

**RE-ENERGIZE YOUR HOME**

# **ENERGY SAVING APPLIANCES**

**[PSE.COM/ReENERGIZE](http://PSE.COM/ReENERGIZE)**



**RE-ENERGIZE**

# **YOUR HOME, YOUR APPLIANCES, YOUR SAVINGS**

Making some simple, energy-efficient choices in how you use your existing household appliances and what kind of new appliances you purchase will help your family save up to one-third on your energy bill each year without sacrificing features, style or comfort.

## **About Puget Sound Energy**

Washington state's oldest local energy utility, Puget Sound Energy serves more than 1 million electric customers and nearly 750,000 natural gas customers in 11 counties. A subsidiary of Puget Energy, PSE meets the energy needs of its growing customer base through incremental, cost-effective energy conservation, procurement of sustainable energy resources, and far-sighted investment in the energy-delivery infrastructure. PSE employees are dedicated to providing great customer service and delivering energy that is safe, reliable, reasonably priced, and environmentally responsible.

## **In this guide**

This guide contains the following topics to help customers learn about the benefits of ENERGY STAR® qualified appliances.

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# RESEARCHING BEFORE YOU BUY IS RE-ENERGIZING

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## Buy wisely

### Look for the ENERGY STAR



When the time comes to buy new household appliances, Puget Sound Energy (PSE) recommends models that have earned the ENERGY STAR qualification. ENERGY STAR is a dynamic partnership between government and industry that offers consumers energy-efficient solutions.

ENERGY STAR provides a trustworthy label on over 40 product categories (and thousands of models) for your home.

Qualified products should have the ENERGY STAR prominently displayed for easy comparison. Look for the yellow energy guide sticker fastened to appliance models on display. The energy guide shows the Energy Factor (EF) and operating costs for the appliance so you can easily compare the efficiency and expense of different models.

## Energy Terms

### **Watt**

A common measure of electrical energy usage. It is equivalent to amps times volts.

### **Kilowatt**

A measure of electric energy equal to 1,000 watts. Put another way, it's the amount of electric energy required to light ten 100-watt light bulbs.

### **Kilowatt-hour (kWh)**

The unit of measurement used for billing electricity. One kWh is equal to 1,000 watts used for one hour. Power company utility rates are typically expressed in cents per kilowatt-hour.

### **Therm**

A unit of heating value equivalent to 100,000 BTU (British thermal units). One therm of natural gas is equal to 29.29 kWh.



# A DISHWASHER THAT SAVES MONEY IS RE-ENERGIZING

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## Choose an ENERGY STAR qualified dishwasher

ENERGY STAR qualified dishwashers have more efficient motors, pumps and washing systems. Many models have features that both improve cleaning and reduce demand on the hot water tank. By replacing a dishwasher manufactured before 1994 with an ENERGY STAR qualified dishwasher, you could:

- Save more than \$25 a year in energy costs
- Save about \$100 over the lifetime of the product in hot water costs

## Getting the most out of your dishwasher\*

- Avoid wasting water by limiting pre-rinsing
- Use the air-dry option
- Use a rinse aid to help the dishes dry without spotting
- Promptly repair cut or chipped plastic coating on racks to prevent rusting
- Twice a year, lift out the strainer from the bottom of your dishwasher and clean it with warm soapy water and a soft plastic scrub brush
- Twice a year, remove the spray arm and clean it with warm soapy water. Poke a toothpick through the holes to clear any blocked spray holes. Gently shake the arm to ensure that nothing else is inside. Finally, scrub any mineral deposits off the spray arm with hot distilled white vinegar
- Twice a year, place a small container filled with 1 cup of distilled white vinegar in both the lower and upper racks of the unit and run a regular wash. The unit will disperse the vinegar during the wash cycle. This will dissolve mineral accumulation and soap residue throughout the dishwasher
- Never use regular dish washing liquid intended for hand washing dishes. If it is used by accident in your dishwasher, add a tablespoon of vegetable oil to stop the suds
- If you live in an area where the water is hard, you may need to use more detergent. If you live in an area where the water is soft and your dishes come out soapy after they are washed, you may want to use less detergent

# RE-ENERGIZE WITH A PREMIUM- EFFICIENCY CLOTHES WASHER

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## Choose a premium-efficiency clothes washer

A premium-efficiency clothes washer can save your family money on energy and water bills by using up to 50 percent less energy. This can save you up to \$65 a year on energy bills and up to 7,000 gallons of water per year.

