

HomePrint

Your Blueprint For Home Energy Improvement

Home Performance Photos

For: !

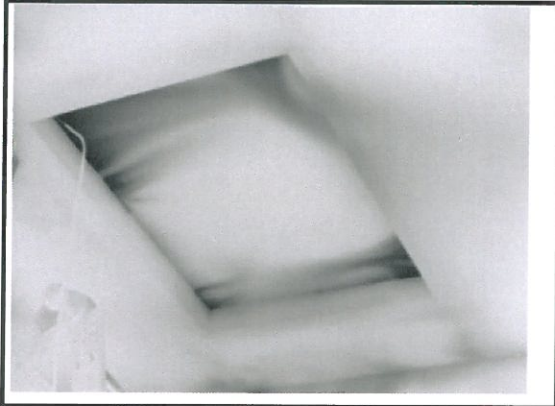
Provided by: Community Energy Challenge & Pinnacle Inspections

Date: 12/20/2010



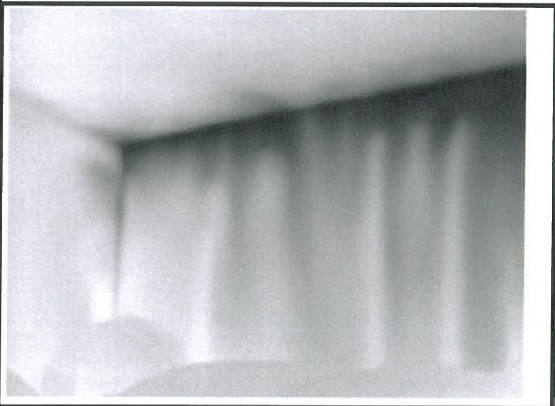
HomePrint

Your Blueprint For Home Energy Improvement Annotated Photos



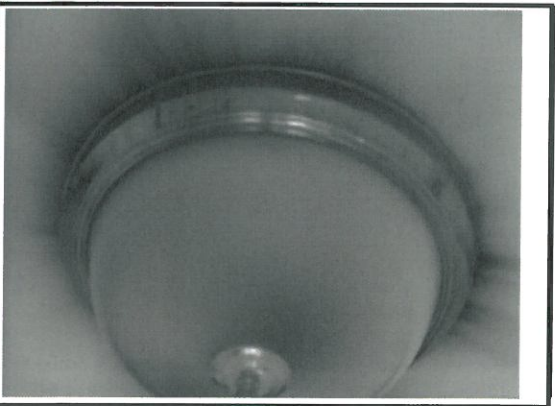
Attic Access Lid

Repair your attic access lid to provide a tighter air seal per Home Performance w/ EnergyStar Standards



Attic to Wall air leakage

Seal all wall intersections at top plate areas from the attic level

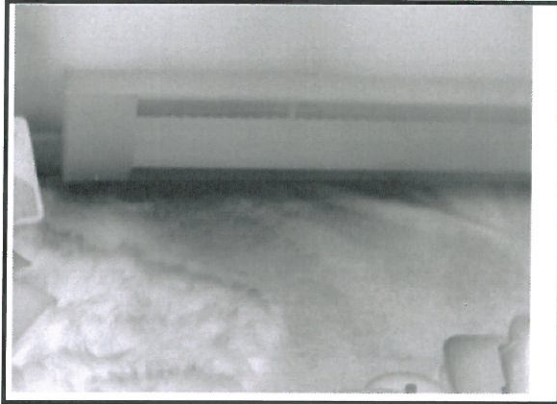


Light Fixture at second floor level

Seal all ceiling penetrations and electrical fixtures

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Your Blueprint For Home Energy Improvement



Sill plate leakage at baseboards at First and Second floor levels



Hallway ceiling at second floor



More air leakage/wall washing of air from attic

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Your Blueprint For Home Energy Improvement



Missing "Kick-Out" Flashing at step flashing at siding to roof intersection

Install "Kick-Out" Flashing at step flashing at siding to roof intersection to prevent water infiltration at window-wall area



Damage noted due to lack of Kick-Out Flashing and possible improper window installation and flashing



This condition may be a community wide issue that should be investigated further to prevent rot and mold at these locations.

HomePrintTM

Your Blueprint For Home Energy Improvement

Prepared by Puget Sound Energy
For Rosanne Manning, 12/20/2010

PSE.com | 1-800-562-1482

Bellingham, WA 98225

Dear

Thank you for requesting your HomePrint from Puget Sound Energy. Use this report as a guide for taking some control over the way you use energy in your home.

While we were in your home, we made some changes that will start you down the road toward being more energy efficient. However, these small changes alone will not make a giant impact on your energy consumption-to get the most savings you'll have to tackle some of the larger jobs we've recommended in this report.

The following summaries are a snapshot of your most important fixes, cost estimates and long-term payoff. In many cases, you will notice a difference on your utility bill right away. If you're excited to get started, we've also included some improvements you can make with a quick (and inexpensive) trip to the home improvement store or a few changes to your daily routine.

Small steps lead to big gains, so whatever you can take on in this report is going to help. The bigger stuff is going to help more, but the easier stuff is going to help too. Keep this report around, wrap up a few projects each year, and your home will be well on its way to reaching its full energy-savings potential. Good for you. Good for the environment.

If you come across terms or acronyms within this report that you do not understand, consult the glossary of terms in the back. If you have additional questions, call a PSE Energy Advisor at 1-800-562-1482, Monday through Friday, 8 a.m. to 5 p.m.

Sincerely,

Robert Stockmann

Community Energy Challenge
360-676-6099
1322 N. State St
Bellingham WA 98225

Top Recommendations

Who doesn't love a good "to-do" list?

We encourage you to put the things that will pay off biggest (and soonest) at the top of your energy-efficiency list. Make the investment now, and in some cases you'll start noticing a difference on your bill right away. Even if you take small steps now and bigger (investment) steps later, every step will be a step in the right direction.

YOUR TOP TO-DOS

- Your home meets or exceeds our air infiltration recommendation
- Your home meets or exceeds our wall insulation recommendation
- Your home meets or exceeds our floor insulation recommendation
- Your home meets or exceeds our window recommendation
- Your home meets or exceeds our door recommendation
- Your home meets or exceeds our water heating recommendation
- Your home meets or exceeds our refrigerator recommendation
- Your home meets or exceeds our lighting recommendation

EARN CREDITS ON YOUR TAXES

Select energy-efficient home improvements may earn you up to \$1,500 in federal tax credits.

