

The Senate

Environment and
Communications References
Committee

No time to waste

Waste reduction and recycling policies

April 2025

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Contents

Members	iii
List of recommendations	xi
Abbreviations and Terminology	xvii
Chair's Foreword	xxi
Chapter 1 – Introduction and background issues	1
Referral	1
Conduct of the inquiry	1
Report Structure	2
Acknowledgements	3
Waste in Australia	3
Plastics and packaging	5
Waste prevention	6
Recycling and Waste Reduction Act	8
Review of the RAWR Act	9
Jurisdictional responsibilities	10
Role of state and territory governments	11
Role of local governments	11
International obligations	11
Parliamentary and other inquiries	14
Senate inquiry into waste and recycling (2018)	16
Senate inquiry into the Recycling and Waste Reduction Bill 2020 and related bills (2020)	18
Senate inquiry into the Product Stewardship Amendment (Packaging and Plastics) Bill (2021)	19
House of Representatives report on plastic pollution in oceans and waterways (2024)	20
'Waste' vs 'resource'	21
The need for better data	23
Current sources of data	23
Issues with existing data	25
Calls for improved data	26

Chapter 2 – Current waste management and recycling practices in Australia.....	29
National waste policies and action plans	29
Progress against the 2019 Action Plan targets	30
Stakeholder views on the 2019 Action Plan	32
2024 Action Plan.....	34
Regulatory fragmentation.....	35
Australian Government efforts to support regulatory harmonisation	38
Calls for a national framework	40
Fragmentation in practice: kerbside collection.....	42
Calls for action.....	46
Chapter 3 – Transitioning to a circular economy	49
Transitioning to a circular economy.....	49
International agreements	51
Australia's approach to the circular economy	52
Circular Economy Ministerial Advisory Group	53
Australia's Circular Economy Framework.....	61
Productivity Commission circular economy inquiry	63
Support for a circular economy.....	66
Challenges to achieving circularity	68
International examples of the circular economy	70
The importance of financial incentives	72
Landfill levies	73
UK Plastic Packaging Tax.....	75
Chapter 4 – Product stewardship schemes	79
Product stewardship schemes.....	79
Voluntary vs mandatory product stewardship	82
The limits of voluntary schemes.....	82
Calls for government regulation.....	84
Extended producer responsibility schemes	89
Support for mandatory extended producer responsibility schemes.....	90
NSW product stewardship law reform	92
Minister's product stewardship priority list	94

Specific product stewardship schemes	96
Mandatory Product Stewardship for Oil Scheme	96
Tyres.....	97
Clothing.....	99
Battery stewardship	100
State-based battery stewardship	101
NSW regulation.....	103
The need for national leadership.....	104
Unprocessed scrap metal	107
Chapter 5 – The need for stronger packaging reform	111
Packaging framework.....	112
Australian Packaging Covenant	113
Historical packaging covenants.....	114
2025 National Packaging Targets	116
APCO's 2030 Strategic Plan	117
Packaging reform	119
Latest packaging reform developments	119
New packaging regulatory scheme.....	121
Australian recycling and labelling standards	122
ReMade in Australia.....	123
The need for mandatory packaging regulations	124
Packaging design regulation.....	125
Mandating recycled content.....	128
Utilising government procurement rules.....	131
A traceability framework	134
National Framework for Recycled Content Traceability	134
The need for mandatory traceability.....	135
Calls to follow international examples	136
Chapter 6 – Problematic waste streams.....	141
Australian Plastics Flows and Fates Study	141
Recycled content of plastic products.....	142
The unique issues with plastics.....	142

Environmental and human health impacts.....	143
National Roadmap: Harmonising action on problematic and unnecessary plastics	145
Solving Plastic Waste Cooperative Research Centre	146
The National Plastics Recycling Scheme for soft plastics.....	147
Soft Plastics Taskforce	148
Single-use plastics	149
Approaches to certain types of plastics	150
State-based plastic bans	150
Bioplastics	151
Waste-to-energy	152
Contaminants.....	154
Food and organics	156
Chapter 7 – Waste export regulations and the Recycling Modernisation Fund	159
Exporting waste.....	159
Waste export regulations	160
The inclusion of paper and cardboard.....	162
Application processing times.....	163
Export licensing fees	164
Export licence variations.....	165
Consideration of an export levy	166
Disallowance of fee regulations.....	167
Issues raised with waste export regulations	168
Onerous licensing and exemption processes	171
Environmental impact of export regulations	172
The need for export regulations	173
Reclassification of materials	175
Import conditions	176
Recycling Modernisation Fund.....	178
Criticisms of the RMF.....	180
Improve transparency in RMF outcomes.....	181
Chapter 8 – Committee views and recommendations.....	183
An industry still in crisis.....	183

Implementation of the circular economy.....	184
Productivity Commission inquiry.....	185
National harmonisation and regulation	186
Mandatory product stewardship schemes.....	188
Packaging.....	189
Stewardship of batteries	191
Extended producer responsibility schemes	193
Plastics packaging.....	193
Global plastics pollution treaty.....	193
Soft plastics	194
Climate and waste.....	195
Publication of and access to data	196
Recycling Modernisation Fund.....	197
Kerbside recycling	198
Export regulations.....	199
Imports.....	200
RAWR Act review	201
Utilising government procurement power	201
Coalition Senators' Dissenting Report	203
Labor Senators' Dissenting Report.....	207
Appendix 1— Submissions and additional information	211
Appendix 2— Public hearings and witnesses	215

List of recommendations

Recommendation 1

8.15 The committee recommends the Australian Government legislate a Circular Economy Act, in accordance with the recommendation of the Circular Economy Ministerial Advisory Group (CEMAG), to implement a full circular economy framework aimed at effectively supporting Australia's waste management and resource recovery sectors, and improving environmental and economic outcomes. A legislated Circular Economy Act should reflect the findings and recommendations of the CEMAG and Productivity Commission and set a clear framework for imported and local product design, financial incentives, and regulatory enforcement.

Recommendation 2

8.20 The committee recommends that in its final report for its inquiry into opportunities in the circular economy, the Productivity Commission examine the role of economic settings and financial incentives (including levies and subsidies) in driving circular economy outcomes. The Productivity Commission should further examine:

- the market conditions for the import and export of packaged goods, plastics and other materials;
- the financial levers and policy settings available to equalise conditions for importers and exporters; and
- the current financial policy settings in foreign jurisdictions where circular economy principles have been successfully implemented.

Recommendation 3

8.29 The committee recommends the Australian Government establish a cross-jurisdictional circular economy action taskforce to oversight harmonised waste prevention and recycling practices, and the shift to a circular economy across Australia. The taskforce should be empowered to improve national harmonisation in waste reduction and resource recovery, in line with circular economy principles and outcomes. The taskforce should provide an annual update on national harmonisation progress to the Australian Parliament, no later than 30 September each year.

8.30 The circular economy action taskforce should consist of representatives from the Department of Climate Change, Energy, the Environment and Water; the Treasury; the Department of Industry, Science and Resources, and any other relevant Australian Government agencies. It should also include representatives from each state and territory and from the Australian Local Government Association. The taskforce should engage with the waste and

resource recovery sector and relevant consumer groups on at least a quarterly basis, and provide advice to government as required on the financial support needed to implement the circular economy (for example, via a Circular Economy Fund).

Recommendation 4

8.31 The committee recommends that the Environment Ministers' Meeting works to coordinate the implementation of nationally harmonised definitions for waste reduction and resource recovery, and harmonised landfill levies, wherever possible.

Recommendation 5

8.59 The committee recommends the Australian Government amend the Recycling and Waste Reduction Act 2020 to implement ambitious producer-funded mandatory national product stewardship schemes, packaging design requirements and rules, with mechanisms to drive demand for recycled materials. Legislative reform should progress the national harmonisation of container deposit schemes. Mandatory product stewardship schemes should immediately be implemented for problematic waste streams including:

- plastics and packaging, including soft plastics and taking into consideration packaging design;
- batteries; and
- photovoltaic systems.

8.60 In developing national, mandatory product stewardship schemes, the committee recommends the Australian Government consider the Product Lifecycle Responsibility Act 2025 (NSW) and its suitability as a framework for national implementation. The Australian Government should publicly release its views on the national applicability of the NSW legislation, as part of its review of the Recycling and Waste Reduction Act 2020.

Recommendation 6

8.61 The committee recommends the Australian Government amend the Recycling and Waste Reduction Act 2020 to mandate that packaging produced in Australia contain a minimum amount of recycled Australian materials.

Recommendation 7

8.62 The Australian Government should offer financial incentives or other assistance to the waste and resources sector for the investment required in infrastructure and markets to support mandated product stewardship schemes.

Recommendation 8

8.67 The committee recommends the Australian Government amend the Recycling and Waste Reduction Act 2020 to provide a national legislative framework for extended producer responsibility schemes, to be funded by industry.

Recommendation 9

8.72 The committee recommends the Australian Government continue to engage strongly on the United Nations (UN) Global Plastics Treaty to End Plastic Pollution, through the UN Intergovernmental Negotiating Committee, which aims to achieve an international, legally binding instrument to eliminate plastic pollution.

Recommendation 10

8.78 The committee recommends the Australian Government, through the Environment Ministers' Meeting, play a lead role to coordinate agreement with the state and territory governments to fast track the national harmonisation of collection, recovery and processing of soft plastics. The Australian Government should continue to offer financial incentives or other assistance to the waste and resources sector for the investment required to collect and process soft plastics.

Recommendation 11

8.89 The committee recommends the Australian Government, through the Environment Ministers' Meeting, play a lead role to achieve cooperation between state and territory governments to improve the consistency, quality and timeliness of waste, resource and recycling data. This data should be published on an annual basis, for the immediate year prior, and include key metrics from relevant Australian businesses.

Recommendation 12

8.90 The committee recommends the Australian Packaging Covenant Organisation be authorised to receive and publish annual data from Australia's major supermarkets and other major packaging producers and users, including their progress towards National Packaging Targets, the amount and categories of packaging being placed on the market, and the percentage of Australian recycled materials used in supermarket packaging.

Recommendation 13

8.95 The committee recommends the Australian National Audit Office (ANAO), as part of its 2025-26 Audit Program, conduct an audit of the administration and operation of the Recycling Modernisation Fund. Pending the findings of the ANAO, the Australian Government should consider the merits of

repurposing and broadening the Recycling Modernisation Fund to become a Circular Economy Fund.

Recommendation 14

8.102 The committee recommends the Australian Government, through the Environment Ministers' Meeting, finalise the Design for Kerbside Recyclability Grading Framework at the completion of the current consultation process, and implement cross-jurisdictional harmonisation of kerbside collection for organics, recycling and landfill waste.

Recommendation 15

8.103 The committee recommends the Australian Government, through the Environment Ministers' Meeting, provide regular updates on the progress of the National Kerbside Collections Roadmap.

Recommendation 16

8.111 The committee recommends the Department of Climate Change, Energy, the Environment and Water work with the waste and resource recovery sector on revisions to the now-repealed Recycling and Waste Reduction (Fees) Amendment (Export of Regulated Waste Material Fees and Other Measures) Rules 2024. The department should work with industry to amend the intent of the 2024 Rules to ensure cost recovery measures do not impede the export of valuable commodities, are environmentally effective, and are sustainable in the long-term for the waste and resource recovery sector.

Recommendation 17

8.116 The committee recommends the Department of Climate Change, Energy, the Environment and Water, together with The Treasury and the Department of Industry, Science and Resources, develop regulations for the import of virgin and recycled material and packaging into Australia. Import regulations should take account of Australia's needs in processing various waste streams and consider:

- **minimum standards and requirements for materials entering Australia;**
- **restricting the import of materials and goods which cannot be properly processed and/or recycled at their end-of-life;**
- **the current and future capacity of Australia's waste recovery and materials processing infrastructure;**
- **the role of mandatory product stewardship schemes in supporting import regulations; and**
- **the role of financial incentives, including levies and subsidies.**

Recommendation 18

8.121 The committee recommends that as part of its review into the Recycling and Waste Reduction Act 2020, the Department of Climate Change, Energy, the Environment and Water take into consideration the evidence received, and recommendations made during this inquiry and the committee's 2018 inquiry.

Recommendation 19

8.125 The committee recommends environment ministers, together with the Australian Local Government Association, develop an Environmentally Sustainable Procurement Policy to be applied to federal, state, territory and local government procurement processes.

