



WOLFE
COMMUNICATIONS

Communications Portfolio



Sarah Wolfe

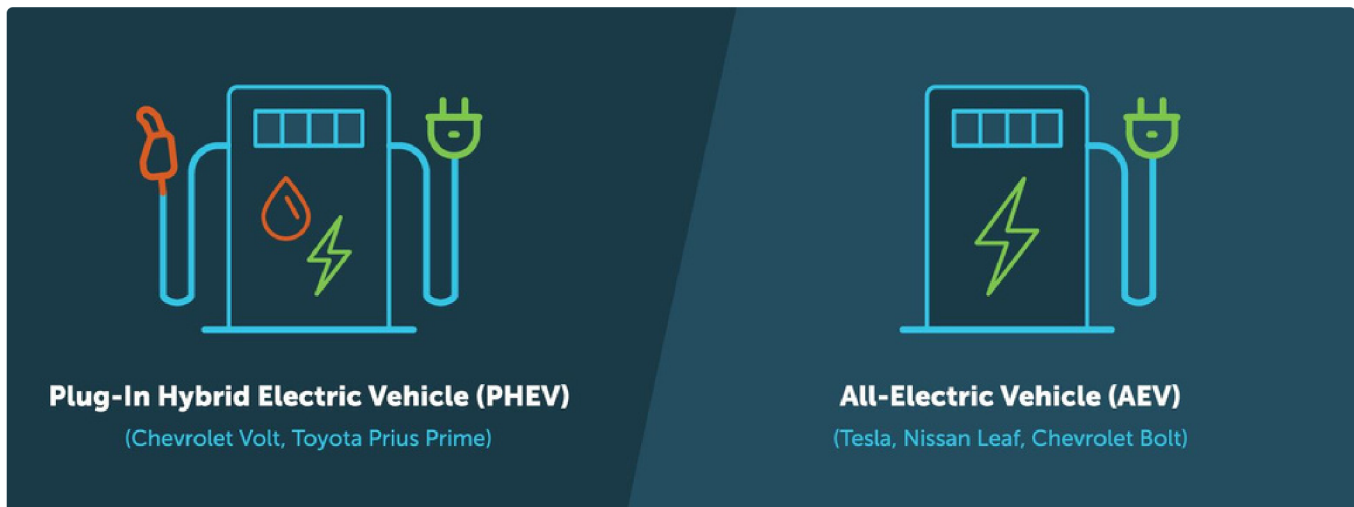




What kind of electric vehicle is right for you?

3 min read

Deciding on your next car is a big choice. If you're thinking about an electric vehicle, there are a few things to consider. This guide breaks down electric vehicle types to help you make a choice.



What's the difference between all-electric and plug-in hybrid?

There are two main categories of electric vehicles: all-electric vehicles (AEVs) and plug-in hybrid electric vehicles (PHEVs). The main difference is that PHEVs still have a gas tank. When the electricity stored in the battery runs out, the car switches automatically to gasoline and operates like a normal hybrid vehicle. Popular models of PHEVs include the Chevy Volt and Toyota Prius Prime. AEVs are only powered by electricity stored in the car's battery – no gas required. Perhaps the best known AEV manufacturer is Tesla, but many other models are available, including the Nissan Leaf and Chevrolet Bolt. The [Drive Electric Vermont vehicle comparison tool](https://www.efficiencyvermont.com/blog/how-to/what-kind-of-electric-vehicle-is-right-for-you) includes many more PHEV and AEV options available to Vermonters.

Here's how to think about the differences when you're considering your next vehicle:

Link: <https://www.efficiencyvermont.com/blog/how-to/what-kind-of-electric-vehicle-is-right-for-you>

**ALL-ELECTRIC VEHICLES (AEVS):**

- Are more impactful in terms of greenhouse gas emissions (because they never use gasoline)
- Will save more money in the long run on both maintenance and fuel costs

**PLUG-IN HYBRID ELECTRIC VEHICLES (PHEVS):**

- Easier to travel long distances when needed
- Still require routine maintenance of a gas car
- Less efficient overall

Understanding your vehicle's carbon footprint



If you're buying an EV for environmental reasons, comparing the emissions of different vehicles can help make your choice. The [Union of Concerned Scientists](#) has a [handy tool](#) to help compare the emissions impact of electric vehicles. They compare vehicles using equivalent miles per gallon (or MPGe), where a higher number is a more efficient, less emitting vehicle.

