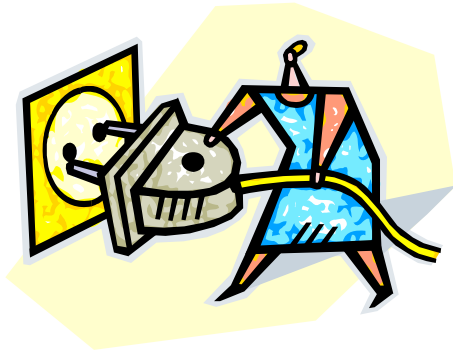


## Everyday Environmental Stewardship



### Energy Efficient Appliances

Andrew Siliski

#### Key issue:

Energy-Hog Appliances

#### Stewardship Opportunity

Energy-Efficient Appliances

Appliances have three price tags: the cost of the actual product, the energy it consumes, and the repair and maintenance costs. *Old* appliances are even worse, consuming large amounts of energy and at high risk for costly repairs and inconvenient failures. The average home spends approximately \$1,900 in annual electricity costs per year and home appliances count for as much as 75% of this cost. *EnergyStar* models use 10-50% less electricity than their conventional counterparts and are equal in performance. If only 10% of American homes replacing their appliances with *EnergyStar* qualified machines it would be equal to planting 1.7 million acres (2,656 square miles) of trees. And if combined with good stewardship practice (*Less Is More!*) the result is even better.

### Stewardship Opportunity — Replace Old Appliances

#### Refrigerators and Freezers

Because refrigerators are in operation all the time and consume large amounts of energy, it is important to choose a model which is cost efficient to run and will not waste electricity. The refrigerator can consume as much as 20% of a home's electricity. Many models manufactured before 1999 do not meet current Department of Energy power usage standards. *EnergyStar* refrigerator models use at least 15% less electricity than required by current federal standards. *EnergyStar* models also use 30% less electricity than those built 10 years ago. Replacing a refrigerator bought in 1990 with a new *EnergyStar* qualified model would save enough energy to light the average household for nearly 4 months.



Go to [http://energystar.gov/index.cfm?c=refrig.pr\\_refrigerators](http://energystar.gov/index.cfm?c=refrig.pr_refrigerators) for more information on product lists, manufacturer lists, purchasing tips, FAQs, special offers, finding a store, and more. For a refrigerator savings calculator. Go to

<http://energystar.gov/index.cfm?fuseaction=refrig.calculator>

This will calculate your annual savings by replacing your current refrigerator with comparable *EnergyStar* model. Make sure to have your refrigerator's model number (not serial number) found on both the refrigerator and the refrigerator guide and your price per kWh found on your electricity bill.

### *Washing Machine*

Buying an *EnergyStar* washing machine is especially important because it consumes large amounts of both electricity and water. *EnergyStar* qualified clothes washers clean clothes using 50% less energy than standard washers and as much as 50% less water per load, compared to the 40± gallons used by a comparable conventional machine. Compared to a model manufactured before 1994, an *EnergyStar* washer can save up to \$110 per year utility bills, both electricity and hot water. *EnergyStar* does not label clothes dryers because these all use similar amounts of electricity and gas. Go to

[http://energystar.gov/index.cfm?c=clotheswash.pr\\_clothes\\_washers](http://energystar.gov/index.cfm?c=clotheswash.pr_clothes_washers)

for more information on product lists, manufacture lists, purchasing tips, FAQs, special offers, finding a store, savings calculator, and more. And remember: Clothes washing and drying practices offer especially good opportunities for improved stewardship.

***Less Is More!***

### *Dishwashers*

*EnergyStar* qualified dishwashers use at least 41% less energy than the federal minimum standard for energy consumption. They also use much less water. Replacing a dishwasher manufactured before 1994 with an *EnergyStar* qualified dishwasher can save you more than \$30 a year in electrical costs annually. Go to

[http://energystar.gov/index.cfm?c=dishwash.pr\\_dishwashers](http://energystar.gov/index.cfm?c=dishwash.pr_dishwashers)

for more information on product lists (html/Excel), manufacture lists, purchasing tips, FAQs, special offers, finding a store, savings calculator, and more. Make sure you buy a dishwasher knowing its utility use (electricity and water) per load. And remember: Dish washing practices also offer especially good opportunities for improved stewardship.

***Less Is More!***

### *Dehumidifiers*

An 8-gallon *EnergyStar* dehumidifier uses 10%-20% less energy than a comparable conventional model. This is approximately \$20 in energy costs per year. This can add up to \$200 or more during the dehumidifier's lifespan. This is enough to pay for the dehumidifier which shows that *EnergyStar* humidifiers truly pay for themselves. The energy saved from these dehumidifiers is enough to power your refrigerator for six months. Go to

[http://energystar.gov/index.cfm?c=dehumid.pr\\_dehumidifiers](http://energystar.gov/index.cfm?c=dehumid.pr_dehumidifiers)

for more information on product lists, manufacturer lists, purchasing tips, FAQs, special offers, finding a store, and more.

However, you may not actually need a dehumidifier. Consider what is prompting the need. Often compact storage in air-tight containers with dehumidifying pellets which absorb water can meet the need. (A good example is storage of sheet music for choirs.) Water absorbing pellets can be used for rooms and homes.

You can also follow some simple steps to not need any dehumidifying devices at all. These include improving the drainage around your home to prevent leakage into the basement (extend down spouts away from your home, make sure that soil slopes away

from your foundation, avoid over-watering of plants near your foundation); make sure that your clothes dryer is fully ventilated to the outdoors; repair all leaky faucets; and make sure that there are no drafts coming from outside (i.e. bulkhead) which can flood the basement with humid air.

### *Room AC*

*EnergyStar* room air conditioners use at least 10% less energy than their comparable conventional counterparts. Replacing a 10 year old room air conditioner will save approximately \$25 per year on your electric bill. Getting an AC with a timer will also reduce needless use. Also, many people buy air conditioners that are too large. Make certain your AC is properly sized. For more information on products, go to

[http://energystar.gov/index.cfm?c=roomac.pr\\_room\\_ac](http://energystar.gov/index.cfm?c=roomac.pr_room_ac)

There is also a link to a page for guidance on sizing your AC to the space to be conditioned.

### **Rebates and Cost/Benefit**

Discounts and mail in rebates change rapidly. Go to

<http://www.myenergystar.com/ProductsAndDiscounts.aspx>

for information on rebates and discounts through your electric company. This list is updated weekly and will show you all the up to date rebates on *EnergyStar* refrigerators, clothes washers, dishwashers, dehumidifiers, and room air conditioners.

Of course, the best approach is to replace your appliances as part of a *Home Energy Audit*, as the auditor will be able to provide guidance on all your energy use, making suggestions about things you might not even think of! For an *EES* on getting a Home Energy Audit, go to

<http://mipandl.org/everyday.htm>

Here is an example of how rebates combine with reduced savings to help your pocketbook and reduce environmental pollution. An *EnergyStar* Kenmore refrigerator (model #77872) consumes 407 kWh annually. A comparable model (same capacity/outlay) from 1992 uses 1,150 kWh. So the new refrigerators uses about 2/3 less electricity. At a cost of 18¢/kWh, savings total about \$173/year. Model #77872 costs \$500. This means that the refrigerator will pay for itself in about 3 years in energy savings alone! If you obtain an electric company rebate (say \$150), the new refrigerator pays for itself into only 2 years. **Equally important, the new refrigerator reduces your carbon footprint by over 60%!**