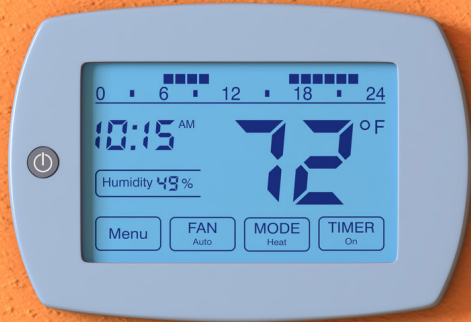


A photograph of an elderly man with a white beard and a young girl with dark hair in a ponytail, both smiling and focused on baking together in a kitchen. The man is holding a large metal sieve, and the girl is holding a wooden spoon. They are sifting flour into a large glass bowl. In the foreground, there is a bowl of eggs, a cracked egg, and a small blue cup. The background is a bright, modern kitchen with white cabinets and a window.

101 ENERGY TIPS



101 ENERGY TIPS

Here are our best 101 tips to help you save energy and save money on your energy bills.

COOL THE HOUSE

- 1 **Be fan-friendly**
Install ceiling fans to keep cool air circulating so you can turn down your air conditioner. Still, make sure to turn off your fan when you leave the room.
- 2 **Go down under in the summer**
Move your base of operations to your basement where it is naturally cool.
- 3 **Only AC one room**
By using window AC only in your most needed room — most likely your bedroom — you can cut down electric use.
- 4 **Get with the program**
A programmable thermostat can help you save big on energy costs, adjusting the temperature when you're at work, at play or asleep.
- 5 **Open up inside**
Keep interior doors open to help air circulate more freely and maintain constant cooling levels.
- 6 **Go counter clock-wise for summer relief**
Reverse fan motion to circulate cooler conditioned air.
- 7 **Cool running**
A ground source heat pump can provide cooling efficiencies 20% to 40% higher than available conventional air conditioners.¹
- 8 **Save in the shade**
Positioning trees and shrubs can shade your air conditioner unit, helping it run up to 10% more efficiently.² But be sure branches and leaves don't restrict airflow!
- 9 **Fan up**
Use all sorts of fans to stay cool, even with your AC running.

- 10 **Clean that AC**
Keeping your AC coils clean can help improve efficiency.
- 11 **Blow with the flow**
Window fans aid natural ventilation, and when there is no breeze, they can create air flow through your home.
- 12 **Enjoy eight degrees of separation?**
Ceiling fans can make the internal temperature feel up to 8 degrees Fahrenheit cooler.³
- 13 **Plant trees**
Carefully positioned trees can save up to 25% of the cooling energy a typical household uses. Research shows that summer daytime air temperatures can be 3 to 6-degrees Fahrenheit cooler in tree-shaded neighborhoods than in areas without trees.⁴
- 14 **Go white up top**
Install a white roof or lighter colored shingles. These lighter colored materials help reflect heat away.
- 15 **Get some Star power!**
Install an ENERGY STAR®-rated ceiling fan. They usually offer the best efficiency ratings.





HEATING YOUR HOUSE

- 16 **Embrace layers**
Rather than crank up your heat in the winter, keep your thermostat at a moderate level and bundle up. (Who doesn't love fuzzy slippers?)
- 17 **Space heating**
Heat a smaller area to stay warmer when you are in one place for a while.
- 18 **Heat from underneath**
A ground source heat pump can deliver heating efficiencies 50% to 70% higher than many conventional heating systems.
- 19 **Keep the fireplace flue damper tightly closed when not in use.**
- 20 **Winter fans**
Run the fan in a clockwise direction to push warm air down from the ceiling, adding comfort and savings.
- 21 **Thermo down when burning**
When using your fireplace, turn down your thermostat because a fire can draw heat out of the room it's in.
- 22 **Get with the program**
A programmable thermostat can help you save big on energy costs, adjusting the temperature when you're at work, at play or asleep.
- 23 **Open up inside**
Keep interior doors open to help air circulate more freely and maintain constant heating levels.
- 24 **Use dead space to reduce heat loss**
Window coverings should create dead-air spaces (areas with low air movement and little heat transfer) between window coverings and windows. Cellular and honeycomb shades can reduce heat loss (up to 86%).⁵

- 25 **Use electric space heaters wisely!**
 - Direct your heater toward people, not spaces.
 - Keep papers, clothes and other flammable materials away.
- 26 **Insulate your pipes**
Similar to a real hug, wrapping your hot water pipes in the cushy arms of insulation warms them inside and out. So go hug your pipes; your water heater will thank you for it!
- 27 **Localized heating**
Use space heaters to reduce the need for heating your entire home.
- 28 **Plant a windbreak**
Windbreaks with evergreens, if correctly placed, can reduce annual home heating costs by 10% to 15%.⁶
- 29 **Vacuum out vent covers to keep ducts clean and unobstructed.**
- 30 **An annual tune-up is an excellent way to check on operational safety and efficiency.**

