

## Leaking Electricity – Fact Sheet



Are your appliances *leaking electricity*? Not only do we have more small- and medium-sized appliances than ever before, but many of these never really stop using electricity. For example, if the television has a remote, then part of the TV is always on, waiting for a signal from the remote. If there is a clock on the microwave then the microwave is always using some electricity. Experts call this usage "standby consumption," "phantom load" or "leaking electricity" because people are often not aware that the appliance is using electricity. One way to tell if your appliance uses standby consumption is if the on/off control buttons are smooth, and respond to your finger's touch, as opposed to having to turn or push to turn on the appliance.

A single appliance usually leaks only a small amount of electricity each hour, but since these appliances leak electricity whenever they are not turned on, and since people have a lot of these appliances, the amount of leaking electricity is significant. The average household spends about \$40 every year on leaking electricity. The federal government is working with appliance and manufacturers to reduce the amount of electricity that leaks out of new appliances.

**Leaking Watts Chart**  
**Standby Consumption of Some Residential Appliances**

Type of Appliance	Stand by power (watts)		
	Min	Avg	Max
Air Conditioner	0.0	0.0	0.0
Alarm Clock	0.7	1.3	2.0
Amplifier	0.0	1.4	5.5
Answer Machine	1.8	3.0	5.2
Cordless Phone	2.5	2.8	3.1
ATX PC	1.3	2.1	2.8
Baby Monitor	0.7	1.2	1.6
Battery Charger	0.2	1.4	3.2
Boom Box	0.7	2.2	7.7
Cable Box	4.8	11.6	18.0
Cassette Deck	0.0	2.8	6.6
CD Player	0.0	3.1	8.0
Clock Radio	0.9	1.7	3.2
Cordless Phone	1.1	2.7	5.0
Dishwasher	6.4	6.4	6.4
DSS	11.3	15.0	18.4
DVD Player	1.6	4.3	7.1
Equalizer	0.0	3.1	5.9
Garage Door Opener	3.5	3.8	4.0
Internet Appliance	7.5	7.5	7.5
Linear Power Supply	0.3	1.3	3.2
Macintosh PC	0.0	2.0	3.5
Massager	1.1	2.7	4.2
Microwave Oven	1.6	3.2	6.0

Type of Appliance	Stand by power (watts)		
	Min	Avg	Max
Mini Disc	4.5	4.8	5.1
Mini Audio System	1.3	9.3	28.6
Modem (external)	1.0	1.4	1.8
Phone/Fax/Copier Combo	3.3	4.7	6.5
Power PC	1.3	1.5	1.6
Power Speaker	0.0	1.6	3.1
Preamplifier/Tuner	1.4	2.4	3.2
Printer	3.5	3.5	3.5
Range	1.8	3.0	4.1
Receiver	0.0	1.8	5.9
Rice Cooker	1.5	2.0	2.5
Security System	15.0	18.3	21.5
Shaver	0.4	0.9	1.4
Television	0.0	4.3	12.3
Tuner	0.0	2.0	4.0
TV/VCR Combo	2.5	9.8	19.5
Battery-Powered Vacuum Cleaner	1.7	2.1	2.6
VCR	1.5	5.6	12.8
Video Game	0.0	1.1	2.0

Adapted from:  
<http://www.uwsp.edu/cnr/wcee/keep/Mod1/Flow/leaking.htm>

## Making the Home More Energy Efficient - Fact Sheet

### How much do we spend?

An average home spends \$1500 on utility bills, but this does not include heating which is on the order of \$1000. Heating makes up for almost ½ of the energy use in typical homes, and lighting and cooking makes up for the next largest amount.[7]

If one looks just at water usage and the amount of hot water produced, they will see that showers are of highest consideration (See Figure 2.)

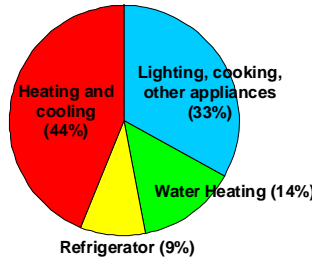


Fig 1: Energy use in the home [7].

