

Change the World, Start with ENERGY STAR[®] Campaign Overview

Change the World, Start with ENERGY STAR is a national campaign from the U.S. Environmental Protection Agency (EPA) encouraging all Americans to join with millions of others in taking small steps that make a big difference in protecting the climate. The campaign focuses on changes individuals can make at home and in their communities with ENERGY STAR qualified products and energy-efficient practices that will save energy, save money, and help prevent climate change.

Pledging to Help our Environment

- The cornerstone of EPA's Change the World, Start with ENERGY STAR campaign is the ENERGY STAR Pledge. The pledge challenges people to protect the climate by making energy-efficient choices. The pledge offers Americans the opportunity to commit to changing a light, looking for the ENERGY STAR when purchasing new products, enabling power management settings on computers, maintaining HVAC systems, sealing and insulating a home, using a programmable thermostat correctly, and more. If every American household took part in the pledge, we would save \$24 billion in annual energy costs and prevent greenhouse gases equivalent to the emissions from 27 million cars.
- The energy used in the average house can cause about twice as many greenhouse gas emissions as the average car. Make a difference by saving energy at home—start by changing a light, and then think about bringing energy savings to the rest of your home or workplace!
- Most power plants burn fossil fuels to make electricity. By using less energy, you can
 reduce the amount of fossil fuels being burned, which means less of the greenhouse gas
 emissions that cause climate change.
- Climate change is real and has implications for you, your family, and your community. Current and future potential effects include increases in heat-related deaths, elevated smog levels, more severe seasonal allergy symptoms, and severe drought as well as increased flooding and severe storms.

Be Part of the Solution

 Most people want to protect our environment, but many don't know where to start. Choosing products that have earned the ENERGY STAR and engaging in energy-saving practices are simple ways to save money and save energy, while helping to protect the environment.





- Every product or practice changed is a step in the right direction. Simple, everyday
 actions from changing a light to enabling computers to power down while not in use, or
 using a programmable thermostat correctly when at home, asleep, and away, to
 choosing products that have earned the ENERGY STAR when making a new
 purchase can help change the world by reducing the threat of climate change.
- Make a change today. Save energy. Discover the rewards. Start by taking EPA's ENERGY STAR Pledge at <u>www.energystar.gov/changetheworld</u> and join with millions of others in making energy-efficient choices that save energy, save money, and protect the environment. Together, we can all make a difference.
- Organizations can help get the word out to employees, customers, and members. As
 of Earth Day 2011, more than 400 organizations joined the campaign promoting the
 pledge in their businesses, organizations, and communities. Organizations
 encouraging pledges can track their results online, and see how their outreach has
 helped save energy, save money, and reduce the greenhouse gas emissions that
 cause climate change. For more information on EPA's ENERGY STAR campaign and
 pledge, visit www.energystar.gov/changetheworld.
- Products that earn the ENERGY STAR reduce greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency.
- Join EPA in making a change today with ENERGY STAR at <u>http://www.energystar.gov/changetheworld</u>.
- Additional support messages:
 - Change the world with ENERGY STAR and discover the rewards, for you, your home, and the planet.
 - Right now, with just a few changes, you'll discover many benefits—from saving money, to improving the comfort of your home, to helping protect the climate.
 - Join the millions who are making a real difference. When we work together, the rewards are great.

Campaign Background

 The U.S. EPA's Change the World, Start with ENERGY STAR campaign builds on the success of the ENERGY STAR Change a Light, Change the World campaign, which inspired more than a million Americans to replace a standard incandescent bulb with an ENERGY STAR qualified CFL bulb or fixture. Now, EPA is asking Americans to reduce greenhouse gas emissions by pledging additional actions, such as using ENERGY STAR electronics, powering down computers when not in use, and properly programming thermostats.

