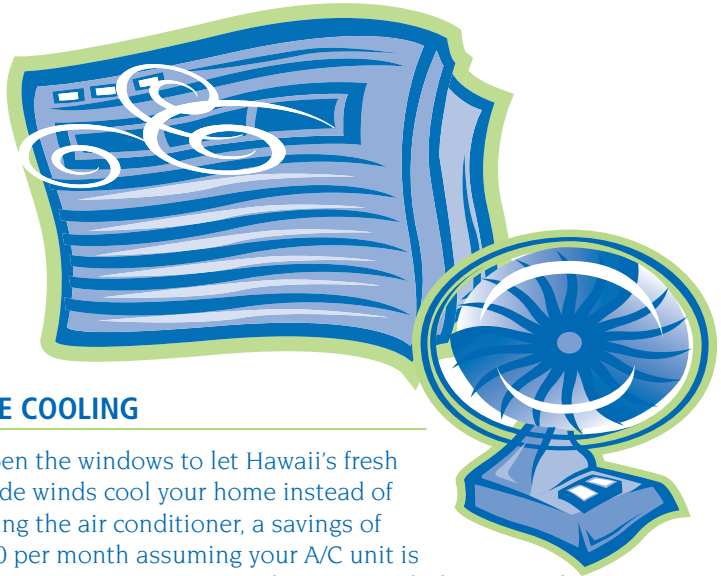


101 WAYS TO SAVE



Hawaiian Electric Company

www.heco.com



HOME COOLING

- 1** Open the windows to let Hawaii's fresh trade winds cool your home instead of using the air conditioner, a savings of \$80 per month assuming your A/C unit is 12,000 Btu/H, EER 10.8, and running eight hours per day.
- 2** Use fans instead of air conditioners, a savings of about \$73 per month. A ceiling fan on for 8 hours per day uses 24 kWh per month or \$7.
- 3** Buy an ENERGY STAR® qualified room air conditioner which uses at least 10% less energy than conventional models. All ENERGY STAR qualified room air conditioners have an EER rating of 10.8 or higher.
- 4** Choose high-quality, low-air-leakage windows and doors. Proper sealing reduces air conditioning usage by 10% to 20%.
- 5** Use fans for additional cooling and increased air circulation so you can raise the thermostat and reduce air conditioning use.
- 6** Apply window tinting with a shading coefficient of 0.40 or less. When replacing windows, choose a model with a Solar Heat Gain Coefficient (SHGC) of 0.40 or less.

- 7** Use clean, free energy from the sun by installing a solar-powered attic fan. Keeping the attic cool means that less heat will transfer into your living area.
- 8** Provide shade and plenty of air circulation for your air conditioning units to increase efficiency. A unit operating in the shade uses as much as 10% less electricity than when operating in the sun.
- 9** Size your air conditioning unit properly. Too small a unit can cause it to overwork and not perform optimally. Too large a unit also will result in inefficient performance and high humidity levels.
- 10** Close drapes or blinds before cooling a room to keep the sun's heat out.
- 11** Plant native plants, trees, shrubs, or trellises around your home on the warmer east, west, and south sides to keep your home cooler.
- 12** Maintain your air conditioner for maximum efficiency by cleaning its filter and vents regularly. Replace filters that look worn.
- 13** Close windows and doors when the air conditioner unit is running.
- 14** Use kitchen, bath, and other ventilation fans wisely. In just one hour these fans can pull out a houseful of cooled air. Turn fans off as soon as they have done the job.
- 15** Consider room air conditioning units to cool individual rooms instead of one single large unit to cool several rooms. Individual units can save energy by allowing you to cool only the rooms needed.
- 16** Choose light-colored roofing materials and exterior surfaces that stay cooler in the sun.
- 17** Consider reflective roof coating products, fiberglass insulation, foam board insulation, radiant barrier, attic ventilation, or ridge and eave vents to keep heat from transferring into your living area.
- 18** Place lamps or TV sets away from the air conditioning thermostat. A/C thermostats sense surrounding heat from nearby appliances, which can cause the air conditioner to run longer than necessary.
- 19** Set your air conditioning thermostat to the warmest comfortable setting. Each degree above 75°F saves approximately 3% of the energy used to cool your home.

WATER HEATING

- 20** When replacing your old water heater consider a high-efficiency model, which has a higher efficiency factor (EF), meaning less electricity usage and lower electricity costs.
- 21** Shorten showers. Cutting just two minutes per shower could save up to 463 kWh and \$139 per year.



