

# Managing e-waste at resource recovery centres

Electronic waste or 'e-waste' is classified as a combustible recyclable and waste material that could create a fire hazard if not stored correctly. Operators should comply with the Environment Protection Authority Victoria's (EPA's) *Waste Management Policy (Combustible Recyclable and Waste Materials)*.

## Key points

- › E-waste is any electrical or electronic equipment with a power cord or battery. It is the fastest growing type of waste generated by Australians.
- › E-waste can contain both hazardous and valuable materials that can be safely disposed of through treatment or recovered for reuse.
- › From 1 July 2019, all e-waste is banned from landfill in Victoria.
- › Various acts, regulations, standards and guidelines apply to e-waste at resource recovery centres and transfer stations.

## What is e-waste?

E-waste is any electrical or electronic equipment with a power cord or battery. E-waste is divided into two categories – specified and non-specified:

<b>Specified e-waste</b>	<ul style="list-style-type: none"> <li>› Cathode-ray tube from computer monitors and televisions</li> <li>› Flat panel monitors and televisions</li> <li>› Information technology and telecommunications equipment, e.g. computers, including printers, computer parts and accessories</li> <li>› Lighting, e.g. fluorescent bulbs</li> <li>› Photovoltaic panels, e.g. solar panels</li> <li>› Rechargeable batteries and non-rechargeable batteries</li> </ul>
<b>Non-specified e-waste</b>	All other electrical or electronic equipment with a power cord or battery, for example, large electronic furniture (e.g. chairs with lifting mechanisms) and small appliances such as toasters, battery-powered toys and pedestal fans.

## Potential hazards

E-waste contains many materials which can pose hazards to human health and the environment, including:

- › broken glass or sharp edges of metal or plastic
- › exposure to toxic chemicals
- › exposure to heavy metals and mercury vapours.

## Regulations

A new Waste Management Policy (E-waste) came into operation from 1 July 2019 (No. G26, Gazette 28 June 2018). This policy aims to reduce e-waste in landfill, increase resource recovery and ensure e-waste is managed in a way that minimises risks to human health and the environment.

Some of the acts, regulations, standards and guidelines that apply to the safe handling, storing, transferring, transporting and recycling of e-waste are listed below.

<b>Occupational health and safety (OHS)</b>	Occupational Health and Safety Act 2004
	Occupational Health and Safety Regulations 2007
	Compliance code: Hazardous manual handling (WorkSafe Victoria, 2018)
<b>Environmental</b>	Liquid storage and handling guidelines (EPA publication 1698)
	Environment Protection Act 1970
	Environment Protection (Industrial Waste Resource) Regulations 2009
	National Television and Computer Recycling Scheme – guide for local government
<b>EPA waste management policies</b>	Management and storage of combustible recyclable and waste materials – guideline (Publication 1667.2, October 2018)
	Waste Management Policy (Combustible Recyclable and Waste Materials)
<b>Australian standards</b>	Waste Management Policy (E-Waste) – from 1 July 2019
	AS/NZS 5377:2013 – Collection, storage, transport and treatment of end-of-life electrical and electronic equipment

## Storing e-waste

All e-waste must be collected, managed and stored in compliance with the Waste Management Policy (E-waste) and key requirements of AS/NZS 5377:2013, including:

- › protection from weather
- › avoiding breakage
- › storing on an impermeable and bunded surface
- › clear signage in collection and storage areas in line with Sustainability Victoria's signage guide
- › keeping records of e-waste received and transferred.

E-waste should meet the EPA's *Liquid storage and handling guidelines* (publication 1698), which replaces the Bunding guideline (publication 347). While e-waste is not classified as a liquid, it is necessary to contain or isolate a site from groundwater and stormwater systems at times of high risk (such as fire and fire water or foam run-off) and give additional time to contain, clean up or manage pollutants and prevent liquids from leaving the site.