What's New in 2011

ENERGY STARs Across America

- ENERGY STAR partner organizations are hosting more than 500 events promoting energy efficiency from Earth Day through Energy Awareness Month (October, 2011), which will be featured on EPA's interactive ENERGY STARs Across America map. These events—involving everything from light bulb exchanges to community service projects to engaging local artists to decorating recycled refrigerators educate consumers throughout the country on ways to save energy with efficient products and services in fun and engaging ways.
- Be an ENERGY STAR Video Challenge
 - This year, EPA is challenging people across the country to share their energysaving stories and how they are making a difference. We already know that millions of people nationwide are making changes to protect the climate by being more energy efficient with ENERGY STAR. This is a way to let the public showcase their efforts. From Earth Day until September 16 2011, EPA is encouraging Americans to pick up their home video camera (cell phone camera, etc.) and record a video showcasing the great things they're doing in their homes, schools, workplaces and communities to become more energy efficient with ENERGY STAR! Changing out the light bulbs? Turning off the lights when no one is in the room? Looking for the ENERGY STAR? No matter how big or small, we want to know what Americans are doing! The video entries will be displayed on www.energystar.gov/changetheworld and www.facebook.com/energystar. In September, the online world will vote for their favorites on ENERGY STAR's Facebook page. Those favorites will get the chance to star in a nationwide video produced by EPA and spread to online and traditional media outlets for the world to see. To enter the challenge. individuals can go to www.energystar.gov/changetheworld.
- In 2011, EPA is continuing to reach out to youth. Through strategic partnerships with the Boys & Girls Clubs of America, PTO Today, and DoSomething.org, EPA is bringing the proven success of the Change the World, Start with ENERGY STAR campaign and the ENERGY STAR Pledge to this influential audience while continuing to encourage all Americans to join the national movement toward energy efficiency with ENERGY STAR.
 - Boys & Girls Clubs of America
 - EPA has partnered with Boys & Girls Clubs of America to engage youth in projects that will help save energy and protect the environment through ENERGY STAR products and energy-saving practices. Through the partnership, regional Boys & Girls Clubs are participating in ENERGY STAR-themed community projects. Projects include community energy-efficiency initiatives, home energy check-ups, energy fairs, and other youth-driven activities. The events educate youth about the benefits of energy efficiency, plus result in measurable energy savings and testimonials. Testimonials recognize participating clubs and encourage more kids and others to get involved. From project inception on 2009 through Earth Day 2011, more than 14,700 community members were educated about saving energy through the ENERGY STAR projects conducted at 100 Boys & Girls Clubs worldwide, with additional Clubs participating throughout 2011.

- PTO Today
 - Through EPA's nationwide partnership with PTO Today, local Parent Teacher Organizations (PTOs) at K 8 schools across the country are hosting Go Green Nights—school-based events that teach kids and their families about energy efficiency in fun and engaging ways. PTO leaders conduct the events using turnkey Go Green Night Activity Kits, which provide activity sheets, promotional materials, a planning guide, and other ideas for promoting and hosting the events. From the program's inception in the fall of 2009 through Earth Day 2011, more than 8,400 kits were distributed which translates to attendance between 420,000 and 840,000 children and their parents. To build on the success of the inaugural year, the Go Green Night Activity Kit has been refreshed with new activities, and in an effort to save paper and energy, the majority of the kit is posted online for download by PTO leaders.
- DoSomething.org
 - EPA and DoSomething.org—a youth action organization—teamed up to help motivate teens and young adults about the importance of energy efficiency and protecting the climate. Through this partnership, DoSomething.org launched a new and unique Facebook game, eMission, that not only educates players online, but also encourages real world action. Launched in October 2010, as of Earth Day 2011, this game had inspired over 41,000 Facebook users to build and save their habitat by completing offline energy-efficient and environmentally friendly actions to reduce greenhouse gas emissions. Each offline action gives users a snapshot of their carbon savings and increases their points in the game, allowing them to access higher game levels. To build on the partnership's successes, EPA will be providing content to both Do Something and Best Buy to host a series of electronics recycling drives around the country.

MORE INFORMATION ON STEPS INCLUDED IN THE PLEDGE

ENERGY STAR Qualified Lighting

- If every home in the U.S. replaced just one light with an ENERGY STAR qualified light, we would save enough energy to light 3 million homes for a year, save more than \$650 million in annual energy costs, and prevent 9 billion pounds of greenhouse gas emissions per year, equivalent to the emissions from 800,000 cars.
- A light bulb that has earned the ENERGY STAR can save more than \$40 in electricity costs over its lifetime. An ENERGY STAR qualified light [bulb or fixture] prevents 570 pounds of greenhouse gas emissions over its lifetime, the equivalent of keeping 270 pounds of coal from being burned—compared to using a traditional incandescent bulb.
- ENERGY STAR qualified compact fluorescent lights (CFLs) are available in different sizes and shapes, including mini-spiral, spiral, and A-line, which fit in almost any fixture.

