



ENERGY STAR

U.S. Environmental Protection Agency

# Seal and Insulate with **ENERGY STAR®**



EPA 403F-09-052 JULY 2016



## WHY SEAL AND INSULATE?

Sealing and insulating the “envelope” or “shell” of your home—its outer walls, ceiling, windows, doors, and floors—is often the most cost effective way to improve energy efficiency and comfort. A knowledgeable homeowner or skilled contractor can save you up to 10% or more on your total energy bills, depending on your location.

To Seal and Insulate with ENERGY STAR:

- **Seal air leaks** throughout the home to stop drafts,
- **Add insulation** to block heat loss in winter and heat gain in summer, and
- **Choose ENERGY STAR** certified windows when replacing.

### BENEFITS

- **Lower utility bills**
- **Improved comfort, especially during summer and winter**
- **Reduced noise from outside**
- **Less pollen, dust, and insects entering your home**
- **Better humidity control**

### GETTING STARTED

If your attic is accessible and you like home improvement projects, check out our DIY Guide to Sealing and Insulating with ENERGY STAR, available at [energystar.gov](http://energystar.gov). The Guide offers step-by-step instructions for sealing common air leaks and adding insulation to the attic.

For a more comprehensive approach, hire a contractor that uses special diagnostic tools to pinpoint and seal the hidden air leaks in your home. Ask local insulating companies or home energy professionals if they offer these services.



## WHAT IS ENERGY STAR®?

ENERGY STAR is the government-backed program that helps us all to save money and protect our environment with energy-efficient products and practices. Whether you are looking to replace old appliances, remodel your home, or buy a new house, ENERGY STAR can help.

More than 70 kinds of products, including lighting, appliances, televisions, computers, heating and cooling equipment, and even new homes, can earn the government's ENERGY STAR label. ENERGY STAR also offers best practice solutions, like sealing and insulating your home, that can improve comfort and reduce energy costs.

## HELP PROTECT THE ENVIRONMENT

Did you know that the average home produces twice the greenhouse gases as the average car? In fact, 15 percent of all greenhouse gases are generated from the energy used in houses nationwide.

ENERGY STAR was introduced by the U.S. Environmental Protection Agency (EPA) in 1992 as a voluntary partnership to reduce greenhouse gas emissions through increased energy efficiency. Today, ENERGY STAR offers consumers and businesses energy-efficient solutions to save energy, save money, and help protect the environment for future generations.



For more information on Seal and Insulate with ENERGY STAR, visit [www.energystar.gov](http://www.energystar.gov)

## SEAL AND INSULATE WITH ENERGY STAR

### • SEALING AIR LEAKS

Many air leaks and drafts are easy to find because they are easy to feel—like those around windows and doors. But holes hidden in attics, basements, and crawlspaces are usually bigger problems. These leaks can make your home uncomfortable, waste energy, and cost you money. Different types of products can be used to address different types of air leaks:

- Caulk, spray foam, and weather stripping for sealing smaller leaks;
- Plywood, drywall, or rigid foam insulation for covering larger holes; and
- Sheet metal and high-temperature caulk to close gaps around chimneys and furnace flues.

### • ADDING INSULATION

Insulation helps keep your home warm in the winter and cool in the summer. There are several common types of insulation—fiberglass (in both batt and blown forms), cellulose, rigid foam board, and spray foam. When correctly installed, each type of insulation can deliver comfort and lower energy bills, especially during the hottest and coldest times of the year. Also, reflective radiant barriers are an add-on that may be cost effective in attics with ducts in hot climates.

Insulation performance is measured by R-value—its ability to resist heat flow. Higher R-values mean more insulating power. Different R-values are recommended for walls, attics, basements and crawlspaces, depending on your area of the country.

Because insulation works best when air is not moving through or around it, it is important to seal air leaks before installing insulation to ensure that you get the best performance.

### • CHOOSING ENERGY STAR CERTIFIED WINDOWS

Windows are an important part of your home's envelope. If you are replacing windows as part of a home improvement project, choose ENERGY STAR certified models to save energy and money, increase the comfort of your home, and protect your valuable possessions from sun damage. Also look for ENERGY STAR certified doors and skylights.

