HOME ENERGY RETROFIT

GREEN ECONOMIES YOUTH FELLOWS PRESENTS

HOW-TO GUIDES

OUTLETS AND SWITCHES

INSTALL GASKETS

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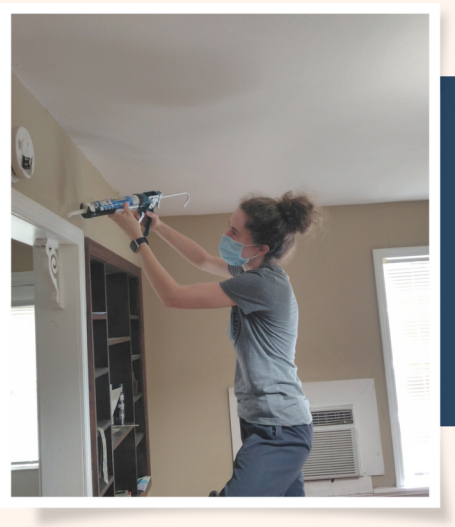
IMPORTANCE
OF MORE ENERGY EFFICIENT OUTLETS



Air that the homeowner is paying to be heated or cooled should be kept inside the house, so reducing the spaces that air can escape can increase the energy efficiency of the home which can reduce energy bills by 30%. Reducing energy bills is especially important in Alabama because we have the highest energy bills in the country.

Electrical outlets can leak air if they are not sealed. Use ready-made gaskets to seal obvious holes in walls, windows, and foundation. Although switches and outlets on exterior walls have priority, gaskets should be installed under all cover plates. Cold air leaks from the attic, basement, and crawl space into interior walls.

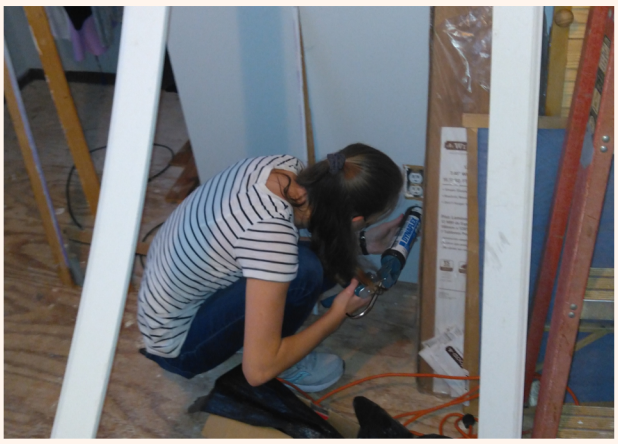
This document provides a list of the materials, tools, precautions, and instructional steps needed to make your outlets and switches more energy efficient through the use of caulk, foam sealant, and sealer sheets in order to prevent air from escaping into the walls of the house.

PRECAUTIONS

- GLOVES
- Indoor caulk is typically water-soluble, meaning it will wash off with water.
- Foam sealant is not water-soluble. It is recommended that gloves should be worn when using foam sealant. However it does usually come off of skin with acetone.

NOTE:

Be careful of electrical wires, do not get caulk or foam on the wires



TOOLS

- **Caulk (clear or preferred color)**
- **Foam sealant**
- **Outlet sealer or switch sealer**
- **Light switch covers, if not already on the wall**
- **Sanding paper**

MATERIALS

- Caulk gun
- Screw driver
- Screws
- Gloves

PRE-STEPS

01

Gather your tube of caulk and your caulk gun.

02

On the caulk gun, there is a small metal lever above the handle. Press the lever to pull back the silver rod so that you can insert your tube of caulk.

03

The caulk gun will have a small hole above the trigger, this is to open the caulk tube. Insert the tip of the tub at an angle and pull the trigger to cut the tip of the tube.

04

Use the metal rod attached to the gun to pierce the inside of the tube by inserting the rod into the opened nozzle of the tube.

05

Insert the opened tube of caulk into the caulk gun and pull the trigger to use.

