



E- Waste

Electronic waste is one of the fastest growing contributors to our waste stream. As more and more outdated electronic equipment ends up in landfill, the negative impacts of e-waste on the environment and humans will increase.

The Problem

Electronic waste can come in many forms including computers, photocopiers, printers, faxes, monitors, batteries and mobile phones.

Why it is a problem

Some of these items can be highly toxic and environmentally damaging.

The following harmful substances can be found in everyday e-waste⁴:

- Lead in cathode ray tubes and solder
- Mercury in switches and housing
- Arsenic in cathode ray tubes
- Antimony trioxide as flame retardant
- Selenium in circuit boards
- Cadmium in semiconductors
- Cobalt in steel for magnets

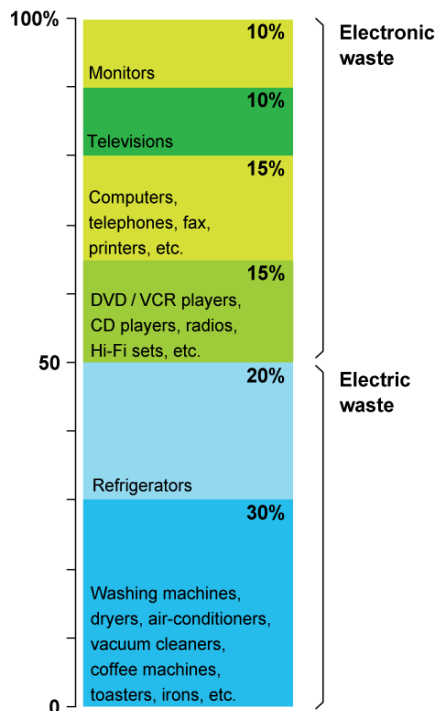
E-waste and the environment

When e-waste is sent to landfill, poisonous substances can leach from decomposing waste and into the environment. These substances can seep into groundwater, contaminate the soil and enter the food chain.

E-waste and people

There is a risk that humans may develop health problems by coming into contact with the toxins. These include respiratory ailments, reproductive, developmental and nervous system problems.

What makes up e-waste?



Additional categories: lighting equipment (fluorescent tubes); toys, sports and recreational equipment; electric and electronic tools (drills, sewing machines, lawn mowers, etc); surveillance and control equipment; medical instruments; automatic ticket machines.

Source : EMPA Swiss Federal Laboratories for Materials Testing and Research (definition according to the European Union WEEE Directive).

E-waste: a growing problem

In 2008, there has been an estimated 37 million computers in Australia that were already in landfill or sent to landfill⁵. With over 3 million computers being sold every year in Australia and only a small percentage being recycled, e-waste continues to be a growing problem for the environment.

Did you know?

- 75% of the 3 million computers bought in Australia every year will end up in landfill.²
- In 2007/8, 16.8 million computers reached their end of life. Of this, only 9% will be recycled.³
- By 2010, there will be 716 million new computers in use worldwide.¹
- Electronic waste is responsible for 70% of the toxic chemicals such as lead, cadmium and mercury found in landfill.¹
- E-waste is being sent to landfill at three times the rate of general waste.¹
- 17 million televisions were either in landfill or sent to landfill in 2008.⁵





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What you can do to be part of the solution

Although it is unavoidable for electronic equipment to eventually become redundant, you can follow the below tips on minimising the impact your home or office e-waste has on the environment.

Most types of e-waste contain many valuable resources that can be recovered and reused. Often much less energy is needed to recover these resources than to produce new materials.

Avoid

- If you decide to buy any new equipment, ask the manufacturer about reuse and recycling options and avoid those that do not.
- Avoid disposable products. Only buy products that are durable, repairable and have a good warranty.
- Consider leasing equipment that can be returned to the manufacturer when it is no longer needed.
- Engage service providers who replace and refill components of leased equipment when they have been used.
- Toners and some inks are now being produced with biodegradable oils such as soybean oil, which are much less toxic than petroleum based toners and inks.

Reduce

Where economically feasible, repair machinery, appliances and equipment in preference to purchasing new equipment.

Re-use

- Check around local schools/charities to see if they can use your surplus appliances.
- There are many companies that will refurbish your old computer equipment for use by those who cannot afford new items.
- Many ink cartridges can be refilled with ink for reuse using toner refill kits.
- Alkaline batteries can be recharged.

Recycle

- Take electrical goods and scrap such as copper wiring to electronic recyclers.
- Cathode ray tubes of televisions and computer screens can be recycled.
- Visit the e-waste section of www.cleanup.org.au for a list of e-waste recyclers in your state.
- Most councils provide e-waste recycling services or know of local businesses that do. Contact them if you are in doubt on what to do with your e-waste.

References

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- 5) PlanetGreen
<http://www.planetgreenrecycling.net.au/ewaste-growing-problem.php>
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<http://www.shoroc.nsw.gov.au/pdf/Fact%20Sheet%201%20-%20Electronic%20Waste%20in%20Australia.pdf>

