

NYSERDA PROGRAM ONE

“ENERGY STAR Products and Home Energy Tips”

Teaser

Energy ... it powers just about everything in our house, from the basement to the attic. We can't live without our refrigerators, washers, dryers, stoves, televisions, stereos, phones, and other appliances and electronics. All these devices together, can mean a high utility bill. But there are ways to reduce your energy consumption.

Learn about ENERGY STAR products and discover ways to save energy, next on “Energy Efficiency: Enhancing Home Performance.”

Underwriting

Funding for “Energy Efficiency: Enhancing Home Performance” is provided by: New York State Energy Research And Development Authority, using innovations and technology to solve some of New York State's most difficult energy and environmental problems in ways that improve the state's economy.

Rick Gerardi (opening statement)

Hi I'm Rick Gerardi. In this program we'll explain the ENERGY STAR® label, including the benefits of energy-efficient appliances, consumer electronics, and lighting products. We'll go through each room of the house and show you some of the many products that qualify for the ENERGY STAR label. We'll also provide you with a number of energy tips to help you save even more on your energy bill.

Open:

Jerry: Hi, I'm Jerry Loch.

Scott: And I'm Scott Shipley, and we're with the New York State Energy Smart Program.

Jerry: Recognize this label? It's given to appliances that meet or exceed the Federal Energy Efficiency guidelines without sacrificing performance.

Scott: But don't all appliances come with an energy guide also, Jerry?

Jerry: Yes, and in the case of this refrigerator, the Energy Guide tag is found inside. This tells how much electricity this particular refrigerator uses over the course of a year. You'll see this model uses 557 kilowatt hours of electricity per year. The Energy Guide provides a scale to compare how other models use less energy, and other models use more. And if it's ENERGY STAR qualified, the ENERGY STAR label will be on this guide.

Scott: And every appliance has two costs: the cost to purchase it, and the cost to run it. And the ENERGY STAR label can help you save money over the life of that appliance.

Jerry: I understand, Scott, that in the case of dishwashers and clothes washers, that also includes the cost of the water.

Scott: That's right, Jerry. Appliances that use water, like washing machines and dishwashers, can save you a lot of money if they have the ENERGY STAR label, and that's good for your pocket, and good for the environment.

Jerry: Scott, I've actually heard that some clothes washers can save as much as 6000 gallons of water in a year.

Scott: And that's a lot of water. And that's good for you and the environment.

Jerry: There are ENERGY STAR products and appliances for every room in the house.

Scott: So let's go check some out.

VISUAL: The Basement

Dehumidifier

Scott: We're going to start in the basement with one of these. It's a dehumidifier. If you have a damp basement, you probably have one. The most energy efficient thing to do is first fix the leak if you can. If you can't and you need a dehumidifier, look for the ENERGY STAR. It has a more efficient compressor, and has better controls, and can save you up to 30 to 35% more energy over non-ENERGY STAR dehumidifiers.

Clothes Washer & Dryer

Narrator: ENERGY STAR clothes washers can save you up to \$160 per year on your energy bills! Consider replacing your old unit with an ENERGY STAR washer – it will use up to 80% less energy and approximately 60% less water than pre-1994 models.

Jerry: Washers – even a washer that's five years old – can use considerably more energy than an appliance manufactured today. Ninety percent of the energy used for washing clothes is for heating the water. So consider washing your clothes in cold water – at the very least, always rinse in cold water.

Narrator: Today's detergents clean effectively in both hot and cold water. Always wash and dry full loads. If you need to wash smaller loads of laundry, use the proper water level for each individual load.

ENERGY STAR clothes washers extract more water from clothes during the spin cycle, so that means reduced drying time. ENERGY STAR washers are available in both top loading and front loading models. Front loading clothes washers have no agitator, so they are gentler on clothes. While the purchase price of a front-loading ENERGY STAR washer may be more than a top loading washer, the cost to operate a front loading washer

is considerably less. Over five to ten years of operation, depending on how many loads you do in a week, you could save \$400 or more.

Jerry: Clothes dryers do not qualify for the ENERGY STAR label. But there are lots of ways you can make sure you save energy.