Emissions estimates are based on the regional electricity source where you'd be charging the vehicle. If you're charging your EV entirely from a home solar system, its equivalent MPGe would reduce emissions further.

The EPA reports that an average passenger vehicle gets about 22 miles per gallon. The estimated efficiency of gasoline and electric vehicles in the table below is from the U.S. Department of Energy's Fuel Economy resource.

2021 MAKE & MODEL	TYPE OF VEHICLE	EQUIVALENT MILES PER GALLON
Ford F150	Gasoline Pickup Truck	20 MPG
Jeep Wrangler 4xe	Plug-in Hybrid SUV	29 MPGe
Subaru Crosstrek AWD PHEV	Plug-In Hybrid SUV	48 MPGe
Toyota Prius	Gasoline Hybrid Hatchback	52 MPG
Toyota Prius Prime	Plug-in Hybrid Hatchback	82 MPGe
Nissan Leaf (62 kWh)	All-Electric Hatchback	125 MPGe
Hyundai Kona Electric	All-Electric Crossover SUV	138 MPGe
Tesla Model 3 Long Range AWD	All-Electric Sedan	155 MPGe

EVs come in many shapes and sizes

The choice between all electric and plug-in hybrid isn't the only one you'll be making. The size and style of a car also impacts its efficiency. A plug-in hybrid SUV is often less efficient than a gasoline hybrid. A plug-in hybrid sedan or hatchback is in the middle – better than a gas hybrid but not as efficient as an all-electric sedan. But on Vermont roads, some drivers prefer a vehicle with all-wheel drive or more clearance. There are EV options with all-wheel drive and many more are coming to market in the next few years. The best way to figure out what you prefer is to test drive some vehicles. You can visit a local dealership to test drive their cars or attend an electric vehicle demonstration event in your community.

Quick takeaways: which vehicle is for you?

An All-Electric Vehicle (AEV) might be for you if:

- You never want to put gas in your car again
- You want the biggest bang for your buck in terms of maintenance and fuel savings
- You want to see the biggest impact on your greenhouse gas emissions
- Most of your driving happens within 125 miles of your home or business
- You have more than one car in your household

A Plug-in Hybrid Electric Vehicle (PHEV) might be for you if:

- You don't mind the occasional trip to the gas station
- You want a vehicle that's more efficient than a standard gasoline vehicle
- You want to be able to take long (125+ miles) trips without charging
- Your EV is your only car



CASE STUDY
BARBARA MOORE
PAWLET, VT

A valley woodland surrounds a historic farm. Nestled in the Mettawee River Valley, the Moore Farm features a diverse woodland surrounding rich farmland. The woodland sits just below Haystack Mountain and next to the North Pawlet Hills Natural Area.

MEET THE LANDOWNER

Barbara Moore is grateful to have any chance to get out on her beautiful land. For much of her adult life, she lived in New York, running her farm-to-table food service business The Good Table. Whenever possible she made her way back to a rural corner of Pawlet to spend time on the land that has been in her family since the 1940s. In 2019, she came back full-time as the sole owner and manager of the property. The woodlands are nestled around a farm that has hosted cows, chickens, and organic vegetables over the years. When Barbara's father stopped farming in 1988, the barns lay empty for years. Today Barbara leases the farmland to Laughing Child Farm, an organic sweet potato farm. A highlight of the surrounding woodland is a unique forest landscape: dry oak, hickory, and hophornbeam trees with an open grassy floor. Barbara jumps at the chance to explore her woodlands to monitor growth, plan for new projects, and understand its unique character.



An area of the woodland with the unique mix of dry oak, hickory, and hophornbeam, with good density and mixed ages of the trees.

AT A GLANCE

PROPERTY / PROJECT ACREAGE

225.5 acres (198 actively managed)

LOCATION

Pawlet, VT

FOREST MANAGEMENT PRACTICES

Mast Tree Release - 8 acres

Patch Cuts - 3.9 acres and 2.0 acres

Irregular Shelterwood Harvest - 7 acres

Timber Stand Improvement - 13.9 acres

PARTNERS

NRCS

Southwind Forestry

Redstart

Agency of Natural Resources

VT Coverts

WOMEN & OUR WOODS

Vermont's Women & Our Woods (WOW-VT)

is a collaborative women-centered community that shares information, resources, and support for people who care about and steward Vermont's forests.

