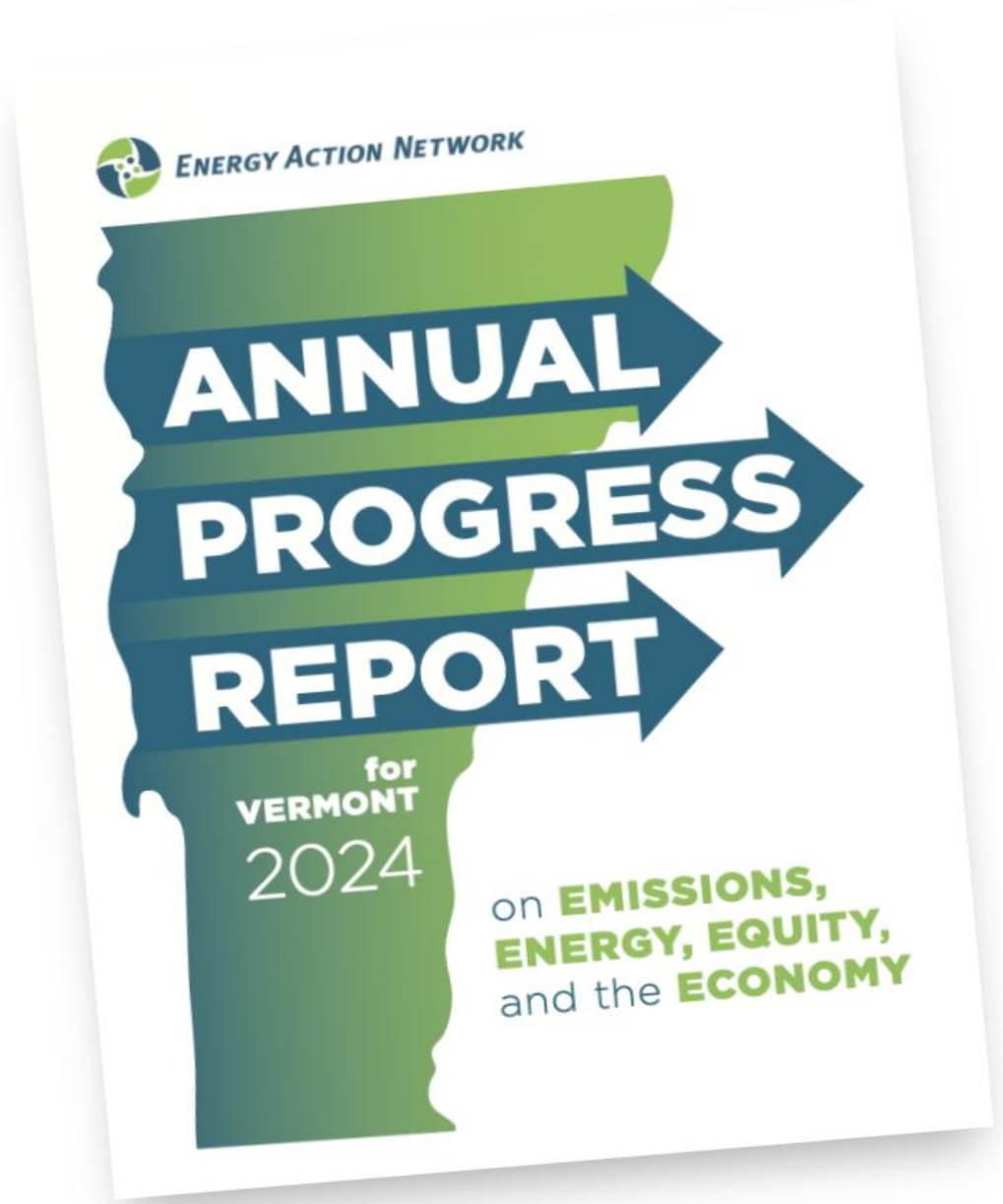
The Network

Hundreds of public sector, non-profit, utility, business, and higher education partners working collaboratively to achieve Vermont's climate and energy commitments.

The Non-profit

Works to ensure that VT makes evidence-based energy and climate decisions grounded in high-quality data, tracking, and analysis, developed collaboratively with trusted official sources.

Non-partisan, non-profit, non-advocacy



Why Misinformation Matters

Undermines public trust in science and health care workers

Increases vulnerability to health risks

Creates confusion and fear, denial and polarization

Slows action that can help all of us (and save money while we are at it)

