



Home Energy Checklist Guidance Booklet

Introduction

According to the U.S. Department of Energy, making energy efficiency upgrades identified in a home energy assessment can save 5-30 percent on your monthly energy bill, while also ensuring the health and safety of your house. Besides monetary benefits, these upgrades have the potential to improve indoor air quality, increase occupant comfort levels, increase property values, and reduce resource consumption. While not as thorough as a professional home energy assessment, you can conduct your own simple home energy assessment. A self-assessment can help you pinpoint areas for improvement that could increase your home's energy efficiency and occupancy comfort.

Santa Barbara County's *Energy and Climate Action Plan* requires applicants to complete a Home Energy Checklist for residential building permits for additions, alterations, and/or remodels (excluding repair and/or maintenance). The Home Energy Checklist is available at <http://www.sbcountyplanning.org/forms/PermitAppHndt/AppsForms.cfm> in both .doc and .pdf formats. The purpose of the checklist and this guidance booklet is to provide the tools you need to inspect the various areas of your home for potential energy upgrade opportunities. If you answer "no" to any of the questions, refer to the information provided in this guidance booklet for what you can do to address the problem.

To get help with implementing identified upgrade opportunities, contact the emPower program at (805) 568-3566 or visit www.empowersbc.org. The County of Santa Barbara established this program to help residents upgrade the energy efficiency of their homes. The program provides a variety of services that make energy efficiency upgrades easier and more affordable including: rebates and incentives, low-interest financing, free home energy site visits, a qualified contractor list, and personalized customer support.

Checklist Guidance

The following information will guide you as you complete the Home Energy Checklist. The guidance includes information on what to do about potential problems and potential resources for rebates and incentives. More information about rebate and incentive programs is located in the final section of this booklet. Please complete the Home Energy Checklist and return it to the Building & Safety Counter prior to your final building permit inspection. You should keep this booklet for future reference.

Water Conservation and Heating:

1. *Are your hot water pipes insulated?*
 - What you can do: Insulate the entire length of the hot water pipes to R-4 value.
2. *Are your hot water heater pipe connections insulated?*
 - What you can do: Insulate the first five feet to and from the water heater to R-4 value. Be careful to not install insulation closer than 6 inches from any Flue (exhaust) pipe, as these pipes can get hot when the burner is running.
3. *Do your showerheads have a maximum flow rate of 1.5 gallons per minute or less?*
 - What you can do: Replace and install your existing showerhead with a low flow showerhead with a thermostatic shut-off valve to save on both energy and water, especially if your existing showerhead has a maximum flow rate of more than 2.0 gallons per minute.
4. *Are you using low consumption toilets (1.6 gallons per flush or less)?*
 - What you can do: If you are already thinking of replacing your old toilet, consider replacing it with a dual-flush toilet or waterless urinal.
5. *How old is your hot water heater? Do you have a tankless or high-energy efficiency water heater?*
 - What you can do: The energy efficiency of hot water heaters has greatly improved over the last few years. Hot water heater usage accounts for 25% of each energy dollar spent. When comparing water heaters look for the “Energy Factor.” The higher the “Energy Factor” the more efficient the water heater. Gas water heaters have energy factors between 0.5 to around 0.7. Electric models range from 0.75 to 0.95.
6. *Does your water heater have built-in insulation or a blanket with an insulation wrap of at least an R-12 value?*
 - What you can do: Install an insulation blanket if you have a water heater that is more than 15 years old. (With newer models, the tank is usually already insulated). If you remove a retaining strap, make sure to reinstall this strap securely; it will protect you from damages in the event of an earthquake.

Potential rebate/incentive resources:

- ✓ emPower
- ✓ Community Action Commission
- ✓ Southern California Edison
- ✓ Southern California Gas Company
- ✓ Pacific Gas & Electric
- ✓ WaterWise

Air Leakage:

1. *Are your exterior doors caulked and weatherstripped?*
 - What you can do: Permanently affix weatherstripping and door sweeps or door shoes.
2. *Do your fireplaces/chimneys have dampers, doors, or closures?*

- What you can do: Install dampers, doors, or closures. Contact a local service provider if you are unsure of local safety codes and safety issues (e.g. fireplaces with a gas supply cannot have dampers that close completely).

Potential rebate/incentive resources:

- ✓ emPower
- ✓ Community Action Commission

Insulation:

1. *Do your ceilings/attics have insulation with at least an R-30 value (8"-9")?*
 - What you can do: Insulate to R-30 value or greater. Insulation needs to be in continuous contact with all ceiling drywall and ceiling beams (3 sides) and combined with air sealing to get full effectiveness.