- 22** Take short five-minute showers instead of tub baths. Filling the bathtub full of water uses over 25 gallons of hot water.
- 23** Install a solar water heater. A well designed and properly sized solar water heater can reduce water heating costs by 80% to 90%.
- 24** Repair leaking faucets. One drop each second can waste about 1,661 gallons of water a year. A leaking hot water faucet wastes both water and up to \$79 in energy costs per year.

- 25** Lower the setting on your water heater to 120°F to 125°F. Reducing the water heater temperature saves energy by reducing heat loss.
- 26** Install low-flow restrictors in older faucets and showerheads. They will reduce water flow to one to three gallons per minute, thus reducing your hot water costs.



- 27** Select the right water heater tank size. If the tank is too large, energy will be wasted by keeping the extra water hot. If it is too small, hot water may run out.



REFRIGERATOR

- 28** Remove your second refrigerator and save \$50 to \$1,080 per year.
- 29** Choose ENERGY STAR qualified refrigerators and freezers. They exceed federal efficiency standards by 20%.
- 30** Choose the right-sized refrigerator for your needs. Models that are too large will result in wasted space and energy. Too small a model creates overcrowding and inefficiency.
- 31** Consider doing without an ice maker and ice dispenser. Automatic ice makers and through-the-door dispensers increase energy use by 14% to 20% and raise the purchase price \$75 to \$250.
- 32** Look for a refrigerator with automatic moisture control, which prevents moisture accumulation on the cabinet exterior without the use of a heater.
- 33** Locate refrigerators and freezers away from the range, dishwasher, water heater, and direct sunlight. A refrigerator located in a warm area must work harder, thus increasing energy use.
- 34** Set refrigerator temperature between 37°F and 40°F in the refrigerator section and 0°F in the freezer.
- 35** Allow ample space on each side of the refrigerator/freezer and around condenser coils for air circulation. Air flow increases energy performance.
- 36** Limit how often and how long you open the refrigerator/freezer door. Plan ahead and remove all ingredients for each meal at one time. Each time a refrigerator or freezer door is opened, its compressor has to run longer to replace the cold air that spills out.



- 37** Make sure your refrigerator door seals are airtight. Test them by closing the door over a piece of paper or dollar bill so that it is located across the seal. If you can pull the paper or bill out easily, the latch may need adjustment or the seal may need replacing.
- 38** Avoid overcrowding items in the refrigerator because too many items obstruct air circulation and reduce cooling capabilities.
- 39** Fill your freezer to at least two-thirds of its capacity. An empty freezer requires the same amount of energy, or more, to maintain 0°F.
- 40** Chest-type freezers are less likely to lose cold air when doors are opened than upright freezers.
- 41** Clean out your second refrigerator and turn it off for one month to see energy savings and to determine if a second refrigerator is necessary. You'll save between \$180 to \$1,080 per year if it is a model made prior to 1980, and for models made between 1980 to 2001 savings can be between \$144 to \$720 per year.

LIGHTING



- 42** Choose ENERGY STAR qualified compact fluorescent lights (CFLs) as they typically use 75% less energy and last up to 10 times longer than standard incandescent light bulbs. Changing one regular 100-watt bulb to an energy saving CFL, can save 80 kWh and more than \$24 per year per bulb, when used 3 hours a day.
- 43** Install motion light detectors indoors and out. Cutting back use of a 150-watt, outdoor flood light from six hours to one hour per night with a motion sensor saves up to 270 kWh and \$81 per year.
- 44** Use two 26-watt CFLs instead of two 100-watt incandescent bulbs in ceiling mount lighting, a savings of about \$48 per year.
- 45** If you're planning to install a skylight, consider several small skylights instead of one large skylight for better light distribution.
- 46** Pick a CFL with a well-known brand name, UL® mark, and ENERGY STAR logo on the packaging for high quality and long life.

- 47** Use low-wattage bulbs if bright light is not necessary. However, never sacrifice light that is needed for reading or safety.
- 48** Turn off fluorescent fixtures (including CFLs) when you plan to leave the room for longer than 15 minutes. For incandescent lighting, turn off the lights whenever you leave the room.
- 49** Paint the walls and ceiling in your home a lighter color to make the best use of lighting. Lighter-colored walls can achieve up to a 25% reduction in the number of watts needed to light a room.
- 50** Concentrate light where it is actually needed and reduce background light levels. For example, use fluorescent under-cabinet lighting for kitchen sinks and countertops under cabinets
- 51** For outdoor lights, consider using solar-powered models for maximum energy savings.
- 52** Consider three-way lamps as they make it easier to keep lighting levels low when brighter light is not necessary.
- 53** When possible, locate floor, table, and hanging lamps in the corner of a room to reflect more light rather than against a flat wall.
- 54** Open drapes and curtains in your home to make use of natural light during the day rather than turning on a light.