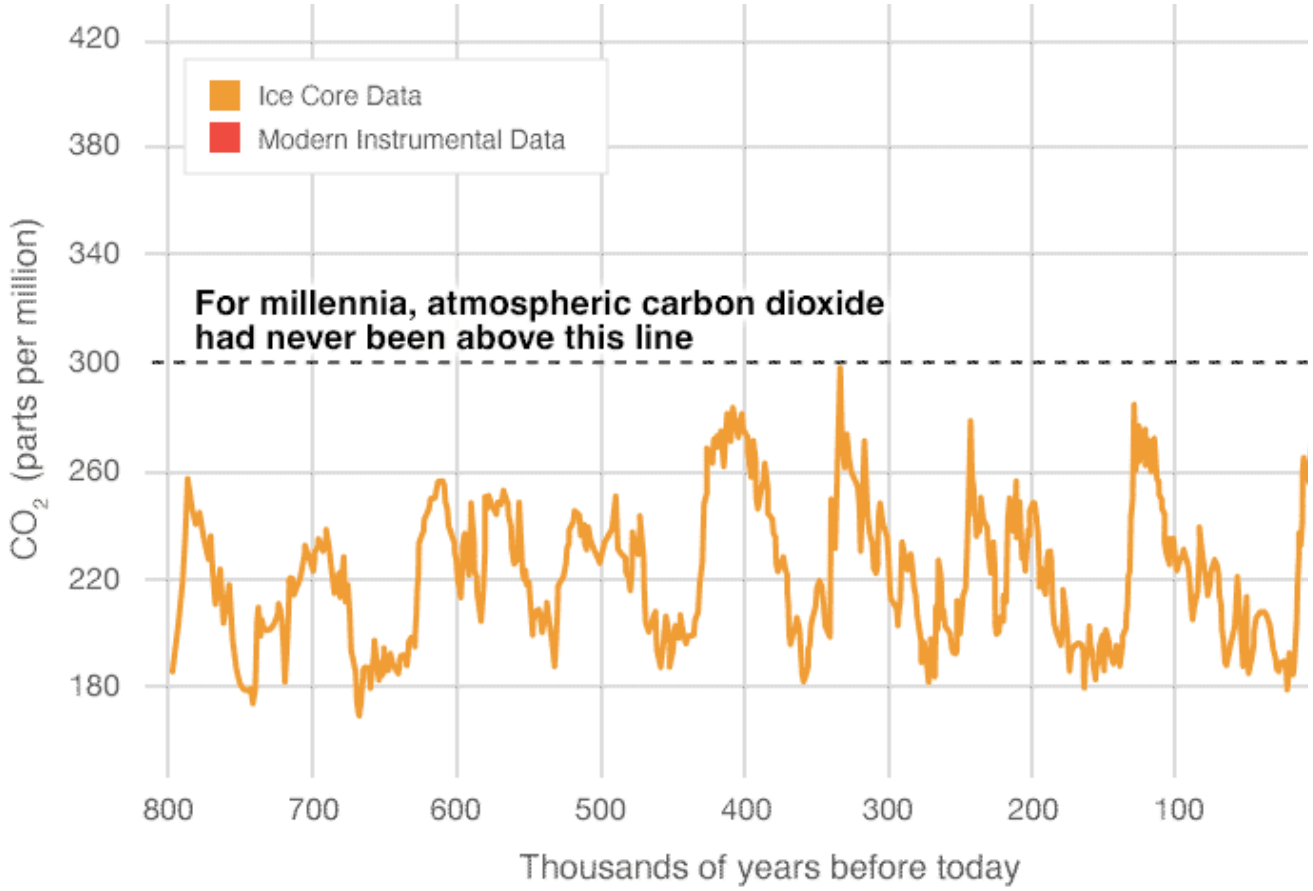
Common Misinformation Themes

1. “Climate has always changed”
2. “Scientific consensus doesn’t exist”
3. ”There’s no health impact from rising temperatures or fossil fuels”

In Vermont

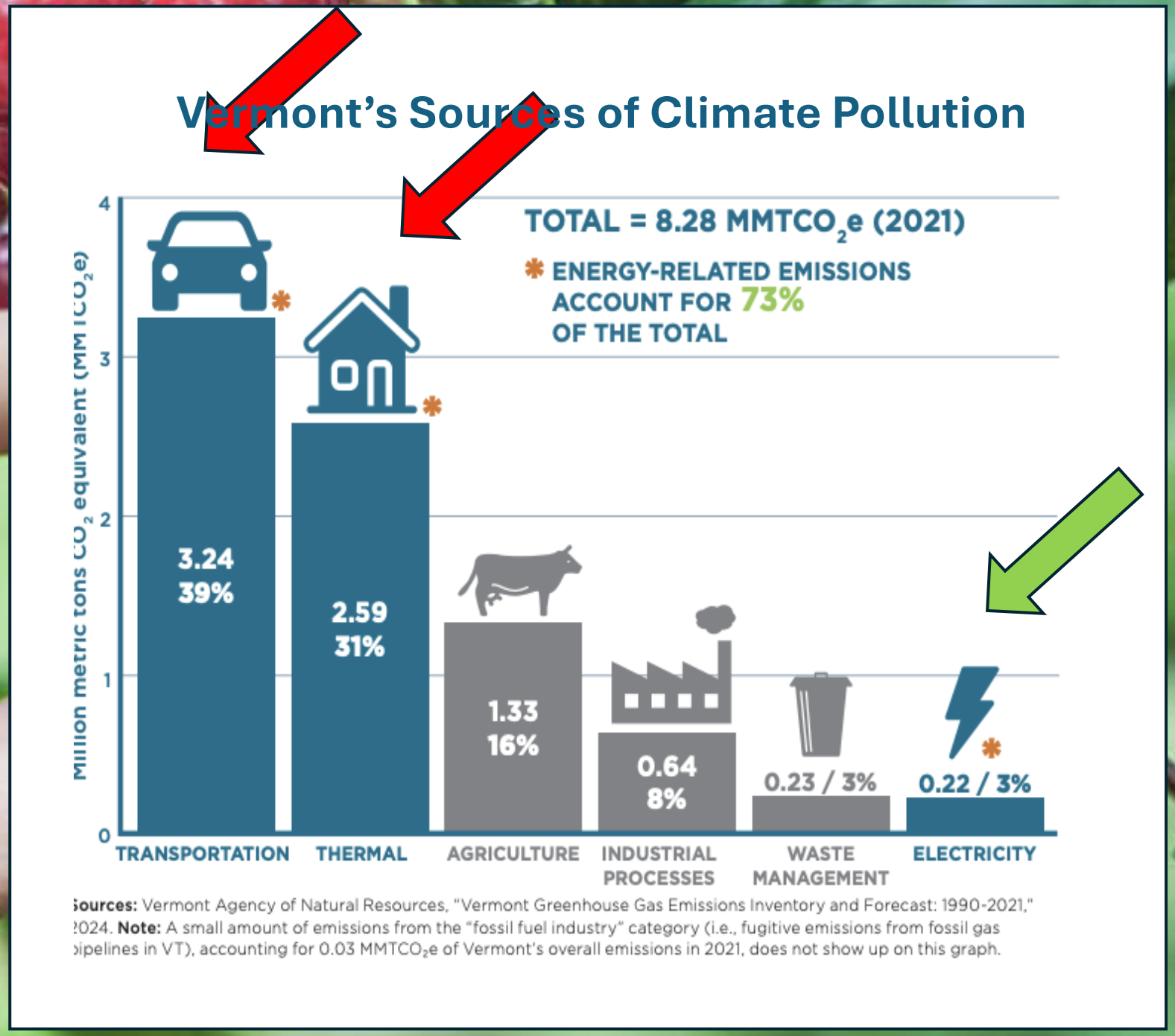
1. “Vermont’s energy is very ‘green’, so we’re good”
2. “Switching to electric is too costly”
3. “There’s not much I can do as an individual to make a difference”