- Bulbs and fixtures that have earned the ENERGY STAR use about 75 percent less energy than standard incandescent bulbs and last 10 – 50 times longer.
- Also look for ENERGY STAR qualified light fixtures, screw-in replacement bulbs, and decorative light strings that use light emitting diodes (LEDs). ENERGY STAR qualified LED lights consume 75% less energy than conventional incandescent lights.
- Wondering where to get the most energy savings? Replace light bulbs (or entire fixtures) where lights are typically left on the longest, such as your family and living room, kitchen, dining room, and porch. Place bulbs in open fixtures that allow air flow and, if replacing a bulb operating on a dimmer switch, look for bulbs specifically designed for this use.
- ENERGY STAR qualified light fixtures come in hundreds of popular styles, including portable fixtures—such as table, desk, floor, and torchiere lamps—and hard-wired fixtures such as outdoor, cabinet, suspended, ceiling-mount, wall-mount, and more.

CFLs and Mercury

- CFLs contain a very small amount of mercury sealed within the glass tubing—an average of 4 milligrams per light bulb. No mercury is released when the bulbs are intact or in use. By comparison, CFLs contain about 1/125th of the mercury that older thermometers contain. Visit energystar.gov/mercury for more information.
- Coal-fired power plants are the single largest source of human-caused mercury emissions in the United States, contributing to more than half of all emissions. Because CFLs use 75 percent less energy than incandescent bulbs, they help to reduce net mercury emissions by requiring less coal to be burned at these plants.
- EPA recommends that consumers take advantage of available local recycling options for compact fluorescent light bulbs. EPA is working with CFL manufacturers and major U.S. retailers to expand recycling and disposal options. Consumers can contact their local municipal solid waste agency directly, or go to <u>www.earth911.org</u> to identify local recycling options.

Heating and Cooling

You can save up to \$220 a year in heating and cooling costs (or 10 percent on your energy bill) by sealing and insulating your home with guidance from ENERGY STAR.

- The average American home spends \$2,200 per year on utility bills, about half of which goes to heating and cooling. Making smart decisions about your home's HVAC system can have a big effect on your utility bills as well as your comfort.
- Dirt and neglect are the top causes of heating and cooling system failure. One of the most important steps you can take to prevent future problems and unwanted costs is proper maintenance. To ensure heating and cooling systems are at peak performance, check your air filter each month and replace if dirty (or at least every 3 months);

remove leaves, dirt, and other debris from around the outdoor components of your system; and have your heating and cooling equipment inspected by a professional prior to each heating and cooling season.

- In homes with forced-air heating or cooling systems, ducts move air to the rooms around the house and return it back to the central unit. These ducts are often big energy wasters. Sealing and insulating ducts can improve the efficiency of a heating and cooling system by as much as 20 percent.
 - Focus first on sealing ducts that run through the attic, crawlspace, unheated basement, or garage. Use duct sealant (mastic) or metal-backed (foil) tape to seal the seams and connections of ducts. After sealing the ducts in those spaces, wrap them in insulation to keep them from getting hot in the summer or cold in the winter. Next, look to seal any other ducts that you can access in the heated or cooled part of the house. See our Duct Sealing Brochure for more information.
- When the time comes to replace your heating and cooling system, look for highefficiency units that have earned the ENERGY STAR. Depending on where you live, replacing your old heating and cooling equipment with ENERGY STAR qualified equipment can cut your annual energy bill by more than \$200.
 - To make sure that you get the best performance from your new equipment, it must be properly installed. In fact, improper installation can reduce system efficiency by up to 30 percent, costing you more on your utility bills and possibly shortening the equipment's life. Make sure to ask your contractor if the work meets guidelines established by ENERGY STAR and the Air Conditioning Contractors of America (ACCA).

Programmable Thermostats

- With proper use, programmable thermostats can help you save energy and money. Visit energystar.gov/pts to learn how to set your thermostat, and save! It's simple.
- Programmable thermostats are shipped with a default energy-saving program. In addition to their standard features, programmable thermostats may also offer "hold" or "vacation" features, indicators that tell you when it's time to change air filters, and indicators that signal malfunctioning of heating or cooling systems to help you stay on track for maintaining your equipment.

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 up to 20 percent on heating and cooling costs (or 10 percent on total annual energy bills) by sealing and insulating.
- 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 windows that have earned the ENERGY STAR when replacing.
- The benefits of sealing and insulating include: lower utility bills, improved comfort (especially during summer and winter), reduced noise from outside, less pollen, dust, and insects entering your home, and better humidity control.
- If your attic is accessible and you like home improvement projects, check out our "DIY Guide to Sealing and Insulating with ENERGY STAR," which offers step-by-step instructions for sealing common air leaks and adding insulation to the attic. For a more comprehensive approach, hire a contractor who can use 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.

