THE FOOTPRINT COMPANY™

How Essential are your Non-Essentials?

Relevant for:

- Coffee Machines
- Dishwashers
- Fridges
- Hot Water Units
- Boiling Water Units
- Televisions
- Printers
- Microwaves
- Computers
- Stereos

Most devices draw electricity even when in standby. This is called "intrusive", "invasive" or "vampire" power. Power displays, lights and digital control systems are responsible. This serves no useful purpose.

Testing shows invasive power is generally **10%** of the device's total annual energy consumption. The only way to avoid "intrusive" power is to turn equipment OFF at the power point.

Savings Possible

Just by putting the equipment listed in Table 1 onto a dedicated circuit and timer, you can potentially save **$660** each year.

It is important that only "non-essential" equipment is turned OFF to avoid "invasive" power consumption.

There are two possible methods for achieving this:

1) A dedicated non-essential power circuit with an electronic timer hard-wired into the switch board OR
2) Individual simple 24 hours plug-in timer.

Hardwired solutions may cost up to $1,000 - $1,500 to implement at construction, giving a 2-3 year payback and are preferable from an operational consistency perspective

Figure 1: 24 hour timer

Figure 2: Digital timer in switch board

Table 1: Estimated "invasive" power saved

Appliance	Annual energy savings (kWh/a)	Annual cost savings ($/a)[1]	Daily cost savings ($/day)
Hood dishwasher (45L)	1,433	$ 1,016	$ 0.98
Electric storage hot water unit	526	$ 358	$ 0.36
Boiling Water Unit	329	$ 131	$ 0.23
Television – 52 inch LCD	120	$ 82	$ 0.08
Printer – laser	82	$ 30	$ 0.06
Microwave – 26L	54	$ 20	$ 0.04
Computer monitor	44	$ 14	$ 0.03
Chilled Water Unit	37	$ 11	$ 0.03
Total	**2,623**	**$656**	**$ 1.80**

[1] This is based off an electricity tariff of $0.25/kWh.

What's involved?

Energy savings can be recovered by turning off non-essential equipment at the wall at the end of business hours and back on at the start of the next day. You can do this in a couple of ways:

Table 2: How to cut standby losses - summary

Method	Costs ($)	User Burden	Other
1. Manually turn off each appliance at the power point every night and on every morning.	$0	High	▪ At risk of staff forgetting. ▪ For equipment with temperature requirements, staff may have to come in early to pre-heat/cool. **Best for:** Very few appliances, dedicated staff.
2. Connect each appliance to individual timer e.g. Clipsal.	$10-30 per timer (1 per appliance)	Mid	▪ Each appliance requires individual timer programmed. At risk of timers being changed by staff. ▪ No electrician required. **Best for:** Few appliances or spread out appliances.
3. Connect all non-essential equipment to a separate circuit on digital timer.	$1,000-$1,500 for an average 100m^2 tenancy.[2]	Low	▪ No risk of staff error. ▪ Electrician required running 1 more circuit initially and separating equipment. **Best for:** Many appliances that can be connected together.

[2] This is based off a basic tenancy and an average electrician rate of $60-$100 / hour. The amount of time to connect all non-essential appliances to a separate circuit will depend on complexity of tenant layout and number of appliances.