An energy audit is a great first step toward reducing energy use in your home. These audits involve various tests to help you rank areas so you can focus on them in order of importance.

Appliances, lighting, and electronics account for more than 50% of energy usage in a typical Maine household, according to the U.S. Energy Information Administration. You can help reduce your energy consumption by using high-efficiency solutions.

Does your home suffer from ice dams, frozen pipes, or cold spots? Weatherization may take care of these problems and deliver more year-round comfort. Weatherization involves increasing the insulation in your attic, basement, and walls and sealing areas throughout your home where air is leaking.
TIPS AND FINANCIAL INCENTIVES TO HELP MAINERS SAVE ENERGY AND REDUCE COST

Efficiency Maine offers tips to become more energy efficient and financial incentives (such as rebates, instant discounts, and loans) that can make upgrading to a high-efficiency system more affordable. Find information about available incentives and compare costs online with our interactive tools at efficiencymaine.com.

HEATING

Homeowners have many choices for home heating systems, including fuel type, technology, efficiency level, and distribution system (in other words, the system that spreads heat throughout your home). Other things to consider include required maintenance and whether cooling, dehumidification (removal of moisture from the air), and air filtering are important to you.

page 21-23

COOLING

When cooling your home, consider how an energy-efficient solution could provide comfort and reduce cooling costs.

page 24

WATER HEATING

Today, there are more water heating technologies than ever before. Some things to consider when choosing the water heating option that is best for you are initial cost, including purchase and installation; lifetime energy costs; warranty; and capacity.

page 25-26
An energy audit is a great first step toward reducing energy waste. Energy advisors perform various tests to find the best ways to cut down on energy use in your home and suggest ways to take care of possible health and safety issues, including moisture, mold, and radon. Energy audits can include a walk-through of the entire home and tests using a blower door, combustion safety equipment, and a thermal camera.
OVERVIEW

Getting an energy audit from an energy advisor who is an Efficiency Maine Residential Registered Vendor is a logical way to start weatherizing your home. Energy audits involve various tests to help you decide which areas are more important to weatherize first. Efficiency Maine offers rebates for energy audits as part of an eligible weatherization project and for many upgrades that might be recommended.

BLOWER DOOR TEST

Using a large fan that fits into a doorway, this test can show how airtight or leaky your home is and whether air sealing is recommended. During the blower door test, the energy advisor may evaluate the home with a thermal camera to identify potential sources of air leakage. Identifying and sealing leaks in your home can save hundreds of dollars in energy costs per year.

OTHER TESTS

Energy advisors can also conduct combustion safety testing on boilers and furnaces to make sure they are operating efficiently and venting properly. Thermal (or infrared) cameras allow trained advisors to identify ways you can upgrade your home’s weatherization, such as by adding insulation. In addition, an energy advisor may recommend steps to reduce moisture or improve indoor air quality. Those steps can get rid of possible hazards and improve the comfort and lengthen the life of your home.

RECOMMENDATIONS

After doing an energy audit, an energy advisor may provide you with recommendations to make your home more efficient and comfortable. Some advisors provide detailed reports and computer modeling of your home, while others may simply provide a checklist of the most important items to address.
LIGHTING & APPLIANCES

LIGHTING

When choosing to replace your next light bulb, choose a light-emitting diode (LED) bulb. These high-efficiency bulbs can provide the same amount and quality of light as incandescent bulbs. Compact fluorescent light (CFL) bulbs and LEDs are over 70% more efficient than incandescent light bulbs.

Efficiency Maine works with lighting manufacturers, retailers, and distributors to reduce the prices of energy-efficient lighting products statewide. Prices are marked down in participating locations.

Efficiency Maine maintains an online list of where to find the best retail bulb prices.

