The background of the entire page is a photograph of a large pile of electronic waste (e-waste). The items are densely packed and include various types of computer hardware such as monitors, towers, and peripheral devices. Some items have brand names like 'acer' visible. The lighting is somewhat dim, and the overall color palette is dominated by greys, blacks, and muted blues, with a slight greenish tint in some areas.

# Television and Computer Recycling in NSW

A guide for councils, social enterprises, e-waste recyclers and collection partners

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## About this guide

This guide is for local councils, recyclers and other organisations who wish to know more about television and computer recycling in New South Wales.

It provides some practical tips on:

- » how to get good value and results from the Australian Government's National Television and Computer Recycling Scheme (NTCRS)
- » how to avoid some of the pitfalls experienced by some local councils and e-waste recyclers during the early years of the recycling scheme
- » what to look for when negotiating an agreement with e-waste service providers.

It also includes a brief summary of the NSW laws that apply to managing e-waste and advice about e-waste recycling options outside the government-funded scheme.

This is not a detailed legal guide to the *Product Stewardship Act 2011* and Product Stewardship (Televisions and Computers) Regulations 2011. Organisations wishing to offer services for recycling e-waste should obtain their own independent legal and technical advice.

# About the National Television and Computer Recycling Scheme

The main mechanism for collecting and recycling television and computer waste in Australia is the National Television and Computer Recycling Scheme (NTCRS). This scheme is regulated by the Australian Government and has been operating throughout Australia since 2011.

Under the scheme, Australian manufacturers and importers of televisions and computers are required by law to share the responsibility and the cost of recycling and disposal of these products. Most of the funding for the scheme comes from the television and computer industry, with significant support from local councils, retailers, social enterprise recyclers and other specialist waste industry service providers.

## Aims of the recycling scheme

The aims of the NTCRS are to:

- » reduce waste going to landfill, especially the hazardous materials found in e-waste
- » increase recovery of reusable materials in a safe, scientific and environmentally sound manner
- » provide access for households and small businesses Australia wide to an industry-funded recycling service.

## How does the recycling scheme work?

Under the NTCRS, companies who manufacture or import televisions, printers and computer products over a certain volume, are required to join an approved **co-regulatory arrangement or CA**. The CAs work in cooperation with councils and waste businesses to provide facilities and services for collecting and recycling televisions and computers.

The CAs must collect and recycle an increasing proportion of the end-of-life televisions and computers generated in Australia each year – rising from an estimated 17% in 2010–11 to 80% by 2026–27. The remaining waste televisions and computers, along with all other e-waste, is the responsibility of local, state and territory governments.

All the parties involved – councils, the waste industry, e-waste specialists, manufacturers and importers – need to work together cooperatively to deal with the waste generated by discarded televisions and computers.

The CAs must meet a material recovery target of 90% of materials. The 90% figure relates to the proportion of television and computer by-products which must be sent, after recycling, for processing into usable products and materials.

## How is the scheme performing?

Throughout Australia, the NTCRS has driven an increase in recycling infrastructure, e-waste recycling activities and community awareness. The scheme has kick-started community collection events, permanent drop-off sites and retailer support.

The Australian Government reports that over 130,000 tonnes of television and computer waste has been recycled since the scheme began, with more than 1800 collection services provided to householders and small businesses.

However, there have been some negative outcomes for the scheme in New South Wales. For example, the true cost of lawful recycling of some materials was poorly understood by some of the new e-waste businesses. One of these materials is television cathode ray tube (CRT) glass, which is costly to recycle because it contains high levels of lead that can pose significant health and environmental risks if not managed properly. This led to the stockpiling of television CRT glass.

In 2014, the NSW Government responded with urgent funding of \$1.5 million to help recyclers deal with the stockpiled CRT glass. At the same time, the NSW Government funded assessment of recycler's business models to prevent similar problems cropping up again.

The lessons from the early years of the scheme are now being used to help deliver a more sustainable, community-friendly service that has measurable environmental, social and economic benefits.

