

The Australian Industry Group

Waste – Australian State of Play



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About Australian Industry Group

The Australian Industry Group (Ai Group) is a peak industry association in Australia which along with its affiliates represents the interests of more than 60,000 businesses in an expanding range of sectors including: manufacturing; engineering; construction; automotive; food; transport; information technology; telecommunications; call centres; labour hire; printing; defence; mining equipment and supplies; airlines; and other industries. The businesses which we represent employ more than 1 million people. Ai Group members operate small, medium and large businesses across a range of industries. Ai Group is closely affiliated with more than 50 other employer groups in Australia alone and directly manages a number of those organisations.

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Information in this document was accurate as at February 4, 2020, however waste is a fast moving space and information should be checked.

Introduction

Waste management and resource recovery are growing challenges for industry and the community. The long-term vision of a circular economy is compelling, the community reaction against plastic waste is clearly strengthening, and bans on international transfer of some of our waste streams make better local waste management urgent. However, there are many barriers to the kind of waste management and resource recovery outcomes that industry and the community would like to see, including the difficulty of sustaining markets for recovered materials where they are more expensive than or different in quality to virgin materials. Innovation in technology, business models and policy will be needed.

This document seeks to establish the Australian state of play in the waste area, including the national scene, state matters and the exploration of similarities and differences between state waste levies.

GLOSSARY

- **Circular Economy** is usefully defined by the World Economic Forum as “an industrial system that is restorative or regenerative by intention and design. It replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals and aims for the elimination of waste through the superior design of materials, products, systems and business models.”
- **Core Waste** is “waste generally managed by the waste and resource recovery sector, comprising solid non-hazardous waste and hazardous waste including liquids, and generated in the municipal, construction and demolition, and commercial and industrial sectors generally excluding primary production and including biosolids,” (National Waste Report, 2018).
- **MSW** – Municipal Solid Waste (MSW)
- **C&I** – Commercial and industrial (waste)
- **C&D** – Construction and demolition (waste)
- **CDS** – Container Deposit Scheme
- **Waste Hierarchy** - The Waste Hierarchy framework (depicted below) is a touchstone for all governments’ waste policy. Ai Group note that the Hierarchy is a reasonable rule of thumb but can be very problematic if applied dogmatically; cost and practicality are crucial in deciding among options.



Image Source: [NSW EPA](#)

The National Scene

Key Data

- Compared with a selection of other developed economies, Australia generates more waste than the average and the proportion it recycles is a little less than the average¹.
- The waste industry includes commercial collection, processing, disposing and recycling activities. It employed 31,000 people and was worth \$4.2 billion in value-added output in 2016-17².
- In 2017-18, 54% of recyclable plastics collected were exported for recycling (this percentage has doubled since the year 2000). Though plastics recycling has increased significantly over the past few decades, it's resulted in increased exports rather than local expansion. The Australian local plastics recycling sector is currently smaller than it was in 2005³.
- In [2016-17](#), the Australian economy generated or imported 68.9 megatonnes of waste, of which the largest contributors were:
 - Construction (20.4 megatonnes, 29.6%)
 - Households (13.8 megatonnes, 20.0%)
 - Electricity, gas, water and waste services (12.7 megatonnes, 18.4%)
 - Manufacturing (10.8 megatonnes, 15.6%)
- Waste generation for the Electricity, gas, water and waste services industry included 12.3 megatonnes of ash from coal-fired power plants which is the main driver of the industry's high waste intensity score.
- Australian households generated 45.6% (1.2 megatonnes) of all plastic waste generated across the economy.
- The Productivity Commission last examined waste issues in 2006. That [report](#) is now over 14 years old and the issues addressed are due for a fresh look.

Policies, Bans and other National Concerns

Waste Export Restrictions and Bans

- Global and local markets for recyclable materials such as paper/cardboard, plastics and glass were all volatile in 2019⁴ and this will continue in 2020.
- In early 2018, China began restrictions on the importation of recycled materials under its National Sword policy and other countries have and continue to follow suit. This has challenged recycling activities across Australia (and other advanced economies). Despite this, exports of waste materials for recycling in 2017-18 were the highest yet observed⁵.
- Australia has a broad sorting and processing system outside of its kerbside recycling activities. Much of what is handled outside of the kerbside system is largely unaffected by the restrictions imposed by China and others⁶.
- In 2019 COAG Ministers committed to ban exports of waste plastic, paper, tyres, and glass. An action plan of targets and actions, including a waste export ban was confirmed by the [Meeting of Environment Ministers](#) (MEM) in November 2019.