<table>
<thead>
<tr>
<th></th>
<th>Incandescent</th>
<th>Halogen</th>
<th>CFL</th>
<th>LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual cost of operation/bulb*</td>
<td>$7.01</td>
<td>$5.05</td>
<td>$1.75</td>
<td>$1.19</td>
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<tr>
<td>Lumens per watt</td>
<td>15</td>
<td>25</td>
<td>60</td>
<td>72</td>
</tr>
<tr>
<td>Percent more efficient than incandescent</td>
<td>-</td>
<td>28%</td>
<td>75%</td>
<td>83%</td>
</tr>
<tr>
<td>Rated bulb life*</td>
<td>1.4 years (1,000 hours)</td>
<td>4.2 years (3,000 hours)</td>
<td>14 years (10,000 hours)</td>
<td>34 years (25,000 hours)</td>
</tr>
<tr>
<td>Instant on</td>
<td>yes</td>
<td>yes</td>
<td>most</td>
<td>yes</td>
</tr>
<tr>
<td>Dimmable</td>
<td>yes</td>
<td>yes</td>
<td>some**</td>
<td>most**</td>
</tr>
<tr>
<td>Cold tolerant</td>
<td>yes</td>
<td>yes</td>
<td>somewhat</td>
<td>yes</td>
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<tr>
<td>Contains mercury</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
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<tr>
<td>Recyclable</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

* Annual cost of operation based on 800 lumens for 2 hours per day at $0.16 per kWh.
** CFLs and LEDs require compatible dimmers.
**LIGHTING TIPS**

1. **Use Light-Emitting Diode (LED) Bulbs**
   
   These high-efficiency bulbs can provide the same amount and quality of light as incandescent bulbs. LEDs are over 70% more efficient than incandescent light bulbs. Consider replacing incandescent or halogen bulbs before they burn out.

2. **Reduce Wattage**
   
   For fixtures with multiple light bulbs or for outdoor fixtures, consider reducing the wattage on each of the light bulbs you’re using.

3. **Turn Off Lights**
   
   Remember to turn lights off whenever they are not needed.

4. **Look for the ENERGY STAR® Label**
   
   If you are looking for a new lighting fixture, consider choosing one with the ENERGY STAR label. ENERGY STAR-approved lighting fixtures could save energy.

5. **Consider Light Sensors**
   
   If having outdoor lights on at night is important to you, photocells might be a good option. Photocells are sensors that detect light. With a photocell, outdoor lights turn on only when it is dark out, saving money during the day.
If you are looking for a new appliance, consider choosing one with the ENERGY STAR label. Consider comparing energy labels that estimate the annual energy costs to run a new appliance. Select appliances that will meet your needs with the lowest energy use.

Many appliances continue to draw power when they are switched off. These “phantom loads” occur in most appliances that use electricity, such as DVD players, televisions, stereos, computers, and kitchen appliances. Where practical, plug devices into a power strip and switch it off when the devices are not in use.

Use an electricity monitor to determine which appliances in your home are contributing to phantom load. Electricity monitors are available to borrow from your local library.

If you are looking for a new appliance, consider choosing one with the ENERGY STAR label. Consider comparing energy labels that estimate the annual energy costs to run a new appliance. Select appliances that will meet your needs with the lowest energy use.

#### GENERAL APPLIANCE TIPS

1. **Reduce Phantom Load with a Power Strip**

   Many appliances continue to draw power when they are switched off. These “phantom loads” occur in most appliances that use electricity, such as DVD players, televisions, stereos, computers, and kitchen appliances. Where practical, plug devices into a power strip and switch it off when the devices are not in use.

2. **Borrow an Electricity Monitor**

   Use an electricity monitor to determine which appliances in your home are contributing to phantom load. Electricity monitors are available to borrow from your local library.

3. **Choose Efficient Appliances**

   If you are looking for a new appliance, consider choosing one with the ENERGY STAR label. Consider comparing energy labels that estimate the annual energy costs to run a new appliance. Select appliances that will meet your needs with the lowest energy use.

---

**SEASON** | **DIFFICULTY** | **COST**
---|---|---
Summer | Easy | No-cost project |
Winter | Moderately difficult | Low-cost project |
| | Difficult | Moderate-cost project |
KITCHEN APPLIANCE TIPS
KITCHEN APPLIANCE TIPS

1. Range
   **Stove Top**
   Use the smallest stove-top burner necessary to do the job. Match your pan size to the burner size. For example, a 6” pan on an 8” burner can waste over 40% of the heat produced by the burner, according to Energy.gov.

   Other tips to consider are:
   • Cover all pots/pans.
   • Simmer your food in your pan. This will cook your food at exactly the same speed as a rapid boil but saves energy.