Abbreviations and Terminology

2019 Action Plan	2019 National Waste Policy Action Plan
2024 Action Plan	2024 National Waste Policy Action Plan
2024 NWRR Report	2024 National Waste and Resource Recovery Report
ACCC	Australian Competition and Consumer Commission
ACOR	Australian Council of Recycling
AFGC	Australian Food and Grocery Council
ALGA	Australian Local Government Association
AMCS	Australian Marine Conservation Society
AMTA	Australian Mobile Telecommunications Association
ANAO	Australian National Audit Office
ANZ	Australia and New Zealand
ANZRP	Australia and New Zealand Recycling Platform
APCO	Australian Packaging Covenant Organisation
ARL	Australasian Recycling Label
ARRC	Australian Resources Recovery Council
ATRA	Australian Tyre Recyclers Association
Basel Convention	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
BSC	Battery Stewardship Council
CDS	container deposit scheme(s)
CEMAG	Circular Economy Ministerial Advisory Group
CEO	Chief Executive Officer
COAG	Council of Australian Governments
committee	Senate Environment and Communications References Committee
Covenant	Australian Packaging Covenant
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCCEEW	Department of Climate Change, Energy, the Environment and Water

Decision RIS	Decision Regulation Impact Statement: Phasing out exports of waste plastic, paper, glass and tyres
Directive	Ecodesign Directive 2009/125/EC
DISR	Department of Industry, Science and Resources
EPA	Environment Protection Authority
EPR	extended producer responsibility
EPS	expanded polystyrene
ESP Regulation	Ecodesign for Sustainable Products Regulation
EU	European Union
FOGO	food organics and garden organics
G20	Group of 20
GISA	Green Industries South Australia
GO	garden organics
HAC	High Ambition Coalition to End Plastic Pollution
HPDE	high-density polyethylene
INC	Intergovernmental Negotiating Committee
kt	kilotonne [one thousand tonnes]
Law Council	Law Council of Australia
LDPE	low-density polyethylene
Legislation Committee	Senate Environment and Communications Legislation Committee
LGAQ	Local Government Association of Queensland
minister	Minister for the Environment and Water
Mt	megatonne [one million tonnes]
MRF	materials recovery facility
NBS	National Battery Strategy
NEPM	National Environment Protection (Used Packaging Materials) Measure 2011
NPRS	National Plastics Recycling Scheme
NSW	New South Wales
NWRIC	National Waste and Recycling Industry Council
OECD	Organisation for Economic Co-operation and Development

PC	Productivity Commission
PET	polyethylene terephthalate
PFAS	per- and polyfluoroalkyl substances
Plastics Study	Australian Plastics Flows and Fates Study 2021-22
PP	polypropylene
PPT	Plastic Packaging Tax
PS	polystyrene
PSO	Product Stewardship for Oil
PV	photovoltaic
PVC	polyvinyl chloride
RAWR Act	<i>Recycling and Waste Reduction Act 2020</i>
ReMade scheme	ReMade in Australia scheme
RMF	Recycling Modernisation Fund
Roadmap	National Kerbside Collections Roadmap
SA EPA	South Australian Environment Protection Authority
SEEE	small electrical and electronic equipment
SOR	Southern Oil Refining
TFA	Toxics Free Australia
TPSS	Tyre Product Stewardship Scheme
UK	United Kingdom
UN	United Nations
Waste Fee Rules	Recycling and Waste Reduction (Fees) Amendment (Export of Regulated Waste Material Fees and Other Measures) Rules 2024
Waste Policy	2018 National Waste Policy
WCRA	Waste Contractors and Recyclers Association of New South Wales
WHO	World Health Organization
WMRR	Waste Management and Resource Recovery Association of Australia
Working Group	National Plastics Harmonisation Working Group
WRIQ	Waste, Recycling Industry Association of Queensland

Chair's Foreword

While this inquiry was underway, global talks to sign a high ambition treaty on tackling plastic pollution ground to a halt, dashing hopes for a binding international agreement to reduce plastic production and its use. Many of the countries committed to these negotiations, such as Australia, have long recognised the need to tackle the toxic tide of plastic polluting our oceans and planet, risking human health. This failure was universally blamed on vested interests, such as big producers of plastic lobbying against and undermining any binding regulatory precedent that would reduce global plastic production or consumption.

Whilst it was reported that the federal Environment Minister pushed for a legally binding global agreement during these negotiations, it is ironic that at home the Australian Government still doesn't have any mandated or binding regulatory policy frameworks of its own to hold big producers, brands or retailers of plastic responsible. This applies to many problematic waste streams, not just plastic or other packaging.

This report outlines compelling evidence that we are not winning the war on waste and that our current and historic federal policy framework has failed to achieve its objectives. This is the fourth Senate inquiry that I have initiated and the third that I have chaired in the past decade on this critical topic, and my deep frustration on the lack of progress is also shared by many submitters to this inquiry.

Consistent evidence was raised, and questions were asked during hearings as to why we haven't moved beyond ineffective voluntary or industry-regulated national schemes, to government regulated product stewardship schemes that hold to account the producers and retailers of waste? In other words, why haven't we implemented binding 'extended producer responsibility' (EPR) for different waste streams?

Again, resistance to regulation from big producers of waste such as plastics is the problem, followed by a lack of leadership and culture at a Commonwealth Government level to both own national schemes, and drive change. It is telling that respective federal environment ministers over recent years have all threatened to step in and regulate different waste streams if industry doesn't get its act together but never have. Handing responsibility to the states to clean up different waste streams has also been all too easy, and a cop out for the federal government.

This inquiry was initiated to look into what progress the Labor Government has made in its first term of government to tackle waste reduction and build a circular economy. It came into government talking a big game. Whilst it should be

acknowledged there is momentum and a process now in train for the federal government to finally step in and regulate some critical waste streams such as soft plastics or packaging, it's understandable that stakeholders wanting legislative and regulatory intervention—including many in the waste management and resource recovery industry—are feeling frustrated, sceptical and nervous about whether this will ever happen. During this inquiry they were rightfully asking why, after so many years of delays, reports, forums, consultations and policy progress in other international jurisdictions, we still kick the can down the road and have not taken the legislative or regulatory action to fix a clearly broken system?

One big positive that came out in the evidence is just how much support there is right now for federal government regulatory or legislative intervention in this space. The recycling/resource recovery/waste management industry, which employs tens of thousands of Australians, has always supported and urged federal governments to act on mandating product stewardship or EPR schemes for different waste streams. Indeed, they have argued it is essential for their businesses at the end of the waste pipe to do their job more effectively.

But this inquiry was the first time that organisations historically opposed to or mute on government regulation, such as the Australian Packaging Covenant Organisation, and the Australian Food & Grocery Council, and which represent many producers, brands and retailers of packaging, have also shown public support for federally mandated rules and regulations. Visy, arguably the most significant national player in packaging manufacturing, gave similar evidence in support of this.

What these rules and regulations look like are still to be determined and implementing them in the next term of parliament must be a priority if we are going to have any chance of winning the war on waste.

The evidence in this 200-page report is then clear—there is no more time to waste. The time for strong federal government regulatory and legislative action is now.

Chapter 1

Introduction and background issues

Referral

1.1 On 28 February 2024, the Senate referred an inquiry into waste reduction and recycling policies (the inquiry) to the Environment and Communications References Committee (the committee), with the following terms of reference:

The effectiveness of the Albanese Labor Government's waste reduction and recycling policies in delivering a circular economy, with reference to:

- (a) recycling export regulations imposed through the *Recycling and Waste Reduction Act 2020*, noting the:
 - (i) ramifications for Australia's international and domestic commitments and obligations under the Act,
 - (ii) benefits and consequences of imposing the requirements on the Australian industry, and
 - (iii) interaction and efficacy of the community and economic benefits of the legislation;
- (b) the efficacy and progress on circular economy deliverables;
- (c) the progress on the implementation of mandated product stewardship schemes; and
- (d) any other related matters.¹

1.2 The committee was required to report by 22 November 2024. On 10 October 2024, the committee was granted an extension of time to report, to 5 March 2025.² On 28 February 2025, the committee sought an extension to 14 March 2025, and on 14 March, sought a further extension to 15 April 2025.³

Conduct of the inquiry

1.3 Details of the inquiry were made available on the committee's webpage and the committee invited various organisations, key stakeholders, and individuals to provide submissions.

1.4 The committee received 84 written submissions, as listed at Appendix 1 of this report and available on the committee's [website](#). Appendix 1 also lists the additional information received during the inquiry, including answers to questions on notice.

¹ *Journals of the Senate*, No. 100, 28 February 2024, p. 3023.

² *Journals of the Senate*, No. 138, 10 October 2024, p. 4169.

³ Senate Environment and Communications References Committee, [Progress Report](#), 28 February 2025; Senate Environment and Communications References Committee, [Progress Report](#), 14 March 2025.

- 1.5 The committee held the following public hearings:
- 8 May 2024 in Sydney;
 - 5 August 2024 in Melbourne;
 - 20 September 2024 in Sydney; and
 - 14 February 2025 in Canberra.
- 1.6 A list of the organisations and individuals who attended these public hearings as witnesses can be found in Appendix 2.

Report Structure

- 1.7 This report is comprised of eight chapters, as detailed below.
- 1.8 Chapter 1 provides background information on the referral, conduct and context of the inquiry. It also outlines some of the fundamental elements of waste reduction and recycling policies in Australia, including the *Recycling and Waste Reduction Act 2020*, jurisdictional responsibilities and obligations, and a summary of other parliamentary inquiries into similar issues. It also explains the common view of inquiry participants that 'waste' would better be considered as a 'resource', and issues with data collection around waste and recycling outcomes in Australia.
- 1.9 Chapter 2 details current waste management and recycling practices in Australia, including the National Waste Policy and the associated National Waste Policy Action Plan. It examines issues with regulatory fragmentation across Australia and the need for national frameworks—as highlighted by kerbside waste collection issues. It then presents evidence received from submitters and witnesses calling for action and investment to address Australian waste and recycling needs.
- 1.10 Chapter 3 outlines Australia's progress towards a circular economy, and Australia's engagement with international agreements and pollution reduction treaties. It presents the interim and final findings of the Circular Economy Ministerial Advisory Group, the interim findings of the Productivity Commission, and details the evidence both in support of the circular economy and identifying where changes are needed to ensure widespread circularity. The chapter examines the role of financial incentives in driving circularity and the increased use of recycled material.
- 1.11 Chapter 4 discusses product stewardship and extended producer responsibility schemes, and the evidence put forward regarding the role of mandatory—instead of voluntary—stewardship schemes. It also describes product stewardship schemes in Australia for specific resources, including those for oil, and tyres, and the calls for a national ban on the export of unprocessed scrap metal. It looks specifically at battery stewardship, including new regulations recently introduced in New South Wales (NSW), and the calls for national leadership on battery collection and recycling.

- 1.12 Chapter 5 looks at Australia's current product packaging framework, including the role of the Australian Packaging Covenant, the Australasian Recycling Label, traceability frameworks and the role of recycling and plastics in Australia's waste and resource economy. It examines packaging reform, and evidence around the need for mandatory packaging regulations and recycled content volumes.
- 1.13 Chapter 6 considers problematic waste streams and explains some of the key findings of the most recent Australian Plastics Flows and Fates Study. The chapter looks at how specific items—especially soft plastics and plastic packaging—are currently processed through the waste stream and how such products could be better managed.
- 1.14 Chapter 7 explains Australia's waste export regulations, including the associated licensing and variation fees, and the concerns raised during the inquiry about current exporting requirements and import conditions. It also outlines expenditure and concerns with the Recycling Modernisation Fund.
- 1.15 The report's final chapter, Chapter 8, presents the committee's views and recommendations.

Acknowledgements

- 1.16 The committee thanks all those who contributed to the inquiry by making submissions, providing additional information, and appearing at hearings.