Cherry-picking

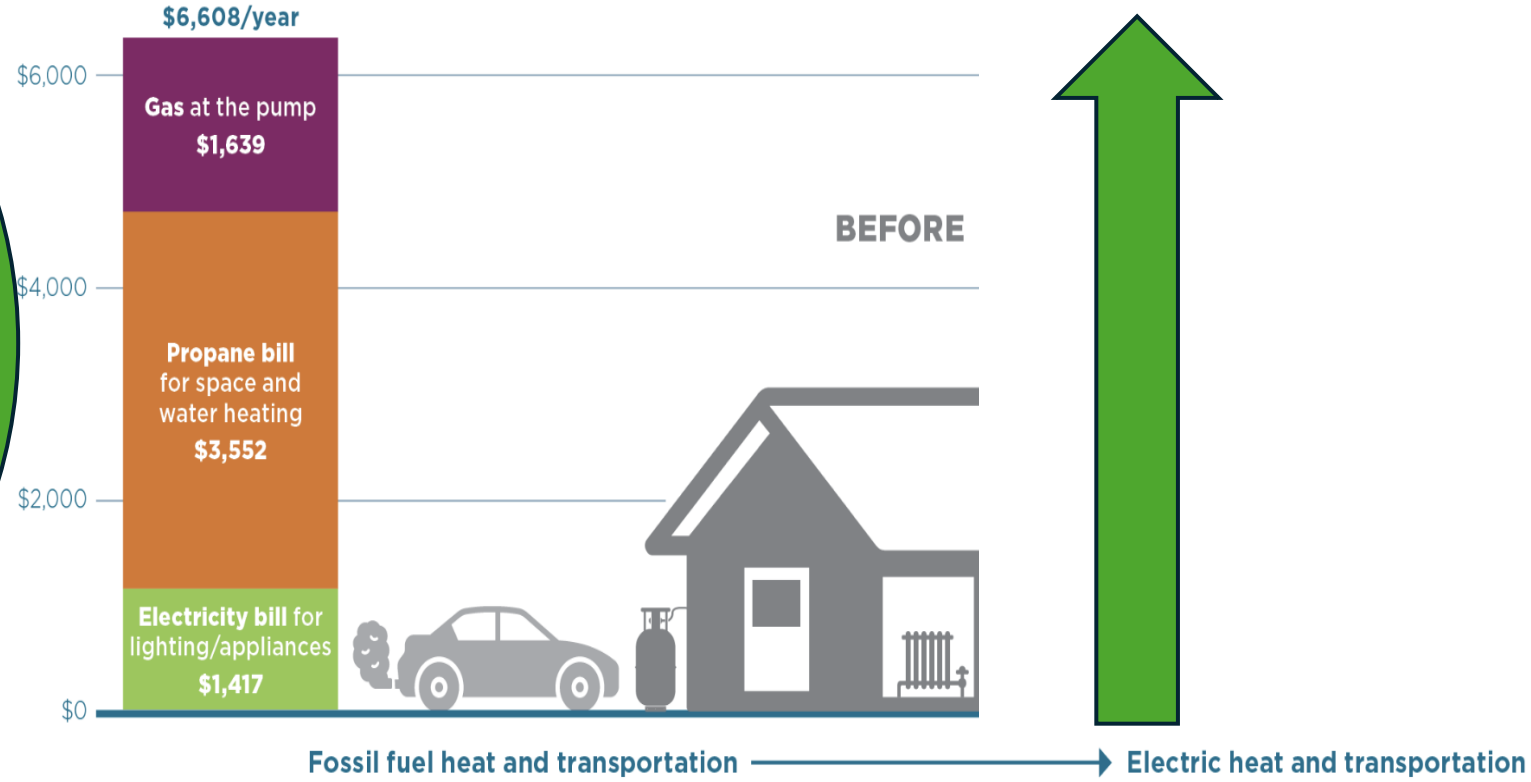


Carbon is highest level in 800,000 years

Incomplete


Vermont's Sources of Climate Pollution
TOTAL = 8.28 MMTCO2e (2021)
* ENERGY-RELATED EMISSIONS ACCOUNT FOR 73% OF THE TOTAL
Million metric tons CO2 equivalent (MMTCO2e)
0
1
2
3
4
3.24
39%
2.59
31%
1.33
16%
0.64
8%
0.23 / 3%
0.22 / 3%
TRANSPORTATION
THERMAL
AGRICULTURE
INDUSTRIAL PROCESSES
WASTE MANAGEMENT
ELECTRICITY
Sources: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2021," 2024. Note: A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.03 MMTCO2e of Vermont's overall emissions in 2021, does not show up on this graph.

Average energy bill for Vermont household before and after electrification



Sources: Energy bill savings calculated based on the average monthly prices for propane, gasoline, and electricity in 2023, from the Vermont Department of Public Service and EIA. Electricity bill costs for lighting and appliances reflect statewide average annual household electricity expenditures (Efficiency Vermont, "Vermont Energy Burden Report," 2023). Annual transportation fuel costs calculated using average fuel

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Public Health Impacts of Climate Change in Vermont

High Temps

- Heat related illnesses
- Lyme and other Vector-borne disease
- Algae blooms
- Air Quality (Pollen, mold, etc.) and respiratory illness

Extreme weather events (floods, drought)

- Foodborne and waterborne pathogens
- Population dislocation
- Crop failure, food insecurity, high cost
- Mental Health challenges

Vulnerable populations hit the hardest (children and elderly)

Public Health Impacts of Fossil Fuels

Indoor Air Pollutants

- Gas stoves raise indoor levels of carcinogens above those found in second-hand smoke
- Children in homes with gas stoves can have up to 42% increased risk of asthma symptoms.

Outdoor Air Pollutants

- Diesel emissions burrow into lungs causing inflammation, asthma, host of respiratory illnesses.
- Children are especially impacted because respiratory systems are still developing, and particulate matter is worse inside buses than outside.

Strategy 1 – Recognize and Support Credible Sources

- Start with the basics (does it cite evidence, is it peer reviewed, reputation, etc)
- Watch for red flags
- Use tools like fact-checking sites
- Teach others to understand the difference
- Support trusted outlets

Strategy 2 – Community Engage in Two-Way Communication

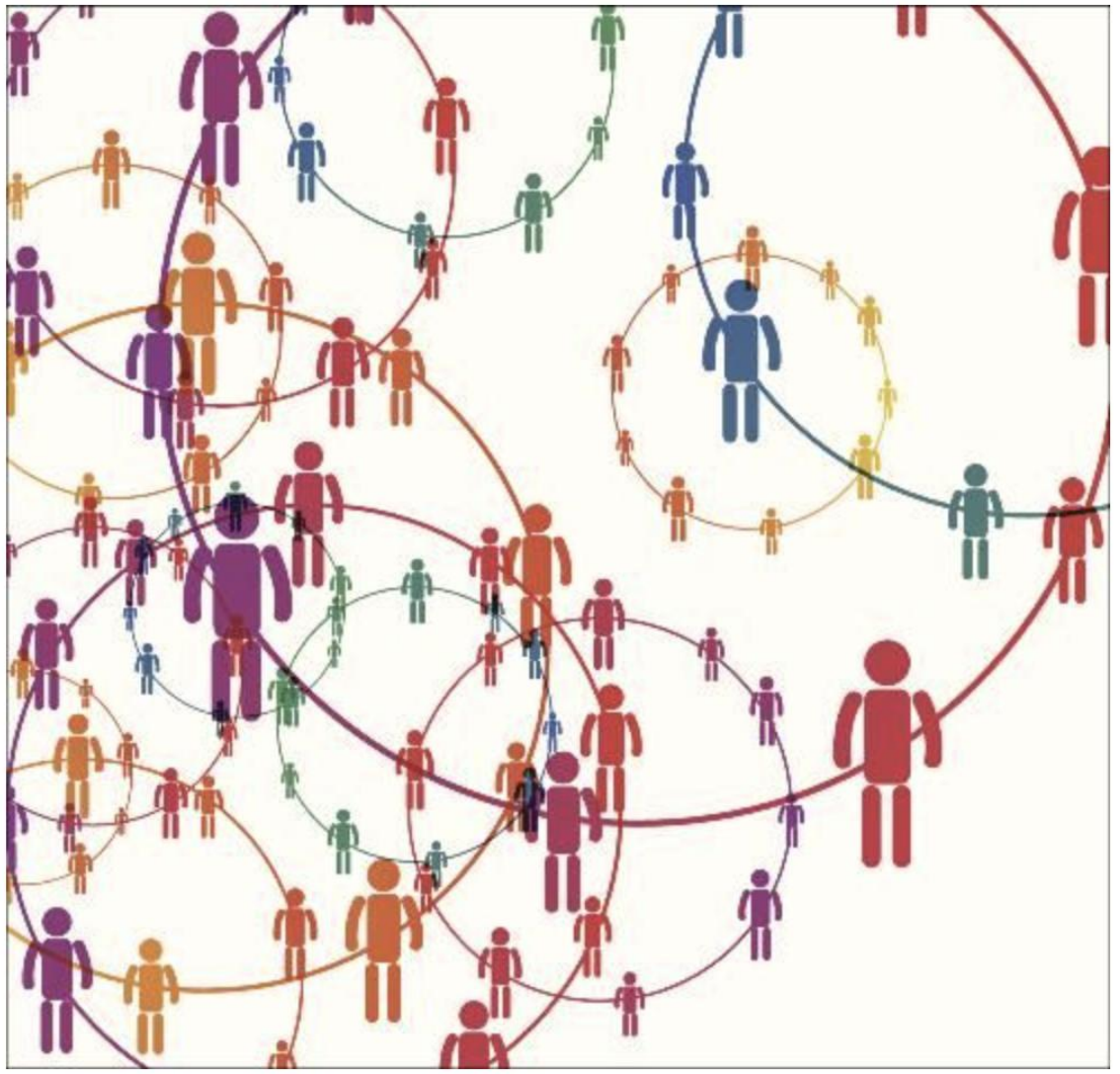
- Listen to community concerns
- Address misinformation without shame or blame
- Foster dialogue, not just delivery
- Build long-term relationships