## Recent changes to the scheme

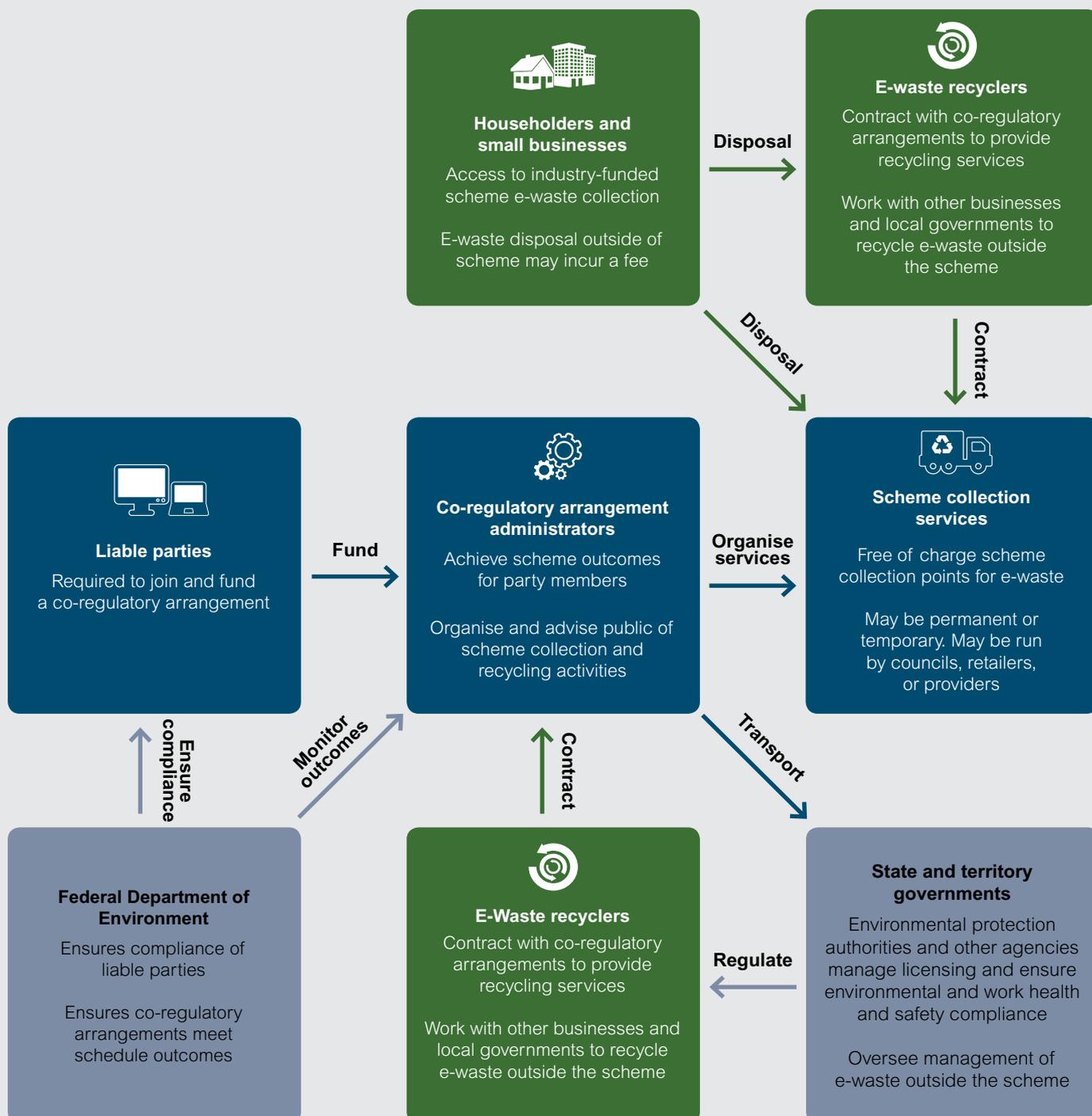
The Australian Government recently reviewed the NTCRS in response to problems raised by the recycling industry as well as some social enterprises, local councils and state governments. As a result several changes have been made to the scheme. These changes began on 1 July 2015 and include:

