



## SAVE ENERGY AT HOME

### ✓ INSULATE AND AIR SEAL

- Check the roof insulation level and add insulation to maintain minimum R-38 (6" of blown cellulose or equal).
  - Use R-19 between frame or R-10 rigid insulation for exterior walls. Rigid insulation prevents thermal bridging and heat loss/gain through framing.
  - Install insulated attic hatch.
  - Insulate floors over unheated areas to R-19.
  - Consider replacing single pane windows with Energy Star labeled double pane windows mounted in thermally broken window frames.
  - Caulk around window frames and weather-strip doors to prevent loss of conditioned air.
  - Foam at the roof/wall intersection to prevent air loss through attic space/roof. Icicles on your roof are an indication of heated air escaping your house.
  - Install insulating gaskets behind electrical outlets and switch plates on exterior walls.
  - Caulk and seal leaks where plumbing, ducting or electrical wiring penetrates through exterior walls, floors, and ceiling.
  - If building a new house, follow Energy Star or LEED-Home Standards.
- Install storm windows over single pane windows.



## ✓ REDUCE HEATING ENERGY

- Install a programmable thermostat and set the thermostat to no more than 68F during winter when you are in the house. Set the temperature back to as low as 55F during times when you are not in the house or at night. Properly dispose of older mercury thermostat.
- Do not block the heating registers and keep them clean for unrestricted air flow.
- Install timers on bathroom exhaust fans and limit the use of kitchen exhaust fan to cooking time only to provide adequate ventilation without over-ventilating.
- Keep door and windows closed and shades drawn to minimize heat loss.
- Close the fireplace damper - except during fireplace use.
- Maintain your existing heating system and get it inspected/serviced once a year before the beginning of the heating season.
- Replace furnace filters monthly during heating season.
- If installing a new heating system, buy an Energy Star labeled high efficiency boiler or furnace. Consider condensing units that have up to 98% efficiency.
- Consider a heat recovery ventilator (HRV) to recover heat from exhaust stream to pre-heat incoming air. HRV should only be considered for buildings that are well-insulated and tightly air-sealed.

## ✓ REDUCE COOLING ENERGY

- Do not turn on the air-conditioner unless absolutely necessary.
- If using central air-conditioner, set the programmable thermostat to 72-74F when you are in the house and to 80-84F when you are away.
- Use natural ventilation to cool down the house. Open windows at night.
- Close drapes during the day to avoid heat gain, especially through west and south facing windows.
- Replace air conditioning system filters on a regular basis and keep the condenser surface clean.
- Install an Energy Star labeled ceiling fan to move air around and improve thermal comfort without turning on the air-conditioner.
- If installing new cooling system, buy Energy Star labeled room and central air conditioners.

## ✓ REDUCE DOMESTIC HOT WATER HEATING ENERGY

- Set the domestic hot water temperature to no more than 120 degrees F.
- Install low-flow showerheads (with <2gpm flowrate) and faucet aerators (0.5-1.5 gpm flowrate).
- Repair leaky faucets and plumbing.
- Turn off the faucet when you are brushing or shaving.
- Wash clothes in warm or cold water using the appropriate water level setting for the load.
- Consider replacing water heater with an energy efficient model.
- Install an irrigation controller to prevent over-irrigating your lawn. Plant trees and shrubs that are native to the region and do not require excessive watering.

## ✓ REDUCE LIGHTING ENERGY

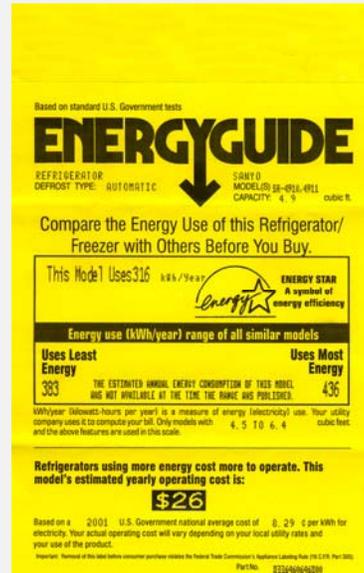
- Turn off light when not in use.
- Use task lighting whenever possible instead of overhead lighting to create ambience while reducing energy usage.
- Replace incandescent and halogen lamps with compact fluorescent lamps (CFLs) or LED. Please note that halogen fixtures not only use more electricity but also pose fire hazard.



- Properly dispose of compact fluorescent and linear fluorescent lighting.

## ✓ REDUCE APPLIANCE AND EQUIPMENT ENERGY

- Use appliances such as clothes washer, dishwasher and iron during off-peak hours when the load on the grid is low.
- Unplug appliances and equipment when not in use. Some equipment, especially electronics use energy even when turned off but plugged in.
- Maintain refrigerator at 37 - 40 degrees F and freezer at 5 degrees F.
- For cooking small meals, use toaster ovens or microwaves.
- Run clothes washers and dishwashers at full loads.
- Regularly clean the lint filter on your dryer and inspect the dryer vent to ensure it is not blocked.
- Turn off heated drying in dishwasher. Use air drying instead.
- In summer time, use clotheslines to dry your clothes and skip the dryer.



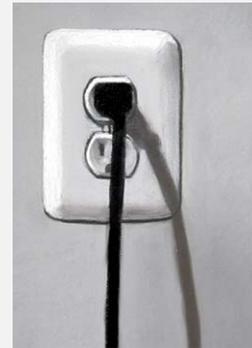
- When purchasing new appliances, buy Energy Star labeled units. Use the Energy Guide label on each appliance to compare the annual energy consumption and operating cost.

## ✓ BUY GREEN POWER

Call your utility providers to find out if you can buy green power and reduce your carbon footprint.

## DID YOU KNOW

...that one-third of your home energy bill is from appliances and equipment energy usage? The table below illustrates the power requirements for typical home appliances. To find out how much energy appliances in your house use, use the following equation:  $\text{Watts per appliance} / 1000 \times \text{Number of hours appliance is used}$ .



Typical Home Appliance	Watts
Air Conditioner (Central)	6000
Air Conditioner (Window Unit)	1100
Electric baseboard (per 4 foot)	1000
Electric Portable Space Heaters	1500
Electric Water Heater	4500
Ceiling Fan	80
Refrigerator/Freezer	1200
Energy Star Refrigerator/Freezer	800
Microwave Oven	1000
Coffee Maker	1200
Electric Clothes Dryer	4600
Computer and Monitor	160
Laptop	20
Printer	180
Television	300
Flat Screen Television	120
Hot Tub with Electric Heat and Circulation Pump	6000
Hair Dryer	1500