Waste in Australia

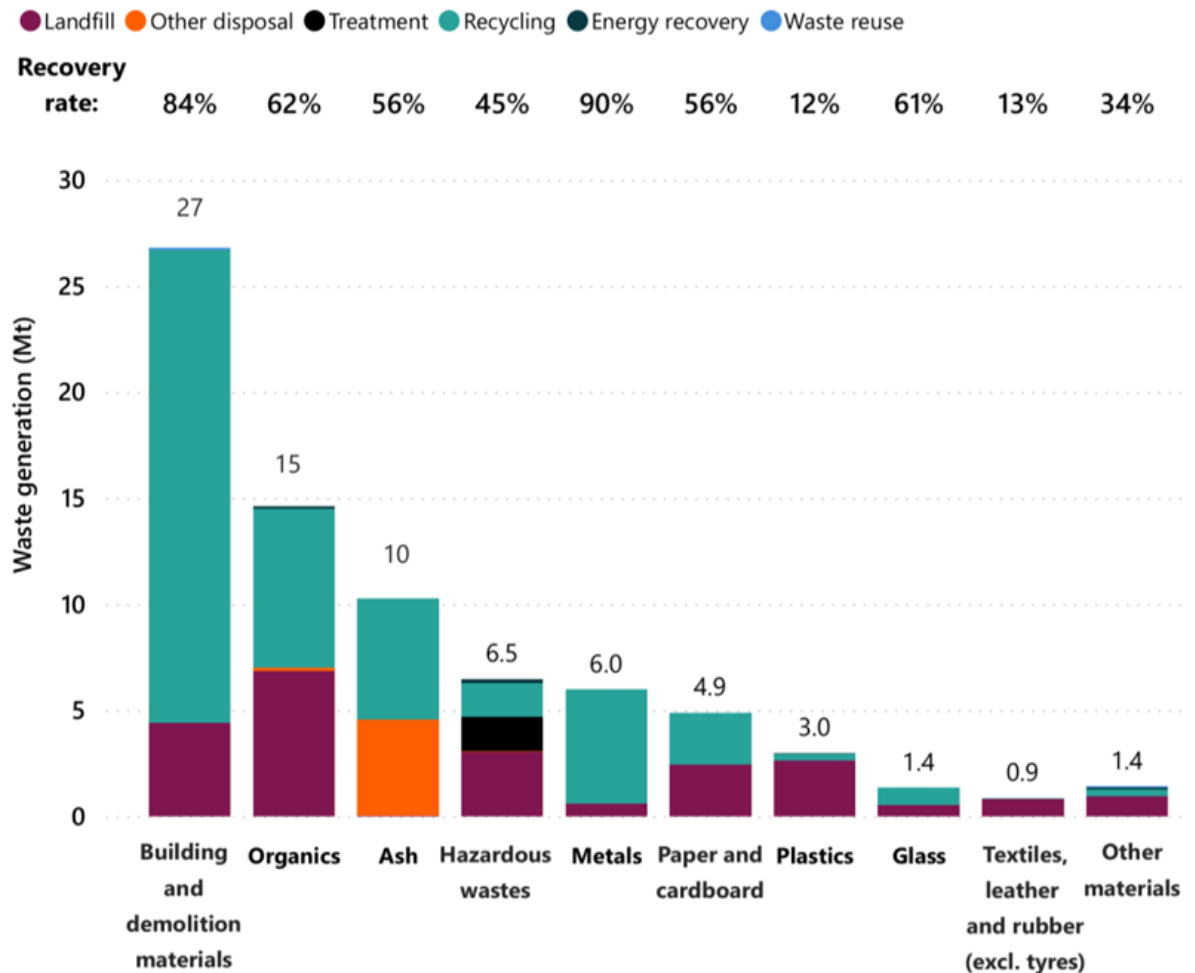
- 1.17 Australia's rates of waste generation continue to rise. In 2006-07, Australia generated more than 43 million tonnes (Mt) of waste, equivalent to 2 tonnes per person (based on the population at the time).⁴
- 1.18 By 2022-23, this figure had increased, with Australia generating an estimated 75.6 Mt of waste, equivalent to almost 3 tonnes per capita and comprising predominantly of:
- 26.8 Mt of building and demolition materials;
 - 14.6 Mt of organics;
 - 10.3 Mt of ash;
 - 6.5 Mt of hazardous wastes;
 - 6.0 Mt of metals;
 - 4.9 Mt of paper and cardboard; and
 - 3.0 Mt of plastics.⁵

⁴ Environment Protection and Heritage Council, [National Waste Overview 2009](#), pp. 2 and 5.

⁵ Department of Climate Change, Energy, the Environment and Water (DCCEEW), [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xi.

1.19 Figure 1.1 shows waste generation, management type and recovery rate by waste category. The figure indicates that the recovery rate for metals was the highest, at 90 per cent, and plastics was the lowest, at just 12 per cent.⁶

Figure 1.1 Waste generation and management by waste category, Australia, 2022-23



Source: DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xiv.

1.20 The sources of the above waste in 2022-23 were:

- 13.5 Mt from municipal solid waste, from households and local government activities;
- 32.9 Mt from the commercial and industrial stream (including ash); and
- 29.2 Mt from the construction and demolition stream.⁷

⁶ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xiv.

⁷ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xi.

- 1.21 Of the total waste generated by Australia in 2022-23, 66 per cent was recovered,⁸ and 34 per cent was disposed of.⁹
- 1.22 In 2022-23, materials recovery facilities (MRFs) received approximately 2.0 Mt of materials, comprising about 1.8 Mt from households, and 0.2 Mt from commercial sources.¹⁰
- 1.23 Over the 15-year period from 2006-07 to 2022-23, the amount of waste sent to disposal (where no further use is made of the waste) was relatively stable, at around 28 Mt per year.¹¹
- 1.24 During the same period, the national trend in resource recovery—where waste materials are returned to productive use—was also upwards. Data from 2022-23 indicates that Australia's resource recovery rate was 66 per cent. Resource recovery includes activities which culminate in the reprocessing of wastes into products, or secondary materials which are returned to productive use, including for energy.¹²
- 1.25 This 66 per cent comprised of:
- 63 per cent recycling;
 - 0.2 per cent waste reuse; and
 - 3 per cent energy recovery (mostly associated with the use of landfill gas for generating electricity).¹³

Plastics and packaging

- 1.26 Nearly 3 Mt of plastic¹⁴ waste was generated in 2022-23, the equivalent of 114 kilograms per capita. The recovery rate for plastics remains very low—at

⁸ Resource recovery encompasses waste reuse, recycling and energy recovery. 63 per cent of total waste generated by Australia in 2022-23 was recycled, while three per cent fell under the waste reuse and energy recovery categories. See, DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xiii.

⁹ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xii.

¹⁰ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 25.

¹¹ DCCEEW, [National Waste Report 2022](#) (prepared by Blue Environment Pty Ltd), December 2022, p. 38.

¹² DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. ix.

¹³ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 38.

¹⁴ 'Plastics' in this context excludes plastic material in textiles and tyres and includes polyethylene terephthalate (PET); high-density polyethylene (HDPE); polyvinyl chloride (PVC); low-density polyethylene (LDPE); polypropylene (PP); polystyrene (PS); certified compostable plastics and

just 12.5 per cent for 2022-23. Approximately 99 per cent of this recovered plastic is recycled, with one per cent recovered for energy. The remaining 87.5 per cent of plastic in the waste stream went to landfill.¹⁵ The 2022-23 National Waste and Resource Recovery Report, released in 2024, found that:

Major investments in plastics sorting and processing infrastructure are underway to soak up the additional demand and meet Australia's targets for recycling of plastic packaging... To meet the targets, it will be necessary to greatly expand recovery of soft plastic packaging. Trials are in progress to collect these materials in domestic recycling bins.

There is also a need to find more onshore productive uses for recovered plastics.¹⁶

- 1.27 The 2022-23 National Waste and Resource Recovery Report noted that 'packaging waste is an important component of the [municipal solid waste] and [commercial and industrial] source streams and a longstanding focus of public policy and community concern'.¹⁷
- 1.28 The report further observed that between 2017-18 and 2021-22, packaging quantities (excluding timber) placed on the market increased by approximately four per cent per year—almost three times the rate of population growth over the same period.¹⁸
- 1.29 As will be outlined later in this report, there have been several initiatives and targets implemented over recent years to reduce the volume of packaging and plastics on the market and moving through waste streams. The committee discusses in Chapter 8 how a lack of appropriate infrastructure, incentives and enforcement mechanisms have hindered progress against various waste reduction, recycling and packaging targets, and makes related recommendations.

Waste prevention

- 1.30 Waste prevention includes deliberate actions to stop materials entering a formal or informal waste management facility or system. Further, 'waste prevention

other plastics. See: DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 2.

¹⁵ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 46.

¹⁶ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 46.

¹⁷ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 68.

¹⁸ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 68.

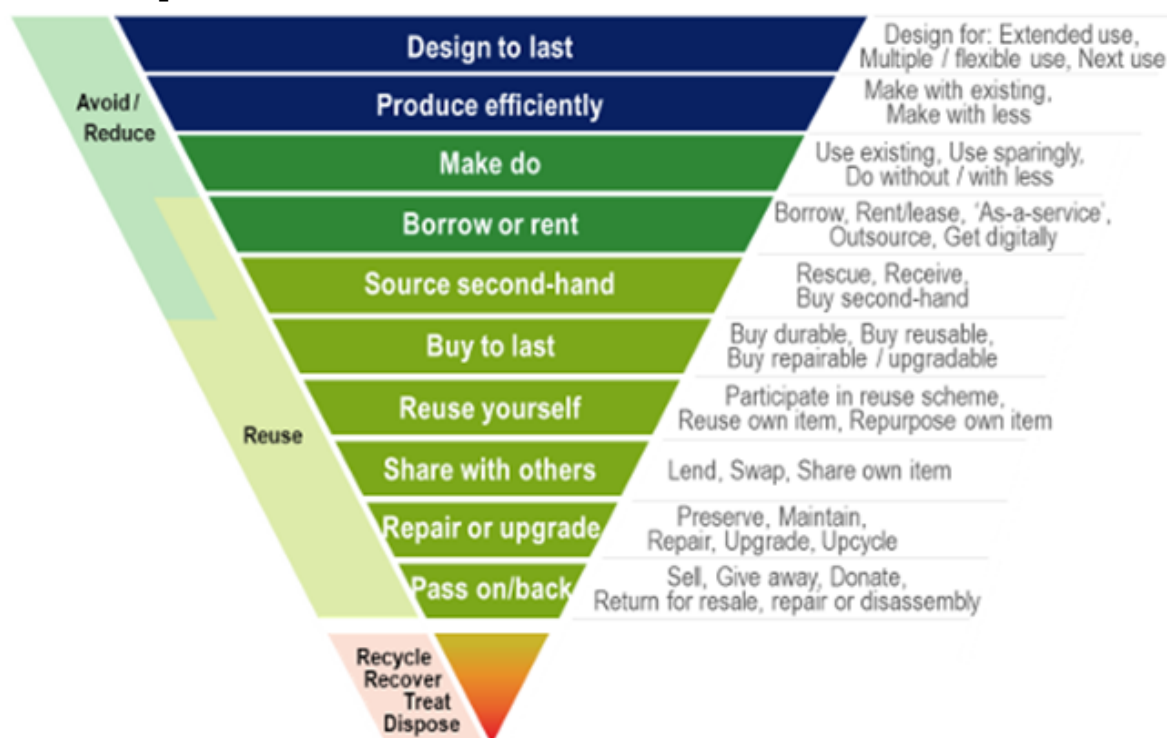
actions focus on reducing waste at its origin and are of central importance in driving change as Australia moves towards a circular economy'.¹⁹

- 1.31 The waste hierarchy was revised in 2022 to place greater emphasis on waste prevention efforts. The revised hierarchy aims to improve data collection (discussed further below), and to 'assist stakeholders in understanding, measuring and promoting waste prevention efforts in Australia'. As noted by the 2024 National Waste and Resource Recovery Report, all levels of government across Australia are 'beginning to focus on waste prevention in public policy and programs', especially as:

Waste prevention aligns with the circular economy principles of minimising resource inputs and keeping products and components in use at their highest value for as long as possible.²⁰

- 1.32 The revised waste hierarchy, including examples of waste prevention actions, is presented in Figure 1.2:

Figure 1.2 The waste hierarchy framework, with examples of waste prevention actions



Source: DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 19.

¹⁹ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 19.

²⁰ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, pp. 20–21.

- 1.33 As will be detailed throughout this report, the committee was told of the numerous benefits of resource recovery, recycling and remanufacture to both the Australian economy and environment.
- 1.34 It was argued that domestic recycling 'stimulates investment in recycling and manufacturing', while generating 'green collar manufacturing jobs' and reducing Australia's reliance on nature resources.²¹ In addition, the transition to a circular economy would 'reduce risks in relation to pollution, biodiversity loss, and climate change'.²²
- 1.35 Modelling completed in 2021 found that 'Australia could generate \$1,860 billion in direct economic benefits over twenty years and save 165 million tonnes of [carbon dioxide] CO₂ per year by 2040', with a move by government and industry to a circular economy.²³

Recycling and Waste Reduction Act

- 1.36 The *Recycling and Waste Reduction Act 2020* (RAWR Act) was implemented following the agreement of the Australian, state and territory governments, and the Australian Local Government Association (ALGA), that the export of waste glass, plastic (including processed engineered fuel), tyres and paper be regulated by the Australian Government.²⁴
- 1.37 The RAWR Act has a number of objects, including:
- to reduce the impact on human and environmental health of products, waste from products and waste material;
 - to realise the community and economic benefits of taking responsibility for products, waste from products and waste material; and
 - to develop a circular economy that 'maximises the continued use of products and waste material over their life cycle and accounts for their environmental impacts'.²⁵
- 1.38 The RAWR Act provides that these objects are to be achieved by:
- regulating the export of waste material to promote its management in an environmentally sound way; and

²¹ Visy, *Submission 79*, p. 2.