WOW has developed a series of case studies to highlight a variety of management activities being conducted on women-owned or women-managed woodlands to highlight successes, share lessons learned, and identify resources available.

Thanks to the US Forest Service, who made this project possible through the award of a Landscape Scale Restoration Grant.

HOW HAS THIS LAND BEEN MANAGED?

Barbara's goals are to increase wildlife on the land and be a good steward of a healthy forest. In 2006, her family learned about the Current Use (or Use Value) program. Under this program, land is appraised (and taxed) as farming or forestry land rather than at its fair market value. This program incentivized the Moores to actively manage the land as woodland. The Moores developed a forestry management plan alongside Southwind Forestry and the Vermont Agency of Natural Resources. Barbara is now working from her second ten-year plan, which she will renew in 2027.

All but 18.7 acres of the woodland produce valuable timber woods.

Foresters worked with Barbara to identify five unique stands – areas of the forest where the trees can be grouped by certain characteristics. The foresters identified priority activities for each productive stand. In one stand, they performed patch cuts: clearing areas to harvest mature trees. Barbara's priority was to create open space with shrubs and grasses to attract migratory birds and other wildlife. In another stand, they cleared an area around specific, healthy trees that provide food for local wildlife. The fruit of forest trees and shrubs are called "masts." Mast-producing tree species in this stand included northern red oak, white oak, and shagbark hickory. Allowing these trees more room to grow can improve mast production. In a third stand, they selectively harvested individual mature trees to prioritize northern hardwood trees like northern red oak, white oak, shagbark hickory, and sweet birch. These trees are prime roosting spots for bats, as well as also being mast-producing and high-value timber-producing tree species.



One of the two patch cuts completed in one section of Barbara's woodland.



The same area of the forest three years after the patch cut, showing the growth of shrubs and other low-lying plants.

WHAT COMES NEXT?

When Barbara envisions this land in 50 years, it doesn't look that different than it does today. She is committed to managing the forest, making space for wildlife and keeping trees healthy. She looks forward to walking the land with foresters, evaluating the work that was done previously, and making plans for new projects. Her advice to other landowners? "Get connected. There are so many resources available to help with this work and to connect you with other resources."

PROJECT PARTNERS

Natural Resources Conservation Service (NRCS)

Barbara received funding from NRCS's Environmental Quality Incentives Program (EQIP) to pay for activities that improve the health of the forest and its wildlife.

Vermont Agency of Natural Resources (ANR)

Barbara worked with the county forester at the Department of Forests, Parks, and Recreation and biologists from the Department of Fish and Wildlife to understand and promote the health of her forest.

Southwind Forestry

Barbara brought in Southwind Forestry to create and manage her Forest Management Plan.

Redstart Natural Resource Management

Barbara worked with Redstart to manage invasives in the woodland and is planning on working with them to complete a scrub and shrub planting in the future.

Vermont Coverts

Barbara attended Vermont Coverts's three-day hands-on training that helps landowners connect to resources and get started on learning about their forests.

Excerpt from Neighborhood Energy Texas (NET) website



HOME GO SOLAR ABOUT US CONTACT

WE MAKE IT EASY TO GO SOLAR



Can't have solar on your roof? Join a community solar project and get credited for the electricity it produces. Want solar on your roof? We make it more affordable. No matter what, we'll help you pay for solar in easy monthly payments as part of your regular electric bill. All at no additional cost to you.

Saving money from solar energy?
That's a **win** for you and a **win** for the climate.

PICK YOUR SOLAR SOLUTION



Community Solar

Is your rooftop not right for solar energy? Don't own your own roof? We can help you go solar.

We're bringing community solar to Texas. What does that mean? We'll connect you a large solar project in your area. When it produces electricity, you'll get a credit on your bill.



Rooftop Solar

Is your home a great fit for solar? Are you excited about generating electricity on your own roof?

We'll help you make that dream a reality. Put panels on your roof and start saving money.

Whether you want to have solar on your roof or in your community, Neighborhood Energy Texas will help you **save money** on your electric bill - at no additional cost.

We work with a network of solar-friendly Retail Energy Providers. We'll connect you to a provider in your region who will give you **the best rate for your solar energy**.

When your solar panels make electricity, you save money.

Fill out the form below to get started. We'll reach out to discuss your options. And we promise, we won't sell you anything you don't want. You'll never see a bill from us.