- » revised recycling targets – starting at 50% in 2015–16 and rising to 58% in 2016–17, 62% in 2016–17 and reaching 80% in 2026–27
- » certification – from 1 July 2016, recyclers and facilities will need to be certified to Australian Standard AS/NZS 5377:2013 *Collection, storage transport and treatment of end-of-life electrical and electronic equipment*.

In addition, the Australian Government will hold a more comprehensive review of the operation of the scheme during 2016–17. This is required under the *Product Stewardship Act 2011*.

# Roles and responsibilities

Source: Adapted from the Australian Government, [environment.gov.au/protection/publications/infographic-roles-and-responsibilities-infographic](https://environment.gov.au/protection/publications/infographic-roles-and-responsibilities-infographic)



# Tips for local councils, social enterprises and other stakeholders

## Establishing positive partnerships

Developing positive and productive partnerships with all the parties that will be involved in your collection and recycling program is one of the most important aspects of managing e-waste.

The key to positive partnerships is discussion and clear communication from the outset, and then regular contact with all parties involved.

This includes the relationships – formal and informal – that are developed between councils, social enterprise recyclers and CAs. Partnerships based on mutual benefits, clear objectives and agreed outcomes can provide the foundation for an enduring e-waste collection and recycling service.

As with many large-scale programs, it's important to avoid a 'set-and-forget' mode of operating. The partners will need to work together to identify and implement ongoing improvements to the collection and recycling service.



- If your organisation is unsure about aspects of the NTCRS and what the various parties' obligations and requirements might be, contact the Australian Government NTCRS Regulator (see 'More information' for contact details).
- Maintain a 'paper trail' at all times, to help ensure matching of expectations. Formal written documentation and correspondence between all parties is essential and reduces the risk of surprises and problems.
- Ask the CA to provide a single point of contact for all matters relating to your participation in the NTCRS. This can help to resolve any issues and build a strong relationship.
- Partnering with a CA needs to be a two-way process. Ensure you each identify and clearly set out how you will manage potential challenges and risks as part of this business relationship.
- Set regular progress meetings between your organisation and the CA and use these to discuss what's working well and to identify opportunities for improvement.
- Look beyond the current service provided by the CA and ask about their future plans, especially in relation to how they will support your organisation with ongoing publicity, marketing and community education.
- Given the current scope of the NTCRS is limited to television and computer waste, ask the CA how they can assist with by-catch e-waste such as DVD and VCR players, audio and hi-fi equipment, microwave ovens and other consumer electronics.
- Look for opportunities to create partnership between CAs, schools, non-government organisations and other community service organisations.

## Managing the risks, roles and costs

Be very clear about who does what. This is particularly important because there are several different parties involved in e-waste recycling.

Be wary of any CA or subcontractor resisting the need for formal written agreements. Deals executed on the basis of 'handshakes' and 'verbal commitment' have no legal or administrative standing and represent a high-risk approach to managing television and computer waste.

Casual and informal 'deals' also leave councils and social enterprises exposed to a multitude of issues including public liability, ad hoc withdrawal of collection and recycling services, as well as breaching the governance requirements that most organisations have in place.

A common concern expressed by many local councils is the one-sided nature of contracts and agreements imposed by some CAs. Formal contracts or agreements are essential but they need to be balanced, two-sided and mutually agreed.

Be clear on all the financial aspects of your organisation's relationship with CAs. You need to understand upfront exactly who will pay for what activities. With this in mind you can assess whether the arrangement is fair and reasonable, typical, and in the spirit of the NTCRS objectives and outcomes.