¹ National Waste Report, 2018 p. 13

² Ai Group Economics Fact Sheet: Australian Waste Activity, 2019

³ Recycling Market Situation Summary Review, 2019

⁴ Ibid

⁵ Ibid

⁶ Ibid

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- The plan will require much elaboration to be implementable and this work will likely be intense throughout 2020.
 - Their [agreed statement](#) determined that the ban should commence on 1 July 2020 with a phased approach.
 - Ministers agreed the phase out should be completed by the following dates:
 - All waste glass by July 2020.
 - Mixed waste plastics by July 2021.
 - All whole tyres including baled tyres by December 2021.
 - Remaining waste products, including mixed paper and cardboard, by no later than 30 June 2022.
 - [Australia's National Waste Policy](#) (NWP) is to be supported by the [National Waste Policy Action Plan](#).
 - Key ban/restriction issues include:
 - Building technical capacity to recycle and economically sustainable local markets for recovered materials. This is difficult and likely to involve significant costs – at least at the outset of establishing a circular economy. There is no clear understanding of who will pay.
 - Industry feedback has generally been that the announced timelines are too tight.
 - If product producers and suppliers are responsible for all or some post-consumer waste management ('product stewardship'), free riding by unregulated or noncompliant suppliers would need to be managed.
 - Competition impacts of bans need to be understood.
 - The Commonwealth and States will need to work with waste handlers, waste generators, current and potential customers for recovered materials, and other stakeholders.
 - The ban timelines are not harmonised with the [APCO 2025 packaging targets](#).
 - Definitions are contentious, and may close the door on clean, viable export markets.

National Waste Policy (NWP)

- The initial [NWP](#) was developed by the Commonwealth and agreed with the States in 2009, inspiring many subsequent policy steps by all levels of government. An updated policy was published 2018.
- The policy aims to adhere to the waste hierarchy, however a locational dimension looms large in assessing what is the 'best' policy for different products in different places (scale, transport costs etc.).
- Australia needs a waste strategy that optimises as best as we can recognise them, costs and benefits in a way that is implementable. This could be a mixture of product and system design to minimise waste generation and ease recycling; circular economy loop-closing; waste to energy for the bulk of the remainder and landfill for material with no recycling value.

Key Commonwealth Activities

While the Commonwealth has no constitutional responsibility for waste issues, it has become involved in several ways.

- [The Product Stewardship Act 2011](#) (Cth) establishes the national framework for schemes that make product suppliers responsible for managing some share of post-consumer waste management. Issues include:
 - [National Television and Computer Recycling Scheme](#) (NRCRS)
 - Co-regulatory scheme, day to day admin is done by industry and industry created bodies that report to the Federal Government.

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- [Australian Packaging Covenant Organisation](#) (APCO)
 - Run by an industry-led body
 - Participation by eligible businesses that use packaging is mandatory but under current regulatory settings, APCO Members may face competitiveness concerns due to free riders in Australian and global supply chains⁷.
 - Consideration of new Product Stewardship Schemes
 - [Proposed Battery Stewardship Scheme](#) (Battery Stewardship Council)
 - Currently seeking approval to go ahead from ACCC
 - There is strong government support for a scheme of this type, and suggestion that in absence of an industry-led scheme, a mandatory regulation-based approach may be administered by government.
 - [Basel Convention](#)
 - An international commitment ratified by Australia regarding the transboundary movements of hazardous waste.
 - National Waste Policy ([NWP](#))
 - [The National Food Waste Strategy](#) (2017)
 - Key objective is to halve Australia's food waste by 2030
 - Chairs the [Meeting of Environment Ministers](#) (MEM)

⁷ Australian Packaging Covenant Strategic Plan 2017-2022 (Version 2), P.13

States Play a Key Role

State and territory governments have primary responsibility for managing waste through legislation, policy, regulation, strategy and planning, as well as permitting and licensing of waste transport, storage, treatment and disposal operations.