For more information, visit energytaxincentives.org or consult your tax advisor.




Summary

Benefits of Improvement Steps

First things first, let's talk about how different forms of fuel measure up. Not all energies are created equal. Natural gas, electricity and even gasoline all have different BTU content. This means that one unit of a certain type of fuel could be a lot more powerful or more expensive than one unit of another type of fuel.

For example, natural gas is measured in therms and electricity is measured in kilowatt hours (kWh). One therm of natural gas is equal to about 30 kWh of electricity. This chart displays how costs can vary dramatically for equivalent amounts of energy from different types of fuel.

Hopefully this will be helpful when making decisions pertaining to your home energy choices. Keep this in mind as you go through your report and use it to measure up how much energy you really will save when you follow our recommendations:

Fuel	Unit	BTU content (Per Unit)	Cost (Equivalent to 1 therm of Natural Gas)
	therm of natural gas	100,000 BTU (Per Therm)	\$1.00 (1 Therms)
	kilowatt of electricity	3,412 BTU (Per kWh)	\$2.81 (29.3 kWh)
	gallon of gasoline	124,000 BTU (Per Gallon)	\$2.24 (0.81 Gallons)

These figures do not take into consideration the efficiency of the equipment using these fuels. Based on PSE electricity rate of .096 per kWh and natural gas of \$1 per therm, effective Oct. 2009. Based on average gasoline price as of Oct. 2009 of \$2.78 per gallon (Source AAA's Daily Fuel Gauge).

Summary

Overall Observations

These charts illustrate how your usage breaks down by energy type and by major home system categories. Potential energy (and cost) savings can be found in any of these "pieces of the pie," but often the largest pie slices harbor the most potential savings.

Understanding how your specific energy break downs will help you to make the most energy efficient choices, while saving energy, money, and the environment.

Save Energy

HOUSEHOLD ENERGY USE

OVER THE LAST 12 MONTHS, YOUR HOUSEHOLD CONSUMED:

- 14,855 For Electricity (KWH)
- 0 For Natural Gas (THERMS)

By taking the total energy in BTU's consumed in a year and dividing it by your home's square footage, we can start to get an idea of how your home uses energy.

YOUR BTU/SQ FT:
• 42,250

AVERAGE HOMEPRINT CUSTOMER'S BTU/ SQ FT: • 55,700

Save Money

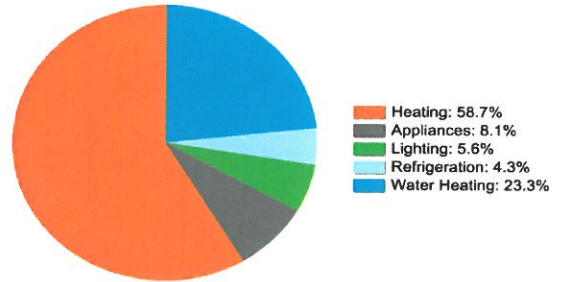
HOUSEHOLD ENERGY COST

YOUR HOUSEHOLD ENERGY COSTS OVER THE LAST 12 MONTHS WERE:

- \$1,500 For Electricity
- \$0 For Natural Gas

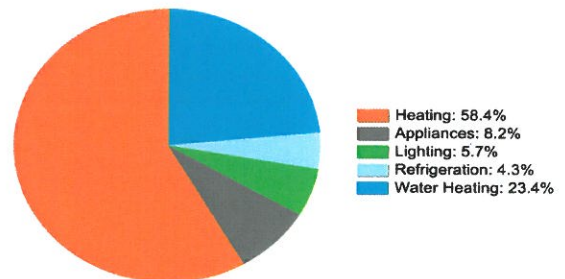
PSE has incentive programs to help you save money when upgrading to high-efficiency equipment.

YOUR ELECTRIC USAGE ENERGY



YOUR NATURAL GAS USAGE ENERGY

YOUR ENERGY COSTS BY ENERGY



Summary

Overall Observations (cont.)

Save the Environment

HOUSEHOLD CARBON DIOXIDE EMISSIONS

YOUR HOUSEHOLD CO2 EMISSIONS OVER THE LAST 12 MONTHS WERE EQUAL TO:

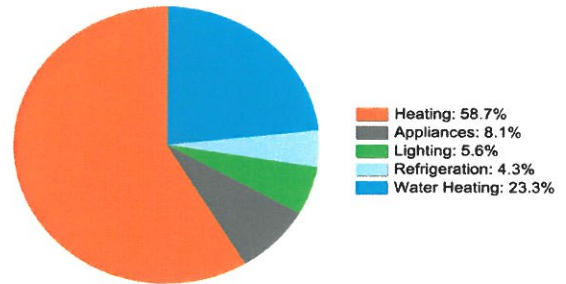
ELECTRICITY:

796 GALLONS OF GASOLINE

NATURAL GAS:

0 GALLONS OF GASOLINE

Installing just two CFLs will save a little more than 60 kWh per year - that's equal to preventing the greenhouse gas emissions of three gallons of gasoline.



WHAT'S THE LINK BETWEEN ENERGY USE AND GREENHOUSE GAS EMISSIONS?

- Coal-fired generation accounts for 50 percent of America's electrical energy production, and natural gas-fired generation accounts for 20 percent. Both methods generate greenhouse gases that are emitted into our atmosphere.
- The Northwest makes substantial use of clean hydropower, but coal and natural gas still account for 17 percent and 8 percent, respectively, of the energy consumed in the region.
- With new coal-fired generation being banned from the Northwest, natural gas use will increase to serve base loads in the region.

Reduce Your Carbon Footprint

improvement	equipment emissions	improvement	equipment emissions	improvement	equipment emissions
air leakage	4	floor insulation	0	wall insulation	0
attic insulation	0	heating system	271	water heating	0
cooling system	0	thermostat settings	71	windows	0
doors	0				

Summary

Benefits of Improvement Steps

This report presents several actions you can take to reduce your home energy consumption (detailed in the following pages). We've grouped the recommendations into three categories: Structure, Appliances and Lifestyle. We've outlined some estimates of your potential benefits below. These estimates are based on an energy model of your home. Actual energy savings may vary.