Narrator: Clean the lint filter every time you put a load of clothes in the dryer. Dry full loads whenever possible. Check the outside dryer duct or vent and clear it of lint. Don't use the timed-dry cycle. On this cycle, the dryer will continue to operate even after the clothes are dry. Use the moisture sensor cycle, or automatic cycle, which will automatically shut off when your clothes are dry.

Dry all lightweight clothes together to shorten your drying cycle. Dry two or more loads in a row to take advantage of the heat from your dryer. And fold your laundry immediately after drying to reduce ironing! In the summer, consider drying your clothes on an outside clothes line to further save on your utility bill. And remember, a clogged vent or lint filter lengthens drying time and increases the amount of energy used.

VISUAL: The Kitchen

Refrigerators:

Jerry: We're here with Steve from Watertown Appliance and we're going to be talking about ENERGY STAR refrigerators. The refrigerator is one of the biggest energy users in your home; in fact, in the kitchen, it is the largest energy user. Is that true?

Steve: That's true, Jerry. An older refrigerator, say 10 to 12 years old, a consumer is paying roughly \$17 to \$20 a month to operate that unit. A new ENERGY STAR refrigerator, the cost is more like \$7 a month to operate. So over the lifespan of the refrigerator, which is 10 plus years, that's a considerable savings.

Jerry: The ENERGY STAR refrigerators have some qualities to them that others may not have. What are some of them?

Steve: ENERGY STAR refrigerators will have a better quality compressor. The controls for the unit will be superior to those that are not ENERGY STAR, and the insulation in the cabinet of the unit is far better.

Jerry: So if I'm going to come in to Watertown Appliance or anywhere else and try to find an ENERGY STAR refrigerator, can I find one that I like?

Steve: Yes. There are basically four styles of refrigerators. The side-by-sides, the top freezer units, the bottom freezer units, and then what they call the "French door" which is a combination of side-by-side and bottom freezer refrigerator. In any one of those four categories, you'll be able to find an ENERGY STAR unit.

Jerry: Tell us a little bit about what we should do to maintain our refrigerators. Should we be keeping it at a particular temperature? Tell us about that.

Steve: Temperature-wise, a refrigerator's fresh-food section should be anywhere from 38 to 40 degrees. The freezer section, 0 to 5 degrees.

Jerry: So if I put a little thermometer in there I can monitor it over time.

Steve: Yeah, can't hurt.

Jerry: Tell us about the seal on the refrigerator.

Steve: The tighter the seal, the better off you'll be. A lot of times, the consumer won't even realize that the seal is loose on the refrigerator. If you have any kind of buildup of a little bit of moisture, that's a good sign to let you know that maybe you should have that seal checked.

Narrator: Avoid locating your refrigerator in direct sunlight or near equipment that generates heat, such as a stove or dishwasher. Leave several inches of space behind and on the sides of your refrigerator so air can circulate around the unit. Make sure your refrigerator stands level so the door seals evenly and tightly. Check the door seals for air leaks by shutting a piece of paper in the door. If you can slide the paper out without resistance, your refrigerator may be leaking cold air. Every three months, clean the condenser coils located underneath or in back of your refrigerator or freezer.

Try to cut down on the number of times you open the refrigerator door. Plan ahead and take out everything you'll need at one time. Let hot foods, other than meats, cool before placing them in the refrigerator. If you're going away for a long period of time, clean out your refrigerator, unplug it, and prop the door open. If your second freezer or refrigerator is not full, empty its contents into your regular refrigerator and unplug the second unit.

Get rid of any refrigerator or freezer in your home that is more than 10 years old, and you'll save as much as \$100 annually in energy costs when you replace it with an ENERGY STAR qualified model.

Dishwashers

Scott: If you're looking for a new dishwasher, consider an ENERGY STAR model. An ENERGY STAR dishwasher can save you 30 to 35% over non-ENERGY STAR model. And it comes with an energy guide, just like the refrigerator, to help you decide which is the most efficient. ENERGY STAR models have better insulation, more efficient motors, and they use less water, which means that you don't have to heat that water, which saves you energy there too. With today's technologies, there's no need to pre-rinse anymore, because ENERGY STAR models use water efficiently to clean your dishes. And if you're washing your dishes by hand, an ENERGY STAR model can

actually use less water, depending on how you wash your dishes. And to save more energy, use the air-dry setting.