A large variety of premium-efficiency clothes washers do not have a central agitator. You can wash delicates and even many dry-clean-only items safely, and have more room to wash bulky items such as bedspreads. Premium-efficiency clothes washers are available in both top-loading and front-loading designs.

### Top-loading

Top-loading models look like conventional machines from the outside, but these premium-efficiency clothes washers use different types of washing actions to get clothes clean with less water and energy. Many have sensors to monitor incoming water temperature closely. They also rinse clothes with repeated high-pressure spraying instead of soaking them in a full tub of water.

### Front-loading

Front-loading models are similar to machines used in commercial laundries. They use a horizontal or tumble-axis basket to lift and drop clothing into the water instead of rubbing clothes around a central agitator.

Both top-loading and front-loading premium-efficiency clothes washers save water and energy. They also use faster spin speeds to extract more water from clothes, reducing dryer time and energy use.



### Energy IQ

#### Modified energy factor

The higher the Modified Energy Factor (MEF), the more efficiently the clothes washer uses electricity.

#### Water factor

The lower the water factor (WF), the more efficiently the clothes washer uses water.

## Getting the most out of your clothes washer\*

- Washing with lower temperatures is a great way to lower your energy use. To maximize your energy savings, wash and rinse in cold water.
- Match the water level to the size of your load. Don't fill the whole tub for a few items.
- You may be using up to six times as much detergent as you need. Using too much detergent will cause your machine to create excessive suds and will make the machine work harder.
- Contact your water utility to find out if you have hard or soft water. Your appliance manual will tell you how much detergent you need for your water type.
- Before you purchase a new clothes washer, check [pse.com](http://pse.com) or call 1-800-562-1482 to learn about rebates from PSE for premium-efficiency clothes washers.

### Tips

Choose a premium-efficiency clothes washer with an MEF of 2.2 or higher and WF of 4.5 or below.

## Getting the most Out of your clothes dryer\*

- If available, use the moisture sensor option on your dryer so the machine automatically shuts off when the clothes are dry.
- Clean the lint screen after each use. Lint screen build-up greatly reduces efficiency.
- Clothes should dry in about 40 minutes to one hour. Avoid overloading the dryer, which can lengthen drying time.
- Choose a permanent-press (cool-down) cycle. No heat is supplied in the last few minutes, but drying continues as cool air is blown through the tumbling clothes.
- Keep the dryer exhaust vent clear of shrubs, cobwebs or lint, and follow the dryer exhaust vent cleaning instructions shown in your owner's manual. Check to see that shutters on the dryer vent located on the outside of your home move easily.
- Avoid stop-and-start drying and dry loads back-to-back whenever possible. Stopping the dryer for long periods of time in between loads allows the dryer to cool down, which then requires more energy to warm up for subsequent loads.
- When possible, use an outdoor clothesline or an indoor drying rack. This not only saves energy, but it also reduces wear and tear on your clothing.

# A FRIDGE THAT SAVES FOOD AND MONEY IS RE-ENERGIZING

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## Choose an ENERGY STAR qualified refrigerator or freezer

You may want to think about replacing your refrigerator every 15 years. You should also make sure you are using a size that truly fits your family's needs. New ENERGY STAR qualified refrigerators require about half as much energy as models manufactured before 1993 and are more efficient than required by current federal standards.

They also have highly efficient compressors and improved insulation, thus reducing energy consumption, and they are typically quieter and generate less heat than conventional models. ENERGY STAR qualified freezers use at least 10 percent less energy than required by current federal standards.

If you're shopping for a new refrigerator, keep in mind that manual defrost refrigerators are generally more efficient than automatic defrost models.

A photograph of a kitchen with white cabinets and a stainless steel refrigerator. The refrigerator is the central focus, and the kitchen appears clean and modern. The lighting is bright, suggesting a window nearby.

### Energy IQ

#### Preventing global warming

By choosing ENERGY STAR qualified products, you not only save money by consuming less energy, you also contribute to energy efficiency, which can help reduce global warming.

## Getting the most out of your refrigerator and freezer\*

- Getting rid of old, rarely used or secondary refrigerators or freezers is one of the single most significant ways to lower your electric bills and conserve energy.
- Check your temperature setting by putting a kitchen thermometer in a jar of water and leaving it in your refrigerator overnight. The temperature should read between 34 and 40 degrees Fahrenheit the next morning. To test your freezer, place a kitchen thermometer in the freezer overnight. The freezer should be between 0 and 5 degrees Fahrenheit.