06

Foam Sealant should have instructions on the can.

NOTE:

It's best to start with a smaller hole because a small hole can be widened, but a large hole cannot be made smaller.

HOW-TO STEPS

01

Unscrew the coverplate - do not lose the screw.

02

Using the caulk gun, apply caulk between the wall and the outlet/switch box so that no cracks or holes remain. Do not put caulk or foam inside of the outlet/switch box.

If the space between the wall and the outlet/switch box is wider than the caulk seems to be able to fill, use a small amount of the foam sealant. The foam sealant expands, so start by applying a small amount.

03

If there is any excess caulk or foam wipe it away with a cloth or your finger, remember to use gloves if you wipe away the foam with your finger.

Remember - The caulk is water-soluble but the foam is not. Avoid touching the foam sealant with your finger.

04

Put one sheet of the outlet or switch sealer over the outlet or switch before putting the cover back on, you may need to punch out the outlined outlet or switch shape, as well as the small circles outline for screws.

05

Put your outlet/switch cover back onto the outlet/switch over the sealer sheet and screw the coverplate back on.

06

After screwing the cover coverplate in place, apply a small amount of caulk around the edges of the plate in order to seal up any cracks or spaces between the wall and the plate, remove any excess using your finger or cloth.

TERMINOLOGY TOOLBOX

Caulk
/kôk/: a waterproof filler and sealant, used in building work and repairs.

Crawlspace
/ˈkrôl ˌspās/: an area of limited height under a floor or roof, giving access to wiring and plumbing.

Energy Burden
/ˈenərjē ˈbərd(ə)n/: percentage of household income that goes toward energy costs (electricity, home heating, etc.)

Faceplate
/ˈfāsˌplāt/: the covering of the front of an electrical device, outlet or light switch.

Galvanized Ductwork
/ˈgalvəˌnīzd ˈdəktwərk/: coated steel with a thin zinc layer used most often for building ducts. This material's zinc coating helps prevent corrosion and rust buildup.

Insulation
/ˌinsəˈlāSH(ə)n/: material used that reduces heat loss or heat gain by providing a barrier between the inside of your home and the significantly different temperature outside.

Jamb
/jam/: a side post or surface of a doorway, window, or fireplace.

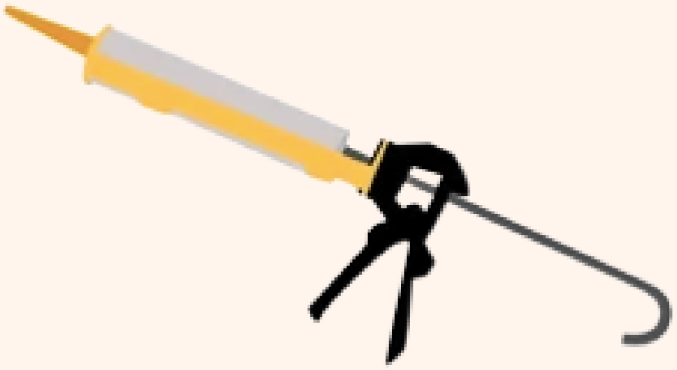
Mastic
/ˈmastik/: high-grade construction adhesive commonly used to bond ceiling, wall, floor, etc.

Outlet Gasket
/ˈoutˌlet ˈgaskət/: foam material used to seal off the wall cavity behind outlets & switch areas from the living space.

Vent
/vent/: an opening that allows air, gas, or liquid to pass out of or into a confined space.

Weather Strip
/ˈweT̲Hərˌstrip/: a strip of material to cover the joint of a door or window and the sill, casing, or threshold so as to exclude rain, snow, and cold air.

TERMINOLOGY TOOLBOX



Caulk/Caulking Gun

Crawlspace

Galvanized Ductwork

Insulation (Foam)

TERMINOLOGY TOOLBOX

Jamb

Mastic Sealant

Outlet Gaskets

Weather Strip