Narrator: If you do choose to rinse your dishes before loading them into the dishwasher, use cold water. Wait till your dishwasher is full before running it, and use the shortest wash cycle that will clean your dishes properly. Be sure to keep your dishwasher drains and filters clean. When the wash and rinse cycles are done, turn off the drying cycle on your dishwasher, open the door, and let the dishware and silverware air dry.

Stoves

Jerry: Kitchen stoves do not qualify for the ENERGY STAR label. However, there are things you can do in the kitchen to save energy.

Narrator: Use the smallest pot necessary for the food you are cooking. And use a lid on your pot. Preheat liquids such as water in your microwave. Don't line oven racks with foil. Foil blocks the heat flow and makes the oven work harder to cook food. Allow frozen meats to thaw completely before cooking. A frozen roast placed directly in the oven will require one-third more cooking time. And pre-heat the oven only when necessary. When baking, limit the number of times you open the oven door. Bake more than one item at a time – you can use one and freeze the other! And never use your oven to heat the kitchen. It not only wastes energy, it's dangerous. Remember, pressure cookers, crock pots, microwave ovens, and toaster ovens all use less energy than a traditional stove or oven, so use these instead whenever possible.

Air Conditioners

Scott: If you're looking for a new air conditioner, consider an ENERGY STAR model. ENERGY STAR air conditioners can save you up to 10% over non-ENERGY STAR models. And make sure you get the sizing right – there's a sizing label on the side of every box that will help you decide which unit is right for the room you're trying to cool. It's important to get the size right so that the unit works at peak efficiency. But before you buy an air conditioner, consider some alternatives. Fans can help cool the room at considerably less electrical cost than air conditioners can; ceiling fans are available in ENERGY STAR models. And you can also use night-time cooling, where you open the windows at night, and then close them during the day to capture that cooling.

Narrator: During the summer, you can close insulated drapes or shades to help keep out unwanted heat. In the winter, open those drapes or shades to get the full benefit of the sun shining through the windows. Close those same drapes and blinds in the winter at night to cut down on heat loss.

It's a waste of money and energy to run your room air conditioner all day long just to cool an empty house. Install an appliance timer that will activate the unit five minutes before you arrive home. In the wintertime, remove your window air conditioning unit to

prevent heat from escaping through and around the unit. If it can't be removed, use a cover to prevent drafts.

Keep doors and windows closed as much as possible. This includes closets and rooms not in use. This cuts down on the amount of space you need to heat or cool. Make sure your radiators and heating vents are not blocked by furniture or drapes.

Another big eater of electricity is a portable space heater. A 15 watt unit left on 8 hours a day can cost you \$40 a month in electricity. Instead, dress warmly and in layers. Consider using programmable thermostats to automatically control heating and cooling when you are home and away.

Here's Andrew Fisk of NYSERDA to tell you more about the benefits of the ENERGY STAR label.

The Quiet Revolution “Appliances” Segment:

Andrew Fisk: Your choice of appliances can really make a difference. Two Federal agencies, the Environmental Protection Agency and the Department of Energy, label the most efficient appliances on the market today with the ENERGY STAR, so that you can make good choices and help protect the environment every day. Here in New York, consumers are leading the way buying ENERGY STAR qualified dishwashers, refrigerators, clothes washers, and room air conditioners in record-breaking numbers. Most ENERGY STAR qualified refrigerators use less energy in one year than a 75-watt light bulb that is on continuously. Clothes washers can save more water in one year than the average person drinks in a lifetime.

Narrator: Here's a true story of a consumer who saved with ENERGY STAR.

Woman: “When I remodeled my kitchen, I replaced all my old appliances with ENERGY STAR qualified products. I feel good about making choices that are gentler on the environment and there was no sacrifice. All my new appliances are amazing and have all the best features. And better yet, I substantially reduced my energy costs.

Andrew Fisk: When you shop for a new appliance, think about the features and styles that are important to you. Then ask your retailer to show you ENERGY STAR appliances that meet your criteria. You can start saving energy and money on your month bills right away. Our New York retailer programs have a trained staff to help you find the ENERGY STAR qualified appliance that is best for you.