²² WWF Australia and Australian Marine Conservation Society (AMCS), *Submission 68*, p. 5.

²³ PricewaterhouseCoopers (Australia), [Building a more circular Australia: The opportunity of transitioning to a circular economy](#), March 2021, p. 4. See also: Ms Suzanne Toubourou, Chief Executive Officer (CEO), Australian Council of Recycling (ACOR), *Committee Hansard*, 8 May 2024, pp. 1 and 5.

²⁴ DCCEEW, *Waste exports*, 2 December 2024, www.dcceew.gov.au/environment/protection/waste/exports, (accessed 21 January 2025).

²⁵ *Recycling and Waste Reduction Act 2020*, Part 1, ss. 3(1).

- encouraging and regulating the reuse, remanufacture, recycling and recovery of products, waste from products and waste material in an environmentally sound way; and
- encouraging and regulating manufacturers, importers, distributors, designers and other persons to take responsibility for products, including by taking action that relates to:
 - reducing or avoiding generating waste through improvements in product design; and
 - improving the durability, reparability and reusability of products; and
 - managing products throughout their life cycle.²⁶

Review of the RAWR Act

1.39 For the first time since its enactment, the RAWR Act is currently under review. Officials from the Department of Climate Change, Energy, the Environment and Water (DCCEEW) advised the committee that the review would consider the findings of the Circular Economy Ministerial Advisory Group (CEMAG), and the findings of the Productivity Commission.²⁷ Submissions to the review closed on 27 February 2025.²⁸ The review is expected to be delivered to the minister for consideration in April or May of 2025.²⁹

1.40 The terms of reference for the review suggest it will 'make recommendations to improve the efficiency and impact of the Act in addressing current and future circular economy needs, resource recovery and waste challenges', through examination of:

- limitations of current approaches to product stewardship;
- whether waste export regulations are fit for purpose;
- improving Australian Government mechanisms with which to respond to developing circular economy markets; and
- how the Act operates against international and domestic obligations.³⁰

1.41 There was some support offered during the inquiry for this review. The Australian Council of Recycling (ACOR), for example, expressed its hope the

²⁶ *Recycling and Waste Reduction Act 2020*, Part 1, ss. 3(2).

²⁷ Ms Cathryn Geiger, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 19. The findings and recommendations of the Circular Economy Ministerial Advisory Group (CEMAG) are explored in detail later in this report, along with details on the work of the Productivity Commission.

²⁸ DCCEEW, *Review of the Recycling and Waste Reduction Act*, 31 January 2025, www.dcceew.gov.au/environment/protection/waste/review-recycling-waste-reduction-act (accessed 27 February 2025).

²⁹ DCCEEW, *Review of the Recycling and Waste Reduction Act*, 31 January 2025 (accessed 27 February 2025).

³⁰ DCCEEW, *Review of the Recycling and Waste Reduction Act*, 9 December 2024 (accessed 21 January 2025).

review 'might inform a better approach in terms of how fees are applied to our sector and how product stewardship might better work in stepping in to take responsibility for the waste that is generated in Australia'.³¹

- 1.42 The committee expects that the evidence received by its inquiry and the committee's recommendations be taken into consideration by DCCEEW as part of the RAWR Act review.

Jurisdictional responsibilities

- 1.43 There are challenges to managing waste streams and recyclable products in Australia, due to the varying levels of government across the country, the resulting regulatory fragmentation, and constitutional limits on the role of the Commonwealth.

- 1.44 As will be shown throughout this report, the waste and resource recovery industry called for a stronger leadership role of the Australian Government. The long-term absence of nationally mandated waste reduction schemes and outcomes has left the industry frustrated, with suggestions that the Australian Government does not appear to take ownership of implementing lasting reform in this sector. The committee considers these views further in Chapter 8.

- 1.45 DCCEEW advised that 'states, territories and local governments are primarily responsible for and best placed to manage and regulate domestic waste and make critical decisions on recycling policy'. Notwithstanding this, DCCEEW noted that the Australian Government contributes in the following circumstances:

- issues affecting multiple jurisdictions that would benefit from a coordinated approach, and where nationally harmonised policies, guidelines or standards cannot be achieved without Australian Government support
- national issues where analysis supports Australian Government action as the most effective and efficient intervention, especially where there are risks posed by hazardous substances to human health and the environment
- domestic market failures or absences of a market that require national policy, national partnership programs, or national-scale information requirements
- obligations to engage in international conventions and treaties and administer legislation, or where international trade impacts circular economy outcomes.³²

³¹ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 6.

³² DCCEEW, *Submission 7*, p. 2.

Role of state and territory governments

1.46 Management of waste by state and territory governments includes implementation of legislation, policy and regulation; strategy and planning; and permitting waste transport, storage, treatment and disposal operations. Some common themes and approaches across jurisdictions include the safe management of waste; implementing the National Waste Policy Action Plan (discussed later in this report); and transitioning to a more circular economy.³³

1.47 Waste levies are imposed by state and territory governments, whereby landfill operators are required to 'pay some amount to their government for each tonne of waste deposited in landfill'. These levies can be a key driver in effective waste management:

The additional fee pushes up the cost of landfill, increasing the attractiveness of recycling. Often some of the collected funds are used to support recycling infrastructure, programs or governance organisations.³⁴

Role of local governments

1.48 Local governments are generally responsible for kerbside collections, public place waste management, and the provision of infrastructure for recycling and disposal. In rural areas, local governments are generally 'the primary owners and often operators of waste transfer stations, resource recovery facilities and landfills' while some regional and metropolitan local governments also manage waste and resource recovery infrastructure. Significant volumes of waste are collected by local governments:

In 2022-23, Australian local governments collected about 9.9 Mt of waste via kerbside bin services. These comprise 'dry' recycling, organics and residual waste (garbage) sent to landfill or mechanical biological treatment.³⁵

International obligations

1.49 In addition to these domestic Australian responsibilities, Australia is committed to several international treaties and agreements regarding the export of waste. DCCEEW explained that Australia's involvement in international conventions and treaties guides the safe management of waste, chemicals and plastic pollution.³⁶

³³ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 48.

³⁴ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 48.

³⁵ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 57.

³⁶ DCCEEW, *Submission 7*, p. 6.

International Agreement to End Plastic Pollution

1.50 In March 2022, United Nations (UN) Member States endorsed a resolution to End Plastic Pollution, and agreed, through an intergovernmental negotiating committee, to forge an internationally legally binding instrument by the end of 2024. In reaching the agreement, Member States, including Australia, affirmed the 'urgent need' to:

...strengthen global coordination, cooperation and governance to take immediate action towards the long-term elimination of plastic pollution in marine and other environments, and to avoid detriment from plastic pollution to ecosystems and the human activities dependent on them.³⁷

1.51 To date and since 2022, there have been five meetings of the Intergovernmental Negotiating Committee (INC) on Plastic Pollution. Australia has attended all meetings of the INC, including the fourth meeting in Ottawa, Canada in April 2024³⁸ and the 'first part of the fifth session' in late 2024, in Busan, Republic of Korea. The 'second part of the fifth session' is scheduled to occur in August 2025, in Geneva, Switzerland.³⁹

1.52 In its opening statement to the fifth session, Australia called for 'global obligations for harmonised design standards for plastic products', as well as 'a financial mechanism that mobilises finances from all sources to support the instrument's successful implementation'. Australia also called for an agreement which 'meets the needs of our region, particularly Pacific Island countries who are disproportionately impacted by the adverse impacts of plastic pollution'.⁴⁰

1.53 Australia is also a signatory to the High Ambition Coalition to End Plastic Pollution (HAC), which is 'committed to develop an ambitious international legally binding instrument based on a comprehensive and circular approach that ensures urgent action and effective interventions along the full lifecycle of plastics'. The HAC's 'common ambition' is to end plastic pollution by 2040.⁴¹

³⁷ United Nations, Environment Assembly of the United Nations Environment Programme, [Resolution adopted by the United Nations Environment Assembly on 2 March 2022](#), 7 March 2022, p. 1.

³⁸ DCCEEW, *An international approach to plastic pollution*, 19 November 2024, www.dceew.gov.au/about/news/international-approach-to-plastic-pollution (accessed 11 March 2025).

³⁹ United Nations Environment Programme, *Intergovernmental Negotiating Committee on Plastic Pollution*, www.unep.org/inc-plastic-pollution (accessed 11 March 2023).

⁴⁰ United Nations Environment Programme, [Intergovernmental Negotiating Session—fifth session: Australia—Opening Statement](#), 28 November 2024.

⁴¹ High Ambition Coalition to End Plastic Pollution, *End Plastic Pollution by 2040*, <https://hactoendplasticpollution.org/> (accessed 11 March 2025).

1.54 The INC meetings continue despite advice on DCCEEW's website that the fifth meeting, in the Republic of Korea, was 'set to be the final negotiating session',⁴² and despite the 2024 deadline for the legally binding agreement. The UN's draft report of the INC meeting in Busan makes clear there is some frustration from Member States on the lack of progress to date:

...many representatives expressed concern and disappointment at the limited progress made in the discussions, with many representatives, including some speaking on behalf of groups of countries, urging representatives to accelerate work on the text of the proposed instrument...

...Many representatives said that progress had been hindered by the approaches of other members to the negotiations, with several representatives saying that some members appeared to be prioritizing interests other than the negotiation of a successful instrument. Several representatives urged committee members to negotiate in good faith, which, said some representatives, had not been the case to date...⁴³

1.55 Similarly, in December 2024, the Minister for the Environment and Water, the Hon Tanya Plibersek MP, expressed her disappointment that the negotiations in Busan failed to reach an agreement. Minister Plibersek noted that the Australian Government had joined the HAC, and that the government would:

...continue to work with other nations, business, ENGO's [environmental non-governmental organisations] and civil society in pursuit of our common ambitions.

Plastic production is set to triple by 2060, and experts predict plastics in oceans could outweigh fish by 2050—making this treaty critical, especially for Pacific Island countries.

We're working towards an agreement that globally bans problematic plastics and harmful chemicals, creates universal standards and ends plastic pollution by 2040.

At home, we're acting now by boosting domestic recycling capacity, phasing out single-use plastics and transforming packaging regulations.⁴⁴

Basel Convention

1.56 The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) was implemented in 1992⁴⁵ as a response to the discovery of toxic waste being imported from abroad, into Africa and other parts of the developing world. The Basel Convention

⁴² DCCEEW, *An international approach to plastic pollution*, 19 November 2024 (accessed 11 March 2025).

⁴³ United Nations, [United Nations Environment Programme: Draft report of the intergovernmental negotiating committee to develop an international legally binding instrument on plastic pollution, including in the marine environment, on the work of the first part of its fifth session](#), February 2025, pp. 8–9.

⁴⁴ The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Statement: Global plastics treaty negotiations', [Media Release](#), 4 December 2024.

⁴⁵ Australia ratified the Basel Convention in 1992.

restricts the transboundary movements of hazardous wastes, except where it is 'perceived to be in accordance with the principles of environmentally sound management'. The objective of the Basel Convention is to:

...protect human health and the environment against the adverse effects of hazardous wastes and other wastes requiring special consideration. Its scope of application covers a wide range of wastes defined as "hazardous wastes" based on their origin and/or composition and their characteristics, as well as four types of wastes defined as "other wastes"—household waste, incinerator ash, certain plastic wastes and certain electronic and electrical wastes.⁴⁶

1.57 In Australia, the Basel Convention is legislated by the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*. Also of note is the Waigani Convention, ratified by Australia in 1998, which implements aspects of the Basel Convention in the South Pacific.⁴⁷

1.58 In terms of managing its consumption, trade, and waste responsibly, Australia has other international commitments for which it must meet certain requirements. These govern the:

- safe international trade of hazardous chemicals;⁴⁸
- control of persistent and harmful chemicals;⁴⁹ and
- protection of the ocean from sea-dumping and plastic pollution.⁵⁰

Parliamentary and other inquiries

1.59 The importance and complexity of reducing waste and implementing effective recycling and circularity policies has been made clear through the many reports,

⁴⁶ United Nations, *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal: Overview*, www.basel.int/TheConvention/Overview/tabid/1271/Default.aspx (accessed 15 January 2025).

⁴⁷ DCCEEW, *Submission 7*, pp. 6 and 7.

⁴⁸ DCCEEW, *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*, 24 August 2023, www.agriculture.gov.au/agriculture-land/farm-food-drought/ag-vet-chemicals/international/rotterdam (accessed 3 June 2024); DCCEEW, *International hazardous waste conventions*, 5 October 2022, www.dcceew.gov.au/environment/protection/hazardous-waste/conventions (accessed 18 June 2024).