2. Microwave and Smaller Cooking Equipment
   When reheating food or cooking smaller portions, consider using a microwave or toaster oven instead of your full-size oven.

3. Dishwasher
   Run full loads in the dishwasher whenever possible. If your dishwasher has a control for turning heated drying on and off, consider turning off heated drying. Or, if the manufacturer’s instructions permit, open the door of the dishwasher at the end of the last rinse cycle. That may further reduce energy consumption by replacing the drying cycle with air drying.

4. Refrigerator
   Reduce your annual energy bill by unplugging and properly disposing of unneeded refrigerators. For those in use, keep refrigerator coils clean. Old and poorly sealed door gaskets can also increase electricity use. If you think the door may not be sealing properly, leave a lit flashlight inside; if you see light around the door, it’s time to replace the gasket.

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<table>
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<tbody>
<tr>
<td>Summer</td>
<td>Easy</td>
<td>$</td>
</tr>
<tr>
<td>Winter</td>
<td>Moderately difficult</td>
<td>$ - $5</td>
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<tr>
<td></td>
<td>Difficult</td>
<td>$5</td>
</tr>
</tbody>
</table>
|        |            | $5   | Low-cost project
|        |            | $5   | Moderate-cost project

*Energy.gov*
Clothes Washer
Use the low-temperature settings on the washing machine and wash full loads. Washing one large load uses less energy than washing two smaller loads.

Clothes Dryer
Whenever possible, dry full loads, but be careful not to overfill the dryer. Cleaning the lint filter after each use can also reduce energy use. Depending on the type of dryer, using a lower temperature setting for a longer cycle uses less energy and is easier on your clothes. Consider hanging your clothes out to dry.

Tips for Owners of Heat Pump Water Heaters
Heat pump water heaters can save you money and energy. If you are one of the thousands of Mainers who own one, here are some quick tips to help you set up and operate your unit:

1. Set the water heater at the lowest temperature that works for you. 120°F is a good place to start.
2. Use "Heat Pump (only)" mode whenever possible.
3. Maximize the water heater's accessible space by opening doors to space next to it.
4. Be sure that air flow to and from the unit is not blocked.
5. Consider using "Vacation" mode if you are leaving your home for a long period of time.

See page 25 for more water heating tips.
LIVING ROOM APPLIANCE TIPS
Outlet

Power adapters draw power even when attached to devices that are turned off. To save energy, use a power strip and turn it off when attached devices are not in use. You can also unplug adapters from power sockets when you're not using your devices.

- Easy - $3 - $5

Computer/Monitor

Consider selecting the most energy-efficient desktop computers, monitors, laptops, notebooks, and tablets for your computing needs. A computer often uses energy even in sleep mode, so it's more efficient to turn a computer off when it's not in use. Consider changing the settings on the device to save as much energy as possible. Disable screensavers so that computers use less energy when they are in sleep mode.

- Easy - $3 - $5

Home Theater/Audio

Choosing an ENERGY STAR-certified model should be a priority when buying home theater or audio equipment. ENERGY STAR models can be as much as 70% more efficient than conventional models. Consider comparing energy labels, which estimate the annual energy costs to run a new appliance. To save more energy, consider listening to music on a lower-watt Bluetooth speaker rather than a full-size amplifier or sound system when higher-powered equipment is not needed.

- Easy - $3 - $5

Television

Compare energy labels, which estimate the annual energy costs to run a new appliance, when you are looking to buy a new TV. On average, ENERGY STAR-certified TVs are more energy efficient than conventional models.

- Moderate difficulty - $2 - $4

<table>
<thead>
<tr>
<th>SEASON</th>
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<td>Difficult</td>
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</tbody>
</table>
Does your home suffer from ice dams, frozen pipes or cold spots? Are you tired of wasting money to heat a leaky home? Weatherization may address these problems and deliver increased year-round comfort. Weatherization involves air-sealing and increasing the insulation in your attic, basement, and walls.

**Air Sealing**
Reducing the amount of air that leaks in and out of your home can be a cost-effective way to reduce heating costs and improve comfort. Some air sealing measures like caulking and weather stripping can be completed as do-it-yourself projects, but many air sealing projects should be performed by a professional.