VISUAL: The Living Room

The Quiet Revolution “TV” Segment:

Andrew Fisk: Did you know that in the average home 40% of the electricity used to power home electronics is consumed while the products are turned off? Home electronics use electricity to power features like clock displays and remote controls, even

when the products are not in use. Nationwide, we waste a billion dollars a year powering TVs and VCRs that are not even on. And did you know that trying some very simple things can help you immediately save energy and money? Things like putting your electronic products on a timer, or a power switch that turns them off completely or unplugging your cellphone or camera charger. Just ask your local retailer about energy saving options that are available to you. Home electronics that have earned the ENERGY STAR use as much as 50% less energy, largely by using the best technologies to make features like the clocks and remotes more efficient, so that the products waste less energy in the “off” position. Whether on or off, they provide the same performance and features at the same price as less efficient models.

Switching to ENERGY STAR qualified home electronics can make a big difference. The average home has three TVs, two VCRs, one DVD player, and three telephones. If these items were replaced with ENERGY STAR qualified models, it would save over 25 billion pounds of greenhouse gas emissions, the equivalent of taking 3 million cars off the road. And on average, you can save hundreds of dollars per year on your energy bills.

Woman: Choosing to save energy on your home electronics doesn't limit your choices at all. There's really no reason not to go for it.

Andrew Fisk: Call 1-877-NY-SMART or log on to getenergysmart.org and start saving energy for years to come.

Home Stereo Equipment

Scott: Even home stereos can come with an ENERGY STAR label. Because in stand-by mode, they can use up to 90% less electricity than a non-ENERGY STAR stereo. And if you want to save even more electricity, get a power strip so you can turn off the unit when you're not using it.

VISUAL: The Home Office

Home Office

Jerry (by computer, monitor, printer, scanner): More appliances and electronics than you think have the ENERGY STAR label. Case in point: computers, printers, monitors, scanners, copiers, and fax machines all can qualify for the ENERGY STAR label. An ENERGY STAR computer versus a non-ENERGY STAR computer will save enough electricity over its lifetime to light an entire home for more than four years. How often do you turn off your computer's monitors, printers, copiers, and scanners? If you leave your computer on for twenty-four hours a day, it will cost you approximately \$24 a month, or \$288 a year. It's no longer necessary to leave computers on all the time. You can turn off the printers and the scanners when not in use. When an ENERGY STAR computer goes into low-power mode, it uses less than 15 watts of electricity.

Scott (by copier): When looking for office equipment, look for the ENERGY STAR. ENERGY STAR copiers, scanners, and fax machines can reduce your electrical usage by 40 to 50 percent over non-ENERGY STAR appliances when in the sleep mode. And ENERGY STAR printers can reduce electrical usage by up to 60 percent when in the sleep mode. And if you want to save even more electricity, use a power strip to turn the machine completely off when not in use.

Narrator: ENERGY STAR copiers, fax machines, computers, scanners, printers, and monitors always go into sleep mode after a period of inactivity. Spending a large portion of time in low-power mode not only saves energy but helps equipment run cooler and last longer. Businesses that use ENERGY STAR office equipment may also save on air conditioning and maintenance costs.

Narrator: Cordless phones, answering machines, and combination units can also come with the ENERGY STAR label. These appliances spend most of their time and energy just waiting for a call – or charging the unit. Those that have earned the label perform much more efficiently than conventional units and use about one-third of the energy with features such as switch mode power supplies and “smart” chargers. Just think ... If all cordless phones, answering machines, and combination units sold in the U.S. this year were ENERGY STAR, we would prevent over 650 million pounds of air pollution – the equivalent of taking over 7,000 cars off the road.

Lighting

Carl Uthe (CFLs):

Hi, I'm Carl Uthe from the New York Energy Smart program. I'm here today to talk to you about efficient lighting in your home. Every room in your home has multiple lamps and fixtures and bulbs. I'd like to tell you how you can save up to \$60 a year by switching your lighting to efficient ENERGY STAR lighting.

