

**DECEMBER TIP PAYBACK: \$700-\$1,000/YR**  
**Avoided Emissions of CO<sub>2</sub>: Up to 3,300 lbs./YR**

## \$USTAINABILITY \$AVINGS TIP

### ENERGY EFFICIENT PRODUCTS PAY IT FORWARD

*Products have two price tags. The purchase price and the cost to operate each month.*

December marks the time of the year when we start to focus on our homes, family gatherings and holiday gift giving. December also means we are getting close to the end of the tax year, making it the perfect time to purchase energy efficient upgrades and appliances. Purchase a meaningful gift that will make a noticeable impact by reducing energy bills each month, while taking advantage of the tax credits and utility incentives that are currently available. There are many ways to save energy – from simple and inexpensive, to behavior changes, to major investments in household improvements. As we wrap up 2011, check out our advice below to save money, save energy and reduce your carbon footprint in the New Year.

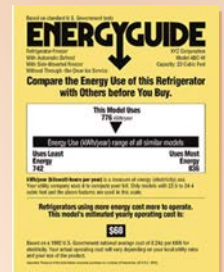
### HOUSEHOLD ENERGY EFFICIENCY IMPROVEMENTS

- **Home Energy Audit:** Check with your energy provider or local energy management companies that will often do low- or no-cost audits of your home. Use your audit to develop a long-term energy efficiency plan.
- **Windows<sup>1</sup>:** Buy or replace with new high-efficiency, dual pane with low emittance coatings. Use indoor window coverings or outdoor shade screens or strategically placed trees to shade windows from the outside.
- **Improved Insulation/Roofing<sup>1</sup>:** Sealing and insulating walls, ceilings, doors and flooring/concrete slabs will improve efficiency and comfort. Also, select reflective metal or asphalt roofing to reduce heat absorption.
- **Air Conditioning/Home Heating<sup>1</sup>:** Replace any unit over 15 years old to save 40% or more on costs. Replacement units need to be properly sized for your home (done through load calculations). Check the federal tax site and with your utility for the SEER rating requirements that qualify. Look for ENERGY STAR models with high CEE ratings (see sidebar).
- **Duct Sealing<sup>1</sup>:** Ducts distribute conditioned air throughout the home. About 20% of the air that moves through the duct system is lost due to leaks, holes and poor connections. This is best done by professionals.
- **Water Heaters<sup>1</sup>:** Consume about 15-20% of a home's energy. Only gas, tankless, electric heat pump (HP) and solar models currently have the ENERGY STAR rating.
- **Appliances<sup>1</sup>:** Think about products having two price tags – the original purchase price and the cost to operate each month. Look for ENERGY STAR models with high CEE ratings (see sidebar).
- **Electronics:** From a small screen LCD to a large screen plasma television, electronics can burn from 45 to 500 watts or up to \$145 per year. Look for ENERGY STAR rated electronics with high CEE ratings (see sidebar).
- **Other Devices<sup>1</sup>:** Look for energy efficient lighting, and items like programmable thermostats for easy everyday savings. For example, LED holiday lights use 70-80% less energy than regular lighting.
- **Behavior:** Whether turning off electronics when not in use or washing dishes or clothes only with full loads, there are many things you can do to save energy around the home. Visit the Department of Energy site for lots of home energy saving tips at [www.energy.gov/yourhome.htm](http://www.energy.gov/yourhome.htm).

<sup>1</sup>. These items have federal, state or local rebates/incentives available. See table on page 2 and visit [www.mesaaz.gov/sustainability/energytaxcredit.aspx](http://www.mesaaz.gov/sustainability/energytaxcredit.aspx) for links and more details.

### Energy Star vs. Consortium for Energy Efficiency (CEE) Tier Rating

*When purchasing any appliance be sure to look for the ENERGY STAR label, indicating that it uses 10-50% less energy than standard models.*



*Don't confuse the bright yellow and black label developed by the U.S. Department of Energy with the ENERGY STAR label. EnergyGuide labels feature energy use and operating cost information to help shoppers compare appliance models. An ENERGY STAR label marks appliances with superior energy efficiency in comparison to current federal standards.*

*However, if you are looking for the most efficient ENERGY STAR model possible (and why wouldn't you?), then visit the **Consortium for Energy Efficiency (CEE)** Web site. The CEE is a nonprofit whose purpose is to promote the manufacture and purchase of energy efficient consumer products and services. Visit their site at [www.cee1.org](http://www.cee1.org) to find efficiency listings of lighting, HVAC, home appliances and electronics. The charts provide ratings for different products that indicate those that are super efficient. Depending on efficiency, they will get a higher Tier rating number. For example, a Tier 4 electronic device is 40% more efficient than the minimum required to be ENERGY STAR rated.*