**Insulation**
Increasing the amount of insulation in your home can reduce heat loss during the winter and heat gain during the summer. When insulation is properly installed, heating and cooling systems will run less, helping to reduce energy bills and keeping you more comfortable.
Insulating windows around their edges makes your home even more energy efficient. To reduce heat loss in winter, install storm windows, transparent plastic window film, or indoor window inserts. When purchasing windows, look for ENERGY STAR-certified models designed for Maine's climate.

**Windows**

You can improve your home's energy efficiency by making sure that vents and floor registers are well sealed where they meet with the wall or floor. Make sure all ducts are connected and all vents and floor registers are clear of furniture or rugs that could impede airflow.

**Floor Vents/Registers**

Use weather stripping for doors and windows to keep out hot air in summer and cold drafts in winter. Weather stripping will help seal closed windows and doors.

**Weather Stripping**

During winter days, let sunlight in by opening curtains, blinds, and shades on windows facing the sun to reduce heating demand. At night, keep drapes and curtains closed to reduce heat loss.

**Window Treatments: Winter**

Keep windows and window treatments closed during the day to reduce unwanted heat gain. Open windows in the evening and early in the morning to allow cooler air to come in.

**Window Treatments: Summer**

If replacing your doors, apply caulking around door frames and weather stripping around doors that do not close tightly. If replacing your sliding door, select ENERGY STAR-certified models.

**Doors**

GENERAL WEATHERIZATION TIPS
GENERAL WEATHERIZATION TIPS

7. **Caulk and Spray Foams**
   Spray foam insulation and caulk are often used to fill cracks and gaps where air could travel between outdoors and indoors. To make a room warmer in winter and cooler in summer, try air sealing with caulk, spray foam, or both.

8. **Receptacles and Switch Boxes**
   Seal outlets and switch boxes with foam gaskets. Installing foam gaskets can reduce drafts and create an extra barrier between warmer and cooler air.

9. **Rope Caulk**
   Consider installing a temporary seal around windows and doors that won't be used for long periods of time, such as a basement door that is unused in the winter. Many types of rope caulk can be easily removed in the spring and stored in a plastic bag for reuse next season. To fill larger gaps, use several strands twisted together.

10. **Door Sweep**
    Consider installing a door sweep on the bottom edge of the door between heated and unheated areas like the garage, bulkhead, and basement door (if it's not an exterior door with a threshold and weather stripping).
Air sealing reduces drafts and heat loss by eliminating air leaks in your home. Professional air sealers use a variety of materials, including caulk, spray foam, metal flashing, weather stripping, and rigid foam. Some materials are more suitable than others for specific locations or trouble spots. For example, fire-rated caulk and metal flashing are used around the chimney and in other high-temperature air-sealing situations.

Air leaks can be difficult to see, but spider webs often show where there is airflow. Other indicators include musty smells and ice dams.

The best way to learn where your home might benefit from air sealing is to consult with an Efficiency Maine Residential Registered Vendor. They can use diagnostic equipment like a blower door to assess the relative “leakiness” of your home, locate the leaks with a smoke pencil or a thermal camera, and recommend ways to improve comfort and efficiency.
ATTIC WEATHERIZATION TIPS

The exterior of your living space — the outer walls, ceiling, windows, and floor — is called the “envelope” or “shell.” Sealing and insulating, done by a knowledgeable homeowner or skilled contractor, can help you save on total annual energy bills. It will also make your home more comfortable and help your heating and cooling system run more efficiently. You can hire an Efficiency Maine Residential Registered Vendor, who can use special diagnostic tools to find and seal the hidden air leaks in your home before adding insulation. An insulation professional can apply solutions such as spray foam and blown-in insulation.

Efficiency Maine recommends insulating the entire building envelope: attics, cathedral ceilings, all wall cavities, rim joists, basement walls, and crawl spaces.

For the best energy efficiency, your home should be insulated from the roof down to two feet below ground level. Insulation’s ability to reduce heat transfer is rated in terms of its R-value, with a higher R-value making the home more efficient and comfortable.