ENERGY STAR Qualified Home Office Equipment

- If each computer and monitor in U.S. homes were to sleep when not in use, we would save \$800 million in annual energy costs while preventing more than 10 billion pounds of greenhouse gases equivalent to emissions from about 1 million cars.
- If every home office product purchased in the United States this year had earned the ENERGY STAR, we would save \$100 million in annual energy costs while preventing 1.4 billion pounds of greenhouse gases equivalent to emissions from 125,000 cars.
- When considering additions to your home office, purchase products that have earned the ENERGY STAR for all your equipment needs, which can save you money, save energy, and help protect the climate. If you purchase ENERGY STAR products for your home office, equipped with a desktop computer, LCD monitor, and multifunction device (MFD), and enable power management settings on your computer, you can save up to \$380 over the life of the products.
- Copiers and fax machines are the most energy-intensive type of office equipment because they are left on for long periods of time—in some cases, 24 hours each day. Imaging equipment that has earned the ENERGY STAR delivers the same performance as conventional equipment.

Home Electronics

- If every TV, DVD player, and home theatre system purchased in the United States this year earned the ENERGY STAR, we would save more than \$700 million in annual energy costs and prevent more than 10 billion pounds of greenhouse gas emissions per year. This is equivalent to the emissions from about a million cars.
- To help save energy, save money, and help prevent climate change, purchase ENERGY STAR qualified home electronics, and use power strips as a centralized turnoff point when you are finished using equipment.

- ENERGY STAR qualifies all types of home electronic products like televisions, DVDs and VCR products, home audio, set-top boxes, and more. You can make a complete ENERGY STAR qualified home theater system and save even more!
- The ENERGY STAR label is found on TVs of all shapes, sizes, and screen technologies. Televisions that have earned the ENERGY STAR are on average more than 40 percent more efficient than standard models. Larger sets must meet even more stringent levels to qualify as ENERGY STAR. A 60-inch TV will be on average 60 percent more efficient than a conventional model. As of 2011, if all TVs sold in the United States met ENERGY STAR requirements, the savings in energy costs would grow to over \$4 billion annually and greenhouse gas emissions would be reduced by the equivalent emissions from more than 5 million cars.
- Qualified ENERGY STAR set-top boxes are at least 40 percent more efficient than conventional models. If every set-top box in the United States met the ENERGY STAR requirements, consumer energy cost savings would grow to about \$1.8 billion per year and annual GHG emissions would be reduced by the equivalent emissions from about 2.3 million cars. Check with your cable or satellite service provider to request a set-top box that has earned the ENERGY STAR to save energy, save money, and help protect the environment.

E-Cycling

- Old electronics are a fast-growing portion of America's waste. They can present an environmental hazard if they are disposed of improperly. With an average of four pounds of lead in many older TV picture tubes, along with other potentially hazardous materials, electronics call for special handling at the end of their lives.
- Donating or recycling your outdated electronics encourages the safe management of their potentially hazardous components and supports the recovery and reuse of valuable materials. It also helps reduce the pollution and energy use tied to the production of new electronics. Finally, it can put a computer, TV, or cell phone in the hands of someone who needs it. Visit <u>http://www.energystar.gov/recycle</u> for more information.

ENERGY STAR Qualified Appliances

- If every refrigerator, dishwasher, and clothes washer purchased in the United States this year had earned the ENERGY STAR, we would save \$585 million in annual energy costs and prevent more than 3 billion pounds of greenhouse gas emissions per year, equivalent to the emissions from 300,000 cars.
- Appliances that have earned the ENERGY STAR have two price tags: what you pay to take it home and what you pay for the energy and water it uses. ENERGY STAR qualified appliances incorporate advanced technologies that use 10 to 50 percent less energy and water than standard models. The money you save on annual utility bills

can more than make up for the cost of a more expensive but more efficient ENERGY STAR model.

Clothes Washers

Clothes washers that have earned the ENERGY STAR reduce energy use by about 30
percent and water consumption by 50 percent compared to regular washers. Many
qualified clothes washers have a greater capacity than conventional models, which
means fewer loads of laundry.

Refrigerators

 In most households, the refrigerator is the single biggest energy-consuming kitchen appliance. To save energy, save money, and protect the climate, choose refrigerators that have earned the ENERGY STAR, which are 20 percent more energy efficient than the minimum federal standard. A typical ENERGY STAR qualified refrigerator uses less energy than a 60-watt light bulb run continuously. If everyone purchasing a refrigerator in 2011 chose a model that has earned the ENERGY STAR, together we would reduce greenhouse gas emissions equivalent to those from more than 120,000 cars.