Each state is different in the policy frameworks they use to handle waste, and in the intensity with which they view the problem (and act on it). That said, there are some similar elements to their policy frameworks⁸:

- Landfill levies – most jurisdictions require landfills to pay some amount to the state for each tonne of waste sent to landfill.
- Strategy Document – most jurisdictions have a strategy to improve waste management over a specified period. In many cases, strategies set targets and performance indicators.

Challenges in state by state comparison:

- There is considerable difficulty in comparing the costs associated with waste disposal in the states, as they each use different levies, categories of waste and price by region (or lack thereof). It is also worth noting that the waste levy only makes up one component of the “gate fee”; the full price is set by the waste facilities themselves (all of them being different).
- As noted in the National Waste Report (2018), there are some data quality issues in this area, particularly given state and territory data systems have evolved largely independently. They also tend to focus on material managed in their jurisdiction. This creates risks of double-counting and incorrect estimates of recovery rates.

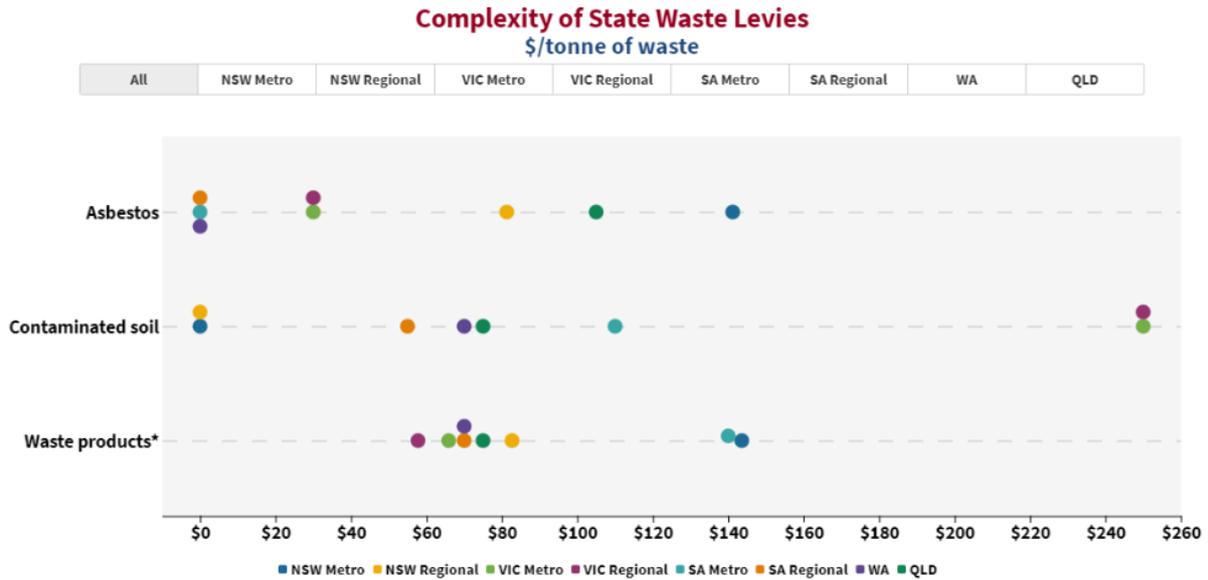
Common themes:

- Most states have cheaper levies for regional/rural areas (but the definition of what is regional and what is rural varies).
- There is significant complexity in levy costs across states.
- Several states are adopting container deposit schemes (small surcharges on beverage containers, refunded on recovery). Victoria is a notable hold out but have expressed a desire for harmonisation between states on waste matters.
- Most states current activities appear to be focused more on the handling of waste, generating value and reducing landfill – rather than on building the circular economy.

⁸ National Waste Report, 2018

Complexity of State Waste Levies

State levy comparisons and figures in this document should be used as a guide only. Figures are accurate as of January 2020, with the caveat that in order to compare, Ai Group had to generalise rural/regional levies, waste types and other factors.