To get the biggest savings, the easiest place to add insulation is usually in the attic. A quick way to see if you need more insulation is to look across your uncovered attic floor. If your insulation is level with or below the attic floor joists, you probably need to add more. Efficiency Maine recommends insulating open attics to a value of at least R-49.

If you have pull-down attic stairs or an attic door, consider sealing it: weather strip the edges and put a piece of rigid foam board insulation on the back of the door. Treat the attic door like a door to the outside. Pre-made insulated attic stair covers are also available from local home-improvement centers or online.
BASEMENT WEATHERIZATION TIPS

Basement Insulation
Efficiency Maine suggests insulating basement walls from two feet below ground level to the underside of the first floor. A minimum of two inches of rigid or spray foam are needed to get the best results. Consider dense-pack insulation or a minimum of two inches of rigid or spray foam to insulate crawl space and basement ceilings.

Rim Joist
The part of the basement where the home’s exterior framing rests atop foundation walls is known as the “band joist” or “rim joist.” To provide a well-insulated barrier, rim and band joists should be thoroughly sealed to the bottom of the first floor.

Chimney
Homes can have gaps or cracks where the chimney passes through the floor and ceilings. Cracks between unheated and heated spaces can create drafts in the winter. They can also lead to unwanted heat in summer. Use caulking or spray foam insulation to fill gaps and cracks. Special materials may be required depending on the type of chimney.

Penetrations
There can be gaps where any plumbing or electrical work runs through exterior walls and between floors. These gaps could allow air to flow between unheated and heated spaces. Consider sealing all holes with spray foam sealant or caulking to stop air movement.

SEASON | DIFFICULTY | COST
--- | --- | ---
[Summer] | [Easy] | [No-cost project]
[Winter] | [Moderately difficult] | [Low-cost project]

20
HEATING TIPS

Heating/Cooling Systems

When choosing a home heating system, consider choosing the most energy-efficient option. There are many choices involved in a heating system purchase: fuel type, technology, efficiency level, and the distribution system. Other points to consider include appearance, maintenance, and non-heating functions, like air conditioning and dehumidification. Efficiency Maine has produced resources for Mainers, including heating tips to make your home energy efficient and comfortable. Visit efficiencymaine.com and use our Cost of Home Heating Calculator to learn more about different kinds of heating systems that may match your needs. While on the website learn more about our Residential Registered Vendors, rebates, and available financing. In order to get the most energy savings from your current heating system, schedule annual cleanings to keep it in top condition. Increase comfort by servicing the heating system at the manufacturer’s recommended timing. This will also help you reduce operating costs and prevent system failure.

1. Take Advantage of Zone Heating
   Use only the heat needed — if your home has zone heating, be sure to heat only the smallest zone possible. If you are using one zone, consider turning down thermostats and closing registers in vacant zones, taking precautions to avoid frozen pipes.

2. Turn Down Manual Thermostats
   If you do not have a heat pump, consider turning down your furnace or boiler thermostat to 55 degrees when your home is unoccupied. For sleeping, consider setting your thermostat to 60 degrees. If you do have a heat pump, please see page 23 for important differences in its operation.

3. Set Your Programmable Thermostat
   Programmable thermostats run automatically and can adjust the temperature on their own based on the time of day or day of the week. This can help your home use less energy when it is unoccupied or at night while you sleep.

4. Switch to a Smart Thermostat
   Compared to conventional thermostats, smart thermostats are more accessible and more convenient. Some smart thermostats can detect your presence in a room and can adjust the temperature accordingly. They can be controlled via any smartphone, so you can turn the temperature up or down as you return home.
HEATING TIPS

5. **Clean Boilers & Furnaces**

Make sure your boiler or furnace is cleaned and serviced annually by qualified personnel for optimum efficiency. Cleaning makes the heating system safer and much more efficient and makes it last longer.

6. **Choose Efficient Circulator Pumps**

If you have a hydronic (often referred to as “forced hot water”) heating system and have to replace circulator pumps, consider Electrically Commutated Motor (ECM) pumps, which can reduce operating cost by 85% because their motors adjust their speed to match the load. They also tend to be more reliable than traditional circulator pumps.

7. **Maximize the Effectiveness of Your Heat Pump**

If you own a heat pump, consult the tips on page 23 to make sure you’re getting the most from your system.