### Tips

To learn more about selecting a new appliance or properly disposing of old appliances, including those not listed here, please contact a PSE Energy Advisor at 1-800-562-1482.

- Avoid freezing an empty freezer. If your freezer space is underused, fill empty milk jugs or other plastic containers with water and place them in your freezer. A full freezer retains cold better; therefore, the freezer does not have to work as hard to maintain the set temperature.
- Refrigerator coils, which are located either underneath or on the back of the unit, should be vacuumed twice a year to maximize efficiency. Dust build-up can cause stress to the appliance, increasing wear and tear on the motor as well as increasing your energy usage.
- Defrost your freezer if ice build-up is more than half an inch thick.
- Check the door gasket occasionally to make sure the seal isn't damaged or impaired by debris.
- Maintain at least two inches of clearance around the refrigerator to permit proper air circulation.
- Check to see whether your refrigerator has an energy-saving antisweat switch. When switched on, this feature prevents condensation from forming near door seals, especially during hot and humid weather. You will save energy, however, by keeping the switch off during cooler parts of the year.
- Avoid running frost-free refrigerators in environments where the air temperature is below 60 degrees Fahrenheit, unless it is specifically designed for these conditions. At lower temperatures, the air compressor may not run adequately, leading to insufficient cooling of the freezer compartment.

# RE-ENERGIZE YOUR NEXT MEAL WITH ENERGY- SAVING APPLIANCES

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## Choosing the right cooking appliance

Though ENERGY STAR does not label cooking appliances, such as stoves and ovens, there are a number of things to think about before deciding which make and model to buy. If you're in the market for a new range, there are many options currently available.

If you often cook for a crowd, look for at least one high-powered element or burner and a large oven. High-heat burners can be useful for searing, stir-frying or heating large quantities, while ranges with convection ovens will often speed roasting.

## Getting the most out of your stove and oven\*

### Stoves

- Use the burner that most closely matches the size of your pan or pot.
- Speed up cooking time, and use less energy, by using lids on pots and pans.
- Use drip pans under conventional coil burners and keep them clean. Don't line drip pans with aluminum foil because they will reflect too much heat and could damage the elements.
- If you have a natural gas stove, check the pilot light or burner flame.

When natural gas burns properly, it should have a blue flame. If the flame is yellow, the ports could be clogged and may need to be cleaned or adjusted.

### Ovens

- Preheat the oven for five minutes before baking.
- Check your oven temperature by using a separate oven thermometer.
- Make sure the oven door seal is tight.
- Avoid opening the oven door while baking.
- Turn the oven off a few minutes before the food is ready and let residual heat finish the job.
- Use a microwave oven when possible. Microwaves can use one-third to one-half as much energy as conventional ovens.
- Never use your oven to heat your home. It is dangerous and expensive to use your oven as a source of heat.

# A COOL BREEZE WITH HOT SAVINGS IS RE-ENERGIZING

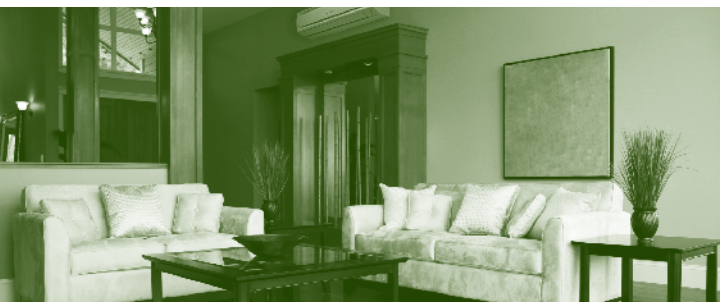
## Choose an ENERGY STAR qualified air conditioner

You can save an average of \$14 per year on your electric bill by replacing your air conditioner with a new ENERGY STAR qualified unit. Because ENERGY STAR qualified room air conditioners have improved compressors and insulation, they run more quietly and use at least 10 percent less energy than conventional models.

Before you buy a new air conditioner, assess your room size and match the size of the room to the appropriate BTU-per-hour output. Room construction, climate and other factors may also affect your choice.

If you are considering central air conditioning or cooling your home with a heat pump, look for ENERGY STAR qualified products or call a PSE Energy Advisor at 1-800-562-1482.

Size of room (square feet)	Output (BTU per hour)
100-300	5,000-6,000
250-550	7,000-8,200
350-950	9,800-12,500



## Getting the most out of your room air conditioner

- Consult your owner's manual and follow maintenance directions.
- For best results, direct the airflow to the center of the room for uniform cooling.



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