Source: EPA NSW, EPA VIC, EPA SA, WA Department of Water and Environmental Regulation, QLD Government Levy Rates • Waste products can include MSW, C&I, C&D as well as 'waste', solid waste, putrescible waste and inert waste (unless otherwise stated). See state government websites for more detailed information.

More detail on state complexity data visualisation and sources, [here](#).

Sources: EPA NSW, EPA VIC, EPA SA, WA Department of Water and Environmental Regulation, QLD Government Levy Rates • Waste products can include MSW, C&I, C&D as well as 'waste', solid waste, putrescible waste and inert waste (unless otherwise stated). See state government websites for more detailed information.

New South Wales

Waste Levies

[2019/20 levies \(NSW\)](#)

(Waste Levy only applies in the [regulated area](#) of NSW)

NSW Metro

- Waste: \$143.60/t
- Virgin excavated natural material: \$129.20/t

NSW Regional

- Waste: \$82.70/t
- Virgin excavated natural material: \$74.40/t
- Coal washery rejects: \$15/t

Asbestos falls into the standard solid waste levy.

Strategy Document

[NSW Waste Avoidance and Resource Recovery Strategy 2014-21](#)

Other Initiatives

- Container deposit scheme (introduced late 2017)⁹
- Hazardous waste tracking
- Household chemical collections (CleanOut events at community recycle centers)
- [Waste Less Recycle More](#) (WLRM) Program until 2021
- Response to the China Waste Ban
 - 20 March 2018, the Minister for the Environment announced a one-off package of up to \$47 million to support local government and industry respond to China's policy. The package funds a range of initiatives to ensure kerbside recycling continues and to promote industry innovation.
 - The NSW EPA is also leading an inter-governmental Taskforce to find a longer-term response to China's policy, in partnership with industry and councils
- It is worth noting that unlike many other states, NSW does not have a ban on single use plastic bags

Waste Generated and Waste Recovered – NSW

NSW has a resource recovery rate of 62% and a recycling rate of 59% of core waste based on a reported 6,489/kt of core waste¹⁰.

⁹ [Return and Earn](#), NSW EPA

¹⁰ National Waste Report, 2018

Victoria

- Victoria's waste and resource recovery system has experienced significant challenges from recent disruptions in global recycling markets. In particular, the recycling system has faced major financial and operational challenges due to the sharp fall in commodity prices for mixed paper, plastic and cardboard.
- Since the collapse of contractor SKM Recycling in 2019 more recycled material has been sent to landfill¹¹ as councils struggle to manage the issue.
- Polytrade, another of Victoria's largest curbside recyclers, has recently come under fire for alleged underpayment and hazardous working conditions. If these claims are substantiated, this may result in further pressure on the recycling industry in Victoria¹².
- Australian Paper is proceeding with Victoria's first waste to energy project which will use kerbside rubbish to help power its Maryvale paper mill after completing the project's feasibility study. The company is working with Suez to secure 25-year contracts with Melbourne councils to supply the plant. Suez have a contract to supply a similar project in WA¹³.
- In 2016/17, Victoria reported that it had to spend \$12.5m to clean up illegally dumped waste in 609 clean ups¹⁴.
- Victoria has a high level of plastic recycling due to the large plastics manufacturing sector based in the state. Out of the 52,100 tonnes of plastics recovered in Victoria, 33,900 tonnes were pre-consumer/manufacturing scrap from the plastics sector. By comparison, only 15,400 tonnes of similar scrap recovery was reported in New South Wales¹⁵.

