

# Why Energy Efficiency?



**Save money.** The typical home wastes one-fifth to one-half of the energy it consumes. In New York City, homeowners can save as much as \$1,200 every year on energy bills through comprehensive energy-efficiency retrofits. Many investments in energy reductions pay for themselves in energy savings within four years.



**Increase your home comfort, health, and safety.** Energy upgrades can make your home warmer in the winter and cooler in the summer and can address health and safety issues like carbon monoxide, gas leaks, mold and mildew.



**Improve the air quality of your community.** Lower energy consumption means less air pollution leading to asthma and other respiratory illnesses.



**Play your part in stopping climate change.** By reducing your home's energy consumption, you are slicing a chunk off global carbon emissions.



**Create good, local jobs with a career track.** By working with a local contractor, you are helping to create a job opportunity in a small business.



# What is an energy assessment?

An energy assessment, or audit, is like a home check-up that identifies (1) areas where you are wasting electricity and losing heat, (2) health and safety hazards like carbon monoxide or gas leakage, and (3) the most cost-effective measures for cutting your energy costs.

Here's what you can expect from your energy assessment:

### 1. Customer Interview



The contractor will ask you about your home concerns and will discuss issue areas.

### 2. Blower Door Test



The contractor will conduct a blower door test to measure the rate of airflow in the home, identify air leaks, and determine whether or not the home is properly ventilating.

### 3. Visual Inspection of Insulation



The contractor will check for adequate levels of insulation in your attic, basement, and walls. Sometimes they will use an infrared camera to see where cool air is leaking in or out, which signifies a missing patch of insulation.

## **4. Combustion Appliance Zone Tests**



The contractor will test for the proper functioning, safety and efficiency of mechanical equipment such as your furnace or boiler, water heater, and in some cases, oven. This will include a check for carbon monoxide and natural gas leakage.

### **5. Evaluate Lighting and Appliances**



The contractor will examine your lighting and appliances and decide whether to recommend a higher efficiency replacement.

### **6. Audit Report**



Within two weeks after your audit is completed, you will receive a report with the findings of your audit, including opportunities to save, recommended measures, and the cost and projected savings. You can decide whether to pursue some or all of the cost-effective measures.



# What is an energy retrofit?

Energy retrofits are home repairs that decrease the consumption of heating fuel, electricity, and water. Based on the results of your home energy assessment report, you can choose some or all of the recommended energy upgrades to install. Your energy savings measures could include:

#### 1. Air



- Sealing holes and cracks in walls, floors, and ceilings with caulk or expanding foam to prevent air from entering and conditioned air from leaving the home.
- Installing door sweeps on exterior doors and weather-stripping on doors and windows to reduce air infiltration.
- Sealing air leaks in ducts used for heating and cooling purposes to cut down on air loss in the system and insulating duct work passing through unconditioned spaces.
- Replacing old windows or installing storm windows or interior panels to decrease air leakage.

### 2. Heating



- Replacing an outdated boiler or furnace or hot water heater with a high efficiency system.
- Maintaining an existing heating system and/or setting it back to conserve energy. Water heaters
  can be set at 120 degrees, heat can be set to 68 degrees in the winter, and air conditioning can
  be set to 78 degrees in the summer to lower your bills while maintaining reasonable comfort.
- Installing programmable thermostats to control the furnace or radiators on a room-by-room basis.
   Programmable thermostats can be set to reduce the heating or air conditioning in the middle of the day when no one is home.

### 3. Insulation



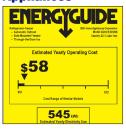
- Adding insulation to the attic, basement, and walls to reduce heat loss in the winter.
- Wrapping heating pipes in unconditioned spaces with insulation.
- Covering water heaters with an insulating jacket.

### 4. Lighting



- Switching to CFLs (Compact Fluorescent Light bulbs) or LEDs (Light Emitting Diodes) can
  dramatically cut electric bills without comprising light quality. CFLs only use about 1/4th of the
  energy used by conventional light bulbs, and LEDs less than 1/6th of the energy for the same
  light output.
- Installing motion sensors in areas where you only need light intermittently, such as outdoor areas, hallways, or staircases.

### 5. Appliances



 Replacing inefficient appliances, such as washing machines, dryers, refrigerators, and dishwashers, with ENERGY STAR certified appliances can pay for itself over time through the energy savings.

#### 6. Water Saving Devices



- Installing low-flow shower heads and faucet aerators cuts water use and helps you further save the energy you would have used to heat the excess water.
- Switching to low-flow toilets can reduce the water usage of each flush.