8. **Use the Fireplace Damper Correctly**

Properly close the flue damper of your fireplace when not in use. This will not only prevent warm indoor air from escaping in winter but also keep in cool air in the summer. Make sure that any fire is totally out before closing down the damper of your fireplace and also confirm there are no glowing embers. Doing so could help prevent your room or home from being filled with carbon monoxide and other pollutants.

9. **Reflect Heat from Radiators**

If your home has radiators, place heat-resistant reflectors between radiators and walls to heat the room instead of the wall.
Heat Pumps

Tens of thousands of high-efficiency heat pumps have been installed in Maine homes and businesses. Heat pumps are one of the most popular technologies for heating in cold climates. They also provide air conditioning and help to dehumidify in the summer. Efficiency Maine offers rebates for high-efficiency heat pumps for residential and commercial customers.

How They Work

Heat pumps consist of an outdoor unit connected to one or more indoor units by a line set, which carries heat between the two. Heat pumps are able to provide efficient heating in cold climates even at outdoor temperatures as low as -15°F.

The Advantages

**Efficient heat** — Heat pumps are one of the most efficient sources of heat.

**Low-cost air conditioning** — Today’s high-performance heat pumps are twice as efficient as typical air conditioners.

**Room-by-room control** — Heat pumps that have multiple indoor units allow for separate temperature control in the rooms with the units.

**Safety** — Because heat pumps are electrically powered, there is no risk of combustion from gas leaks.

**Air quality** — When running, heat pumps filter indoor air and dehumidify it in the summer, improving air quality.

Choose High Performance

High-performance heat pumps are able to provide efficient heating in cold climates even at outdoor temperatures as low as -15 °F. They’re also the models that qualify for the highest rebates.

Heat Pump User Tips

Here are some quick tips to get you started:

1. Prioritize the thermostat on your heat pump so it provides as much heat as possible before your less-efficient back-up heating system turns on.

2. If your intent is to heat adjacent spaces with your heat pump, be sure to leave doors between the heat pump and adjacent rooms open.

3. In general, the “Auto” fan setting is the best starting option.

4. Use different “Heat” and “Cool” settings in winter and summer, respectively, rather than “Auto Temperature” mode.

5. For maximum efficiency, vacuum or rinse indoor unit filters regularly to make sure that air flows freely.

For more tips for your heat pump, go to efficiencymaine.com

<table>
<thead>
<tr>
<th>SEASON</th>
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<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Easy</td>
<td>$0</td>
</tr>
<tr>
<td>Winter</td>
<td>Moderately difficult</td>
<td>$500</td>
</tr>
</tbody>
</table>

| Winter | Difficult | $1000 |

| Summer | No-cost project | $0   |
| Winter | Low-cost project | $500 |
| Winter | Moderate-cost project | $1000 |
COOLING TIPS

1. **Use Fans**
   
   At night use fans to draw in cooler night air. Close the windows during the day to keep cooler air inside.

   ![Sun | Fan | $]$ $[42x692]COOLING [0x0]COOLING [57x617]4

2. **Exhaust Warm Air**

   Exhaust warm air from the kitchen while cooking. The energy used by the exhaust fan is lower than that required to cool the air with an air conditioner.

   ![Sun | Fan | $]$ $[43x617]COOLING [0x0]COOLING [55x471]5

3. **Opt Out of an Air Conditioner**

   Opt out of a high-efficiency heat pump. It will keep you cool and dry in summer and provide low-cost heating in the winter. If you do buy a cooling unit, consider choosing an ENERGY STAR-certified air conditioner. ENERGY STAR-certified air conditioners come with timers that can help you use minimum power to cool your room. Be sure windows are tightly sealed, so cool air does not escape. Clean the filters of your air conditioner regularly to improve both efficiency and performance. Keep the front and back of the air conditioner unit clear of obstructions. Removing the window air conditioning unit in the winter will help avoid a possible air leak.

   ![Sun | Fan | $]$ $[242x585]Exhaust Warm Air [226x571]Exhaust Warm Air [226x557]5

4. **Use Ceiling Fans**

   Ceiling fans not only provide comfort, but also can help save energy. If you are using a fan with a reverse direction function, set it to blow upward in winter. During the summer months, switch to downward airflow to create a cool breeze.