Strategy 3 – Promote Scientific/media Literacy

- Integrate climate-health content in schools
- Host community workshops/webinars
- Share accessible, evidence-based resources
- Point out misinformation and tactics like cherry picking
- Encourage critical thinking and media literacy

Strategy 4 – Leverage Trusted Messengers

- Partner with health professionals, scientists, and educators
- Engage community leaders and influencers
- Use storytelling to connect data to real lives
- Train media representatives in climate content
- Elevate local voices

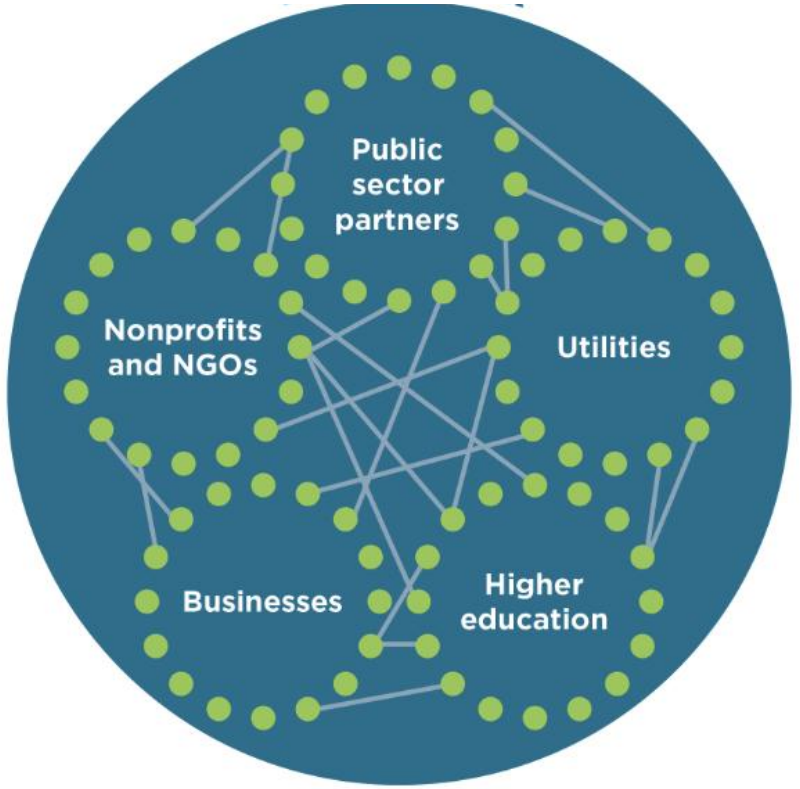


Strategy 5 – Build Coalitions and Partnerships

- NGOs, universities, government, media, local leaders
- Share data/resources across platforms
- Coordinate rapid response to viral misinformation
- Cross-sector collaboration for unified messaging

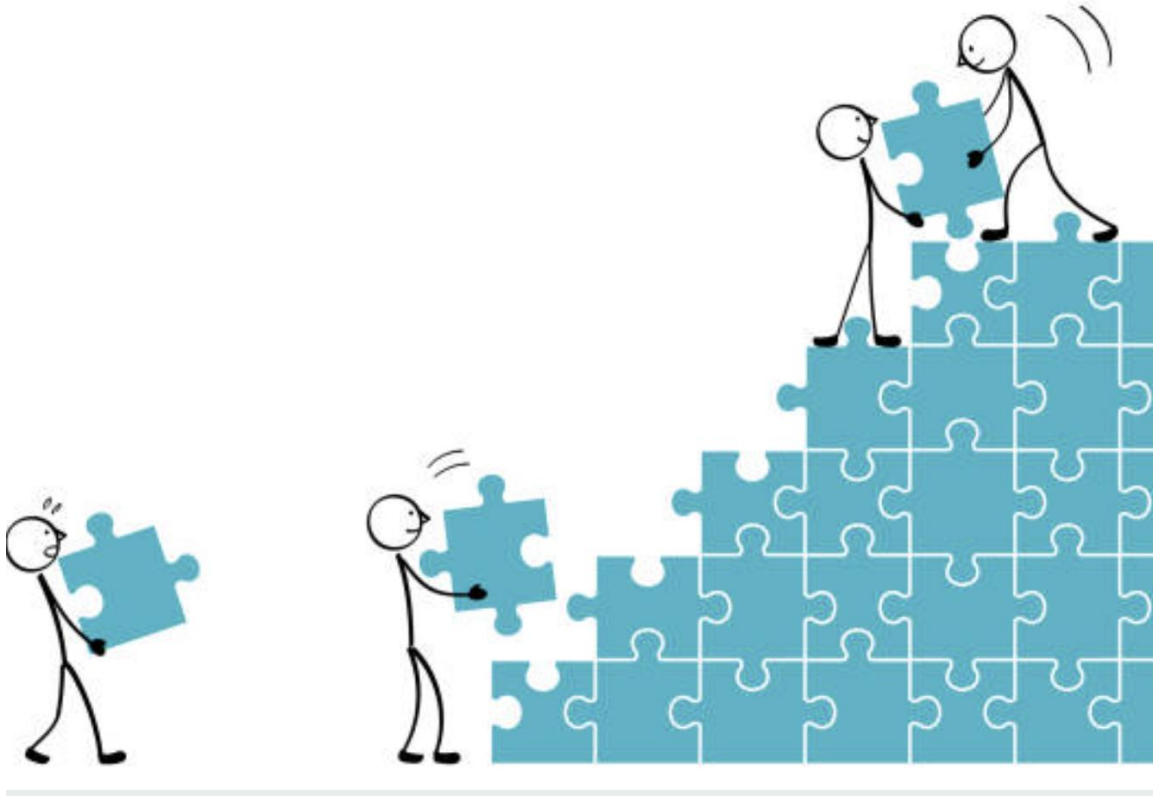
VERMONT'S CLIMATE AND ENERGY COMMITMENTS

EAN Energy Action Network



Strategy 6 – Rebuild Trust in Science and Institutions

- **Acknowledge skepticism**: Some people feel left out or confused by scientific language or institutions.
- **Humanize scientists**: Share stories, backgrounds, or motivations of real scientists — they're people, not distant elites.
- **Show transparency**: Science evolves, and that's a strength — it corrects itself as new evidence emerges.
- **Highlight consensus**: Over 97% of climate scientists agree — that's not opinion, it's overwhelming expert agreement.
- **Community relevance**: Point out local scientists, climate effects, or solutions tied to people's everyday lives.