Structure

priority	Improvement Steps	Electricity Savings (kWh / year)	Natural Gas Savings (therms / year)	Energy Savings (\$ / year)	Level of Investment
Low	Air Leakage	66 kwh	0 therms	\$6	\$
Low	Attic Insulation	0 kwh	0 therms	\$0	\$\$
Low	Wall Insulation	0 kwh	0 therms	\$0	\$\$
Low	Floor Insulation	0 kwh	0 therms	\$0	\$\$
Low	Windows & Doors	0 kwh	0 therms	\$0	\$\$\$\$\$

Appliances

priority	Improvement Steps	Electricity Savings (kWh / year)	Natural Gas Savings (therms / year)	Energy Savings (\$ / year)	Level of Investment
Medium	Heating System Upgrade	5,057 kwh	0 therms	\$475	\$\$\$\$
Low	Cooling System Upgrade	0 kwh	N/A	\$0	\$\$\$\$

Lifestyle

priority	Improvement Steps	Electricity Savings (kWh / year)	Natural Gas Savings (therms / year)	Energy Savings (\$ / year)	Level of Investment
High	Set Thermostat to 68 ° F	1,323 kwh	0 therms	\$133	None
High	Lower Water Heater Thermostat	0	0 therms	\$0	None

Summary

Instant Energy-Efficiency Upgrades

While completing your HomePrint, we performed a few simple, on-the-spot upgrades that have already helped you start saving energy. Here are some of the things we did:

Compact Fluorescent Light Bulbs

ENERGY STAR® qualified CFLs use 75 percent less energy than conventional bulbs and last up to ten times longer. As part of your HomePrint, we replaced your incandescent bulbs with CFLs that are the perfect size and shape for your fixtures. These may include standard 60- and 100-watt equivalent twists, 9- and 14-watt globes (great for bathroom vanities), 14-watt A-lamps and reflector lamps for your recessed can lighting.

Quantity	Potential Energy Savings per Year	Potential Cost Savings per Year
0 Bulbs	0 kWh	\$0

Pipe Wrap

Wrapping reduces heat loss through hot water pipes by up to 80 percent.

Quantity

feet

Efficient Showerheads

Without sacrificing performance, efficient showerheads help reduce water, energy and sewer usage by up to 20 percent. When you use less water, you conserve a valuable resource for the environment, wildlife and our future. Heating less water also means using less energy and reducing greenhouse gas emissions.

Quantity

showerhead(s)

Air Leakage



Truth is, our homes are not as airtight as we think they are. They can be drafty, breezy and downright cold for no good reason (that we can tell). Air leaks are often the single largest cause of heat loss in a home and they are pretty good at hiding themselves.

Start by checking for trouble spots. This seems obvious, but if there's a hole in the ceiling or the floor, you should probably do something about it. Less obvious, caulk and seal around plumbing and windows, seal up recessed lights and install some weatherstripping. Some of these things you can do yourself, others you'll want to hire a pro to do (ask us for a contractor referral).

You may not have heard the term Air Changes per Hour (ACH), but that is how energy professionals refer to how often the entire volume of air in your home is replaced with new fresh air. Too much leakage is not good, but neither is too little. We want to make sure your home is as healthy as possible.

Your House:

ACH FOR YOUR HOUSE IS: 0.41
 AVERAGE ACH FOR NEW CONSTRUCTION IS: 0.35
 AVERAGE ACH FOR OLDER HOMES IS: 0.5
 CURRENT ENERGY LOSS: 17.3 % OF TOTAL HEATING/COOLING ENERGY

Recommended Steps:

Hire a professional to seal air leaks around your home. Your home meets or exceeds our air infiltration recommendation.

What else can I do?

IF YOU HAVE A FIREPLACE, KEEP THE DAMPER CLOSED. WHEN NOT IN USE AND CONSIDER INSTALLING GLASS DOORS.

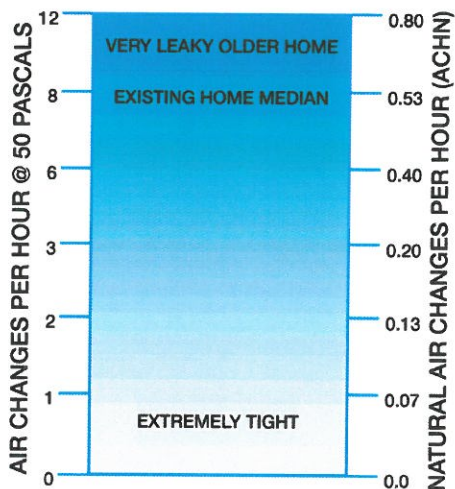
TURN OFF BATHROOM AND KITCHEN VENTILATION FANS WHEN NOT IN USE OR INSTALL A TIMER.

SHUT THE DRYER DOOR WHEN YOU'RE DONE DRYING LAUNDRY (THE DRYER VENT CAN LET COLD AIR IN).

Notes from your HomePrint-certified specialist:

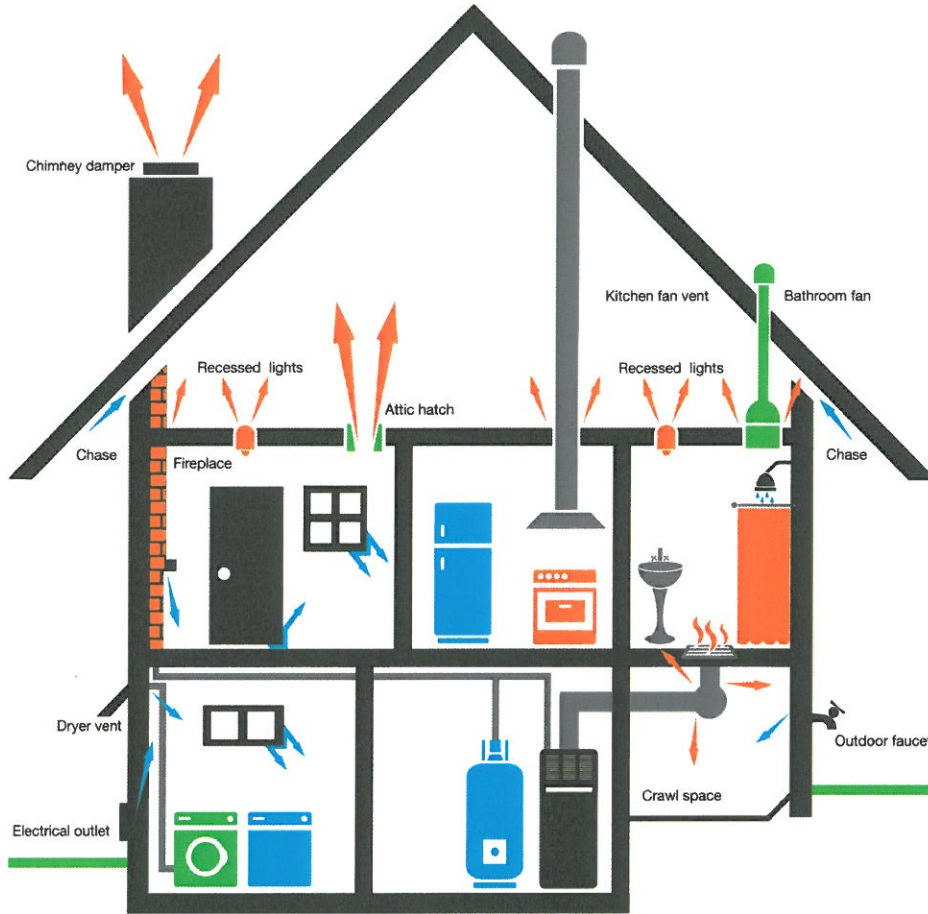
Noted areas of infiltration were found at Attic-to-Wall intersections, Ceiling light fixtures, various sill plate areas and Attic Access Lid