Potential rebate/incentive resources:

- ✓ emPower
- ✓ Southern California Gas Company

Heating and Cooling:

1. *Have you replaced or serviced your heating or air conditioning unit within the past 12 months?*
 - What you can do: Consider regular, yearly service of HVAC unit.
2. *Are your duct sealed and insulated?*
 - What you can do: Seal duct joints and add insulation wrap to R-6 value. Using tape to seal joints is only effective temporarily. Duct seal is a more effective and long-term solution. Ask for it at your local hardware store. It will be in the same area as duct insulation.
3. *Have you replaced your air filters within the past 12 months?*
 - What you can do: Replace your air filters at least once a year. Clogged filters reduce air flow and can damage your heater. Never use more than one filter at a time for the same reason.
4. *Do you have a programmable thermostat?*
 - What you can do: Install a programmable thermostat, which will allow you to preprogram your furnace or air conditioner to only run when you need it, at the time and temperature you want.

Potential rebate/incentive resources:

- ✓ emPower
- ✓ Southern California Edison
- ✓ Southern California Gas Company

Lighting:

1. *Have you replaced your incandescent light bulbs with compact fluorescent lamps (CFL), light-emitting diodes (LED), or other energy-efficient light bulbs?*
 - What you can do: Replace incandescent bulbs with compact fluorescent lamps (CFL) or high-efficiency light-emitting diodes (LED). High-efficiency LED bulbs have been coming

down in price dramatically. They last longer, provide nice looking light, work well with dimmers, and do not contain mercury. When shopping for light bulbs, be sure to consider high-efficiency LEDs. Work with a contractor to make sure recessed lighting is insulated and air sealed.

Potential rebate/incentive sources:

- ✓ emPower
- ✓ Community Action Commission
- ✓ Southern California Edison

Appliances:

1. *Are you using energy-efficient kitchen and laundry appliances?*

- When you shop for a new appliance, look for the ENERGY STAR® label. ENERGY STAR products usually exceed minimum federal standards by a substantial amount.

Potential rebate/incentive sources:

- ✓ emPower
- ✓ Community Action Commission
- ✓ Southern California Edison
- ✓ Pacific Gas & Electric

Potential Rebate/Incentive Resources:

For residential homeowners:

emPower

The County's emPower program offers access to rebates of up to \$6,500 and low interest financing that starts at 3.9% to help residents make affordable energy efficiency improvements. The program also offers free, unbiased technical assistance on energy efficiency through its Energy Coach service. emPower Energy Coaches are available to talk with homeowners over the phone or meet in person to conduct a free home energy site visit for those who qualify.

<http://www.empowersbc.org>

WaterWise

Visit the water conservation website for Santa Barbara County to get conservation tips and learn about available rebates.

<http://waterwisesb.org>

Community Action Commission

A non-profit program in Santa Barbara County that helps to make low-income homes warm and safe by providing weatherization and other services that ease the burden of rising utility costs is the Community Action Commission's Home Energy Services Program. Services are free to all income-qualified households.

<http://www.cacsb.org/low-income-assistance/home-services>

Southern California Edison

Offers rebates and energy savings for your home.

<http://www.sce.com/wps/portal/home/residential>

Southern California Gas Company

Offers rebates and energy savings for your home.

<http://www.socalgas.com/for-your-home>

Pacific Gas & Electric

Offers rebates and energy savings for your home.

<http://www.pge.com/en/myhome/saveenergymoney/index.page>

Smart Build Santa Barbara (SB²)

A free, voluntary program that encourages applicants to make their new or existing developments more energy efficient and sustainable.

<http://longrange.sbcountyplanning.org/programs/climateactionstrategy/sb2.php>

South County Energy Efficiency Partnership (SCEEP)

A collaboration between local municipalities, utilities, and the Community Environmental Council. The goal is to offer energy-efficient solutions and incentives to residential and business consumers in the area, as well as educational events to increase public awareness.

<http://www.southcoastenergywise.org>

Santa Barbara County Energy Watch Partnership

Provides energy information for residents and businesses.

<http://www.sbcenergywatch.com>

Energy Upgrade California

A state program for homeowners and businesses that encourages GHG emissions reduction through a decrease in energy consumption. The program is focused on education and outreach.

<http://www.energyupgradeca.org>

For non-residents and businesses (see also applicable programs above):

Green Business Program

Aims to recognize, through certification, local businesses going beyond required measures to serve as models of sustainable business.

<http://www.greenbizsbc.org>

Southern California Edison

Offers energy savings and incentives for your business.

<http://www.sce.com/wps/portal/home/business>

Southern California Gas Company

Offers rebates for businesses.

<http://www.socalgas.com/for-your-business/rebates>

Pacific Gas & Electric

Offers energy efficiency rebates and incentives for businesses.

<http://www.pge.com/en/mybusiness/index.page>