## Collecting and recycling e-waste

For best practice, get a certificate of reuse, processing or recycling from the receiving facility.

The minimum requirements are to:

- › only use an experienced collection contractor with all necessary approvals
- › use a suitable transport process, such as cages or bulk bins
- › ensure e-waste goes to a known and appropriately licensed location for disassembly and processing.

E-waste may leak hazardous or toxic materials into the landfill and the surrounding environment. From 1 July 2019, e-waste can no longer be disposed of at landfill.

## Record keeping

Keep records of all e-waste received and sent for recycling. This enables tracking of material from site, as well as helping to manage the amount being stored on-site.

Under the Waste Management Policy (E-waste), e-waste service providers must record information about specified e-waste. Refer to the policy for record-keeping requirements for e-waste service providers.

Requirements can include:

- › recording incoming televisions, computers or other e-waste items received at the gatehouse
- › a monthly stocktake of e-waste materials stored on-site compared with the maximum allowable number (could use photographs or videos to support this)
- › recording the number and weight of e-waste collected from site by approved contractors.

## For more information

**Department of Environment and Energy – National Television and Computer Recycling Scheme**  
Phone 1800 332 783  
[environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme](http://environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme)

**WorkSafe Victoria**  
Phone (03) 9641 1444  
or 1800 136 089 (toll free)  
[worksafe.vic.gov.au](http://worksafe.vic.gov.au)

**EPA Victoria**  
Phone 1300 372 842  
or 1300 EPA VIC  
[epa.vic.gov.au](http://epa.vic.gov.au)

**Sustainability Victoria**  
Phone (03) 8626 8700  
[sustainability.vic.gov.au](http://sustainability.vic.gov.au)

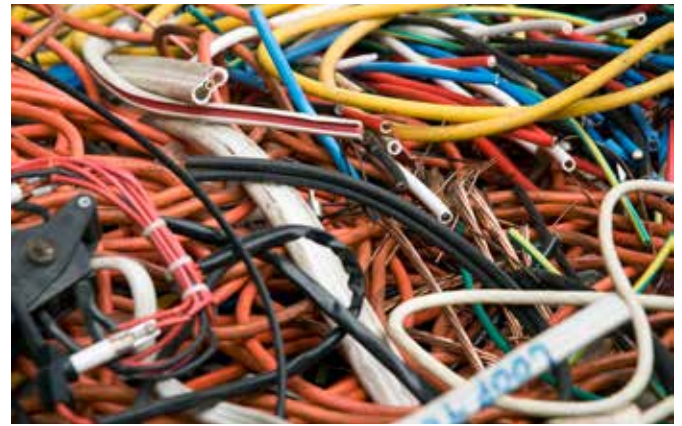


Photo credit: Metropolitan Waste and Resource Recovery Group

## E-waste and the circular economy

Sustainability Victoria is actively promoting a transition to a circular economy and reducing reliance on raw materials in production processes by continuously cycling materials of all types back through supply chains.

With e-waste being the fastest growing type of waste generated by Australians, recovery and reuse of precious materials is essential.

E-waste is recovered in several ways, depending on the item, and can be repurposed for use in new batteries, electronics, homewares and more. The goal is to make a closed loop, where a new product is made from fully recovered components instead of raw materials. These recovered components can then be recovered again and again.

Once all the different components of your e-waste are back in the supply chain, they can be reused to make a variety of items as outlined in the table below.

<b>Recovered component from e-waste</b>	<ul style="list-style-type: none"><li>› Plastic</li><li>› Batteries</li><li>› Precious metals</li><li>› Glass</li><li>› Other metals</li></ul>
<b>New uses</b>	<ul style="list-style-type: none"><li>› Plastic fence posts, pallets, casings, toys, keyboards</li><li>› New batteries</li><li>› Jewellery, reuse in new electronics</li><li>› New screens for televisions and monitors, homewares</li><li>› Reuse in new products, cabling</li></ul>

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