Excerpt from Vermont Land Trust signage project

Located at Bluffside Farm, Newport, VT

Main Kiosk - Center Panel

History of the Land

The Vermont Land Trust bought this land in 2015. After working with the community to understand how the land should be used, VLT decided to conserve it for recreation, farming, and the protection of its natural habitats and history.

The Abenaki have lived in this area for thousands of years. Mamhlawbagok, the Abenaki name for Lake Memphremagog, was an important crossroads within the western Abenaki homelands.

In more recent times, the land was farmed by the Scott Family for six generations. They managed apple orchards, dairy cows, a maple sugarbush, and more. Today, the tradition continues. A local farmer hays the fields and neighbors grow their own food in the community garden.

A one-mile recreation trail bridges a previously unconnected seven-mile trail network from Newport to Canada. The land includes wetlands, bluffs, and lakeshore that host many wildlife species.

Bluffside Farm welcomes visitors to explore the trails, gather with community, and learn about this special land.



A drawing by Abenaki elder, artist, and educator Bea Nelson (1944-2021) showing an Abenaki family at the lakeshore preparing the land for cultivation. The decomposing bodies of 'planted' fish fertilized the soil. The woman in the foreground carries fish in a makuk, a watertight vessel made from birch bark.

Map of Bluffside Farm



Legend

- Community Garden
- Working Farm Field
- Restored Wetlands
- Multi-use Recreation Path
- Walking Trails
- Lake/Cove
- Bluffside Property
- Parking



The Scott family, who farmed this land for six generations, enjoyed time on the beach at the farm.



An ADA-accessible boardwalk crosses Scott's Cove, connecting the recreation trail to Prouty Beach.

Main Kiosk - Installed



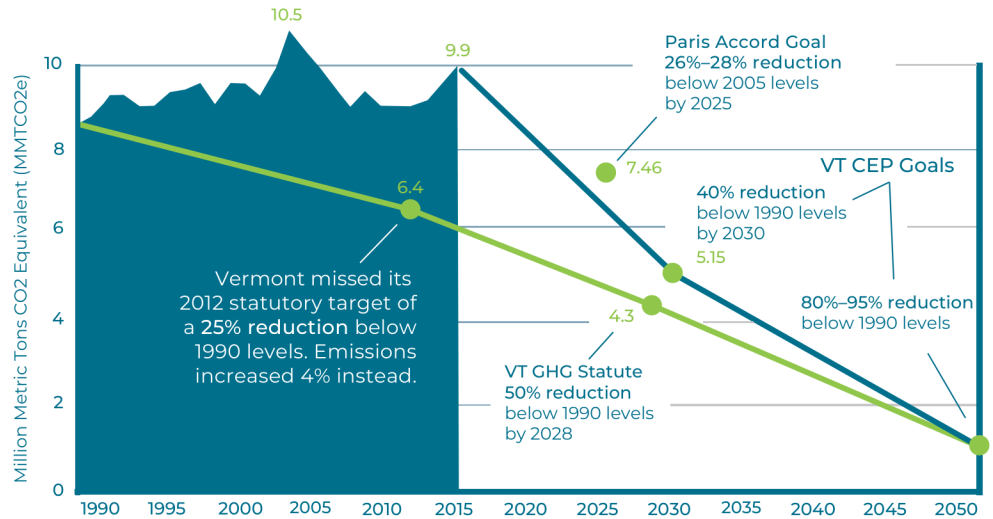
Small Kiosk - Installed



Vermont's greenhouse gas emissions have been increasing despite significant reduction commitments