⁴⁹ DCCEEW, *Stockholm Convention on Persistent Organic Pollutants*, 27 February 2023, www.dcceew.gov.au/environment/protection/chemicals-management/international-agreements/stockholm-convention (accessed 3 June 2024); DCCEEW, *Minamata Convention on Mercury*, 27 February 2023, www.dcceew.gov.au/environment/protection/chemicals-management/mercury (accessed 3 June 2024).

⁵⁰ International Maritime Organisation, *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx (accessed 3 June 2024); The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Australia joins global efforts to end plastic pollution', *Media Release*, 16 November 2022.

analyses and targeted inquiries into various elements of waste disposal and resource recovery.

1.60 In recent years, there has been significant examination of waste, resource recovery and the circular economy, with numerous inquiries still ongoing. These reports and inquiries include (but are not limited to):

- CEMAG (the interim and final findings and recommendations of CEMAG are detailed later in this report);
- Productivity Commission, and its current review into the opportunities in the circular economy (discussed later in this report);⁵¹
- Commonwealth Scientific and Industrial Research Organisation (CSIRO), which is conducting 'Ending Plastic Waste' research, aimed at reducing plastic waste entering the Australian environment, by 80 per cent by 2030; the CSIRO is examining several areas in relation to plastics, including:
 - upstream design;
 - resource recovery;
 - knowledge and data for managed and mismanaged plastic waste; and
 - global and education initiatives;⁵²
- DCCEEW – Australia's Circular Economy Framework 2024.⁵³

1.61 The committee's current inquiry also follows several previous and current parliamentary inquiries (not including legislative inquiries) that have examined similar or related matters, including:

- 2018 Senate Environment and Communications References Committee inquiry into the waste and recycling industry in Australia;⁵⁴
- 2020 Senate Environment and Communications Legislation Committee inquiry into the Recycling and Waste Reduction Bill 2020 [Provisions] and related bills;⁵⁵

⁵¹ The Productivity Commission also completed an inquiry into waste in 2006, titled '[Waste Management](#)', 20 October 2006.

⁵² Commonwealth Scientific and Industrial Research Organisation (CSIRO), *Ending plastic waste*, <https://research.csiro.au/ending-plastic-waste/> (accessed 23 February 2025).

⁵³ DCCEEW, *Australia's Circular Economy Framework*, December 2024.

⁵⁴ Senate Environment and Communications References Committee, *Never waste a crisis: the waste and recycling industry in Australia*, June 2018.

⁵⁵ Senate Environment and Communications Legislation Committee, *Recycling and Waste Reduction Bill 2020 [Provisions] and related bills*, October 2020.

- 2021 Senate Environment and Communications Legislation Committee inquiry into the Product Stewardship Amendment (Packaging and Plastics) Bill 2019;⁵⁶ and
 - 2024 House of Representatives inquiry into plastic pollution in Australia's oceans and waterways.⁵⁷
- 1.62 While not discussed below, the committee also notes that other recent inquiries have canvassed similar topics, including a 2015 Senate Environment and Communications References Committee inquiry into the threat of marine plastic pollution in Australia;⁵⁸ and a 2020 House of Representatives inquiry into innovative solutions in Australia's waste management and recycling industries.⁵⁹
- 1.63 In addition, a House of Representatives inquiry into Food and Beverage Manufacturing in Australia, which commenced in March 2024 and concluded in February 2025, considered the circular economy, waste reduction and decarbonising, including packaging and food waste, in its terms of reference. Relevantly, this inquiry recommended the harmonisation of Australia's various container deposit schemes, and the development of policies to support reduced and recyclable food packaging with consideration to packaging design standards that encourage circular economy principles.⁶⁰

Senate inquiry into waste and recycling (2018)

- 1.64 In June 2018, the committee tabled its report for its inquiry into the waste and recycling industry in Australia. Of relevance to the current inquiry, the report, titled *Never waste a crisis: the waste and recycling industry in Australia*, considered the role of the Australian Government in facilitating solid waste management, incentives and collection methods, and the destination of materials collected for recycling.⁶¹

⁵⁶ Senate Environment and Communications Legislation Committee, [Product Stewardship Amendment \(Packaging and Plastics\) Bill 2019](#), February 2021.

⁵⁷ House of Representatives Standing Committee on Climate Change, Energy, Environment and Water, [Drowning in waste: Plastic pollution in Australia's oceans and waterways](#), May 2024.

⁵⁸ Senate Environment and Communications References Committee, [Toxic tide: the threat of marine plastic pollution in Australia](#), April 2016.

⁵⁹ House of Representatives Standing Committee on Industry, Innovation, Science and Resources, [From Rubbish to Resources: Building a Circular Economy](#), December 2020.

⁶⁰ House of Representatives Standing Committee on Industry, Science and Resources, [Food for Thought: The opportunities and challenges for Australia's food and beverage manufacturing industry](#), February 2025, pp. 160–161.

⁶¹ Senate Environment and Communications References Committee, [Never waste a crisis: the waste and recycling industry in Australia](#), June 2018.

- 1.65 The committee made 18 unanimous recommendations to address deficiencies identified in the recycling industry, which the committee stated followed 'years of failure across all levels of government to make the policy decisions required to put the industry on a solid footing'.⁶²
- 1.66 The committee put a particular focus on 'underlying problems in the recycling sector' which could 'no longer be ignored', in light of the significant 2017 announcement by the Chinese Government that imports of 24 types of waste would be banned, along with the introduction of stringent contamination controls on imported waste into China.⁶³
- 1.67 The committee also highlighted the urgent need to transition to a circular economy:
- ...the Australian Government must act urgently to transition away from a linear economy to a circular economy which prioritises the collection, recovery and re-use of products, including within Australia. This transition must include a suite of regulatory and policy changes aimed at influencing behaviour, as well as investments in infrastructure and technology.⁶⁴
- 1.68 The committee pointed to the Council of Australian Governments' (COAG) agreement, in 2009, to a comprehensive National Waste Policy. The committee noted that the full and proper implementation of the National Waste Policy, with foreshadowed updates to include circular economy principles, was a way for the Australian Government to show leadership in this space. However, the committee observed that the National Waste Policy, despite agreement by all state and territory governments, at that time had not been implemented.⁶⁵ The committee made three recommendations relating to: the prioritisation of a circular economy; the implementation of the National Waste Policy; and waste reduction and recycling instead of other methods like waste-to-energy.⁶⁶

⁶² Senate Environment and Communications References Committee, [*Never waste a crisis: the waste and recycling industry in Australia*](#), June 2018, p. 131.

⁶³ This is known as the 'Operation National Sword' policy; see Senate Environment and Communications References Committee, [*Never waste a crisis: the waste and recycling industry in Australia*](#), June 2018, p. 75.

⁶⁴ Senate Environment and Communications References Committee, [*Never waste a crisis: the waste and recycling industry in Australia*](#), June 2018, p. 131.

⁶⁵ Senate Environment and Communications References Committee, [*Never waste a crisis: the waste and recycling industry in Australia*](#), June 2018, p. 131.

⁶⁶ Senate Environment and Communications References Committee, [*Never waste a crisis: the waste and recycling industry in Australia*](#), June 2018, p. 133.

- 1.69 In order to reduce the volume of plastics requiring recycling in a circular economy, the committee recommended a phase out of petroleum-based single-use plastics by 2023 and the establishment of a plastics research centre.⁶⁷
- 1.70 The committee further recommended that product stewardship schemes established under the *Product Stewardship Act 2011* become mandatory schemes, and that schemes be established for tyres, mattresses, e-waste, and photovoltaic panels. Product stewardship schemes were also recommended to be enhanced by extending producer responsibility. The committee also recommended the re-establishment of the Product Stewardship Advisory Committee.⁶⁸
- 1.71 In 2024, the Australian Government responded to the recommendations made in the committee's 2018 report, 'noted' the recommendations and provided the same response to each of the 18 recommendations: 'The Government notes this recommendation. However, given the passage of time since this report was tabled, a substantive Government response is no longer appropriate'.⁶⁹

Senate inquiry into the Recycling and Waste Reduction Bill 2020 and related bills (2020)

- 1.72 The Senate Environment and Communications Legislation Committee (Legislation Committee) examined the bills which would become the RAWR Act, tabling a report in October 2020.
- 1.73 There was unanimous support for the bills, with recommendations from the Legislation Committee that the government continue to work with state, territory and local governments on implementation of the RAWR Act, with a 'specific focus on achieving alignment of infrastructure, investment and data (definitions and reporting), as well as associated policy, guidelines and regulatory regimes'. The Legislation Committee also recommended the government 'should expedite' consideration of 'mandatory targets for the use of a percentage of recycled material'.⁷⁰
- 1.74 The bills provided the framework for both the voluntary and mandatory product stewardship schemes which are currently in place and discussed later in this report. Evidence to the 2020 inquiry supported strengthening the mandatory stewardship provisions, including in circumstances where voluntary targets and standards were not achieved. To that end, in introducing

⁶⁷ Senate Environment and Communications References Committee, [Never waste a crisis: the waste and recycling industry in Australia](#), June 2018, p. 134.

⁶⁸ Senate Environment and Communications References Committee, [Never waste a crisis: the waste and recycling industry in Australia](#), June 2018, pp. x–xi.

⁶⁹ Australian Government, [Australian Government response to the Environment and Communications References Committee report: Never waste a crisis: the waste and recycling industry in Australia](#), May 2024, pp. 2–6.

⁷⁰ Senate Environment and Communications Legislation Committee, [Recycling and Waste Reduction Bill 2020 \[Provisions\] and related bills](#), October 2020, p. 32.

the bill, the Environment Minister at that time (the Hon Sussan Ley MP), said that 'those industries who do not step up and do not take part [in voluntary] schemes can assume that the government will step in for them, and enforce its own regulatory scheme'.⁷¹

- 1.75 When the bills came before the Senate, several amendments were proposed by Senator Whish-Wilson, which would have introduced a mandatory product stewardship scheme for packaging and plastics, with specific plastics labelling requirements; prohibited certain plastics over time; and enabled rules to be made to require financial contributions from companies, to deal with particular classes of plastics.⁷² The amendments were unsuccessful, including the amendment to introduce mandatory product stewardship schemes which was negated on a tied vote. Labor, the Greens and other crossbench senators were in support of the product stewardship amendment, with the Coalition and One Nation senators voting against it.⁷³

Senate inquiry into the Product Stewardship Amendment (Packaging and Plastics) Bill (2021)

- 1.76 In early 2021, the Legislation Committee tabled its report into the Product Stewardship Amendment (Packaging and Plastics) Bill 2019, a private senator's bill introduced by Senator Whish-Wilson.

- 1.77 The bill proposed to establish:

...a mandatory product stewardship scheme for manufacturers, importers and distributors of consumer packaging and certain single-use plastics; and prescribe[d] targets, prohibitions, design requirements, labelling requirements, and financial contributions in relation to packaging and products identified under the scheme.⁷⁴

- 1.78 Evidence to the inquiry was 'strongly supportive of the intention of the bill to reduce plastic waste in the environment and drive reform in the waste recycling and manufacturing sectors'. While not supportive of the bill, in additional comments to the report senators from the Australian Labor Party noted that the intentions of the bill would best be delivered by government, accompanied by a regulatory impact statement, and said that:

⁷¹ Senate Environment and Communications Legislation Committee, *Recycling and Waste Reduction Bill 2020 [Provisions] and related bills*, October 2020, pp. 22–23.

⁷² Parliament of Australia, *Recycling and Waste Reduction Bill 2020*, www.aph.gov.au/Parliamentary_Business/Bills_LEGislation/Bills_Search_Results/Result?bId=r6573 (accessed 11 March 2025).

⁷³ *Senate Hansard*, [7 December 2020](#), pp. 6965–6976.

⁷⁴ Product Stewardship Amendment (Packaging and Plastics) Bill 2019, Explanatory Memorandum, p. 3.

In the spirit of national leadership, it simply does not make sense to have states and territories tackle such reforms without coordinated support of the Federal Government.⁷⁵

1.79 The bill was surpassed by implementation of the RAWR Act, and lapsed at the end of the Parliament.

House of Representatives report on plastic pollution in oceans and waterways (2024)

1.80 In May 2024, the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water tabled its report for its inquiry into plastic pollution in Australia's oceans and waterways. The report, *Drowning in waste*, examined the effectiveness of: Australia's plastics management framework; engagement on this subject between the various layers of government; and community campaigns, and global initiatives to reduce plastic pollution in oceans and waterways.⁷⁶

1.81 The House committee made 22 recommendations to strengthen Australia's plastics management framework to minimise plastic waste ending up in oceans and waterways, incentivising the use of recycled materials in the production of new plastics, and strengthening the management of plastic already in the environment.⁷⁷

1.82 The committee found that the National Plastics Plan 'is a disjointed compilation of goals, disappointingly some of which were already completed prior to the plan being developed and others that were not completed by their expected deadline'. The report also stated that the responsibility for plastic should be placed 'back onto plastics manufacturers'.⁷⁸

1.83 Relevant to this inquiry, the House committee recommended that:

- the National Plastics Plan be updated;
- DCCEEW undertake a feasibility study into appropriate plastic disposal options for regional and remote areas;
- DCCEEW investigate whether some of the National Packaging Targets 2025 should be mandated and work with industry to revise and strengthen the targets to ensure clearer and measurable goals;
- national waste collection standards be established, with regional and remote areas without kerbside recycling in mind; and

⁷⁵ Senate Environment and Communications Legislation Committee, [Product Stewardship Amendment \(Packaging and Plastics\) Bill 2019](#), February 2021, pp. 3 and 9.