Dishwashers

- Dishwashers that have earned the ENERGY STAR are on average about 10 percent more energy efficient than standard models. To help your dishwasher run more efficiently:
 - Run your dishwasher with a full load. Most of the energy used by a dishwasher goes to heat water. Since you cannot decrease the amount of water used per cycle, fill your dishwasher to get the most from the energy used to run it.
 - Avoid using the heat-dry, rinse-hold, and pre-rinse features. Instead use your dishwasher's air-dry option.

Water Heaters

 Choosing a gas storage water heater that has earned the ENERGY STAR instead of a standard model can save about \$520 over the lifetime of the water heater. Larger families can save even more money.

Home Performance with ENERGY STAR

Home Performance with ENERGY STAR is a comprehensive, whole-house approach to improving energy efficiency and comfort at home, while helping to protect the environment and fight climate change. Rather than focusing on a single problem, like an old heating or cooling system, not enough insulation in the attic, or leaky windows, Home Performance with ENERGY STAR looks at how improvements throughout your home can work together to give you the best results. Through this program, specially trained contractors will evaluate your home using state-of the-art equipment and

provide whole-house recommendations to improve your home's energy efficiency and comfort. They can also help you get the work done right! To find out if Home Performance with ENERGY STAR is available in your area, visit <u>www.energystar.gov/homeimprovement</u>.

Online Tools from ENERGY STAR

Through ENERGY STAR, the government-backed symbol for energy efficiency, EPA provides a variety of tools and resources that can help you make your home more energy efficient, reduce high energy bills, improve comfort, and protect the environment—whether you're a "do-it-yourselfer" or choose to hire a qualified professional.

ENERGY STAR Social Media

- Facebook: <u>www.facebook.com/ENERGYSTAR</u>
- Twitter: <u>www.twitter.com/ENERGYSTAR</u>
- YouTube: <u>www.youtube.com/EPAENERGYSTAR</u>

ENERGY STAR Home Advisor

www.energystar.gov/homeadvisor

- Get customized recommendations on home improvement projects.
- Make a plan to get started.
- Increase your household's energy efficiency and comfort.

Home Energy Yardstick

www.energystar.gov/yardstick

- Compare your household's energy use to others across the country.
- Get your score and recommendations for improvement.
- Make your home improvements and come back in 12 months to see how much you've saved.

ENERGY STAR @ home

www.energystar.gov/home

 Take a room-by-room tour and learn what steps you can take to save energy, save money, and help protect our environment.

ENERGY STAR @ work

www.energystar.gov/work

- Take a tour of an office.
- See how you can help encourage changes in buildings to save energy where you work, shop, play, and educate your children.

Rebate Finder www.energystar.gov/rebatefinder

 Find special offers in your city or state sponsored by ENERGY STAR partners, such as: sales tax exemptions or credits; rebates on qualified products, and recycling incentives.

Tax Credits for Energy Efficiency

www.energystar.gov/taxcredits

- Learn about tax credits available for purchasing energy-efficient products.
- Discover tax credits for home builders and tax deductions for commercial buildings.
- Read frequently asked questions.

ENERGY STAR Kids Page

www.energystar.gov/kids

- Kids can learn how to protect the climate.
- Find fun games and activities:
- Solve puzzles with Dr. Seuss' The Lorax.
- Meet the ENERGY STARS—saving our planet, one kilowatt at a time.
- Watch the quickest global warming slideshow ever.

ENERGY STAR Kids Room

www.energystar.gov/kidsroom

- Be an ENERGY STAR ... right in your own bedroom.
- See tips on how kids can make big changes to save energy.

ENERGY STAR Podcasts

www.energystar.gov/podcasts

- Watch video podcasts to learn how to properly set your programmable thermostat and how to make energy-efficient improvements.
- Listen to more podcasts about the ENERGY STAR program and ENERGY STAR computers and imaging equipment.

ENERGY STAR Publications

www.energystar.gov/publications

- Order free informational materials, such as these popular pieces to use for yourself and share in your community:
 - Guide to Energy-Efficient Heating and Cooling
 - Do-it-Yourself Guide to Home Sealing
 - Bring Your Green to Work tip card

ENERGY STAR

• ENERGY STAR was introduced by EPA in 1992 as a voluntary, market-based partnership to reduce greenhouse gas emissions through energy efficiency. Today, the ENERGY STAR label can be found on more than 60 different kinds of products including lighting, appliances, TVs, computers and other office equipment, and

consumer electronics; homes; and schools and commercial buildings. Products that have earned the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy-efficiency specifications set by the government. In 2010 alone, Americans, with the help of ENERGY STAR, saved nearly \$18 billion on their utility bills while reducing greenhouse gas emissions equivalent to the annual emissions from 33 million vehicles.