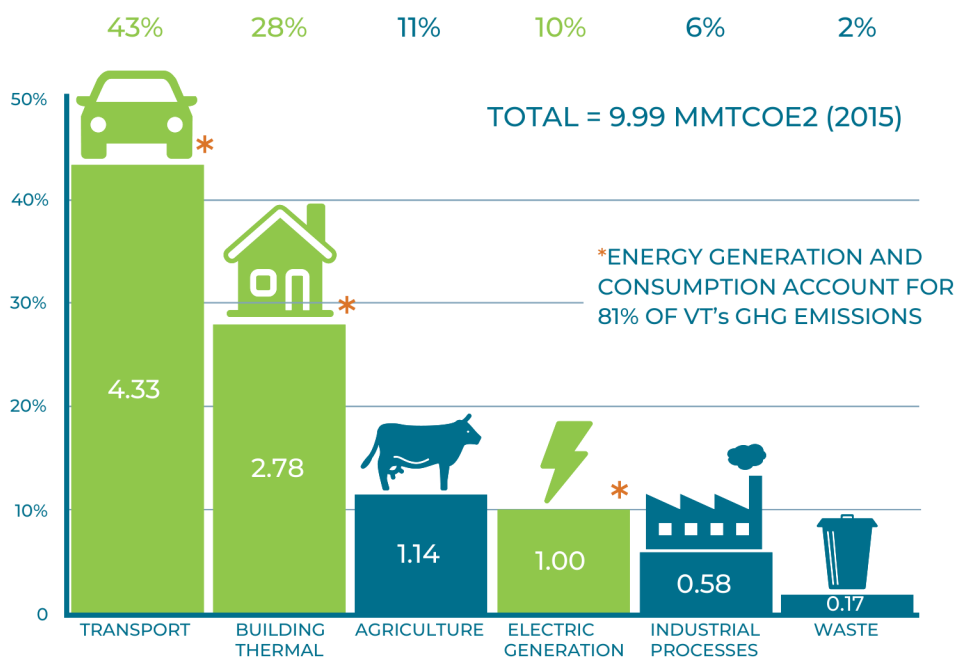
What will it take to meet our commitments?

Greenhouse gas (GHG) emissions are on the rise statewide. We are now 16% above 1990 levels, and just 2% below peak 2005 levels. Between 2013–2015, emissions from transportation and thermal fuels together accounted for nearly 80% of Vermont's overall emissions increase.¹



Transportation & thermal energy are the largest contributors to Vermont's greenhouse gas emissions

Vermont's GHG emissions by sector



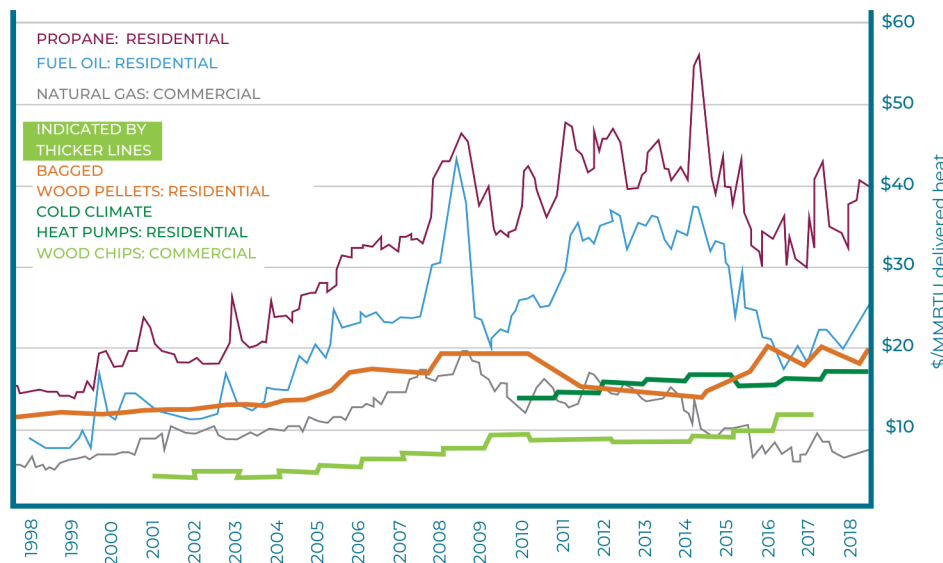
Our two biggest sources of emissions are transportation and thermal energy use, which together cause over 70% of Vermont's GHG pollution. From 2013–2015 (the most recent year for which data is available) energy emissions were responsible for 98% of the GHG increase statewide (46% from transportation, 33% from thermal, and 19% from electricity).¹

1. 2018 Greenhouse Gas Emissions Inventory Brief (1990-2015), VT Agency of Natural Resources.