Call to Action

1. Learn how to detect misinformation, and engage with your circles of care – personal and professional
2. Support those who are genuinely fighting misinformation
3. Take concrete actions in your own life toward a future that we would all like to share.


CLIMATE
SUMMIT
WHAT IF IT'S A BIG HOAX AND WE CREATE A BETTER WORLD FOR NOTHING?
• ENERGY INDEPENDENCE
• PRESERVE RAINFORESTS
• SUSTAINABILITY
• GREEN JOBS
• LIVABLE CITIES
• RENEWABLES
• CLEAN WATER, AIR
• HEALTHY CHILDREN
• ETC. ETC.
12/7/19 USATODAY
JOEL PETT

Thank you!

For more information, please visit

https://eanvt.org/

https://climatechange.vermont.gov/

https://www.healthvermont.gov/environment/climate-health

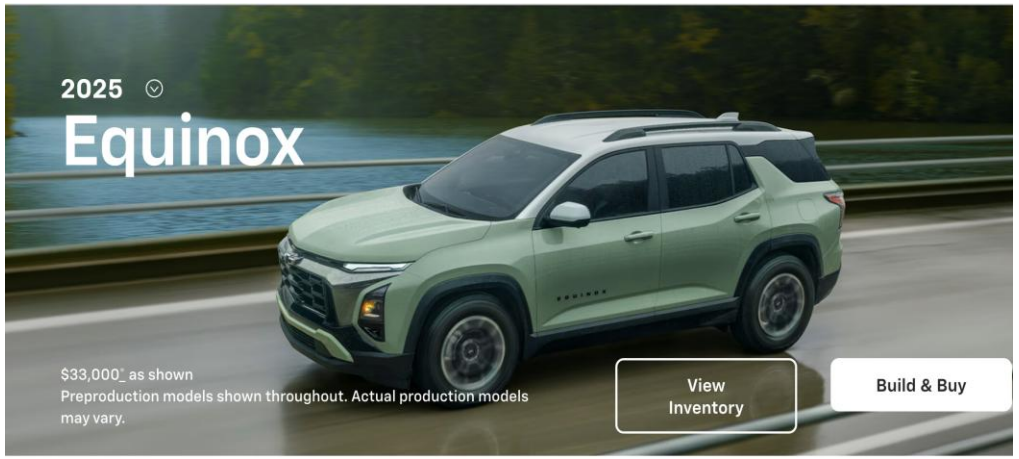
For advice, rebates, services on how to save with your own energy actions, please visit

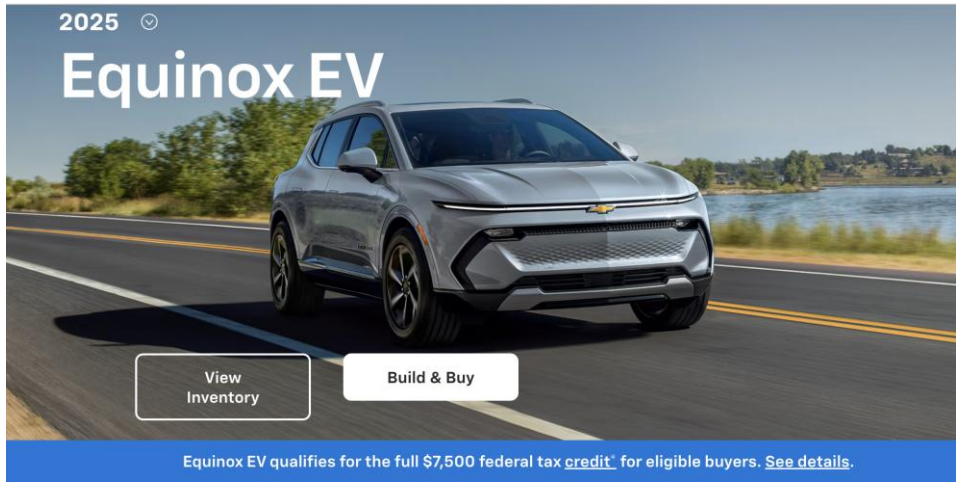
https://www.efficiencyvermont.com/

https://www.driveelectricvt.com/

Additional Slides

Comparing costs (gas or EV)

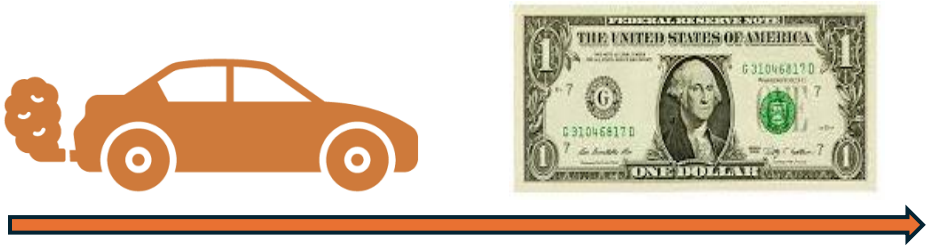




Category	Gas Equinox	EV Equinox
Starting Price	**$28,600**	$33,600 minus $7,500 (federal) and 2,200 to 3,200 (utility) **$23,000**
MPG/MPGe	26 city/31 highway	108
Distance on $1	7	15
Cost per gallon	$3.19	$1.50

Switch and save

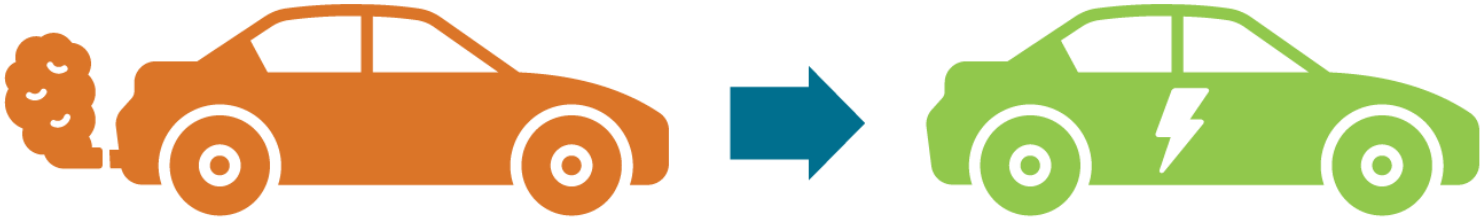
Comparing gas-powered vehicles to EVs



$1 = 7 miles ($3.19/gal)

$1 = 15 miles ($1.50/gal-e)

Lifetime cost savings of switching to an electric vehicle



Estimated savings on fuel and maintenance: ~ $9,500

+

Avoided social costs from reduced fuel-related GHG emissions over the life of the vehicle: ~ $7,000

Sources: Annual mileage assumed to be 11,084 based on 2022 data for Vermont from Federal Highway Administration; Fuel economy assumptions from the 2021 Vermont Transportation Energy Profile; Gasoline and electricity prices are 2023 averages for Vermont from EIA; gasoline emissions factors from EIA and EPA; electricity emissions intensity assumed to decrease linearly to 100% carbon-free by 2035; Social Cost of GHG values from the EPA (2023), using a 2% discount rate. Calculation based on a vehicle lifetime of 8 years, per assumptions in the 2023 Vermont Tier III Technical Reference Manual. **Note**: Upfront vehicle costs vary based on make/model and incentive eligibility; because of this variance, upfront vehicle costs are not quantified here. All costs and savings presented in 2024 dollars.