ACH CHART:



Structure

Air Leakage (cont.)



Attic Insulation

approximate savings
\$0/YEAR



You've worked hard to put a nice roof over your head. But did you know that roof of yours could be a big source of heat loss? Hot air rises, and if there's nothing to hold it in, it'll rise right out the top-and that means your heating system is working overtime. The same holds true in the summer. If you use A/C, a poorly insulated home will not retain cool air.

So, what can you do to make your home a little more comfortable during seasonal extremes? A good 12 to 18 inches of insulation in the ceiling (an R-value of 38) is ideal. And don't forget to insulate or seal all of the air leaks you can find between your house and the attic or crawlspace.

Your House:

EXISTING R-VALUE FOR YOUR HOUSE IS: 39

RECOMMENDED R-VALUE IS: 38

CURRENT ENERGY LOSS: 8.4 % OF TOTAL HEATING/
 COOLING ENERGY

Recommended Steps:

If you have the space try to get up to R49 attic insulation installed for additional savings.

Potential Benefits:

IMPROVE PERFORMANCE OF YOUR CEILING BY: 0.0 %

ENERGY SAVINGS: 0 KWH/YEAR, 0 THERMS/YEAR

PRIORITY OF THIS IMPROVEMENT IS: Low

APPROXIMATE SAVINGS: \$0 / YEAR

What else can I do?

USE DRAPES IN WINDOWS TO MINIMIZE HEAT LOSS IN WINTER AND SOLAR HEAT IN THE SUMMER.

USE A CEILING FAN TO REDIRECT HEAT AROUND THE ROOM.

THINK ABOUT LANDSCAPING; PLANT TREES THAT WILL GROW AND SHADE THE ROOF.

Notes from your HomePrint-certified specialist:

Wall Insulation



Is it cold in here, or is it just me?

Your walls are the largest area of your home exposed to outside air. Walls with poor insulation can get downright chilly. If you're finding that your home still stays cold despite the amount of heat you use, you may have an insulation problem. To stay nice and cozy all winter, wall insulation of R-18 to R-22 is a good idea. A high-density insulation blanket with rigid exterior foam is the best idea. On the inside of the wall, a vapor barrier will help control moisture in the house.

Your House:

EXISTING R-VALUE FOR YOUR HOUSE IS: 19

RECOMMENDED R-VALUE IS: 19

CURRENT ENERGY LOSS: 36.0 % OF TOTAL HEATING/COOLING ENERGY

Recommended Steps:

Your home meets or exceeds our wall insulation recommendation.

Potential Benefits:

IMPROVE ENERGY LOSS THROUGH YOUR WALLS BY: 0.0 %

ENERGY SAVINGS: 0 KWH/YEAR, 0 THERMS/YEAR

PRIORITY OF THIS IMPROVEMENT IS: Low

APPROXIMATE SAVINGS: \$0 / YEAR

What else can I do?

HANG DECORATIVE CARPETS OR TAPESTRIES ON THE INSIDE OF EXTERIOR WALLS TO ACT AS AN INSULATING LAYER.

PLACE HEAT-RESISTANT RADIATOR DEFLECTORS BETWEEN RADIATORS AND EXTERIOR WALLS.

INSTALL FOAM GASKETS BEHIND OUTLET COVERS AND PUT INSULATED PLUG COVERS IN UNUSED OUTLETS.

Notes from your HomePrint-certified specialist:

Floor Insulation

approximate savings

\$0/YEAR

Getting out of bed in the early mornings of winter is not easy and a cold floor doesn't help. To help make a difference on your feet and your energy bill, you need a good insulating layer between the floor joists. This can come in the form of wide fiberglass blankets (3-6') or narrow batts (12-24"). How much insulation depends exactly on what kind of floor those feet are falling on:

FLOORS OVER UNHEATED SPACES:

For homes with an unheated basement or other fully enclosed space (no vents to outside), a 6" batt of R-19 insulation should be installed between the floor joists.

CRAWL SPACE FLOORS:

Floors over a crawl space should be insulated to a minimum of R-25 (R-30 is recommended), and a vapor barrier should be installed to control the level of moisture.

BASEMENT:

If you have a basement you're not going to heat, insulate the walls of the basement with R-11 insulation, instead of the floor. If you are going to heat the space, insulate the walls to a minimum of R-19.

GROUND-LEVEL FLOORS:

Concrete slab floors located at or near the ground level (below three feet) should be insulated. A minimum of R-8 insulation (R-19 for a heated slab) should be installed, extending down to the frost level.

Your House:

EXISTING R-VALUE FOR YOUR HOUSE IS: 30

RECOMMENDED R-VALUE IS: 30

CURRENT ENERGY LOSS: 5.0 % OF TOTAL HEATING/COOLING ENERGY

Recommended Steps:

Your home meets

or exceeds our floor insulation recommendation.

Potential Benefits:

IMPROVE ENERGY LOSS THROUGH YOUR FLOOR BY: 0.0 %

ENERGY SAVINGS: 0 KWH/YEAR, 0 THERMS/YEAR

PRIORITY OF THIS IMPROVEMENT IS: Low

APPROXIMATE SAVINGS: \$0 / YEAR

What else can I do?