DISHWASHER

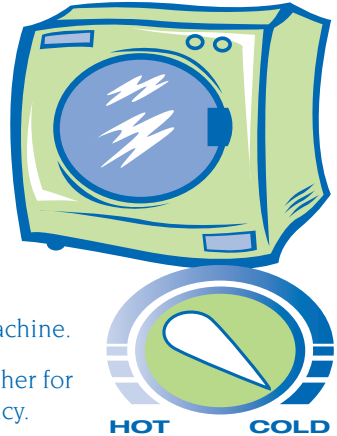
- 55** Washing a full load of dishes in the dishwasher uses less energy than washing by hand. Using an ENERGY STAR qualified dishwasher instead of hand washing will save approximately 5,000 gallons of water annually.
- 56** Air dry dishes instead of using a dishwasher's heated drying cycle.



- 57** Choose an ENERGY STAR qualified dishwasher. You can save more than \$30 a year in energy costs by replacing a dishwasher that was manufactured before 1994.
- 58** Consider a dishwasher with an improved washing system that eliminates the need for prerinsing, which saves both electricity and water.
- 59** When choosing a dishwasher, look for energy-saving features such as “light wash,” “econo,” “short,” and “air dry” cycles.
- 60** Run the dishwasher only when there is a full load, but do not overload.
- 61** Clean your dishwasher’s bottom filter routinely to maximize its efficiency.
- 62** Soak or pre-wash dishes only in cases of burned-on or dried-on foods.

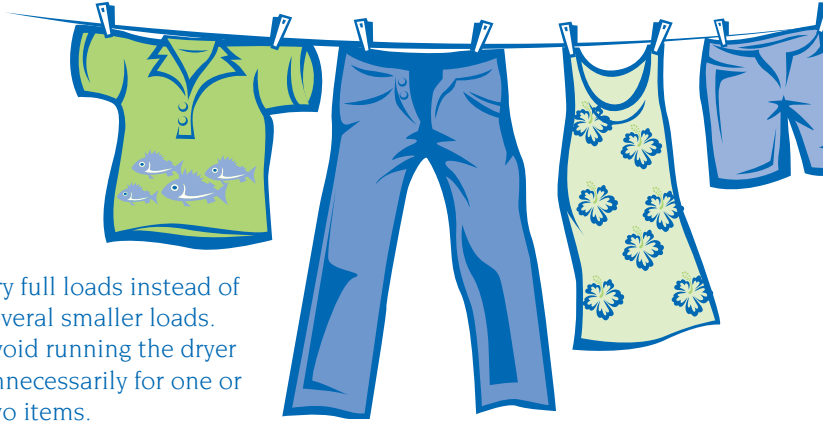
CLOTHES WASHER

- 63** Choose ENERGY STAR qualified clothes washers. An additional new feature is a high-spin speed that reduces drying time and energy use while drying your laundry.
- 64** Use a cold water wash whenever possible. Water heating accounts for 90% of the energy used by your washing machine.
- 65** Set the correct water level on your washer for the size of the load for optimal efficiency.
- 66** Locate your washing machine in close proximity to the water heater when possible to reduce the amount of heat loss in the piping.



CLOTHES DRYER

- 67** Hanging your laundry on the clothesline instead of using the dryer eight times a week will save approximately \$32 per month.
- 68** Separate and dry similar clothes by type and fabric since different fabrics often have different drying times.

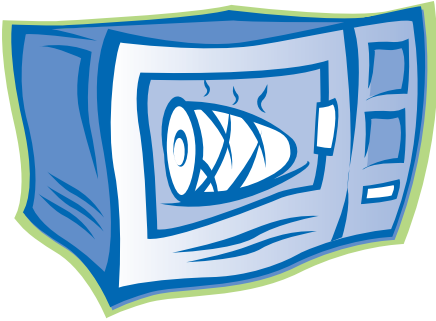


- 69** Dry full loads instead of several smaller loads. Avoid running the dryer unnecessarily for one or two items.
- 70** Look for energy-saving features when purchasing a dryer, such as “moisture sensing” and “cool-down.” A cool-down cycle tumbles clothes in cooler air during the last five to ten minutes of operation, saving energy and reducing wrinkles.
- 71** Do not add wet items to a dryer load that is partially dried. The added moisture will significantly increase drying time.
- 72** Clean the dryer’s lint filter before each load to better circulate air and maintain the unit’s efficiency.
- 73** Remove clothes promptly to minimize wrinkling and the need to iron them.
- 74** Do not overload your dryer to enable sufficient air flow when drying.
- 75** Select the proper temperature setting for the fabric being dried to avoid over-drying and wasting energy.
- 76** Dry loads in succession to use the retained heat in the dryer.