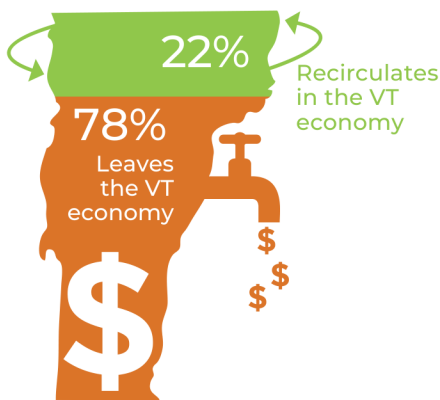
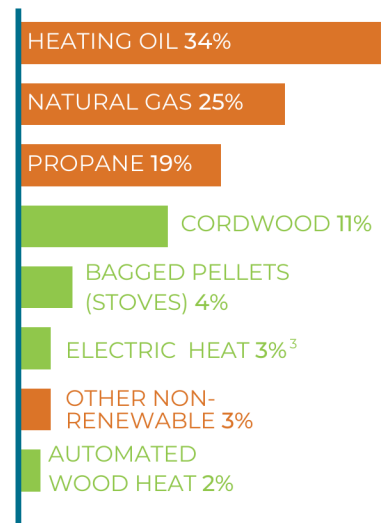
Fossil fuels are a strain on Vermonters and a drain on the Vermont economy

Prices for fossil fuels like propane and fuel oil have historically been the highest and most volatile. Weatherizing your home or business can cut these costs by reducing energy use. Even better, switching to renewable heating options offers lower and more stable fuel prices.

Average heating fuel pricing (1998-2018)¹



VT Heat Energy Sources²



Dollars Spent on Fossil Fuels

Because 78% of Vermonters were heating their homes with fossil fuels, Vermonters spent nearly an extra \$240 million in 2018 on heating fuel than if we were getting 100% of our heat from renewable sources.⁴ Of that, over \$185 million left the Vermont economy entirely.⁵

1. Compiled by Biomass Energy Resource Center (2018) using data from Vermont Department of Public Service and the US Energy Information Administration. 2. Fossil Fuels: Energy Information Administration (2016); Renewable Fuels: Biomass Energy Resource Center (2014) and VEIC (2017). 3. Electric heat includes the renewably powered portions of heat pumps and electric resistance heat. Heat pumps are significantly more efficient than electric resistance heat. 4. Based on 2018 energy prices. 5. Extrapolated from Vermont Agency of Commerce and Community Development analysis that 78% leaves the state (2018).



MEMBER PROFILE: Adam Sherman

Senior Consultant, Biomass Energy Resource Center (BERC) at VEIC

“Vermont is widely recognized as an international leader in the use of modern wood heating systems in the residential, commercial, and institutional markets. Through a combination of weatherization, beneficial electrification, and expanded use of modern wood heating, we can reach our thermal goals!”

The Biomass Energy Resource Center (BERC) at VEIC has a long-lived reputation as a source of independent and impartial information and services regarding the advancement of modern wood heating as an effective strategy to reduce dependence on fossil heating fuels, strengthen local economies, and encourage the local use of wood harvested from well-managed forests.

Selections from communications for successful Vermont State House campaign



front porch forum®

Demrow for State Rep

Carl Demrow • Corinth, VT

Election

It's been wonderful to get out on the campaign trail and meet so many of you from across the district. As we've talked, I've heard common issues come up time and time again: protecting our rural economy, supporting families, improving healthcare, and safeguarding our democracy.

These issues are at the heart of my campaign. Supporting our communities and rural economy is critical to protecting our quality of life and strong traditions. We need to strengthen our workforce and bring more families into our communities. We need to support those families by expanding options for affordable childcare and preschool. We need to ensure everyone has access to affordable healthcare to meet their needs. And it's imperative to safeguard our democracy, our personal freedoms, and our civic institutions, including public education.

If you elect me as your representative, I would be honored to work with you and for you to identify solutions to these challenges. Learn more at www.carldemrow.com.

Selections from campaign protecting Net Metering in West Virginia



Solar is Shining in West Virginia

West Virginia has a long history of energy production.

It's what we do. It's what we've done for the last two centuries. We're the ones who powered America through an Industrial Revolution, two World Wars, and the creation of the internet. Today, we're **continuing West Virginia's strong energy history by harnessing the power of the sun.**

- West Virginia currently powers 2,856 homes with solar energy.
- The growing solar industry directly supports nearly **400 local, family-supporting jobs**, many of which are union. If we protect current policies, that number will grow exponentially in the coming years.

Installing solar on a home or business helps everyone save on energy costs, because power is used right where it's produced. That reduces strain on the distribution and transmission system, protects everyone from emergencies and price spikes, and helps avoid costly upgrades to the grid, reducing future costs for everyone.

Electricity rates in West Virginia have increased more in the past 20 years than in any other state. Rates have more than doubled since 2005, while the cost of solar has dropped by 54% in the past decade. **Solar empowers us to protect our families from increasing rates.**



Make Your Voice Heard

Keep Solar Strong in the Mountain State

Let the Sun Shine!