   ![Sun | Fan | $]$ $[244x475]Opt Out of an Air Conditioner [226x571]Opt Out of an Air Conditioner [226x557]5

5. **Cool Rooms Efficiently**

   Cool rooms efficiently. For the most efficient dehumidification and cooling, consider a high-efficiency heat pump. This will keep you cool and dry in summer and provide low-cost heating in the winter. If you do buy a cooling unit, consider choosing an ENERGY STAR-certified air conditioner. ENERGY STAR-certified air conditioners come with timers that can help you use minimum power to cool your room. Be sure windows are tightly sealed, so cool air does not escape. Clean the filters of your air conditioner regularly to improve both efficiency and performance. Keep the front and back of the air conditioner unit clear of obstructions. Removing the window air conditioning unit in the winter will help avoid a possible air leak.

   ![Sun | Fan | $]$ $[226x571]Cool Rooms Efficiently [226x557]Cool Rooms Efficiently [226x543]5

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**COOLING**

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Water Heater Tips

1. **Choose an Efficient Water Heater**

   Today, there are more water heating technologies than ever. When comparing options, consider the following:

   1. Initial cost, including purchase and installation
   2. Lifetime energy costs, which are typically far higher than initial costs
   3. Warranty, which can be an indicator of product life
   4. Capacity, to make sure you will have enough hot water
   5. Space requirements
   6. Incentives, including rebates* and tax credits

   * Efficiency Maine offers rebates that can make upgrading to a high-efficiency system more affordable. Find information about rebates and compare water-heating costs online at efficiencymaine.com.

2. **Consider a Lower Water Temperature Setting**

   Set the temperature according to your preference. In general, lower temperatures save energy, and higher temperatures allow the unit to handle more hot water use. High temperatures also increase the risk of scalding, so a common default setting is 120 degrees Fahrenheit. If you find you need more hot water, you can try increasing the temperature setting and mixing in more cold water at the tap. To avoid scalding at high temperatures, a mixing valve can be installed to automatically reduce water temperature before it reaches the tap.

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### SEASON | DIFFICULTY | COST
--- | --- | ---
![Summer](https://via.placeholder.com/150) | Easy | $$ No-cost project
![Winter](https://via.placeholder.com/150) | Moderately difficult | $$ Low-cost project
![Moderate](https://via.placeholder.com/150) | Difficult | $$ Moderate-cost project
WATER HEATING TIPS

3 Repair or Replace Leaky Faucets

Did you know a leaky faucet can waste hundreds of gallons of water each year? If your faucets are leaking, you’re not only wasting water, you’re wasting the energy that was used to heat it. Consider repairing or replacing leaky faucets.

4 Take Shorter Showers

Shorter showers are a great way to reduce water consumption and heating cost.

5 Install Energy-Saving Shower Heads

Select a shower head model with a flow rate of less than 2.0 gallons per minute.

<table>
<thead>
<tr>
<th>SEASON</th>
<th>DIFFICULTY</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Easy</td>
<td>$ No-cost project</td>
</tr>
<tr>
<td>Winter</td>
<td>Moderately difficult</td>
<td>$ Low-cost project</td>
</tr>
<tr>
<td></td>
<td>Difficult</td>
<td>$ Moderate-cost project</td>
</tr>
</tbody>
</table>
Electric Vehicles

Fun to drive. Cost less to operate. Cleaner for the environment. Drivers in Maine and around the world are making the switch to electric vehicles (EVs) for these reasons and more.

Electric vehicles can be solely powered by an electric motor with a battery (a Battery Electric Vehicle or BEV) or by a combination of both an electric motor and a gas engine (a Plug-in Hybrid Vehicle or PHEV).

Most models of BEVs can travel farther on electricity alone than PHEVs because they have larger batteries. Because BEVs do not have a fuel backup, the only way to continue driving when the battery runs out is to recharge the battery. Plug-in Hybrid Vehicles have a longer total driving range because they can be powered by the gasoline energy after their battery is exhausted, but PHEVs have a shorter range on electricity alone.

Visit efficiencymaine.com for information on rebates and other incentives.