⁷⁶ House of Representatives Standing Committee on Climate Change, Energy, Environment and Water, [Drowning in waste: Plastic pollution in Australia's oceans and waterways](#), May 2024, p. vii.

⁷⁷ House of Representatives Standing Committee on Climate Change, Energy, Environment and Water, [Drowning in waste: Plastic pollution in Australia's oceans and waterways](#), May 2024, p. vii.

⁷⁸ House of Representatives Standing Committee on Climate Change, Energy, Environment and Water, [Drowning in waste: Plastic pollution in Australia's oceans and waterways](#), May 2024, p. vii.

- plastic packaging and recyclability labelling be standardised and simplified.⁷⁹

'Waste' vs 'resource'

1.84 The committee heard that the term 'waste' is often applied to all portions of the recycling and reuse process. However, the committee received extensive evidence suggesting that current approaches to waste management and recycling should more properly consider the end products of recycling as a 'resource'.

1.85 The Australian Resources Recovery Council (ARRC), (formerly the National Waste and Recycling Industry Council; NWRIC)⁸⁰, submitted that waste generated by society 'must be recognised in government policy as being a genuine resource that all must [be] recovered, recycled, and reused in their entirety across all jurisdictions'. The ARRC called for legislative amendment to change references to 'waste' to 'secondary commodity exports'.⁸¹

1.86 The name change from NWRIC to ARRC, reflects the organisation's strong position on this issue. In advising about the change, the ARRC reflected that it was:

...championing the call to our elected representatives and all policymakers to prioritise resource recovery as the main game if the nation is to achieve its ambitious waste diversion targets by 2030.

ARRC CEO [Chief Executive Officer], Rick Ralph, said..."Australia is projected to hit 81 million tonnes of generated waste by 2025. Our Council is leading and focused on how we can generate an alternate source of renewable and recycled materials, but we need our governments to come to the table."

..."For too long the debate has focused on waste management and recycling performance and has not prioritised the bigger opportunity of the alternative resources our nation generates in its community and industrial waste."⁸²

1.87 Mr Darren Thorpe, Managing Director of the APR Group, a paper and plastics recycler, also argued that once waste is placed in a commercial collected bin, it

⁷⁹ House of Representatives Standing Committee on Climate Change, Energy, Environment and Water, *Drowning in waste: Plastic pollution in Australia's oceans and waterways*, May 2024, pp. xv-xvi.

⁸⁰ At the time of submitting and presenting to the committee, the Australian Resources Recovery Council (ARRC) was known as the National Waste and Recycling Industry Council (NWRIC). This report refers to the entity as the ARRC.

⁸¹ ARRC, *Submission 13*, p. 2. See also: Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 9.

⁸² ARRC, *Media Release: Major Changes for Australia's Resources Recovery Performance*, 9 February 2025, <https://ausrrc.com.au/major-changes-for-australias-resources-recovery-performance/> (accessed 11 March 2025).

becomes a resource to which value is added via the recycling process. Mr Thorpe suggested that the 'more we call it "waste" the more we're not going to give it the respect that it deserves. We need to be calling it a resource, first and foremost'.⁸³

- 1.88 Ms Suzanne Toumbourou, the Chief Executive Officer (CEO) of ACOR, argued that treating processed recycled commodities as waste added 'cost and delay to the trade of recycled products and fundamentally undermin[ed] investment in domestic recycling infrastructure'. She continued that it was important to distinguish between waste and recycled commodities to ensure recycled materials were not treated as 'waste'. Ms Toumbourou explained that:

When it's a recovered commodity that has value and a market to go to, it's not waste. We, the states and territories and even the federal government, need to get better as a country. In fact, we struggle with definition internationally as well. It is a priority, and our national resource recovery framework should help to lead the way in defining that distinction.⁸⁴

...

The absence of end-of-waste definitions hinders our sector, and a nationally harmonised resource recovery framework is needed to address this.⁸⁵

- 1.89 The Waste Contractors and Recyclers Association of NSW (WCRA) likewise said that 'Australia's narrative in terms of waste, recycling and reuse must be reformed', with waste generated by society recognised in government policy as a 'genuine resource that must be recovered, recycled and reused in [its] entirety across all jurisdictions'. The WCRA concluded that:

There remains a constant disconnect in terms of state regulatory approval processes, public policy interference, and the lack of long-term planning for the siting of waste and recycling infrastructure. Resource recovery national policy and setting of future actions must be expanded to include the energy recovery opportunity.⁸⁶

- 1.90 CEMAG reported to the Australian Government in December 2024 that other overseas jurisdictions are moving towards a circular economy focused on designing out waste and keeping resources in use:

Internationally, the policy focus has shifted from 'waste' to a 'circular economy'... Australia must adopt a similar approach, moving beyond the current National Waste Policy... Sustainable resource management has also become a major focus of high-profile multilateral agreements, including the G7 [Group of Seven] Alliance on Resource Efficiency, the G20 [Group of 20]

⁸³ Mr Darren Thorpe, Managing Director, APR Group, *Committee Hansard*, 8 May 2024, p. 30.

⁸⁴ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 4.

⁸⁵ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 1.

⁸⁶ Waste Contractors and Recyclers Association of New South Wales, *Submission 1*, p. 2.

Resource Efficiency Dialogue and the various partnerships and initiatives launched by the World Economic Forum.⁸⁷

The need for better data

- 1.91 An overarching issue which hinders recycling, resource recovery and packaging outcomes across Australia is the lack of relevant data available to both government and industry stakeholders.
- 1.92 It was argued throughout the inquiry that a lack of clear, targeted and timely data was impeding Australia's progress and investment in waste processing and recycling. The committee heard calls for improvements to the collection, timing and analysis of waste resource and recycling data, as outlined below.

Current sources of data

- 1.93 Since 2010, the main source of national data on waste management and resource recovery has been the National Waste Report.⁸⁸ Seven iterations of the National Waste Report have been released, with the most recent being the December 2024 version which was renamed the National Waste and Resource Recovery Report (2024 NWRR Report).⁸⁹
- 1.94 The 2024 NWRR Report includes data for the 2022-23 financial year on Australia's waste generation, source streams, materials and fates as well as resource recovery and recycling rates. Trend data is included back to 2016-17 to enable interannual comparison. The data was largely obtained from state and territory governments which collect the data from waste operators and local governments.⁹⁰
- 1.95 The 2024 NWRR Report is available in a web-based format with interactive data viewers, allowing users to filter and view the data in different ways including by jurisdiction, source stream and waste category.⁹¹
- 1.96 The National Waste and Resource Recovery Database 2024 was released alongside the 2024 NWRR Report and collates data on Australian waste

⁸⁷ CEMAG, *Final Report: The Circular Advantage*, December 2024, p. 23.

⁸⁸ DCCEEW, *Waste publications and data*, 12 December 2024, www.dcceew.gov.au/environment/protection/waste/publications (accessed 17 February 2025).

⁸⁹ DCCEEW, *National waste and resource recovery reporting*, 16 January 2025, www.dcceew.gov.au/environment/protection/waste/publications/national-waste-resource-recovery-reporting (accessed 17 February 2025).

⁹⁰ DCCEEW, *National Waste and Resource Recovery Report 2024* (prepared by Blue Environment Pty Ltd), January 2025, pp. 1–5.

⁹¹ DCCEEW, *National waste and resource recovery reporting*, 16 January 2025 (accessed 17 February 2025).

quantities for 2006-07 to 2022-23 in a format that allows users to do their own data analysis.⁹²

1.97 Other key sources of national waste and resource recovery data include the following:

- **The Australian waste and resource recovery infrastructure database** which records the facilities involved in waste and resource recovery. The data can be sorted by location, management and/or infrastructure type.⁹³
- **The waste export data viewer** which contains data from 2017-18 to 2023-24 on exports of waste and recycled materials. The data is searchable by jurisdiction, material type and tonnages.⁹⁴
- **The organics kerbside collections services data viewer** which helps users find the local government areas that have implemented an organics kerbside collection service.⁹⁵
- **The Recycling Modernisation Fund data viewer** which provides detailed information on funded projects and is searchable by jurisdiction, location, material type and facility type.⁹⁶
- **The Australian Plastics Flows and Fates Study** which has been conducted annually since 2000 and captures rates of plastic consumption, recycling and recovery across all polymer types and applications.⁹⁷
- **The Packaging Consumption and Recovery Data Report** published by the Australian Packaging Covenant Organisation (APCO) which quantifies packaging placed on market, packaging recovery rates, recycling potential, reuse and losses in the system.⁹⁸

⁹² DCCEEW, *National waste and resource recovery reporting*, 16 January 2025 (accessed 17 February 2025). The National Waste and Resource Recovery Database 2024 excludes data for the financial years 2007-08, 2011-12 and 2012-13 because national waste data was not collated for those years.

⁹³ DCCEEW, *Australian waste and resource recovery infrastructure database*, 5 February 2025, www.dcceew.gov.au/environment/protection/publications/waste-resource-recovery-infrastructure-db (accessed 17 February 2025).

⁹⁴ DCCEEW, *Waste exports*, 2 December 2024 (accessed 17 February 2025).

⁹⁵ DCCEEW, *Recovering organic waste*, 16 December 2024, www.dcceew.gov.au/environment/protection/waste/food-waste/recovering-organic-waste (accessed 17 February 2025).

⁹⁶ DCCEEW, *Investing in Australia's waste and recycling infrastructure*, 5 February 2025, www.dcceew.gov.au/environment/protection/waste/how-we-manage-waste/recycling-modernisation-fund (accessed 17 February 2025).

⁹⁷ DCCEEW, *Australian Plastic Flows and Fates Study 2021-22 National Report* (prepared by Blue Environment Pty Ltd), June 2024. Plastic packaging and recycling is discussed later in this report.

⁹⁸ Australian Packaging Covenant Organisation (APCO), *Resources*, <https://apco.org.au/resources> (accessed 18 February 2025).

Issues with existing data

1.98 Inquiry participants pointed out a range of issues with existing data sources, including incomplete or missing data, delays and lack of transparency in the release of data, and difficulties in aligning data from different jurisdictions.

1.99 For instance, when asked in May 2024 about the proportion of Australian packaging in supermarkets that is currently made from Australian recycled material, the CEO of ACOR stated:

I don't have that information. Part of the issue is that we're not seeing good data yet. Ideally, a traceability framework could help to support this, but we're not seeing good data on the difference between domestic recycled material and imported recycled material...⁹⁹

1.100 In its submission, ACOR explained that there is 'poor data and information on recycling' because:

Data capture has typically conflated waste management and recycling, so that the true capacity for recycling and re-manufacturing infrastructure in Australia is not well mapped and the markets for recycled materials are not well understood or supported. Logistics operators, aggregators, processors and remanufacturers are often defined as one group in datasets, masking genuine capacity and the value chain required to deliver recycling outcomes.¹⁰⁰

1.101 Similarly, an independent audit by the Australian Marine Conservation Society (AMCS) and the Boomerang Alliance found there is generally poor data collection regarding Australian supermarkets' plastic footprints, and although supermarkets provide some packaging data to APCO that data is not made publicly available.¹⁰¹ The audit report suggested that this lack of transparency around plastic packaging data meant that supermarkets could avoid accountability:

For too long, supermarkets and other retailers have not been held accountable for the amount of plastic packaging they place on the market in Australia. While supermarkets are required to report on their progress towards the 2025 National Packaging Targets, this data is not made publicly available. Details contained within annual sustainability reports highlight cherry-picked achievements without providing verifiable evidence that it has reduced plastic packaging in real terms.¹⁰²

1.102 MRA Consulting Group also made the point that lengthy delays in the release of data undermine the public's ability to hold governments to account for

⁹⁹ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 3.

¹⁰⁰ ACOR, *Submission 40*, p. 4.

¹⁰¹ AMCS, *Supermarkets report*, additional information received August 2024, p. 18.