FURNACE AND BOILER QUICK TIPS:

- 31 **Bleed radiators annually to make sure they are free of air and full of water.**
- 32 **Dust radiator fins for better heat distribution**
- 33 **Peel back accumulated layers of paint, they reduce energy effectiveness of radiators.**
- 34 **Save 1% of your total heating bill for every degree you set back your thermostat.⁷**
- 35 **Proper use of a programmable or setback thermostat can cut your energy bills by almost \$200 per year.⁷**
- 36 **Wrap up some warmth**
Get a water heater insulation blanket to make it operate more efficiently — which could cut costs by up to 9%.⁸

- 37 Cool off your hot water**
Set your water heater to no higher than 120 degrees Fahrenheit. This isn't just energy smart — it's also safer since it reduces the likelihood of accidental burns. Lowering 10 degrees, Fahrenheit saves you 3% to 5% on water heating costs.⁹
- 38 Plug every leak**
Repair leaky faucets promptly. A leaky faucet wastes gallons of water in a short period, especially costly for hot water faucet leaks.
- 39 Less flow more savings**
Low-flow water faucets can help reduce your hot water consumption, which can save energy.
- 40 Air 'em out**
Air dry dishes instead of using your dishwasher's drying cycle.
- 41 Slow the flow**
Faucet aerators can reduce your water flow from the usual 2.2 to 1.5 gallons per minute, saving you on water consumption.¹⁰



- 42 Cool rinse**
Just rinse your dishes with cool instead of hot water.
- 43 Capture that lost heat**
Consider installing a drain water waste heat recovery system. Drain water, or greywater heat recovery systems capture the energy from waste hot water — such as showers and dishwashers. It uses this to preheat cold water entering the water heater, thus reducing initial heating energy.
- 44 Invest in high efficiency**
High-efficiency appliances and light bulbs may cost a bit more up-front, but they can save significant money over the life of the product. Plus, some energy-efficient equipment may be eligible for rebates to offset the initial cost.
- 45 Upgrade your furnace**
Consider replacing your old furnace with a high-efficiency unit.
- 46 Get hot, on-demand**
Install an under-the-sink, on-demand water heater in your kitchen to save energy by only using it when you need it.
- 47 Strip down your technology**
Use a power strip or electronics timer for your computers, monitors, printers and TV and other appliances to reduce phantom power usage.
- 48 Be finicky about filters**
Change or clean your furnace filters per manufactures recommendation. Clogged filters can lower the airflow and may cause your system to work less effectively.
- 49 Newer heat pump technologies**
Heat pump water heaters can be two to three times more efficient than conventional.
- 50 Here's the dish ...**
Since newer dishwashers with internal heaters and load sensors can use up to 25% less energy, consider upgrading to an ENERGY STAR-rated unit.¹¹
- 51 Go tankless?**
Consider natural gas on-demand or tankless whole house water heaters, which heats water directly without using a storage tank. Energy savings can be up to 30% compared to a standard natural gas storage tank water heater.¹²

WEATHER PROOFING

- 52 Insulate, insulate and insulate**
What's the point in filling your home with cool or warm air, only to have it disappear? Invest in high-quality insulation to help keep temperature-controlled air where it belongs.
- 53 Cover up, will ya?**
Use window treatments that provide insulation to slow down heat loss in the winter, and heat gain in the summer.
- 54 Seal air leaks where plumbing or electrical wiring comes through walls, floors, ceilings and soffits over cabinets.**
- 55 Inspect for mold in your insulation.**
Remove mold and seal leaks with low-expansion spray foam made for this purpose.
- 56 Install foam gaskets behind electric outlets and switch plates on walls.**
- 57 Hit the roof**
Insulating your attic is probably the highest sustained return on investment of any of the energy-saving insulation tips.
- 58 Close off those windows**
Cellular and honeycomb shades will help you reduce heat gain up to 80%.¹³
- 59 Replace door bottoms and thresholds with ones that have pliable sealing gaskets**

CAULK 101. THE MOST COMMON TYPES OF CAULK ARE:

Siliconized acrylic and siliconized latex caulk can be used indoors or outdoors. Inexpensive, paintable, long-lasting and easy-to-use — best as a general-purpose caulk.

- 60 Pure silicone** works well for caulking seams in ducts and areas exposed to high temperatures. While it cannot be painted, it is incredibly durable and has excellent elasticity.
- 61 Expanding or non-expanding plastic foam** fills larger gaps than standard caulk. Allow for expansion when applying. This is best for filling gaps between different materials like metal, plastic or stone.