Waste Levies

[2019/2020 levies \(VIC\)](#)

VIC Metro and Regional

- Waste (MSW, C&I, C&D): \$65.90/t

VIC Rural

- Municipal Solid Waste: \$33.03/t
- Commercial and industrial (C&I) and Construction and demolition (C&D) waste: \$57.76/t

Prescribed industrial (hazardous) Waste

- [Category B](#): \$250/t
- [Category C](#): \$70/t
- Asbestos: \$30/t

Strategy Document

[Statewide Waste and Resource Recovery Infrastructure Plan \(2016-2046\)](#)

¹¹ ['Recycling in tatters, as some councils give up on glass collection,'](#) October 2019

¹² ['Massive wage underpayments at major recycler a 'national disgrace,'](#) October 2019

¹³ ['Australian Paper to proceed with Victorian-first energy-from-waste project,'](#) February 2019

¹⁴ National Waste Report, 2018

¹⁵ Recycling Market Situation Summary Review, 2019

Other Initiatives

- Landfill ban on 'Category A' prescribed industrial waste, paint, industrial transformers, grease trap waste, oil filters, whole tyres and large containers. E-waste ban from 1 July 2019.
- Single use bag ban.
- Hazardous waste tracking.
- Household chemical collections (statewide).
- [Victorian Organics Resource Recovery Strategy](#)
- [Recycling Industry Strategic Plan](#)
- [Waste Management Policy \(Combustible Recyclable and Waste Materials\)](#)
- [Waste to Energy Infrastructure Fund](#)
- Victoria has so far resisted a container deposit scheme, citing the following reasons¹⁶:
 - It will theoretically put consumers out of pocket.
 - It would jeopardise the state's kerbside recycling industry.
 - Investing funding in other recycling initiatives.

Waste Generated and Waste Recovered – VIC

Victoria has a resource recovery rate of 72% and a recycling rate of 68% based on a reported 3,672/kt of core waste¹⁷.

¹⁶ ['Why isn't Victoria on the Container Deposit Scheme bandwagon?'](#) April 2019

¹⁷ National Waste Report, 2018

South Australia

Waste Levies

[2020 Levies \(SA\)](#)

SA Metro Adelaide

- Solid Waste: \$140/t
- Liquid Waste: \$38.30/kL
- Shredder floc: \$70/t

SA Non-metro Adelaide

- Solid Waste: \$70/t
- Liquid Waste: \$38.30/kL
- Shredder floc: \$35/t

Packaged asbestos waste: no levy (to promote safe recovery)

Strategy Document

[South Australia's Waste Strategy 2015-2020](#)

Other Initiatives

- Container deposit scheme since the late 70s with a reported return rate of 76.4%¹⁸
- Landfill bans
 - Ban on a range of hazardous, problematic and recyclable materials, including most e-waste
- Single use shopping bag ban since 2009
- Hazardous waste tracking
- Household chemical collection (statewide household drop off)
- [China's National Sword Policy Response Support Package](#)
- [State Waste and Resource Recovery Infrastructure Plan](#)
- Disaster waste management planning
 - [Disaster Waste Management Capability Plan](#) and Guidelines were completed and incorporated under the State Emergency Management Plan

Waste Generated and Waste Recovered – SA

SA was the highest ranked jurisdiction for resource recovery in the National Waste Report (2018), with a resource recovery rate of 82% and a recycling rate of 78% on a 615/kt of reported core waste.

¹⁸ [Container Deposits](#), SA EPA

Queensland

- State which most recently introduced a waste levy (2019)
- Queensland reported a spend of \$18m for 2016/17 to clean up illegally dumped waste (National Waste Report 2018).
- QLD is considering a framework for regulating waste to energy activities in the state. They are considering graduated processes for proven, new to Australia, and wholly new technologies respectively. The framework also includes the need to respond to community concern.

Waste Levies

[2019-/20 Levies \(QLD\)](#)

General Waste: \$75/t

Regulated Waste

- [Category 1:](#) \$155/t
- [Category 2:](#) \$105/t

Certain types of lawfully managed and transported asbestos waste is exempt, but what is not exempt falls under Category 2 waste at \$105/t.

Strategy Document

[Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024](#) (Final review report, January 2019)

Other Initiatives

- Container deposit scheme since the late 2018¹⁹
- Single use shopping bag ban which also includes compostable and biodegradable bags
- Hazardous waste tracking
- Household chemical collections (collection subject to councils)

Waste Generated and Waste Recovered – QLD

Queensland has a waste recovery rate of 47% and a recycling rate of 44% based on 5,875/kt of reported core according to the National Waste Report 2018. Queensland had the second lowest rate in the country (after the NT), according to the same report.