Here's a sampling of products with rebates/incentives available:

Energy Saving Project	Improvement	Federal	State	SRP Utility*
<b>Lighting</b>	Compact Fluorescent Bulbs (CFL's)			Discounts available at participating stores for CFL's
<b>Appliances</b>	ENERGY STAR labeled			Refrigerators \$30 to recycle old unit and free pick up
<b>Water Heater (electric HP, gas &amp; solar)</b> see rebates from gas utility below	ENERGY STAR labeled	10% up to \$300 (gas or electric HP) 30% no cap (solar)		\$0.45 per kilowatt hour of estimated first year energy savings on OG-300 (solar)
<b>Insulation</b>	Attic, wall, or floor	10% up to \$500		
<b>Windows/Shade Screens</b>	Dual pane, low-e glass	10% up to \$200		Shade Screens \$.80/sq. ft.
<b>Heating/Ventilation/AC (HVAC)</b>	SEER of 14 or greater Duct sealing, etc.	10% up to \$300	\$75-\$150 for room AC	SEER of 15 or greater up to \$400 Get up to 75% toward cost of duct testing and repair
<b>Solar Electric</b>	Provide part or all renewable energy	30% no cap	25% up to \$1,000	\$1.20 for installed watt up to \$6,000 (currently)

**Natural Gas Rebates:** Not included in the table above are rebates from your Natural Gas provider. The City of Mesa Gas Utility currently provides rebates for the purchase of new gas water heaters (\$25) and pool or spa heaters (\$50). If you are a customer of Southwest Gas, they provide a rebate for water heaters (\$75) and many other appliances. Natural gas is the cleanest of all fossil fuels, and while not a renewable resource, it does provide more value for your energy dollar.

\* While SRP is the dominant electric provider for Mesa residents, the City of Mesa supplies electric service to about 16,000 customers in the 5.5 square mile area centered in downtown Mesa. Mesa is currently developing a voluntary rate allowing customers to sponsor a portion of the electric energy supplies with the most efficient, reliable and economical solar energy technologies.

**CHECKLIST FOR SAVINGS**

- Visit any Mesa Library** which offers card holders free *Kill A Watt* devices to check out thanks to SRP's Energy Analyzer Program. The device measures how much energy is used by your appliances.
- Find books on living ecologically**, books on energy efficiency and solar at City of Mesa Library. Visit [www.mesalibrary.org/research/links/living-green.aspx](http://www.mesalibrary.org/research/links/living-green.aspx) or call (480) 644-3306 for a copy.
- Be sure to properly dispose batteries, CFLs, electronics and appliances. Mesa **household hazardous waste events** will collect most products. Find dates for our scheduled events and accepted product listing at [www.mesaaz.gov/waste/HHW.aspx](http://www.mesaaz.gov/waste/HHW.aspx). You can also find proper disposal and other great recycling ideas at [www.Earth911.com](http://www.Earth911.com).
- Visit [www.mesaaz.gov/sustainability/energytaxcredit.aspx](http://www.mesaaz.gov/sustainability/energytaxcredit.aspx) to find links to SRP, state, and federal **rebates or tax credits**. There are also links for simple tips to reduce your energy consumption.

Due to the age of convenience and the popularity of electronics we are more plugged in now than ever, causing household electric usage to continue a steady climb over the years.

**YOU MAY NOT KNOW ABOUT...**

- **Phantom Energy Users:** Did you know that TV's, DVD players, computers and even toasters continue to consume electricity when they're not in use? It's true. Known as phantom energy users (or energy vampires), these items silently add to your electric bill month after month. Garlic won't take care of these vampires, but consider replacing your existing surge protectors with Smart Strips, special surge protectors that turn off all power to your electronics when they're not in use.
- **Arizona Property Tax Exemption:** Exempts from taxation the amount of the appraised property value that arises from the installation of a solar or other renewable energy system.
- **City of Mesa Energy Improvement Incentive:** Saves you time and money by exempting permit requirements for energy efficiency or renewable energy improvements such as solar systems, HVAC replacements, and water heater replacements.

**START \$AVING**

Start reducing energy costs, while doing your part for *building a sustainable community*. Visit our Web site for more sustainability savings tips at [www.mesaaz.gov/sustainability](http://www.mesaaz.gov/sustainability).



[mesaaz.gov/sustainability](http://mesaaz.gov/sustainability)

*Learn to live Green*