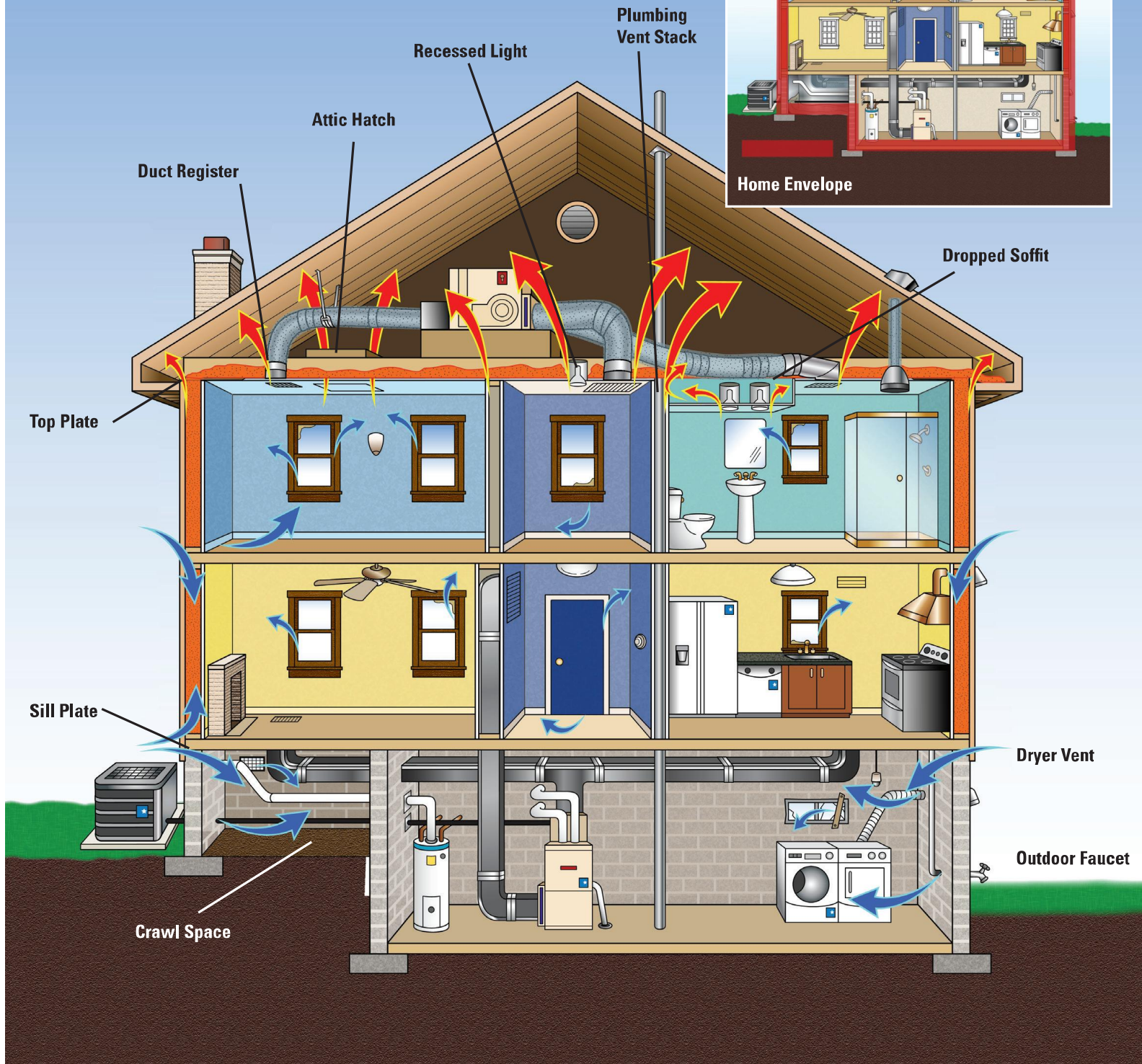
# COMMON AIR LEAKS



Air Leaking into the house



Air Leaking out of the house





ENERGY STAR® is the simple choice for energy efficiency. For more than 20 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at [energystar.gov](http://energystar.gov).



UNITED STATES  
ENVIRONMENTAL  
PROTECTION AGENCY  
6202A  
WASHINGTON DC 20460

Recycled/Recyclable—Printed with vegetable oil based inks on recycled paper (Minimum 50% post-consumer content)