



Standby Power

Many appliances use energy even when they are not in use to maintain a convenient 'ready' or 'standby' state for instant on-demand use. Most of the energy used by appliances on standby is not performing any useful function. A small amount can be needed for maintaining memory or an internal clock, remote control activation or other features. But most standby power is wasted energy.

Some examples of appliances that consume energy while not in use are:

- Appliances with a remote control such as TVs, VCRs, DVDs, and CDs.
- Appliances with transformers such as mobile phone chargers, portable phones, electric toothbrushes, and computer speakers.
- Other devices such as washing machines, microwave ovens, computer printers, computer routers and modems.



Is standby power a significant problem?

Even though each appliance only draws a small amount of standby power (typically 3-10Watts (W)) these small amounts add up because they are present all the time. Standby power costs a typical Australian household \$50-\$100 per year. With 5 million households in Australia that equates to up to \$500 million per year of wasted electricity and 5 million tonnes of one of the greenhouse gases - carbon dioxide. It is estimated that standby power accounted for 13 per cent of all residential electricity

consumed in Australia in 2003 (Australian Greenhouse Office).

How much standby power is used in my house?

Does your house look a little like a Christmas tree at night with lots of little red, yellow or blue lights glowing on your electrical appliances, even when they are not in use? If so, you've probably got a significant standby issue.

Quantifying the size of your standby load is a bit harder. If you live in the ACT, the easy solution is to get an **ACT Energy Wise Audit** and have the auditor measure the standby power of specific devices.

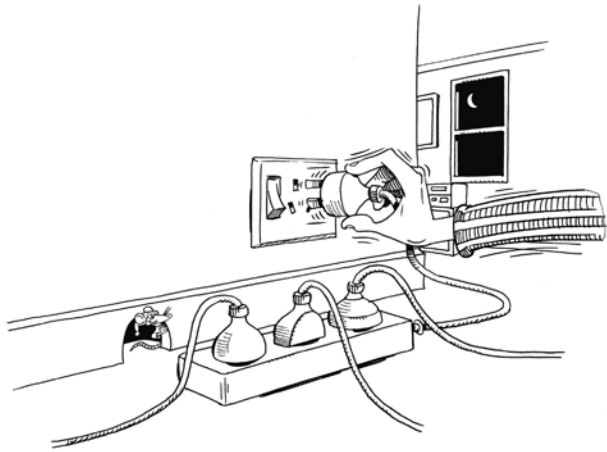
It is also possible to use your existing electricity meter to measure standby power by turning off all your electrical appliances except those drawing standby power and then taking a meter reading.

Contact HEAT if you would like more advice on how to determine your standby power use.

How can I reduce standby power?

Manual solutions: The simplest solution is to turn the appliance off at the wall or unplug it when you're not using it. For the vast majority of appliances this will actually increase the lifetime of the appliance, although you should check with an electrician if you have particular concerns about repeatedly powering an appliance on and off.

Sometimes standby power serves a purpose, such as retaining settings on a DVD or VCR. These appliances can be attached to a separate power board from appliances with no maintained function so you don't power them down when you switch off or unplug the other appliances (e.g. the TV, CD, amplifier, speakers).



More information

This fact sheet is produced by the Home Energy Advice Team (HEAT) to provide you with some quick tips on reducing standby power use in your home. If after reading it you'd like more free information about this or any other topic to do with saving energy in your home, don't hesitate to contact us:

A range of other fact sheets on saving energy and money in your home are available from HEAT

Automatic solutions: If you don't wish to turn appliances off manually, devices are available on the market to reduce standby power when you have a group of standby appliances such as an entertainment centre. These devices detect when you put your 'master' appliance on standby and automatically shut off power to all other appliances connected to the device, eliminating all the standby power in these appliances. When you turn on the 'master' appliance, standby power is restored to all the 'slave' appliances. This device costs about \$60, so will pay for itself in 1 to 3 years in a typical home. There is also another device that plugs into the outlet which can be shut off using a remote control but you need to remember to turn it off.

What are the benefits of reducing standby power?

Money saved: You may never eliminate all standby power but by turning appliances off at the wall, or using a device to control your standby power you may reduce standby power by 80 to 90 per cent. This could save you about \$90 per year on your electricity bill.

Environmentally friendly: Reducing standby power saves electricity, which helps reduce global warming by reducing your carbon dioxide (CO₂) emissions. A typical house will avoid half a tonne of CO₂ emissions by controlling their standby power.



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