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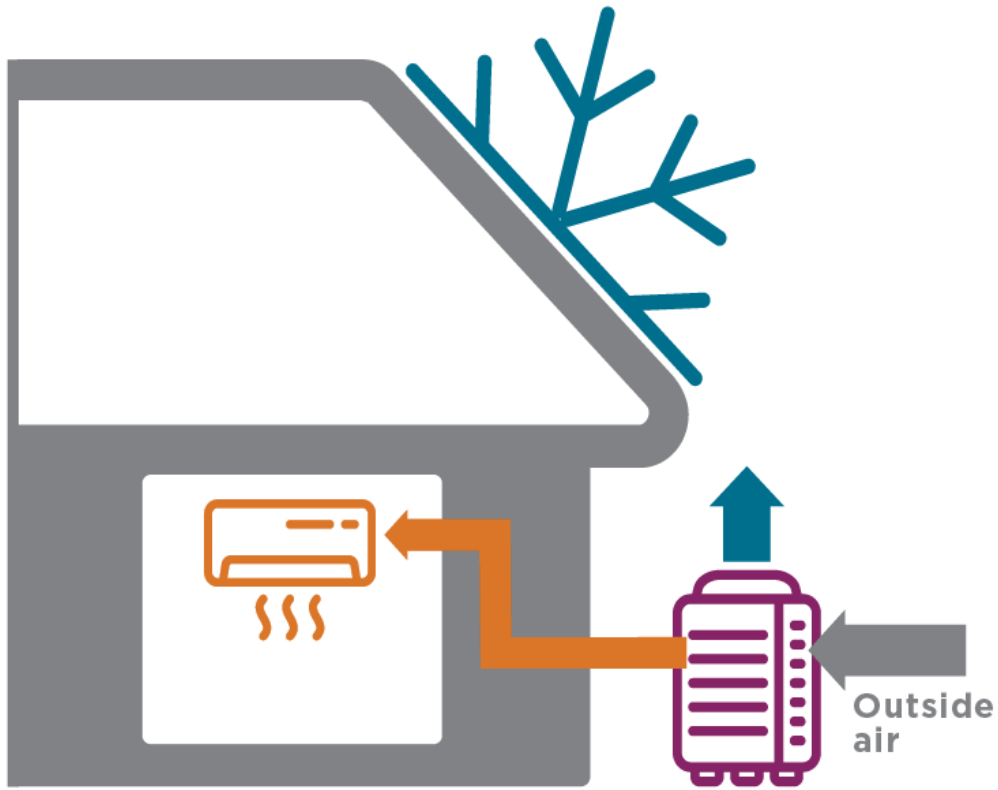
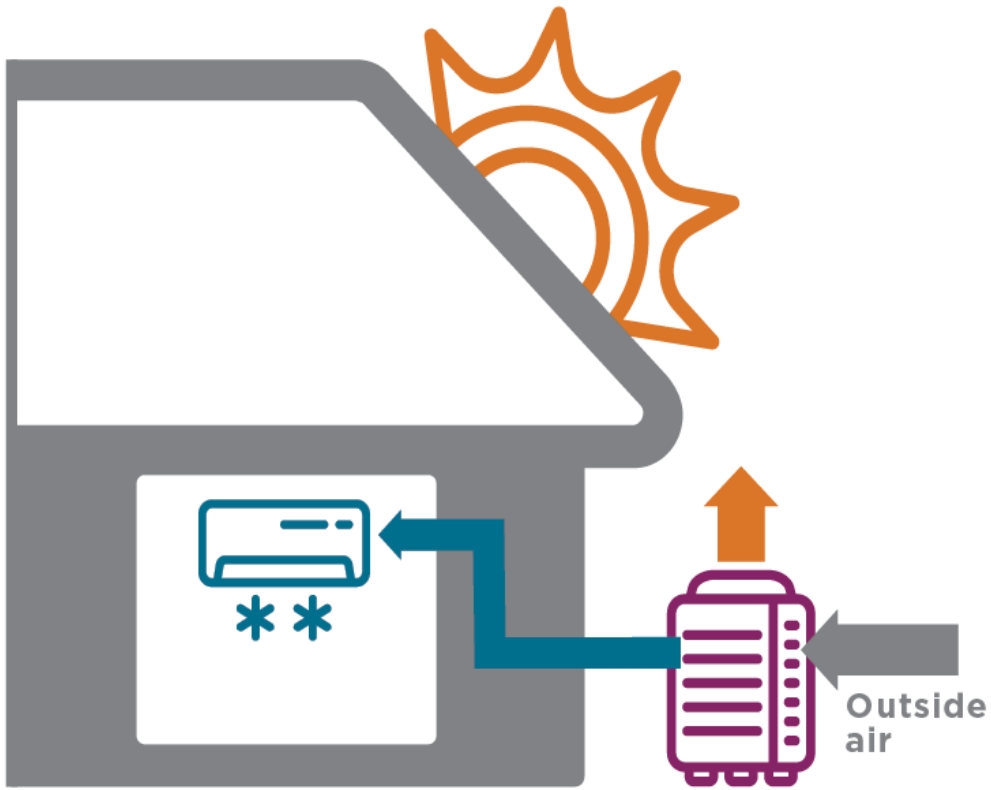
Heat pumps provide both heating and cooling