### Tips

- Identify the risks associated with participating in the NTCRS and any partnerships. Ensure this process is consistent with your organisation's overall approach to risk management.
- Formalise your participation in the NTCRS and ensure that any arrangements are formally documented in an appropriate joint agreement. Most importantly, ensure your agreement reflects a balanced approach to working cooperatively.
- If in doubt about any risks or concerns associated with your participation in the NTCRS, and the relationship with your CA or their provider, seek clarification in writing.
- Based on issues experienced by some councils and social enterprises in New South Wales, be sure to check on service agreements, termination clauses, volume limits and any other CA requirements that might have financial implications for your organisation.
- Ask CAs about their quotas, volumes and targets and how these might impact on your organisation's collection and recycling activities.
- If you believe there may be some significant risks associated with being a collection or recycling partner with a CA, seek advice and have contracts reviewed by a lawyer. Take any resulting feedback to the CA for discussion and resolution.
- Check with other local councils to compare contracts or agreements and see how similar organisations have managed the process. Learn from others' mistakes and experiences.
- Ask for detailed information about downstream processes and processors and what actually happens to the television and computer waste collected.
- Request support and training from the CA in relation to workplace health and safety issues concerning the collection and recycling of television and computer waste from your sites or community events.

## Community education and marketing

The success of any product recovery and recycling scheme depends on effective and ongoing community education. A good community education campaign is essential to raise awareness and maximise behaviour change and participation.

Since it began, the NTCRS has slowly built a profile in the community, much of this through promotion and advertising conducted by local council collection partners. Some of the CAs are also investing in awareness-raising activities; however, these can sometimes be about self-promotion rather than providing comprehensive community education.

The NTCRS needs to fulfill ambitious collection and recycling targets over the coming years. To achieve this the CAs will need to dedicate adequate resources and funds for community education and marketing campaigns. The community needs to understand the importance of recycling television and computer waste, and know about drop-off locations and events.

Councils also need to make sure the community understands who is paying for their e-waste recycling service. The CAs cover these costs in some areas, but many councils fund and run their own e-waste recycling services for householders. For the community, knowing how the service is being funded is an important aspect of understanding how and why television and computer waste is being managed by industry as well as local councils, social enterprises and other service providers.



- Ask for a marketing and communications plan dedicated to your organisation's role in the NTCRS.
- Ensure your council's intended approach for other e-waste is consistent with the messaging for the NTCRS collections.
- Be very clear on the CA's marketing and communications activities for your organisation and associated events or site promotions.
- Make sure all parties clearly understand the respective roles and responsibilities related to marketing, communications and education activities.
- Be clear on who will sign off on media releases. Make sure your organisation has the opportunity to review, amend and approve any media releases as well as other marketing and communication content such as social media content, blog posts, CA webpages and similar channels.
- Ensure that all marketing and communication plus related activities, budgets, roles and responsibilities are clearly set out in any contract or agreement between your organisation and the CA and their providers.
- Where appropriate, use co-branding to reflect the contribution of your organisation.
- Discuss how the CA can support school education activities in your area, with a view to building widespread community awareness about responsible e-waste recycling.
- Make sure your organisation's financial and in-kind contributions to community education aspects of the NTCRS are clearly documented by the CA in any partnership agreement.

## Which environmental laws cover e-waste?

The NTCRS is regulated by the Australian Government under the *Product Stewardship Act 2011* and the Product Stewardship (Televisions and Computers) Regulations 2011.

In addition to the Product Stewardship Act and Regulations, all NTCRS participants operating in New South Wales must also comply with relevant NSW regulations.

In NSW, e-waste is managed as a 'waste' under the *Protection of the Environment Operations Act 1997* (the POEO Act) and the Protection of the Environment (Waste) Regulation 2014 (the Waste Regulation). It is the responsibility of businesses generating, storing, recycling, processing, transporting or disposing of waste to be aware of all the regulatory requirements that apply to their activities. NSW legislation is available at [legislation.nsw.gov.au](http://legislation.nsw.gov.au).