RANGE/OVEN/STOVE TOP

- 77** Use small appliances, such as a microwave or toaster oven, when cooking small quantities of food. Small appliances often have enclosed heating elements and will use less energy when cooking.
- 78** Choose self-cleaning ovens which have extra insulation that increases efficiency during normal baking.
- 79** Use tight-fitting lids to help keep heat within pots and pans, permitting the use of lower stove temperature settings and shorter cooking times.

- 80** Prepare several batches of food at a time, such as when cooking stews or casseroles. Freeze the extra for future use.
- 81** Thaw frozen food before cooking. Frozen food requires more energy to cook. Thawing foods in the refrigerator also will help keep the refrigerator cool.
- 82** Cook food in serving dishes when possible to save time and reduce the amount of hot water needed for dishwashing.
- 83** Turn off the cooktop a few minutes before the food is completely cooked. Retained heat will complete the cooking.

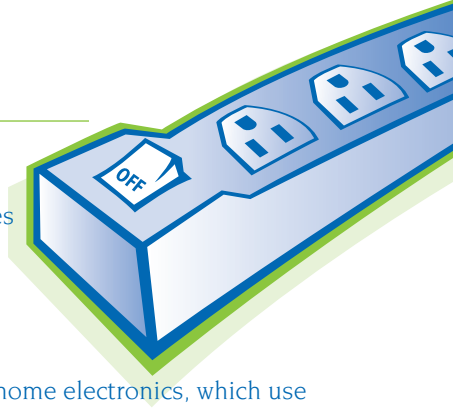


- 84** Use pressure cookers whenever cooking items that take a long time. They can save energy by significantly reducing cooking time.
- 85** Turn off the oven about five minutes before your food is completely ready and let the heat in the oven finish cooking the item.
- 86** Use the microwave instead of the cooktop or oven to heat leftovers.
- 87** Match the size of the cookware to the surface unit for efficient cooking. The bottom of the pan should cover the element but should not extend more than one inch beyond the element's outer ring.
- 88** Do not preheat your oven unless baking. If you do need to preheat, ten minutes is usually enough time to reach the desired temperature.
- 89** No peeking in the oven door as it wastes energy by letting out heat. About 20% of the heat is lost each time you open the door. Use the oven window or timer to monitor cooking time.
- 90** Do not cover your oven racks with foil as it blocks the flow of hot air. Food cooks more quickly and efficiently when heated air can circulate freely.
- 91** Use glass or ceramic pans in your oven when possible. You can turn down the temperature by about 25°F, and foods will cook just as quickly.

- 92** Keep pans in the oven separated from each other and don't let them touch the oven walls to maintain proper heat circulation.
- 93** Keep reflector (drip) pans bright and clean beneath cooktop heating elements. This will allow them to reflect heat better and reduce cooking time.

ELECTRONICS

- 94** Use a power strip to eliminate energy sneakers (phantom loads) by conveniently turning off devices not in use, such as cell phone chargers and other electronics. Such devices use standby power when not in use.
- 95** Choose ENERGY STAR qualified home electronics, which use up to 60% less energy than the competition.
- 96** Choose ENERGY STAR qualified office equipment. It is up to 60% more efficient than conventional models.
- 97** Activate "sleep" features on printers and office equipment so that they power down when not in use for a while.
- 98** If you aren't going to use your PC for more than 20 minutes, turn the monitor off. If you aren't going to use your PC for more than two hours, turn off both the CPU and monitor.
- 99** Make sure the power management features are activated on your computer and monitor.
- 100** Limit computer screen saver use, as it does not save energy and may keep the CPU from shutting down.



- 101** Celebrate National Energy Awareness Month with Hawaiian Electric's "Live Energy Lite" event in October to learn more about energy conservation and visit us year-round at www.heco.com

* Estimates are based on \$0.30 per Kilowatt hour (kWh)

To help the environment and manage your costs, these energy tips are provided to help you reduce your electricity use and conserve energy.



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