¹⁹ [Containers for Change](#), QLD Government

Western Australia

- The construction and demolition (C&D) waste sector has been particularly responsive to levy increases. The sector recently reported surpassing the Western Australian Waste Strategy C&D diversion target of 75% by 2020²⁰. This reported performance is impacted by growing stockpiles of processed and unprocessed C&D materials due to weak demand for recycled products. The growing stockpiles of unprocessed C&D waste have had a distorting effect on Western Australia's waste generation and recycling statistics²¹.
- The Government is encouraging the use of recycled C&D products in civil projects such as road construction and is working with Main Roads to trial the use of 25,000 tonnes in major road projects²².
- The municipal sector has fallen well below the State's Waste Strategy diversion targets²³.
- Improvements to source separation and the adoption of organic recovery systems – including food organics and garden organics (FOGO) - are on the increase and will be key to increasing the amount of municipal waste diverted from landfill²⁴.
- French waste management company Suez has struck a long-term deal to supply a proposed waste-to-energy plant south of Perth. The East Rockingham Resource Recovery Facility is the second waste-to-energy plant planned for the Rockingham-Kwinana industrial region²⁵.

Waste Levies

[2019 Onward Levies \(WA\)](#)

Putrescible: \$70/t

Inert: \$70/t

Asbestos: exempt (if taken to the licensed landfill and buried in compliance with the conditions on the licence)

Strategy Documents

[Western Australian Waste Strategy: Creating the Right Environment \(2012\)](#)

[Waste Avoidance and Resource Recovery Strategy 2030](#)

²⁰ National Waste Report, 2018

²¹ Ibid

²² Ibid

²³ Ibid

²⁴ Ibid

²⁵ 'Energy from waste gathers steam as Suez joins new WA plant,' 2019

Other Initiatives

- Container deposit scheme scheduled for June 2020²⁶
- Single use shopping bag ban in 2018
- Hazardous waste tracking
- Household chemical collections (Eight metropolitan and five regional, permanent household chemical drop-off points)
- [Better Bins Program](#)
- Waste Taskforce
 - Established with representatives from industry, local government, State and local government, and the community.

Waste Generated and Waste Recovered – WA

Western Australia has a resource recovery rate 57% and a recycling rate of 53% based on the reported core waste figure of 2,179/kt²⁷.

OTHER STATES WERE NOT EXAMINED FOR THE PURPOSES OF THIS DOCUMENT

²⁶ [WA Container Deposit Scheme](#), Department of Water and Environmental Regulation (WA)

²⁷ National Waste Report, 2018

Useful Resources

Waste Levies and Container Deposit Schemes

[Government of Western Australia – Department of Water and Environmental Regulation](#)

[Waste levy exemption – asbestos containing material](#), WA Fact Sheet

[Environment Protection Authority Victoria](#)

[Environment Protection Authority South Australia](#)

[Queensland Government – Levy Rates](#)

[Environment Protection Agency New South Wales](#)

[Return and Earn](#), NSW EPA

[WA Container Deposit Scheme](#), Department of Water and Environmental Regulation

[Containers for Change](#), QLD Government

[Container Deposits](#), SA EPA

National

[National Waste Report](#), 2018

[Recycling Market Situation](#), 2019 (published 2020)

[New statistics to inform Australia's generation and management of waste](#), Media Release (ABS, 2019)

[Never waste a crisis: the waste and recycling industry in Australia](#), Environment and Communications References Committee (June 2018)

[Waste Management – Productivity Commission Inquiry Report](#), 2006

[‘Australia’s waste: where does it come from – and where does it go?’](#) Ai Group Blog (2019)

State Specific

Victoria:

[‘Recycling in tatters, as some councils give up on glass collection,’](#) ABC News (2019)

[Australian Paper to proceed with Victorian-first energy-from-waste project](#), ABC News (2019)

[Massive wage underpayments at major recycler a 'national disgrace,'](#) The Age (2019)

[Why isn't Victoria on the Container Deposit Scheme bandwagon?’](#) April 2019

Western Australia:

[Energy from waste gathers steam as Suez joins new WA plant](#), AFR (2019)