¹⁰² AMCS, *Supermarkets report*, additional information received August 2024, p. 23. Issues around APCO, packaging and plastics are discussed in more detail later in this report.

progress towards targets outlined in the National Waste Policy Action Plan.¹⁰³ Considering the time lag in reporting waste data, MRA Consulting Group noted 'we will probably wait until 2032 or 2033 to look backwards to 2030 to see if we achieved the targets. That looks like a free pass on accountability...'.¹⁰⁴

1.103 Ms Gayle Sloan, CEO of the Waste Management and Resource Recovery Association of Australia (WMRR), told the committee that a 'lack of understanding of the data and the material flows'—including how much waste Australia imports, circulates and manufactures—'has been a real hamper in relation to how we've grown the sector'.¹⁰⁵

1.104 A Branch Head within DCCEEW's Circular Economy Division acknowledged industry concerns that 'data is hard to obtain', and explained this was partially due to 'there being commercial data that is held by businesses and different data that is held by state and territory governments'.¹⁰⁶

1.105 Indeed, the March 2024 edition of the Australian Standard for Waste and Resource Recovery Data and Reporting states that the differences in data collection practices between the states and territories have created complications for national reporting:

To a significant extent, state and territory data systems have developed independently—each has its own set of classifications, terminology and reporting systems that may be embedded in legislation, policy, regulation and licences. Differences between these systems increase costs and uncertainty for national waste businesses, make it harder to align state and territory policies, and increase the difficulty in compiling national reports and data sets.¹⁰⁷

Calls for improved data

1.106 Submitters and witnesses called for more comprehensive, timely and transparent data collection and reporting to enable the evaluation of existing waste management and recycling policies and to inform future policy development.¹⁰⁸

¹⁰³ MRA Consulting Group, *Submission 31*, p. 10.

¹⁰⁴ MRA Consulting Group, *Submission 31*, p. 10.

¹⁰⁵ Ms Gayle Sloan, CEO, Waste Management and Resource Recovery Association of Australia, *Committee Hansard*, 8 May 2024, p. 36.

¹⁰⁶ Ms Jackie Raynor, Branch Head, Partnerships, Infrastructure and Analysis Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 66.

¹⁰⁷ DCCEEW, [Australian Standard for Waste and Resource Recovery Data and Reporting](#) (prepared by Blue Environment Pty Ltd), March 2024, p. 1.

¹⁰⁸ See, for example, RMIT University Construction and Waste Lab, *Submission 17*, p. 3; Doctors for the Environment Australia, *Submission 20*, p. 4; Australian Academy of Technological Sciences and Engineering, *Submission 24*, [p. 2]; ACOR, *Submission 40*, Attachment 1, [pp. 35 and 43].

1.107 In its final report, CEMAG suggested that as part of a circular economy and to improve data, a legislative framework should mandate annual disclosures of key metrics from relevant businesses, including 'resource inefficiency, waste generation and the disposal of unsold goods'. CEMAG argued that:

Mandatory reporting would enhance transparency, enable effective tracking of resource flows and hold businesses accountable for their environmental impact across value chains. Consistent, comprehensive data would also support better policymaking, create a level playing field and drive industries to prioritise sustainability.¹⁰⁹

1.108 The Productivity Commission (PC) released its interim report in March 2025, for its inquiry into Australia's circular economy.¹¹⁰ The PC found that limited system-wide data on circular economy progress meant that governments were less able to make well-informed decisions about circular activities and policies. As it continues its work, the PC will consider different approaches to the collection of data, including which agencies should collect (or estimate) the data, and the consistency of data across states and territories needed for circular economy principles.¹¹¹

1.109 The AMCS and the Boomerang Alliance recommended that governments should 'require supermarkets to transparently report plastic packaging data and make it available to the public' as this would help assess supermarkets' progress against plastic packaging reduction targets.¹¹²

1.110 Additionally, the Australian Food and Grocery Council, representing Australia's food, beverage and grocery manufacturing sector, argued that:

Enhancing existing registries to fulfil the increasing data needs of waste and recycling policies and acquiring circular metrics like recycled content percentage and material composition in a uniform manner for the industry is crucial. Consistency in data collection is paramount, whether it pertains to product stewardship requirements, packaging data reform, recycled content traceability, or export ban purposes.¹¹³

1.111 MRA Consulting Group emphasised the importance of data being released in a timely manner, 'as close to real time as possible', to enable accurate assessment

¹⁰⁹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 38.

¹¹⁰ The Productivity Commission's interim report and similar inquiries are discussed later in this report.

¹¹¹ Productivity Commission, [Australia's circular economy: Unlocking the opportunities—Interim report](#), March 2025, pp. 11 and 30.

¹¹² AMCS, [Supermarkets report](#), additional information received August 2024, p. 58.

¹¹³ Australian Food and Grocery Council, [Submission 59](#), p. 10.

of whether Australia is on track to achieving the National Waste Policy Action Plan targets.¹¹⁴

1.112 DCCEEW officials advised that there are cross-jurisdictional efforts underway aimed at improving the data and evidence base for industry. The committee heard that there is a specific data working group sitting under the Resource Recovery Reference Group, comprising senior representatives from Commonwealth, state and territory and local governments as well as industry groups and non-government organisations.¹¹⁵ This working group is:

...looking specifically at waste and resource recovery data, including how we get better data, how we make sure it's collated consistently, how we make sure we're all using consistent definitions and how we provide it on a more frequent basis and in a more accessible format.¹¹⁶

¹¹⁴ MRA Consulting Group, *Submission 31*, p. 10. The National Waste Policy and Targets are discussed in detail later in this report.

¹¹⁵ Ms Jackie Raynor, Branch Head, Partnerships, Infrastructure and Analysis Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 66.

¹¹⁶ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 62.

Chapter 2

Current waste management and recycling practices in Australia

- 2.1 As detailed in the previous chapter, Australia's waste levels are increasing. While most waste is comprised of building and demolition materials, it also includes substantial quantities of organics (both household and commercial), hazardous waste, and nearly 8 million tonnes (Mt) of paper, cardboard and plastics annually.
- 2.2 To manage this waste, Australia implements waste management and recycling practices, operating in accordance with various legislative and policy frameworks, including international treaties, state and territory government laws and Australian Government export and import conditions.
- 2.3 This chapter examines the key frameworks and targets driving Australia's current approach to waste reduction and recycling, including the National Waste Policy Action Plan.
- 2.4 This chapter also puts forward the general concerns raised by submitters and witnesses about the state of waste reduction and recycling in Australia, before further chapters of the report provide detailed information on specific elements and issues of the resource recovery sector.
- 2.5 Key concerns raised in this chapter include inadequate progress towards the National Waste Policy Action Plan targets; regulatory fragmentation between state and territory jurisdictions; and the need for swift, decisive leadership and action at the national level to harmonise waste management and recycling practices and frameworks.
- 2.6 The next chapter outlines the key elements of a circular economy, Australia's transition towards a circular economy, and the recommendations put forward by the Circular Economy Ministerial Advisory Group (CEMAG) and Productivity Commission regarding Australia's transition.

National waste policies and action plans

- 2.7 In 2018, the federal, state and territory governments agreed to a National Waste Policy (Waste Policy) and, in 2019, an associated National Waste Policy Action Plan (2019 Action Plan), based on circular economy principles.¹
- 2.8 The Waste Policy provided a framework for collective action to improve waste management by businesses, governments, communities, and individuals until

¹ Department of Climate Change, Energy, the Environment and Water (DCCEEW), [Consultation Regulation Impact Statement: Phasing out certain waste exports](#), December 2019, p. 13.

2030.² The policy outlined five principles for waste management to enable Australia to transition to a circular economy:

- (1) Avoid waste
- (2) Improve resource recovery
- (3) Increase use of recycled material and build demand and markets for recycled products
- (4) Better manage material flows to benefit human health, the environment, and the economy
- (5) Improve information to support innovation, guide investment and enable informed consumer decisions.³

2.9 The associated 2019 Action Plan set seven non-binding, voluntary targets and 80 actions to achieve the ambitions listed in the Waste Policy. The seven targets are:

- (1) Ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020
- (2) Reduce total waste generated in Australia by 10 per cent per person by 2030
- (3) 80 per cent average resource recovery rate from all waste streams following the waste hierarchy by 2030
- (4) Significantly increase the use of recycled content by governments and industry
- (5) Phase out problematic and unnecessary plastics by 2025
- (6) Halve the amount of organic waste sent to landfill by 2030
- (7) Make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions.⁴

Progress against the 2019 Action Plan targets

2.10 In providing a submission to the committee in 2024, the Department of Climate Change, Energy, the Environment and Water (DCCEEW) advised that three of the seven objectives in the 2019 Action Plan have not been met, three have only been partly met, and one—the export bans—was implemented or on track.⁵

2.11 Table 2.1 provides a breakdown of progress made against each target in the 2019 Action Plan, as of April 2024.

² DCCEEW, *National Waste Policy*, 7 February 2025, www.dcceew.gov.au/environment/protection/waste/how-we-manage-waste/national-waste-policy (accessed 14 February 2025).

³ DCCEEW, *National Waste Policy* (accessed 20 May 2024).

⁴ DCCEEW, *National Waste Policy Action Plan 2019*, p. 2.

⁵ DCCEEW, *Submission 7*, p. 4.

Table 2.1 Progress towards 2019 National Waste Policy Action Plan targets (as of April 2024)

Target 1 —Ban the export of waste plastic, paper, glass, and tyres commencing in the second half of 2020. ⁶	Implemented or on track. Export bans on waste plastic, glass and tyres are already in place. Exports of mixed paper and cardboard have been regulated since 1 July 2024.
Target 2 —Reduce total waste generated in Australia by 10 per cent per person by 2030.	Estimated increase of three per cent since 2016-17.
Target 3 —80 per cent average resource recovery rate from all waste streams following the waste hierarchy by 2030.	Estimated increase of 2.2 percentage points since 2016-17.
Target 4 —Significantly increase the use of recycled content by governments and industry.	Estimated increase of 15 per cent since 2016-17.
Target 5 —Phase out problematic and unnecessary plastics by 2025.	Environment ministers have agreed to ban eight problematic and unnecessary single-use plastic products. Single-use plastic bags are banned nationwide. Specified additional single-use plastics are banned in New South Wales (NSW), Victoria, Queensland, Western Australia, South Australia, the Australian Capital Territory and Hobart, and will be banned in the Northern Territory by 2025. ⁷
Target 6 —Halve the amount of organic waste sent to landfill by 2030.	Estimated increase of three per cent since 2016-17.
Target 7 —Make comprehensive, economy-wide and timely data publicly	Data is available at the Waste and Resource Recovery Data Hub . The National Waste Report is released every two years.

⁶ The 2019 National Waste Policy Action Plan outlined actions to implement the 2018 National Waste Policy. One of those targets was to ‘Ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020’. The *Recycling and Waste Reduction Act 2020* was not introduced into Parliament until August 2020 and passed both Houses in December 2020. Export bans on waste plastic, paper, glass, and tyres were phased in during 2021 and 2022.

⁷ The eight problematic and unnecessary single-use plastics agreed to by all Australian governments in 2021 were: lightweight shopping bags, fragmentable plastics, straws, utensils and stirrers, bowls and plates, expanded polystyrene, consumer food containers and goods packaging, and microbeads in personal products. DCCEEW, *Submission 7*, p. 4.

available to support better consumer, investment and policy decisions.	
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Source: DCCEEW, *Submission 7*, p. 4.

2.12 In response to questions from the committee, DCCEEW provided further details on progress on several targets. In May 2024, Ms Kate Lynch, Division Head from the Circular Economy Division of DCCEEW, advised that:

- for **Target 2** (total waste per person), it was expected to see 'some ongoing increase in that over the next few years' and that Australia was 'not tracking particularly well against that target';
- for **Target 3** (80 per cent resource recovery by 2030), while it was possible the target may be met, the more likely expectation for 2030 was a 'shortfall of maybe nine or 10 per cent'; and
- for **Target 6** (halving organic waste), it was expected that 'there will be a shortfall' in meeting the 2030 target.⁸

2.13 Ms Lynch concluded that progress against the 2030 targets was 'not that heartening', and continued that:

It's something that we reported collectively—the Resource Recovery Reference Group essentially provided advice to environment ministers in 2023 on this issue. Ministers have given us instructions, effectively, to revise and update the National Waste Policy Action Plan to better target these efforts and ensure that we're putting the greatest effort into those things that we think will actually shift the dial a bit towards these targets.⁹

Stakeholder views on the 2019 Action Plan

2.14 While inquiry participants were broadly supportive of the 2019 Action Plan, some argued that there were gaps in the targets, and many expressed concerns at the lack of progress towards the targets.

2.15 The Waste Management and Resource Recovery Association of Australia (WMRR) commended the development of the 2019 Action Plan, saying that it marked:

...the first time since about 2014 there was any investment in our sector nationally. That was really important, because up until then the states had been driving a lot of the policy.¹⁰

⁸ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 63.