The following summary outlines some basic requirements for dealing with waste, but you should seek detailed independent advice about compliance.

### **Waste must go to a lawful facility**

Waste must be transported to a facility that can lawfully accept that type of waste. The POEO Act sets out significant penalties of up to \$1,000,000 for transporting waste to a place, or using a place as a waste facility, that cannot lawfully be used for that waste.

Where relevant, the facility must also hold an environment protection licence issued by the NSW Environment Protection Authority (EPA). An environment protection licence can only be issued for sites that have development consent from a consent authority (such as local council) for that activity. The environment protection licence will set conditions, such as operating hours, monitoring conditions and limits on the type and quantity of waste that can be received at the site. Information on waste and resource recovery facilities that are required to be licensed in NSW is available from the [EPA website](#).

In general the EPA regulates licensed facilities and local councils regulate all non-licensed facilities. If you are unsure about whether a site is a lawful waste facility, contact your local council or the EPA.

## Classification of e-waste

All waste is classified according to the level of risk it poses to the environment and human health.

In NSW, televisions, computers, printers and computer products received intact and unprocessed by a waste facility are considered as 'general solid waste (non-putrescible)'. A facility will require an environment protection licence if it receives general solid waste (non-putrescible) and exceeds specified thresholds. Refer to Schedule 1 of the POEO Act for these thresholds.

In NSW, intact cathode ray tubes (CRTs) are classified as 'general solid waste (non-putrescible)'. However, if the tubes are crushed there is a risk of lead leaching from the glass, so the glass is considered as a 'hazardous waste'. A NSW facility that receives crushed CRTs must comply with all requirements relating to hazardous waste. Refer to Schedule 1 of the POEO Act for the thresholds that apply to receiving hazardous waste.

## Transporting wastes

Under the Waste Regulation, some wastes must be tracked when transported into, within or out of New South Wales. To find out whether a waste must be tracked, see the fact sheet Waste that must be tracked on the EPA website. E-waste recyclers need to comply with these requirements.

If tracking is not required, general requirements for the transport of waste apply. The waste consignor, transporter and receiving facility all have obligations to ensure that waste is properly transported to a lawful facility.

## Landfill disposal

All recycling and re-use opportunities should be considered before sending waste to landfill.

In NSW, intact e-waste (whole TVs and CRTs) can be disposed of at landfills that are licensed to receive that waste. However, hazardous waste such as crushed CRT glass is prohibited from landfill disposal. Large amounts of intact e-waste may also pose significant risks. Such waste may require treatment such as 'immobilisation' before it can be disposed of at a licensed landfill. For more information, see Waste immobilisation on the EPA website, and refer to Part 2: The EPA Waste Classification Guidelines: Immobilisation of Waste.

## Accidental breakages

Accidental breakages should be managed in line with NSW WorkCover health and safety requirements and Australian Standard AS/NZS 5377:2013 *Collection, storage, transport and treatment of end-of-life electrical and electronic equipment*. Based on this Standard, accidentally broken CRTs should be managed safely, as if hazardous, and stored in a separate robust container that is clearly labelled until it can be recycled or processed further. More information is available from NSW WorkCover.

## Other options for recycling e-waste

In addition to the co-regulatory arrangements operating under the NTCRS, there are several other options for householders and small businesses who wish to recycle e-waste. They include commercial fee-for-service providers, as well as funded and subsidised initiatives.

There is a growing number of e-waste aggregators, dismantlers and recyclers entering the market in New South Wales and nationally. These companies provide a range of services and often focus on collection, re-use, remarketing and recycling services for businesses, government agencies and institutions.

Some of these providers may be a viable option for some organisations, especially where larger quantities are generated through company-wide refresh programs and bulk volume asset disposal. In some cases, the services provided include data destruction of associated media storage devices including hard drives, tapes and discs.