Heating mode



Cooling mode

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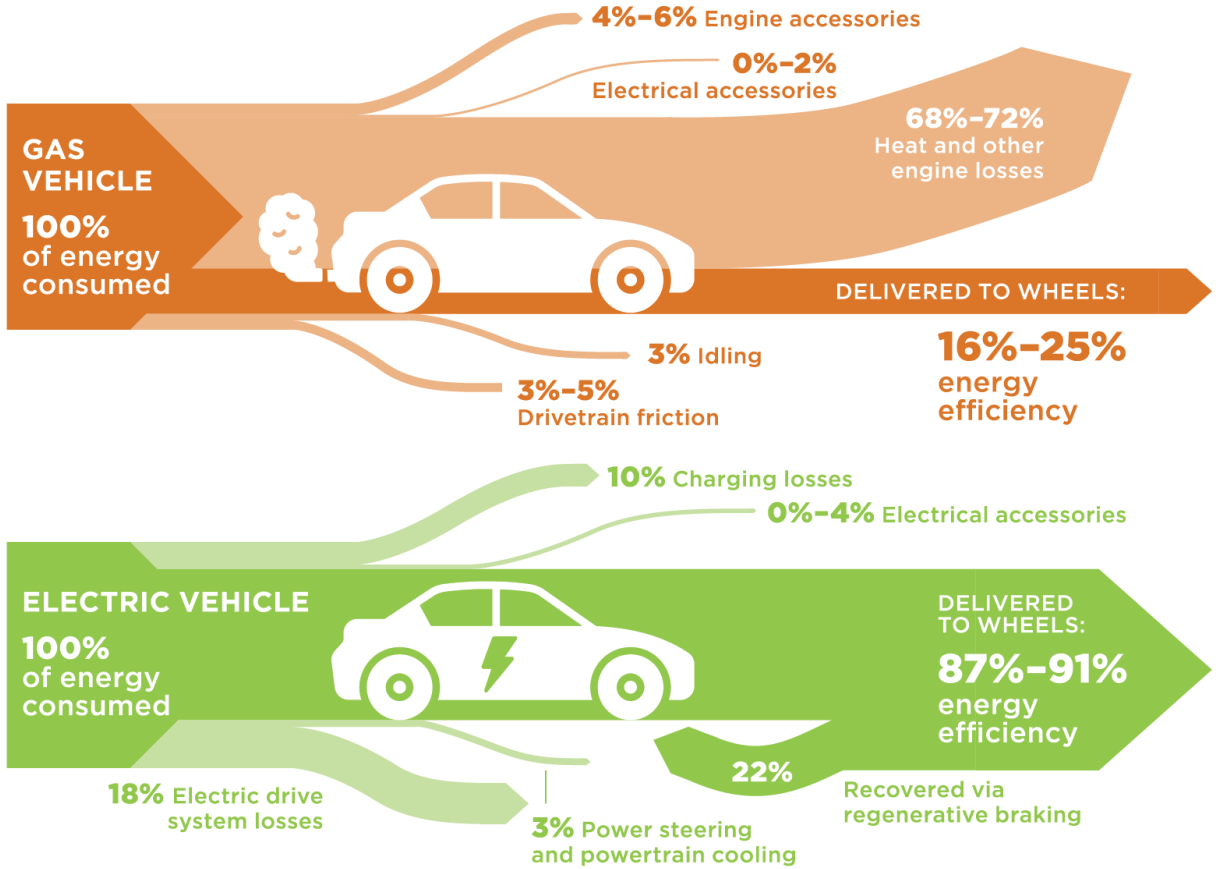
Efficiency of energy use: Gas vehicles vs electric vehicles



Source: Fueleconomy.gov. **Note:** Estimates shown are for combined city and highway driving.