Everyone's familiar with the incandescent lightbulb. We've been using them for years, and we change them quite often. What I'd like to show you is an ENERGY STAR qualified compact fluorescent lamp, or CFL. You may have seen these in stores, and I'd like to tell you a little bit about them.

An ENERGY STAR qualified CFL uses approximately 66% less energy which means money in your pocket and saving in the environment. They come in a variety of colors and applications, and different sizes to fit your need. You can find them in a globe style, a floodlight style for indoor or outdoor use, and they also come in dimmable, three-way, and candelabra base. And I'd like to show you how you can save on energy and save money by using an ENERGY STAR qualified CFL.

On this side, we have an incandescent lightbulb. It's 60 watts. If we turn it on, the light meter shows we are using just over 60 watts of power to give us roughly 60 watts of light, or a thousand lumen. If we turn on the ENERGY STAR qualified CFL, we'll see

that we're getting the same light output, slightly better color temperature, the same lumen, and we're only using about 14 to 15 watts of power.

ENERGY STAR qualified CFLs last up to 10 times longer than standard incandescent lightbulbs. That means that it can last 7 to 10 years. And you can find ENERGY STAR qualified CFLs at any retailer that sells lighting in New York.

Carl Uthe (Lighting Fixtures)

ENERGY STAR qualified lighting fixtures are another way to help save on your electric bill and help protect the environment. If you're building a new home, or considering remodeling your current home, or you just need to replace a light fixture in your home, ENERGY STAR is a great way to add style, efficiency, and quality lighting to your design.

ENERGY STAR qualified fixtures come in a variety of styles: indoor lighting, outdoor lighting, ceiling fans and ceiling fans with light kits, portable lighting and even under cabinet lighting. And ENERGY STAR qualified fixtures share many of the same benefits as compact fluorescent lights, such as power usage, about 66%, cool to the touch, a long lamp life, up to 10,000 hours, and they do carry a 2 to 3 year warranty.

In addition to those benefits, ENERGY STAR qualified fixtures carry other features, such as distribute light more evenly and efficiently compared to incandescent fixtures. They also have convenient features such as dimming, three-way application, and multi-bulb configuration. And outdoor fixtures have daylight sensors, motion sensors, and high lumen output. These fixtures can be found in hardware stores, do-it-yourself home centers, and local lighting showrooms. ENERGY STAR qualified fixtures carry a warranty of two years, which is double that of an incandescent light fixture.

ENERGY STAR qualified fixtures have electronic ballasts, which are flicker-free, they have no hum or buzz, and the ballast starts in under a second. These fixtures also install just like an incandescent fixture. They use the common ground, a black wire, and a white wire.

These fixtures come with dedicated pin-based bulbs which last longer than incandescent light bulbs. They're not expensive to replace, because there's no ballast. The ballast is inside the fixture itself. And because of the long lamp life, you don't have to replace them as often.

ENERGY STAR qualified fixtures come in a variety of styles and décor to meet your design needs, just like non-ENERGY STAR fixtures.

ENERGY STAR qualified fixtures will deliver long lasting quality light, keep money in your wallet every month, and help you do your part to use less power. That means less energy is generated by power plants, decreasing the amount of fossil fuels burned, resulting in less air pollution.

Consider making your next fixture an ENERGY STAR qualified light fixture.

Narrator: Turn off your lights when you leave a room or when they're not needed. Put lamps in the corners of rooms so light reflects off two walls. Light colors on walls, ceilings, and floors will reflect more light. Use task lighting over desks, tables, and workbenches rather than lighting the whole area. Take advantage of natural light whenever possible. Keep windows clean and unobstructed. And clean bulbs and fixtures regularly for brighter illumination!

Close (Jerry and Scott)

Scott: When you're in the market for an appliance, remember to do your homework before you buy.

Jerry: And always be wary of purchasing used appliances, because those appliances can use a lot more energy than the ENERGY STAR products.

Scott: That's right, Jerry, and remember there are ENERGY STAR products for almost every room in your house.

Rick Gerardi (closing statement):

Today we've covered an entire house to show you that the ENERGY STAR label can be found on appliances and products in every room in your house. By using ENERGY STAR qualified products, you're not only helping your wallet, you're helping the environment. Thanks for watching and please join us in our next episode to learn more ways you can save energy.

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