PLACE AREA RUGS WITH INSULATED PADS ON HARDWOOD FLOORS.

WEAR SLIPPERS OR SOCKS AROUND THE HOUSE.

Notes from your HomePrint-certified specialist:

Window Performance

\$0/YEAR



We just can't say enough good things about windows. They let in warm sunbeams and fresh breezes. They make the most of a pretty view and they can transform the aesthetics of a house. But, sometimes they're not perfect. They can get a little drafty during the winter months.

Double-pane, low-e (low-emissivity) windows will keep your home warmer in winter and cooler in summer. Keeping the drapes closed during extreme temperatures will also help for energy efficiency. Look for the ENERGY STAR label on any new windows.

Triple pane windows are very popular right now and while they are extremely efficient, watch out for the costs. PSE recommends double pane glass for now.

Your House:

EXISTING U-VALUE FOR YOUR HOUSE IS: 0.23

RECOMMENDED U-VALUE IS: .33

CURRENT ENERGY LOSS: 24.8 % OF TOTAL HEATING/COOLING ENERGY

Recommended Steps:

Your home meets or exceeds our window recommendation.

Potential Benefits:

IMPROVE ENERGY PERFORMANCE OF WINDOWS BY: 0 %

ENERGY SAVINGS: 0 KWH/YEAR, 0 THERMS/YEAR

PRIORITY OF THIS IMPROVEMENT IS: Low

APPROXIMATE SAVINGS: \$0 / YEAR

What else can I do?

PLACE WINDOW FILM ON ANY OLD SINGLE-PANE WINDOWS.

DIY INSULATION: CUT A FOAM BOARD TO FIT THE WINDOW PANE, COVER IT WITH NICE FABRIC AND SET IT IN THE WINDOW AT NIGHT TO REDUCE HEAT LOSS.

REMOVE WINDOW AIR CONDITIONING UNITS DURING THE WINTER MONTHS.

Notes from your HomePrint-certified specialist:

Structure

Door Insulation



Take a look at the space around your front door. If you can see light coming through, that's not a good sign. A cold, drafty door can make the rest of your home cold too. If you haven't already, install weatherstripping to seal against drafts, and you might also want to think about replacing an uninsulated door.

Different kinds of doors have different insulating properties (see below). Choose one that's built like a sandwich, with an insulated core, to hold in heated and cooled air.

DOOR CONSTRUCTION R-VALUE:

- Hollow-core wood: 1.0
- Hollow wood, storm: 1.5
- Solid wood: 2.3
- Metal/urethane core: 2.6
- Solid wood, storm: 3.5

approximate savings

\$0/YEAR

Your House:

EXISTING R-VALUE FOR YOUR DOORS IS: 3.0

RECOMMENDED R-VALUE IS: 3

CURRENT ENERGY LOSS: 8.4 % OF TOTAL HEATING/COOLING ENERGY

Recommended Steps:

Your home meets or exceeds our door recommendation.

Potential Benefits:

IMPROVE ENERGY LOSS THROUGH YOUR DOORS BY: 0.0 %

ENERGY SAVINGS: 0 KWH/YEAR, 0 THERMS/YEAR

PRIORITY OF THIS IMPROVEMENT IS: Low

APPROXIMATE SAVINGS: \$0 / YEAR

What else can I do?

ROLL UP A TOWEL AND PUT IT IN FRONT OF THE DOOR.

WEATHERSTRIPPING ISN'T JUST FOR THE BOTTOM OF THE DOOR - YOU CAN PUT IT ON THE TOP AND SIDES TOO.

KEEP THE DOORS TO AN ATTACHED GARAGE CLOSED AND WELL-INSULATED.

Notes from your HomePrint-certified specialist:

Duct Sealing & Insulation



Ducts have a very important job to do. They conduct air from the central heating or air conditioning unit to the floor registers throughout our homes, keeping us comfortable year round.

Heated or cooled air has to travel a ways, which means the duct system should be properly sealed or that precious air could leak out. Insulating the system will help prevent this too. If you can run the system through the heated/cooled areas of your home (and not outside or in a crawl space), all the better.

Your House:

EXISTING R-VALUE FOR YOUR DUCT SYSTEM IS: 1

EXISTING DUCT SEALING CONDITION IS: 0-10%

RECOMMENDED R-VALUE AND SEALING ARE: 11 / TIGHT

Recommended Steps:

What else can I do?

DON'T TRY TO SEAL DUCTS ON YOUR OWN WITH DUCT TAPE (AS LOGICAL AS THAT MAY SEEM). IT CAN LOSE ITS "STICK" IN DUSTY PLACES, LIKE WHERE DUCTS ARE.

VACUUM WARM AIR REGISTERS AND HEAT RETURNS REGULARLY AND KEEP THEM CLEAR OF FURNITURE, RUGS, ETC.

HAVE THE ENTIRE SYSTEM PROFESSIONALLY CLEANED PERIODICALLY, ESPECIALLY IF THERE ARE ALLERGY SUFFERERS IN THE HOUSE.

Notes from your HomePrint-certified specialist:

Appliances

Heating System

approximate savings
\$475/YEAR



It's very possible that your heating system is the largest energy consumer in your home, so it's important to use it efficiently. Properly using a programmable thermostat and ensuring you have adequate insulation is half the battle. When replacing your heating equipment, consider a high-efficiency model and consult a professional to make sure you purchase the right sized equipment for your home.

PSE recommends using natural gas directly for home heating when it's available. Using natural gas directly as the heating appliance, opposed to using it to generate electricity, means using about half as much natural gas. This also has less of an environmental impact by reducing the amount of fossil fuels burned for generating electricity.

When natural gas service is not available, PSE recommends high-efficiency, air-source heat pumps as opposed to the use of electric baseboards or wall heaters.

Homes heated with wood fireplaces and stoves should consider natural gas, a clean-burning fuel. Compared to wood fireplaces, natural gas fireplaces, vented to the outdoors, produce much less carbon monoxide and particulate emissions.

The potential benefits of upgrading your home's heating system are based on the installation of a high efficiency heat pump in electrically heated homes and a 95% efficiency forced air furnace in natural gas heated homes.

Based on your home's current heating system, the priority of this upgrade will vary. Consult your HomePrint-certified specialist for more information.