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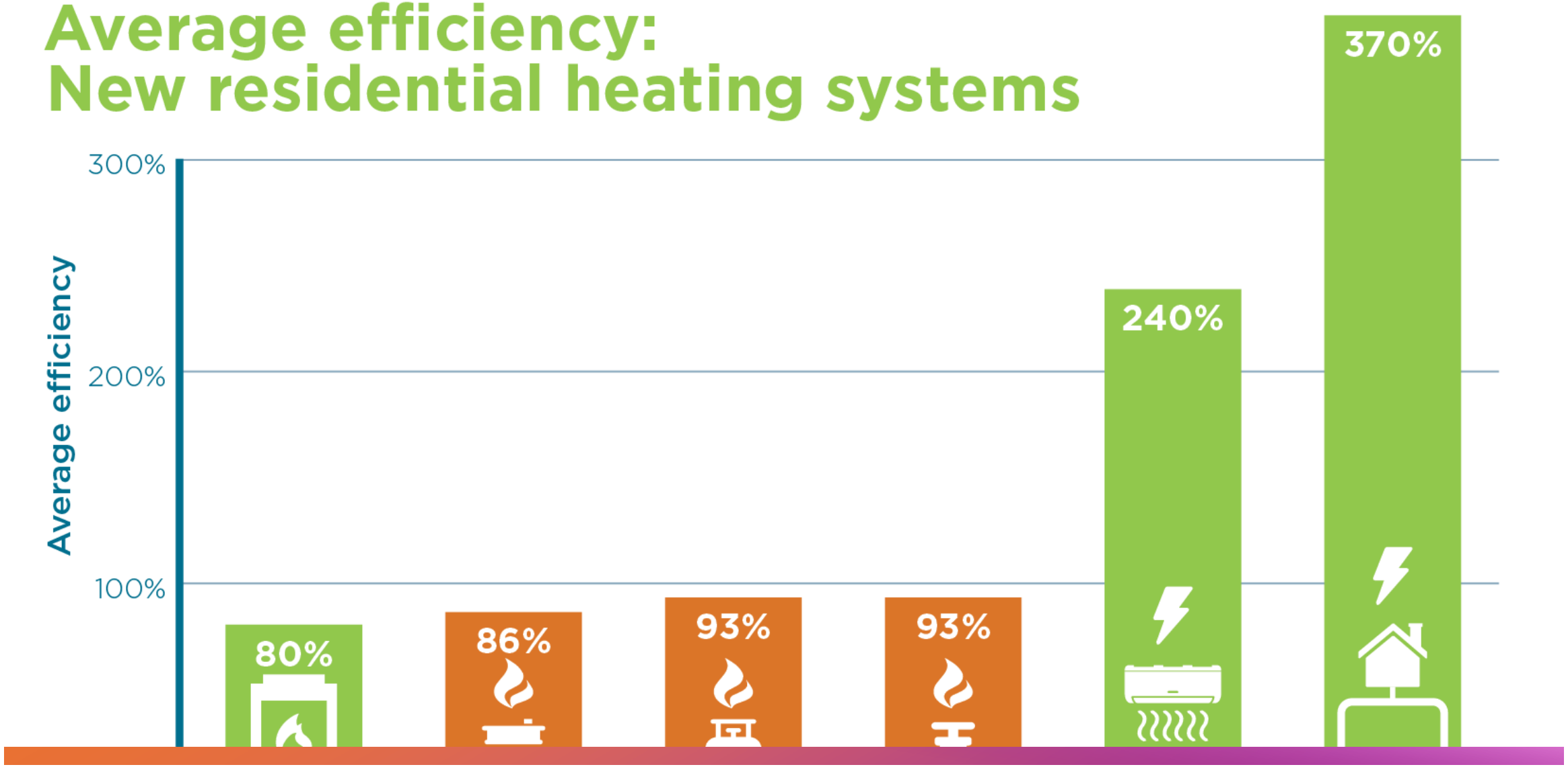
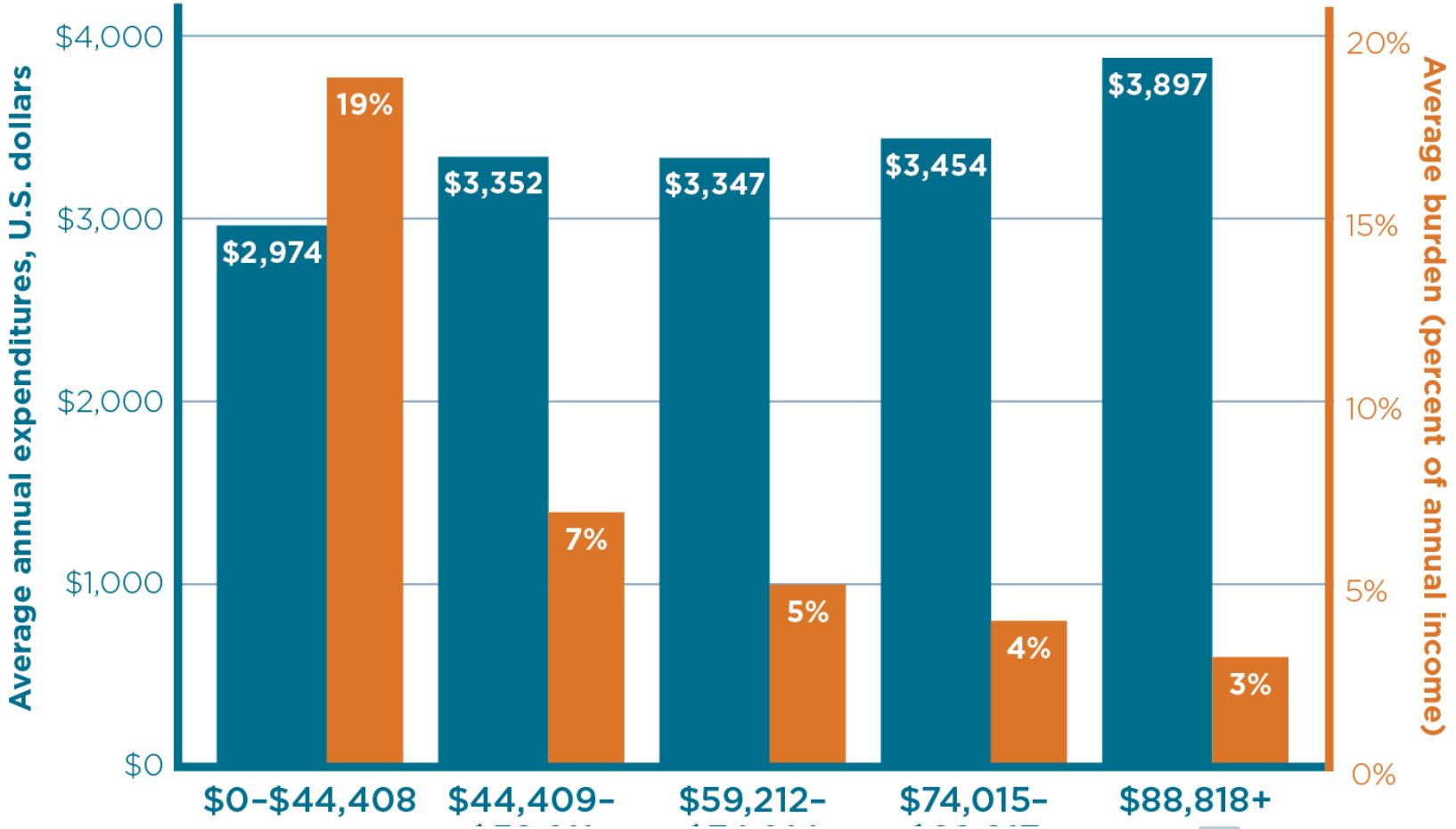
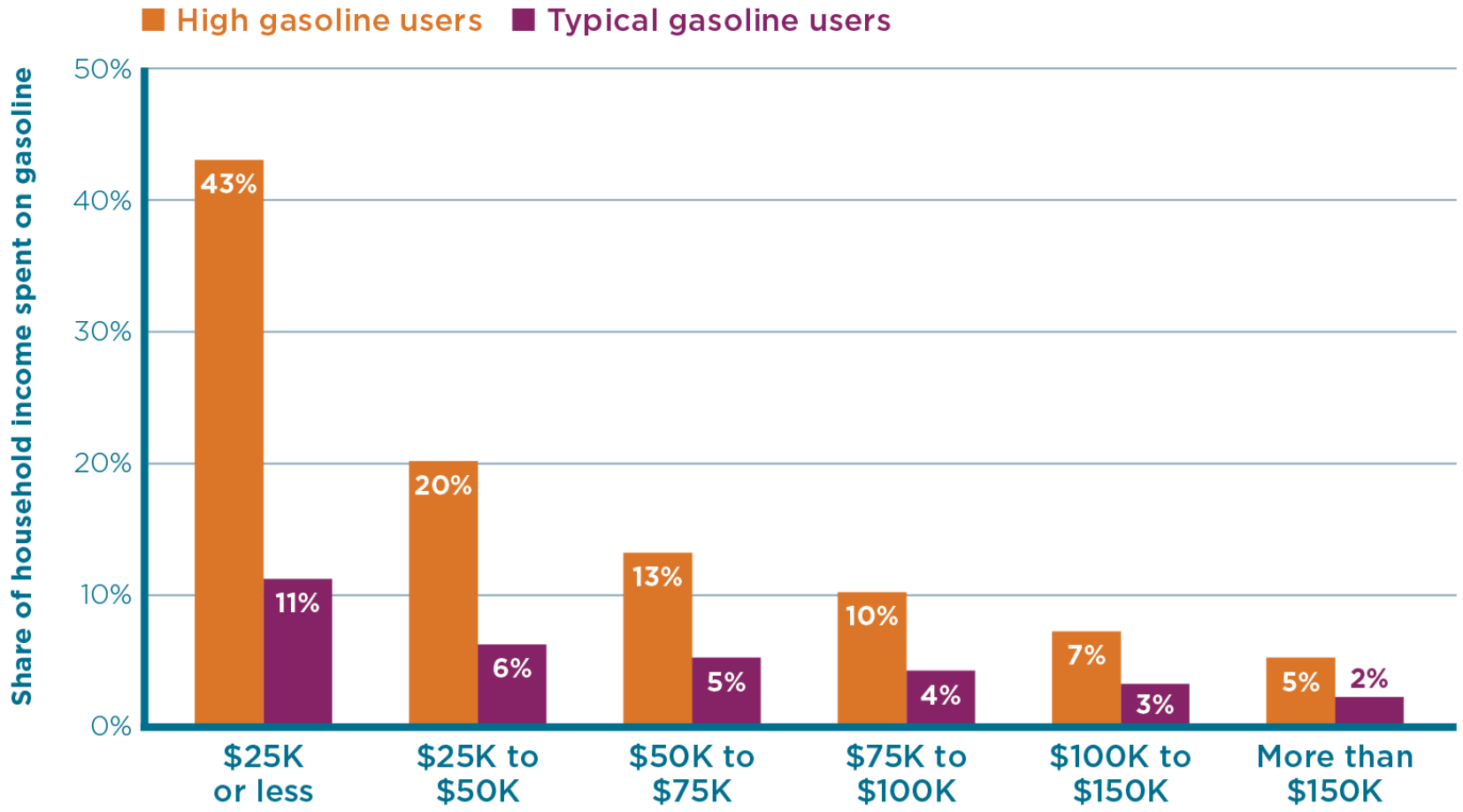
Average efficiency:
New residential heating systems



Vermont combined average household heating and electricity fuel costs and burden by income level, 2018–2022



Gasoline energy burden by income in Vermont



Source: Coltura, Gasoline Data Center, 2024. **Note:** Data include only expenditures on gasoline and are not inclusive of other transportation or vehicle ownership

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solar spill


oil spill