FirstEnergy (which runs Mon Power and Potomac Edison) has proposed reducing the value of solar for West Virginians. This proposal wouldn't change the net metering agreement for existing solar customers. But it would likely **keep thousands of West Virginians from going solar**. As an important union member of the growing solar industry, **your voice matters**. Speak up now to help the Public Service Commission see why **slowing the growth of solar is the wrong choice for West Virginia**.



Learn more at
www.WVLovesSolar.com
or scan here.

Submit a Comment

The Public Service Commission will decide on FirstEnergy's unfair proposal in early 2024. There is still time to make your voice heard. The Public Service Commission needs to hear why you love working in the solar industry, and how solar has helped you and your family.

Visit www.WVLovesSolar.com to submit a comment opposing FirstEnergy's proposal.

Join us on January 20

Join us on January 20, 2024 to gather at the State Capital and celebrate the benefits of solar for West Virginia. Add your voice to West Virginians' asking our public officials to protect solar, strengthen West Virginia's energy economy, and support local jobs.

Register to join us at the rally by visiting WVLovesSolar.com/save-our-solar-rally

REGISTER FOR THE

SAVE OUR SOLAR RALLY

SAT, JAN 20 AT 2PM WV STATE CAPITOL

Don't let Mon Power and Potomac Edison cheat solar owners. If you produce power, you should be compensated fairly.

A promotional banner for the 'Save Our Solar Rally'. It features a yellow and orange sunburst background. The text is in bold, sans-serif fonts. At the bottom, there is a blue bar with white text.

10 ways NOT to save energy this winter, and what to do instead!

October 28, 2021 | 5 min read



As the days get shorter and colder, some of us think about hitting the slopes, some about the holidays, and some just dream about migrating to southern climates! But all of us think about staying warm – and the impact it might have on our energy bills. Here are some things we wouldn't recommend doing to stay warm this winter, and some tips on what to do instead.



1. WEAR YOUR JACKET TO BED

Your home shouldn't be the same temperature as your backyard. If it is, it might be time for weatherization. The last decade has seen dramatic improvements in how we insulate homes. We now know that almost all Vermont homes can save money just by adding insulation and air sealing in crucial areas in the attic and basement – and you won't have to wear your jacket to bed. Efficiency Vermont has incentives available to help bring down the cost of your weatherization project.



2. BUILD AN ICE CAVE INSIDE YOUR HOME TO STORE LEFTOVERS FROM THANKSGIVING.

Your home shouldn't be cold enough to maintain an ice cave! In addition to weatherizing your home, look for an efficient refrigerator. Don't know where to start? Research the most efficient products on the market, compare prices and reviews with our [online tool](#). Or, look for the [Efficiency Vermont SMART CHOICE](#) in stores. Products with this logo are the most energy efficient products on the market, and tested for the highest standards of quality and performance.



4. BUILD A BLANKET FORT FOR YOU AND YOUR FAMILY TO SLEEP IN RIGHT NEXT TO THE WOODSTOVE.

Blanket forts are tons of fun, but you should be able to sleep in your own bed and stay warm if your heating system is up to date and working. If your heater runs on oil, it should be maintained annually. A gas system and or heat pumps should be checked every two years. Keep dust and debris off the heat sources in your home to ensure that heat is getting to you. Clear off radiators, baseboard heaters, air vents and ducts and check that the heat flow isn't blocked



5. WEAR A WETSUIT IN THE SHOWER.

Water heating is a home's second-highest energy cost. If you feel like you need to take cold showers in the winter, it could be time to look into a new, more efficient model. Efficiency Vermont partners with local utilities to offer incentives on highly efficient heat pump water heaters. These electric water heaters use the renewable electricity on Vermont's grid to keep your water warm efficiently.



8. MAKE A BONFIRE OUT OF YOUR SUMMER CLOTHES WITH THE DESPERATE THOUGHT THAT IT MAY NEVER BE WARM AGAIN.

Summer will come around again soon enough, so don't panic! Instead, look into more efficient heating options. Keep warm without breaking the bank with a heat pump heating and cooling system. Heat pumps are efficient electric heaters that double as an air conditioner and dehumidifier in the warmer months. You can pair incentives from Efficiency Vermont with offers from your local utility to increase your savings.