Your House:

YOUR HEATING SYSTEM IS: **Electric**

EXISTING EFFICIENCY OF YOUR EQUIPMENT IS: **100 %**

RECOMMENDED EFFICIENCY IS: **8.5 (HSPF)**

Recommended Steps:

Potential Benefits:

IMPROVE ENERGY PERFORMANCE OF YOUR HEATING SYSTEM BY: **88.2 %**

ENERGY SAVINGS: **5,057 KWH/YEAR, 0 THERMS/YEAR**

PRIORITY OF THIS IMPROVEMENT IS: **Medium**

APPROXIMATE SAVINGS: **\$475 / YEAR**

What else can I do?

MAKE SURE TO CHANGE YOUR AIR FILTERS REGULARLY.

AIR FLOW IN THE HOUSE IS REALLY IMPORTANT. KEEPING MOST OF YOUR DOORS AND HEAT REGISTERS OPEN WILL HELP KEEP YOU MORE COMFORTABLE.

Notes from your HomePrint-certified specialist:

For more efficient heating systems, it would be wise to consider Duct Heat Pump Systems and to incorporate Solar Hot Water and PV systems to reduce your electrical demands

Water Heating



Allow us to give you a proper introduction. Homeowner, meet water heater. Water heater, homeowner. We know you haven't had many reasons to interact each other up until now (other than cursing it for a cold shower), but your water heater is the second biggest energy consumer in your home behind heating and A/C. So what can you do to help make it more energy efficient?

The recommended temperature setting for a hot water heater is 120°F. This is not only more efficient, but also safer. Drain a little water from your water tank every year to remove sediment (but be sure to consult your owner's manual first). If you own an older unit, consider the ultimate improvement: replacing it with a new high-efficiency model that uses 30-40 percent less water (just make sure it is sized properly for your home). If you have a storage water heater, think about upgrading to a tankless model, which produces hot water on demand so there's no standby heat loss. It takes up less space too. Finally, common sense prevails-take shorter showers, wash your clothes in cold water and run only full loads of laundry and dishes.

approximate savings

\$0/YEAR

Your House:

APPROXIMATE AGE OF YOUR WATER HEATER IS: 5

YOUR WATER HEATER IS SET TO: 120 °F

RECOMMENDED SETTING IS: 120 °F

Recommended Steps:

Your home meets or exceeds our water heating recommendation.

Potential Benefits:

REDUCE YOUR ANNUAL ENERGY CONSUMPTION BY: 0.0 %

ENERGY SAVINGS: 0 KWH/YEAR, 0 THERMS/YEAR

PRIORITY OF THIS IMPROVEMENT IS:

APPROXIMATE SAVINGS: \$0 / YEAR

What else can I do?

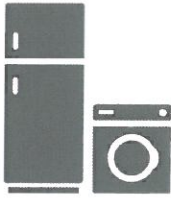
ONLY RUN FULL LOADS OF DISHES IN A DISHWASHER AND DON'T PRE-RINSE IN THE SINK.

INSTALL PIPE INSULATION ON PLUMBING.

Notes from your HomePrint-certified specialist:

Appliances

Refrigerator/Freezer



“What’s in the fridge?” This could be one of the most common household questions, second only to, “Where’s my other brown sock?” Knowing the answer before you open the door can save you money on your energy bill.

Few things make more of a difference on your energy bill than the kind of refrigerator you have. In fact, it uses more energy than any other appliance in your home. Once you’ve got in the habit of not leaving the door open too long, you may want to think about shopping for a newer model if yours has been around for a while. An ENERGY STAR qualified refrigerator will use half as much energy as one produced before 1993 and 40 percent less energy than one produced in 2001. An ENERGY STAR qualified freezer will use ten percent less energy than what is required by current federal standards. And there’s more to the door style than aesthetics—did you know that a model with a refrigerator on top and freezer on the bottom uses significantly less energy than a side-by-side?

A few other things to think about: keeping your refrigerator/freezer away from heat sources, leaving a space around it for air circulation, and keeping seals tight and coils clean will mean it won’t have to work harder than necessary.

Your House:

NUMBER OF UNITS IN HOME: 1

CURRENT ENERGY USE: 4 % OF TOTAL ENERGY

Recommended Steps:

Your home meets or exceeds our refrigerator recommendation.

What else can I do?

LET FOODS COOL AT ROOM TEMPERATURE BEFORE PLACING IN THE FRIDGE.

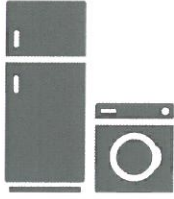
SET YOUR REFRIGERATOR BETWEEN 35° AND 38°, AND YOUR FREEZER AT 0°.

A FULLY STOCKED FREEZER TAKES LESS ENERGY TO KEEP COLD. STOCK UP ON EXTRA ICE CREAM (YES, WE ARE OFFICIALLY GIVING YOU PERMISSION) OR BUY SOME BLOCK ICE FOR THE COOLER - ONE LESS THING ON THE VACATION TO-DO LIST LATER.

Notes from your HomePrint-certified specialist:

Appliances

Other Appliances



If you're the proud owner of an avocado-green washer/dryer combo, it may be time to shop for new appliances. It's a big investment, but one that can pay big dividends in your energy costs down the road. Look for ENERGY STAR qualified models, which are considerably more efficient than conventional appliances and have met regulations set by the U.S. Environmental Protection Agency and Department of Energy. PSE offers rebates on many of these products. Visit PSE.com for more information.

CLOTHES WASHER

An ENERGY STAR qualified clothes washer uses 10 to 20 percent less energy than a conventional model of similar size and can reduce your operating costs by \$550 over its lifetime. It uses almost half the water of a conventional model and also gives your clothes an extra spin cycle, which significantly reduces dryer time.

CLOTHES DRYER

ENERGY STAR does not label clothes dryers since there is little difference in the energy use between models. When shopping for a new dryer, look instead for a moisture sensor that will automatically shut off the machine when your clothes are dry. A cool-down cycle also saves energy, by blowing cool air through the clothes in the last minutes of drying. Dry loads consecutively, try to keep items of similar weight together (one towel can hold up the whole load) and don't overload the machine.

DEHUMIDIFIER

An ENERGY STAR qualified dehumidifier uses 10 to 20 percent less energy than a conventional unit of similar size. A 40-pint ENERGY STAR qualified dehumidifier can save about \$30 per year, or more than \$300 over its lifetime.

