

# Electronics Recycling

Electronic waste (or e-waste) is a significant issue in Australia and a national waste priority. The volume of e-waste is growing three times faster than other waste streams, yet Australians are becoming more determined to find solutions. The most common reason for visits to Planet Ark's [RecyclingNearYou](#) website is to locate responsible options for end-of-life electronics.

E-waste comes in many forms including:

- Computers and computer accessories such as printers, scanners, keyboards, mice and monitors
- Televisions
- Mobile phones
- Batteries
- Photocopiers
- Faxes
- Printer cartridges
- Whitegoods
- DVD/CD players
- Video and audio tapes
- Digital cameras
- Game consoles
- Power tools
- Alarm clocks
- Portable radios

An estimated 16.8 million **television, computers and computer products** were disposed of in Australia in 2007-08. In 2010, only 17% of these products were recycled. By 2027-28, it is expected that 44 million televisions and computers will reach their end of useful life that year.

## Why recycle e-waste?

Used electronic equipment contains non-renewable resources such as plastic and precious metals including gold, silver, platinum, nickel, zinc, aluminium and copper. Some can be toxic to the environment if placed in landfill, like lead, mercury, phosphorus and cadmium. These substances can leak into groundwater, contaminate the soil, and enter the food chain. When electronic items are sent to landfill, the valuable resources that were used to make those products are lost forever. This means that new electronic items will continue to require mining for the non-renewable resources they contain.

Almost 99% of the components that make up a **computer** can be recycled. The metal is 100% recyclable, glass 99% recyclable, and plastic (apart from very small particles) 100% recyclable. Older style **televisions**, containing cathode ray tubes, contain up to 4 kg of lead and other materials that can be hazardous to the environment if not recycled responsibly.

More than 90% of the components found in a **mobile phone** can be recycled, but there are around 22 million of them stored unused in cupboards and drawers around Australia. If they were all recycled, the greenhouse benefits created would be equal to planting 114,000



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## Factsheet



How do you recycle computers, corks, cartridges and cans?

For information on council services and drop-off locations in your area... visit



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.com.au

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trees and the aluminium recovered would be enough to make 4.8 million cans. [MobileMuster](#) has collected over 7.27 million mobile handsets and batteries and saved over 8,060 tonnes of greenhouse gas emissions since it began in 1999.

More than 3.4 litres of oil are needed to make just one new laser **printer cartridge**. Recycling cartridges saves both water and energy, and reduces greenhouse gas emissions. Since 2003, the '[Cartridges 4 Planet Ark](#)' program has recycled over 20 million cartridges, preventing 96,900 tonnes of greenhouse gas emissions.

Like computers, televisions, mobile phones, and other products containing hazardous materials, it is very resource efficient to recycle **batteries**. Around 345 million handheld batteries are consumed in Australia each year, but only 6% (by weight) of these are recycled. **Lead acid batteries**, commonly used in cars and as backup power supplies, contain valuable components and are 96% recyclable.

Recycling can also offer cost savings through the avoidance of landfill fees for heavy items such as **whitegoods**, and reduced energy bills through the removal of old, inefficient appliances.

## Reducing e-waste

Before you recycle and replace an electronic item, here are a few options you could consider first:

- Decide whether you really need to replace it or if you could live without it;
- See if friends or family could reuse it;
- Ask your local second-hand shop or charity whether they will accept it;
- Sell it online or give it away on [freecycle.org](http://freecycle.org);
- Check out our Reuse Information Hub at [RecyclingNearYou.com.au](http://RecyclingNearYou.com.au).

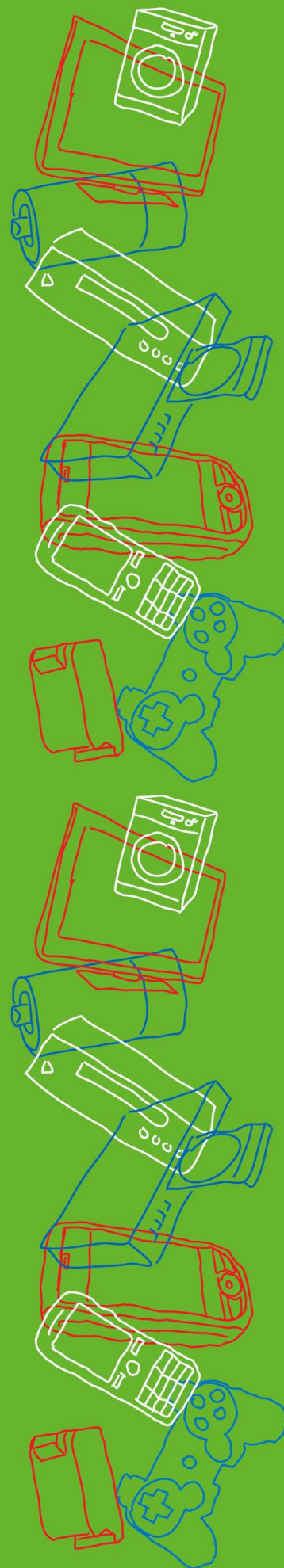
## Recycling options

Some electronic items have widely available, free recycling options:

- The [National Television and Computer Recycling Scheme](#) recycles **televisions, computers and computer accessories**;
- The '[Cartridges 4 Planet Ark](#)' program recycles printer **cartridges**;
- The [MobileMuster](#) program recycles old **mobile phones**, their batteries and accessories;
- [Aldi supermarkets and Battery World](#) outlets recycle used **household batteries**;
- [Century Yuasa's Battery Recycling Centres](#) recycle used **lead acid batteries**.

How to recycle e-waste:

- Use your local council's e-waste services, or find a nearby e-waste recycling option, by searching on



[RecyclingNearYou.com.au](http://RecyclingNearYou.com.au) or calling our hotline on 1300 733 712;

- If your area does not yet have access to the free *National Television and Computer Recycling Scheme*, safely store your items in a dry place until there is a collection point near you. You can find out more about the Scheme at [RecyclingNearYou.com.au](http://RecyclingNearYou.com.au);
- For commercial e-waste, find your nearest recycler on [BusinessRecycling.com.au](http://BusinessRecycling.com.au).

## What happens to the e-waste?

E-waste items that are collected for recycling generally undergo a manual dismantling process, which is different for each type of e-waste. Individual materials such as cabling, circuit boards, glass, metals and plastics are recovered, and then processed for use as raw materials in new products.

- **Computers and accessories** can often be refurbished with new software and some replacement parts, then made available to lower-income communities.
- Cathode ray tube glass from **televisions** can be recycled into new television and computer monitors.
- Recycling **whitegoods** involves firstly removing any hazardous materials such as gases, chemicals or heavy metals from the appliance. Whitegoods are then crushed and shredded for recycling.
- Other items like **power tools** have cadmium-containing batteries that in some cases can be returned to battery manufacturers to create a fully closed loop recycling system.

## More information

[BusinessRecycling](http://BusinessRecycling)

[National Television and Computer Recycling Scheme](http://NationalTelevisionandComputerRecyclingScheme)

[‘Cartridges 4 Planet Ark’](http://Cartridges4PlanetArk)

[MobileMuster](http://MobileMuster)

[Battery Buzz Recycling Information](http://BatteryBuzzRecyclingInformation)

### Did you know?

- The average lifespan of computers in developed countries dropped from six years in 1997 to just two years in 2005.
- Australians update their mobile phone every 18 to 24 months.
- It is less expensive and more environmentally friendly to buy a digital set-top box or digital recorder than to replace and dispose of your non-digital television.



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