### ENERGY STAR and EnergyGuide – good alternatives

On the power usage, appliances of greatest usage are that of clothes dryers, refrigerators, and dishwashers (Table 1). ENERGY STAR and EnergyGuide are two manufacturers that utilize energy efficient technology in appliances. For example a refrigerator bought before 1993 requires 2 times the energy as an ENERGY STAR model. By using ENERGY STAR products, some homes could save up to \$450 per year, about 30% of the normal energy bill. [4]



### Energy Saving Tips

Below are some easy active energy savers. Although they do not seem to have a great impact, if you pair these precautions with some energy efficient appliances your energy bill will decrease. [7]

- Air dry dishes instead of using your dishwasher's drying cycle.
- Use your microwave instead of a conventional electric range or oven.
- Turn off your computer and monitor when not in use.
- Plug home electronics, such as TVs and VCRs, into power strips and turn power strips off when equipment is not in use.
- Lower the thermostat on your hot water heater; 115 degrees is comfortable for most uses.
- Take showers instead of baths to reduce hot water use.
- Wash only full loads of dishes and clothes.

Table 1: Typical Appliance Power Usage [2]

Common Appliance Power Usage	# of Watts
Aquarium	50-1210
Clock radio	10
Coffee maker	900-1200
Clothes washer	350-500
Clothes dryer	1800-5000
Dishwasher	1200-2400
Dehumidifier	785
Electric blanket- Single/Double	60/100
Fans	
Ceiling	65-175
Window	55-250
Furnace	750
Whole house	240-750
Hair dryer	1200-1875
Heater (portable)	780-1500
Clothes Iron	1000-1800
Microwave oven	750-1100
Personal Computer	
CPU - awake / asleep	120-30
Monitor - awake / asleep	150-30
Laptop	50
Radio (stereo)	70-400
Refrigerator (frost-free, 16 ft <sup>2</sup> )	725
Televisions (color)	
19"	65-110
27"	113
36"	133
53"-61" Projection	170
Flat Screen	120
Toaster	800-1400
Toaster Oven	1225
VCR/DVD	17-21 /20-25
Vacuum cleaner	1000-1440
Water heater (40 gallon)	4500-5500
Water pump (deep well)	250-1100
Water bed (w/ heater, no cover)	120-380

### Energy Efficient Precautions

There are many ways that people can make their house more energy efficient without having to install a new energy system. Here are some ways purchase ideas that will save energy and cut the cost of your energy bill.

- *Weatherization*- plugging gaps, stopping air leaks, and insulating maintains comfort levels and reduces amount of heat that leaves home. This includes finding more efficient windows as well.
- *Space Heating and Cooling*- Change to Solar or geothermal heat pump. It reduces the amount sulfur dioxide and nitrogen oxides.
- *Compact fluorescent lights*- Uses 1/4<sup>th</sup> the amount of electricity that incandescent lamps use. They also reduce carbon emissions.
- *Energy efficient electric appliances* – Replace old with modern appliances; look for EnergyGuide and ENERGY STAR labels [6,7].

### Resources and Sources for Additional Information

1. Energy Efficiency and Renewable Energy <http://www.eere.energy.gov/consumerinfo/>
2. National Renewable Energy Laboratory <http://www.nrel.gov/>
3. EERE, "Reducing your Electricity Load," [http://www.eere.energy.gov/consumerinfo/makeelectricity/operate\\_reduce\\_e-load.html](http://www.eere.energy.gov/consumerinfo/makeelectricity/operate_reduce_e-load.html)
4. EERE, "Energy Savers" [http://www.eere.energy.gov/consumerinfo/energy\\_savers/](http://www.eere.energy.gov/consumerinfo/energy_savers/)
5. EERE "Energy Solutions Your Building," <http://www.eere.energy.gov/buildings/?flash=yes>
6. ENERGY STAR, <http://www.energystar.gov/>
7. EnergyGuide, <http://www.energyguide.com/>

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