DISHWASHER

An ENERGY STAR qualified dishwasher uses 41 percent less energy than a conventional model. Use the air-dry setting and run full loads.

CEILING FANS

An ENERGY STAR qualified ceiling fan/light combination uses 50 percent less energy in comparison to a conventional model. Ceiling fans can also be used in the winter months to redirect heat that has risen toward the ceiling back down to where it is most needed. Turn it off when not in use.

What else can I do?

CLEAN THE LINT FILTER IN THE DRYER AFTER EVERY LOAD.

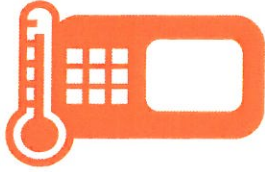
CONSOLIDATE DELICATES OR STAIN-TREATED CLOTHES THAT YOU DON'T WANT TO PUT INTO THE DRYER AND AIR-DRY THE ENTIRE LOAD.

PUT WHITE VINEGAR IN THE RINSE-AID DISPENSER IN YOUR DISHWASHER TO HELP REDUCE SOAP RESIDUE.

Notes from your HomePrint-certified specialist:

Temperature Settings

approximate savings
\$133/YEAR



Before we get started, may we suggest a sweater and a hot cup of tea?

One of the easiest ways to lower your heating costs is to simply turn down the thermostat. And the easiest way to control your home's temperature is to use a programmable model. The same is true for cooling your home during the summer. Take a little time to set reasonable temperatures for the hours when you are home and away, and you could reduce your heating and cooling costs by a significant amount. You can save around 10 percent a year on your heating and cooling bills by simply turning your thermostat back 7 to 10 degrees at night and while you are away from home. Just try not to "bump up" the heat too often when you're feeling chilly (and remind other members of your household to resist this as well).

Recommended Steps:

- SET YOUR COOLING TO: 78°F
- SET YOUR HEATING TO: 68°F
- SET BACK YOUR THERMOSTAT 8 TO 10 DEGREES F

Potential Benefits: Set cooling to 78°

REDUCE YOUR ANNUAL ENERGY CONSUMPTION BY: 10.3 %
 ENERGY SAVINGS: 0 KWH/YEAR
 APPROXIMATE SAVINGS: \$0 / YEAR

Potential Benefits: Set heating to 68°

REDUCE YOUR ANNUAL ENERGY CONSUMPTION BY: 2.9 %
 ENERGY SAVINGS: 1,323 KWH/YEAR, 0 THERMS/YEAR
 APPROXIMATE SAVINGS: \$133 / YEAR

What else can I do?

- DON'T TURN THE HEAT WAY UP TO 80°F THINKING IT WILL HEAT THE HOUSE FASTER. IT WON'T.
- IN SUMMER, KEEP WINDOWS CLOSED DURING THE HEAT OF THE DAY (IT REALLY IS COOLER INSIDE THAN OUTSIDE!)
- USE BLANKETS, OR DRESS WARMER.

Lifestyle

Lighting



We'd like to cast a little light on the subject of lighting.

First off, you can save money by replacing your incandescent bulbs with compact fluorescent light (CFL) bulbs. CFL bulbs have changed a lot in recent years. There's more selection of sizes, shapes and colors, and if you choose a bulb with the lowest Kelvin rating, you can achieve a warm light similar to what a traditional incandescent bulb produces. Choosing CFLs that have earned the ENERGY STAR ensures product quality.

If you're not ready to switch all the bulbs to CFLs, at least start by putting them in lights you use more such as outdoor fixtures or in hard-to-reach areas like over the stairs. Turn off lights as you leave a room (especially energy-intensive fixtures like a bathroom vanity light). And meanwhile, open those blinds and curtains during the day to make the most of the free stuff.

Your House:

NUMBER INSTALLED DURING YOUR HOMEPRINT: 0

POTENTIAL FOR LIGHTING SAVINGS: 49 % OF TOTAL LIGHTING ENERGY

Recommended Steps:

Your home meets or exceeds our lighting recommendation.

What else can I do?

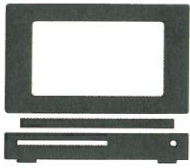
USE LIGHT-ACTIVATED LED NIGHTLIGHTS INSTEAD OF INCANDESCENTS.

IF YOU MUST KEEP A DARK, UNUSED ROOM OR HALLWAY LIT, USE A CFL BULB.

USE OUTDOOR LIGHTS WITH A PHOTOCELL UNIT OR A MOTION SENSOR.

Notes from your HomePrint-certified specialist:

Home Electronics



Here's some mildly shocking news for the home electronics section: did you know that most of the things plugged into outlets in your home use energy around the clock, even when they're turned off? This is called phantom load. TVs, computers, DVD players, video game consoles, what have you-if it's plugged in, it's probably drawing energy.

One big way to make "off" really mean "off" is to plug these items into a power strip with a switch-one you can turn (you guessed it) OFF! There are special, "smart" power strips available that do this automatically. Replacing electronics with ENERGY STAR qualified models as you upgrade will help too.

TV

Here's one reason to hang onto your old CRT a bit longer-a 42" plasma TV can use as much energy as a large refrigerator! An ENERGY STAR qualified television uses about 30 percent less energy than a conventional unit, both in standby and in active mode. And if you can, choose LCD, which uses much less energy than a plasma screen.

DVD PLAYERS

Like most electronics with features such as clock displays and remote controls, a DVD player consumes most of its energy when it's turned off. This is called standby load. However, an ENERGY STAR qualified

DVD player uses 75 percent less energy in standby mode than conventional players.

COMPUTER

An ENERGY STAR qualified computer uses up to 70 percent less energy than a conventional model. Get to know the energy-saving settings on your machine, and activate sleep mode during periods of inactivity. Screensavers don't save energy. Consider using a laptop, and unplug it when it is fully charged (or turn off the power strip). This has the added benefit of keeping your lap nice and toasty in the winter!

PRINTERS

Get out of the habit of keeping it turned on all the time, ready to print at a moment's notice. And choose an ENERGY STAR qualified printer when you can, which can use up to 60 percent less electricity.

FAX MACHINE AND COPIERS

Again, resist the urge to keep these turned on around the clock. On average, ENERGY STAR qualified copiers and fax machines are 25 percent more efficient than conventional models.

What else can I do?

DON'T LEAVE PHONE CHARGERS PLUGGED IN WHEN DONE CHARGING. CHARGING THEM IN THE CAR IS EVEN BETTER.