- 62 Stop those obvious leaks**
Find and seal leaky ducts, drafts around doors and windows, fireplace dampers, and other places where air might escape.
- 63 Worth the pane**
Install storm windows. It's great as a type of insulation and a way to seal up openings that create drafts for both cold and hot weather conditions.
- 64 Avoid those drafts ...**
Test your home for air tightness. On a windy day, carefully hold a lit incense stick or a smoke pen and go all around your house to seek places where air may leak.
- 65 Caulk and weather strip doors and windows where you find leaks.**
- 66 Seal those ducts; it's critical in ceilings and soffits for maintaining effective airflow.**
- 67 Caulk any air leaks at interior wall/ceiling joints and wall/floor joists.**
- 68 Use foam sealant on larger gaps around windows, baseboards and other places where air may leak**
- 69 Have a qualified contractor seal air leaks with fire-resistant materials such as sheet metal, sheetrock or furnace cement caulk.**
- 70 Thermal imaging of your exterior can reveal leaks and locations of weak insulation.**
- 71 Want some new exterior doors?**
Then go for insulated versions — wood doors with foam filling work best.
- 72 Take it to the top**
Want to make a strong statement about energy efficiency and environmental sustainability? Consider a green roof. These include plant materials and a thick cushion of soil. Green roofs provide great insulation that also helps soak up rainwater.
- 73 Let your solar side shine**
Want to keep up with the trends? Look into using solar panels for generating electricity or hot water.
- 74 R you aware of R-values?**
A material's resistance to heat flow is called its Resistance-value or R-value. Placing high R-value insulation in the cavities of your home slows the flow of heat through walls, floors and ceilings. For example, our rebate program requires R44+.

75 Vapor barriers
Vapor barriers safeguard insulation against moisture. If your insulation has no built-in vapor barrier, install the vapor barrier next to the insulation on the warm-in-winter side to reduce moisture flow. A 4 millimeter or 6 millimeter polyethylene sheet provides an excellent vapor barrier.

76 Let it flow
Ventilation of an attic or crawl space is as crucial as vapor barriers to protect the insulation from moisture. A well-ventilated attic lets unwanted heat escape in the summer and warm, moist air escape during the winter. This helps maintain a maximum R-value for the insulation.

77 Consider these three replacement window strategies:

1. Multiple panes are best, double-pane, triple-pane and even quadra-pane windows are available.
2. Gas fillings. Argon is a standard gas used to fill the airspace between panes. It's like invisible insulation because it's clear and doesn't conduct heat as quickly as air.
3. Special coatings. Low-e is a special coating that reflects infrared heat back into your home, preventing it from escaping via the window.

DOING LAUNDRY

78 Clean out your lint trap
Keeping airflow moving through your dryer can help optimize performance.

79 De-lint de dryer!
By cleaning out the exhaust vent on your gas dryer, you can help your dryer run more efficiently and use less energy.

80 Cool cycle more
Try using more cool settings on your washing machine to save on hot-water use.

81 Top it off
Always wash with full loads of clothes.

82 Cool it
Use the low setting for the dryer. It keeps your gas use down.

83 Check your gas dryer vent to be sure it is not blocked.
This will save energy and may prevent a fire.

COOKING

84 Take it outside
In the summer, cooking outside can reduce excess heat build-up in your kitchen.

85 An open and shut case
Opening the door of your oven can lower the cooking temperature by as much as 25 degrees Fahrenheit.¹⁴

86 Cooking pans: Smaller is smarter.
Small pans take less energy to use.

87 Contain the heat
Get three times the efficiency by covering your pots when cooking.

88 Surprise! Use these pans that heat faster.
Glass or ceramic pans heat up faster than metal pans.

89 Lids, please
By keeping your left-overs in sealed containers, you can avoid moisture escaping, which can cause your fridge to run less efficiently.

90 Micro that please
When possible, use the microwave instead of the oven — it can use as much as 80% less energy.¹⁵

91 Mmm, toasty!
Use a toaster oven for small cooking tasks.

92 Stove it up
When you can, use the stove top instead of the oven.

93 Stop cooking, now!
Turn off your oven 10 minutes before the end of cooking. The oven will retain the temp — plus you'll avoid over-cooking.

94 Cover your kitchen exhaust fan when not in use to stop air leaks.

95 Try this oven alternative
Toaster ovens can use one half to one third less energy than a conventional electric oven for small meals.¹⁶

96 Zone it in
Convection ovens can use up to 40% less energy than a regular electric oven.

USING LIGHTS

97 Stay in the dark
Turn off your lights when you leave the room — even if you'll only be gone for a moment.

98 Light, only when needed
Use outdoor motion detection lighting.

99 Dim it down
Still using incandescent light bulbs? Dimming a fixture by 10% can double bulb life.¹⁷

100 Take the LED
New LED lighting is more efficient and lasts longer than conventional bulbs.

101 Turn to Xcel Energy
We have many energy efficiency programs, rebates and discounts available for you, at xcelenergy.com.

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