However, it is important to ensure that any provider holds and complies with the relevant certifications and licences needed to undertake the specified e-waste processing and treatment. Find out if they have a valid NSW environment protection licence by checking the [EPA public register](#). It is vital that providers have high levels of environmental performance, as well as robust workplace health and safety practices.



### **When considering any collector, remarketer, dismantler or recycler of e-waste, ask the following questions:**

- Does the provider have an Environmental Management System that is independently certified to ISO 14001?
- Do they operate in accordance with Australian Standard AS/NZS 5377:2013 Collection, storage, transport and treatment of end-of-life electrical and electronic equipment?
- Are they independently audited to this Standard?
- Does the provider work to any other relevant standards such as the e-waste industry R2 Standard?
- Is the provider certified to any other relevant standards such as ISO 9001 (Quality) or AS/NZS 4801 and OHSAS 18001 (Occupational Health and Safety)?
- Does the provider hold any other type of environmental or sustainability certification, quality mark, label or independent endorsement that indicates their commitment to, and action, on responsible e-waste management?

It is always useful to seek references and talk with existing customers when considering the engagement of a specialist e-waste management provider. Get to know the business and how they operate so you can understand their processes and level of environmental expertise.

## Funding possibilities

The demand for e-waste recycling services has exceeded the target volumes anticipated for the NTCRS. This has resulted in some local councils accumulating television and computer waste for which there are no external funds to cover the recycling costs. It has also led to some CAs withdrawing their funded collection and recycling services from councils and social enterprises, nationally and in New South Wales.

The Australian Government sees this funding shortfall as a short- to medium-term challenge. Increasing recovery targets combined with cost-effective innovations are expected to help address this situation. However, councils, businesses purchasing equipment and recyclers also need to think about other options that could fund the growing demand for recycling television and computer waste.

The following possibilities might be viable in the absence of a funded service:

- » seek additional budget from internal sources to meet demand, or revert to the e-waste recycling funding source used before the NTCRS was instigated.
- » a fee-for-service approach could be applied, similar to other waste streams. This could be managed through a cost-per-unit approach on a permanent basis at waste transfer stations and recycling centres, or through dedicated temporary events with a flat rate or 'gate fee'.
- » a fee-for-service approach could also be used for direct pick-ups booked by residents, especially the elderly, the frail or those without access to vehicular transport.
- » organisations leasing or buying information technology in larger volumes, should confirm the disposal and recycling options at the time of leasing or purchasing. Several brands, manufacturers and business-to-business distributors provide collection, re-use and recycling services as part of their overall service to customers.



### **Check whether charges rule out participation in the NTCRS**

The NTCRS is intended to provide a free e-waste recycling service to householders and small businesses. Councils should seek advice from the regulator and CAs or obtain their own legal advice if charges (to householders or small businesses) are being considered. Charging a fee may mean the television and computer waste cannot be accounted for as part of the NTCRS.

## More information

For more information about the NTCRS contact one of the organisations below. For enquiries about how the scheme works or how to participate, start with the Australian Government NTCRS Regulator.

### Australian Government NTCRS Regulator

Australian Government Department of the Environment: [www.environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme](http://www.environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme)  
[ewaste@environment.gov.au](mailto:ewaste@environment.gov.au)  
Product Stewardship Line: phone 1800 332 783

### NTCRS co-regulatory arrangements

Australia & New Zealand Recycling Platform  
[techcollect.com.au](http://techcollect.com.au)

MRI PSO  
[dropzone.org.au](http://dropzone.org.au)

E-Cycle Solutions  
[ecyclesolutions.net.au](http://ecyclesolutions.net.au)

Electronics Product Stewardship Australasia  
[epsaewaste.com.au](http://epsaewaste.com.au)

### Industry and community associations

Australian Council of Recycling  
[acor.org.au](http://acor.org.au)

Community Recycling Network  
[communityrecycling.com.au](http://communityrecycling.com.au)

Waste Management Association of Australia  
[wmaa.asn.au](http://wmaa.asn.au)

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