BE A "STOVE CHECKER." DON'T LEAVE THE IRON ON. DON'T LEAVE THE COFFEE POT ON. THIS WILL ALSO SAVE YOU MONEY IN THE GAS IT TAKES TO DRIVE ALL THE WAY BACK HOME ONCE YOU REALIZE YOU LEFT IT ON. (YOU KNOW THIS, RIGHT?)

Green Power Program



Did you know that you have choices about the energy you purchase? PSE's voluntary Green Power Program makes it easy for you to buy renewable energy equal to any portion of your electricity use. When you enroll, PSE purchases renewable energy credits from regional renewable energy facilities on your behalf. This guarantees that electricity from wind, solar, and biomass facilities is delivered to the regional power pool (the grid) - and reduces the demand for electricity generated from non-renewable sources like fossil fuels, creating measurable environmental benefits.

Since 1997, 22 percent of the demand for renewable energy in the United States has come from voluntary renewable energy purchases. You have the power to choose renewable energy, and that really makes a difference.

Of the 600 other utilities around the country offering similar renewable energy programs, PSE's program is ranked seventh in the U.S. based on megawatt hours sold. And rest assured, PSE's Green Power program is Green-e Energy certified. Green-e Energy, the nation's leading voluntary certification program for renewable energy, audits the program annually to ensure PSE customers get what they pay for.

Your House:

YOUR LAST 12 MONTHS OF ELECTRICITY USAGE: **14,855**
KWH

ANNUAL COST FOR ADDING GREEN POWER EQUAL TO 100 PERCENT USAGE: **\$186**

Recommended Steps:

MAKE THE CHOICE FOR RENEWABLE ENERGY. TO SIGN UP FOR PSE'S GREEN POWER PROGRAM, CALL A PSE ENERGY ADVISOR AT 1-800-562-1482, 8 A.M. to 5 P.M., MONDAY THROUGH FRIDAY OR VISIT PSE.COM/GREENPOWER.

Potential Benefits:

EQUIVALENT REDUCTION OF CARBON EMISSIONS PER YEAR: **20,500 LBS OF CO2/YEAR**

EQUIVALENT TO NOT DRIVING A CAR: **796 GALLONS OF GASOLINE PER YEAR**

What else can I do?

IMPLEMENT MANY OF THE EFFICIENCY STEPS IN THIS REPORT TO LOWER YOUR OVERALL ELECTRICITY USAGE, INCLUDING THE COSTS OF THE VOLUNTARY GREEN POWER PROGRAM.

YOU CAN PARTICIPATE FOR AS LITTLE AS \$4 PER MONTH, WHICH ALLOWS PSE TO BUY 320 KWH OF RENEWABLE ENERGY ON YOUR BEHALF FROM SOURCES RIGHT HERE IN THE NORTHWEST. IF YOU'D LIKE TO DO MORE, YOU CAN PURCHASE ADDITIONAL GREEN POWER BLOCKS OF 160 KWH AT \$2 EACH OR CHOOSE THE 100 PERCENT OPTION.

About Puget Sound Energy



Puget Sound Energy is committed to finding new sources of renewable energy. Alternative energy sources, such as wind and solar power, are fast becoming increasingly important to the Northwest's sustainable energy future. On top of offering customers cost-saving energy-efficiency programs and a nationally recognized Green Power Program, PSE is the largest utility owner of wind and solar generating facilities in the Pacific Northwest. PSE is dedicated to providing customers with exceptional electric and natural gas service that is safe, reliable, reasonably priced and environmentally responsible.

Our customers' energy needs are growing. We've identified energy efficiency as one of the best, most cost-effective ways to meet customer demand without burdening our region's natural resources. PSE offers several services and incentives to help our customers save energy, money and help protect the environment. Over the next two decades, we see the potential to help our customers save another 440 average-megawatts of electricity and 70 million therms of natural gas.

We offer an extensive range of conservation programs, from rebates on energy-efficient furnaces and appliances, to consultation on commercial and industrial projects, to tailor-made grants for retrofits and upgrades in energy-intensive buildings. Please visit the For Your Home and For Your Business sections at PSE.com to learn more about the energy-efficiency services and tools we've made available to you.

Home Energy Use 101

Definitions:

Air Changes Per Hour: The movement of a volume of air in a given period of time. If a house has one air change per hour, it means that the air in the house will be replaced in a one-hour period.

Baseload consumption: This term is used to describe the energy you use for things other than heating and cooling purposes. Baseload typically rises in the winter months for reasons including need for more artificial light and increased hot water use.

BTU: British thermal unit. This unit of energy is used to describe the power of your heating and cooling systems such as your furnace, stove, barbeque grill and air conditioning. Basically, one BTU is approximately the amount of thermal energy released from one wooden kitchen match.

CFL: Compact fluorescent lamp. These bulbs use the same energy-efficient technology as full-size fluorescent bulbs, but fit into standard light sockets. ENERGY STAR qualified CFLs use about 75 percent less energy than standard incandescent bulbs and last up to ten times longer.

Heating Degree Day: One heating degree day is accumulated for each degree that your home's average daily temperature falls below 65 degrees. For example, if your home's average temperature for the day was 60, that would count as five heating degree days (five degrees multiplied by one day).

kWh: Kilowatt hour. This is an important abbreviation because your electricity bill is based on how many kilowatt hours you use in a month. So what is it exactly? In simplest terms, it's how many kilowatts an appliance uses in one hour. Turn on a 100 watt light bulb, leave it on for 10 hours, and you've used up one kWh of energy ($10 \times 100 = 1000$, and $1000 \text{ watts} = 1 \text{ kilowatt}$).

R-value: R-value describes the insulating properties of a material. The higher the number, the slower heat flows through the material. This term is often used to describe home insulation, but any material can have an R-value.

Therm: A unit of energy used to measure natural gas usage. One therm is equal to 100,000 BTUs.

U-value: U-values gauge how well a material allows heat to pass through. The lower the U-value, the greater a product's resistance to heat flow and the better its insulating value. The inverse of the U-value is the R-value. U-value is most often used to describe the insulation abilities of windows and doors.

Watt: You're probably quite familiar with this unit of measurement and can spot a 25-watt bulb from a mile away. A watt measures the energy that flows through an electric appliance to operate it. If you'd like a more technical definition, here's one: a watt equals one joule per second. It's the amount of power in a current of one ampere flowing across a unit of one ohm.