⁹ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 63. For an update on the progress of ongoing action items under the 2019 Action Plan, see: DCCEEW, answers to written questions on notice, 15 July 2024 (received 30 July 2024).

¹⁰ Ms Gayle Sloan, Chief Executive Officer (CEO), Waste Management and Resource Recovery Association of Australia (WMRR), *Committee Hansard*, 8 May 2024, p. 36.

- 2.16 MRA Consulting Group similarly approved of the 'very credible targets...[in the action plan which] take Australia a long way towards achieving a more Circular Economy'.¹¹
- 2.17 The Local Government Association of Queensland stated that the action plan targets will be 'central' to the transition towards a circular economy,¹² and recommended that 'new targets...be set that properly reflect a circular economy future state, including specific targets on product design regarding re-use, repairability and full product life-cycle stewardship'.¹³
- 2.18 Despite broad support for the 2019 Action Plan targets, submitters criticised the fact that the targets were not mandatory. For example, the Australian Marine Conservation Society and WWF Australia pointed out the lack of ambitious, mandatory waste reduction targets, stating:
- ...Target 2 of the National Waste Policy is a modest 10% reduction in waste generated per person in Australia by 2030. It also does not appear that this target has ever been disaggregated by material—for example, how much Australia expects to cut from organics or plastics, streams.¹⁴
- 2.19 Several submitters also commented that the targets overemphasise recycling and overlook the importance of avoiding and reducing waste generation.¹⁵ Catholic Religious Australia stated that:
- Government goals to reduce the amount of plastic waste, including those articulated in the 2018 National Waste Policy...[and] the 2019 National Waste Policy Action Plan...emphasise the recycling of plastic over reducing its production and consumption. This ignores the reality that recycling plastic is inefficient, expensive and hazardous, and that there is little demand for recycled plastics...¹⁶
- 2.20 A range of stakeholders lamented the lack of progress towards the action plan targets, including MRA Consulting Group who said, 'we have little to no chance, of achieving the Targets with the current policy settings',¹⁷ and pointed to

¹¹ MRA Consulting Group, *Submission 31*, p. 6.

¹² Local Government Association of Queensland (LGAQ), *Submission 25*, p. 4.

¹³ LGAQ, *Submission 25*, p. 6.

¹⁴ WWF Australia and Australian Marine Conservation Society (AMCS), *Submission 68*, p. 4.

¹⁵ See, for example, Catholic Religious Australia, *Submission 18*, p. 6; Minderoo, *Submission 52*, p. 4; WWF Australia and AMCS, *Submission 68*, p. 4.

¹⁶ Catholic Religious Australia, *Submission 18*, p. 6.

¹⁷ MRA Consulting Group, *Submission 31*, p. 6. See also, Mr Mike Ritchie, Managing Director, MRA Consulting, *Committee Hansard*, 20 September 2024, p. 49.

findings of the Australian National Audit Office which suggested the implementation of the action plan 'was only partially effective'.¹⁸

- 2.21 The Waste Contractors and Recyclers Association of NSW (WCRA) also warned that progress on the delivery of the action plan was 'limited' and suggested that 'the likelihood of reaching the targets is tenuous at best'.¹⁹

2024 Action Plan

- 2.22 In recognition that more needed to be done to bolster Australia's efforts towards the 2030 targets, Commonwealth, state and territory environment ministers agreed to a revised action plan in December 2024. The 2024 Action Plan builds on the work of the 2019 Action Plan and highlights three priority areas where governments will direct their efforts to achieve the targets:

- (1) Government legislation, regulation, policies, standards and guidelines
- (2) Investment in infrastructure, procurement and funding support
- (3) Market development and support through innovation, reducing barriers and generating demand.²⁰

- 2.23 At the committee's February 2025 hearing, Mr Hutchison, a Branch Head within DCCEEW's Circular Economy Division, noted that, in addition to setting the above priority areas, the 2024 Action Plan:

...identif[ied] what waste trends and what materials those priorities should then be focused on... What environment ministers agreed in December is that, now we have this new action plan, each government will go away and develop an implementation plan with those priorities and streams in mind and look to publish them by the middle of the year.²¹

- 2.24 The 2024 Action Plan provided further details and updates on progress towards the seven targets outlined above:

- **Target 1:** the 2024 Action Plan indicates that the focus going forward will be on building Australia's capacity to turn waste plastic, paper, glass and tyres into high-value, recycled products.²²

¹⁸ MRA Consulting Group, *Submission 31*, pp. 62–64. The Australian National Audit Office reported in September 2022, via the [Australian Government Implementation of the National Waste Policy Action Plan](#).

¹⁹ Waste Contractors and Recyclers Association of New South Wales (WCRA), *Submission 1*, p. 1.

²⁰ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 1.

²¹ Mr Cameron Hutchison, Head, Waste and Resource Recovery Policy Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 15.

²² DCCEEW, [National Waste Policy Action Plan 2024](#), p. 7.

- **Target 2:** the most recent data shows the amount of total waste generated per person was 2.88 tonnes in 2022-23, down from 2.93 tonnes in 2020-21.²³
- **Target 3:** the most recent data shows 66 per cent of resources were recovered in 2022-23, an increase from 63 per cent in 2020-21.²⁴
- **Target 4:** the 2024 Action Plan notes that four governments have whole-of-government sustainable procurement policies in place, and there is a National Framework for Recycled Content Traceability to assist businesses to use recycled content.²⁵
- **Target 5:** all states and territories have implemented lightweight plastic shopping bag bans and have progressed bans on certain other single-use plastics.²⁶ The most recent data shows that while plastics recovery increased to 412 500 tonnes in 2021-22 from 291 000 tonnes in 2016-17, plastics consumption increased to 3.9 Mt in 2021-22 from around 2.9 Mt in 2016-17.²⁷
- **Target 6:** the most recent data shows the amount of organic waste sent to landfill was 5.4 Mt in 2022-23, down from 5.9 Mt in 2020-21.²⁸
- **Target 7:** the 2024 Action Plan notes there is a national waste data viewer, Australian (non-hazardous) waste and resource recovery infrastructure database, waste export data viewer, organics kerbside collections services data viewer, and Recycling Modernisation Fund data viewer.²⁹

Regulatory fragmentation

2.25 The committee heard from submitters and witnesses that the distinct waste management and resource recovery roles across various levels of government, and competing local and international requirements, created confusion and fragmentation across the sector. This was having a direct impact on Australia's ability to meet its various action plan targets and hampering efforts to improve environmental outcomes.

2.26 Several submitters raised concerns about the complexity of the regulatory environment for waste, and the lack of uniformity and cooperation between governments, resulting in Australia not being on track to meet the 2030 targets.

²³ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 8.

²⁴ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 9.

²⁵ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 10. The four governments are: the Australian Government, South Australia, Western Australia and Victoria.

²⁶ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 11. See also, DCCEEW, [National Waste Policy Action Plan Progress Summary Report 2023](#), p. 24.

²⁷ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 11.

²⁸ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 12.

²⁹ DCCEEW, [National Waste Policy Action Plan 2024](#), p. 13. The limitations of waste data are discussed further in Chapter 1.

- 2.27 It was also made clear to the committee that before Australia can progress to a circular economy (discussed later in this report), it will need to address the current fragmented, unclear and costly approach to waste management and resource recovery across the country, through significant, national regulatory reform.
- 2.28 The final report of CEMAG, presented to Minister Plibersek and the Australian Government in December 2024, reflected stakeholder concerns about the fragmented nature of waste management and recycling. CEMAG found that different definitions and standards across borders significantly increased administration and costs and discouraged the use of recycled materials. It observed that:
- ...regulatory inconsistencies or incongruities across jurisdictions can unnecessarily hinder market development and make it difficult for businesses to scale economically productive activities at a national level.
- A common example is the classification of waste materials. When materials are diverted from landfill for recycling, they often retain their 'waste' classification, even if they have the same properties as virgin materials. This classification increases handling and transport costs and restricts reuse potential, making recycled materials less competitive.³⁰
- 2.29 The WMRR submitted that there has been limited cooperation between the states to reach a national consensus:
- This has had an adverse impact on not just the [waste and resource recovery] industry but business more generally having to respond to individual state requirements, adding costs and complexity to business, as state governments try to outgreen each other.³¹
- 2.30 The Chief Executive Officer (CEO) of WMRR, Ms Gayle Sloan, told the committee that state-based responses to issues in the waste management and resource recovery sector were arising due to a lack of a national drive, and that the community did not want 'confusing' state-by-state approaches.³²
- 2.31 Re.Group, an Australian company that designs, builds, operates and maintains recycling facilities, asserted that there is a 'lack of support from local government in establishing the necessary infrastructure to achieve Australia's overarching recovery goals'. As a result, Re.Group explained that it 'is not alone in having horror stories of seeking approval to convert perfectly good sites (such

³⁰ Circular Economy Ministerial Advisory Group (CEMAG), [Final Report: The Circular Advantage](#), December 2024, p. 44.

³¹ WMRR, *Submission 41*, pp. 9–10.

³² Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, pp. 39–40.

as a former recycling facility) into reprocessing facilities, and having years of delays and obfuscation from local government'.³³

- 2.32 Re.Group advised that it took longer to get approval for a new recycling facility in NSW than a mine:

We are talking about years...we have equipment sitting in a shed as we've been waiting two years for approval to put that equipment together. This is the simplest of possible local government modifications...we're also 3½ or four years into a state-significant development for a new recycling facility in Sydney... So our ability to respond quickly to policy changes is very, very limited... We've got to deal with the states. Even if you're in a state significant development, local government is the major respondent into there. So you're still stuck in all these different layers of trying to work through the approvals.³⁴

- 2.33 Huhtamaki, a food packaging producer, noted that issues with jurisdictional fragmentation were known. However, instead of being addressed, they had developed further as 'more states and territories in Australia introduce or are seeking to introduce their own packaging regulations, each of which have their own unique requirements and objectives, inconsistent with neighbouring states'. By way of example, Huhtamaki observed that:

...different products have been banned in each jurisdiction, the definitions used such as 'single use', 'reusable', 'certified-compostable' and even 'plastic' are inconsistent or non-existent, and the variety of timelines adopted have created significant barriers to innovate and comply. Policy makers have also largely failed to sequence regulatory measures with the availability of collection and recovery infrastructure, creating a gap that forces industry to adopt interim, sub-optimal solutions and diverts investments from long-term innovations that have a genuine net-environmental benefit.³⁵

- 2.34 Dr Richard Kirkman, CEO of Veolia Australia and New Zealand (ANZ), told the committee that it would 'absolutely' be beneficial 'if there was some commonality between the states on call of the policy areas to avoid shipment between states' to minimise adverse outcomes.³⁶

- 2.35 Representatives from the Waste, Recycling Industry Association Queensland (WRIQ) likewise expressed frustration with the fragmented nature of waste management in Australia. The CEO of WRIQ, Ms Alison Price, told the committee of the organisation's ongoing frustration at 'the myriad of

³³ Re.Group, *Submission 52*, p. 3.

³⁴ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, pp. 26–27.

³⁵ Huhtamaki, *Submission 3*, p. 2.

³⁶ Dr Richard Kirkman, CEO, Veolia Australia and New Zealand (ANZ), *Committee Hansard*, 8 May 2024, p. 53.

overlapping and disjointed policy decisions which impact [the] industry from the three levels of government', and further frustration within those layers at:

...the siloed culture of the various departments and offices. In this complex and often confusing policy environment, there are existing waste contractors who have hundreds of years of combined industry experience in pioneering essential sanitation services for our communities and who are trying to evolve into a circular economy industry with enhanced resource recycling and energy recovery. This transformation depends on massive new investment and infrastructure systems, and the confidence that comes from a stable and coherent policy landscape.³⁷

2.36 Ms Price pointed to a lack of cohesion both between jurisdictions and between various political parties, while calling for progress via a unified approach:

What we've got in the waste and recycling industry is a lot of politics... What I'd love to see for this industry is for us to take the politics out of it and for us to work together—both sides of parliament—to come up with some better recycling solutions for all Australians, because this issue is too important for politics. Both sides have done great things; both sides have done some silly things. Industry has a lot of knowledge, and we'd really like to work with you to fix things.³⁸

2.37 The Boomerang Alliance, a peak non-profit organisation working to support waste reduction across the Asia Pacific region, argued that 'the lack of a nationally adopted framework has consequences for State and Territory jurisdictions, inevitably creating policy inconsistencies'. The Boomerang Alliance reported that:

Already we are witnessing different interpretations of circular economy practices. There are a number of States who are using different wording, removing the term highest resource value from circular economy principles. This has removed a very clear policy intent and created confusion about the principles. For example, in Victoria and Western Australia in particular, mixed waste incineration to extract energy is being characterised as part of a circular economy. It is not.³⁹

Australian Government efforts to support regulatory harmonisation

2.38 Noting this fragmentation across jurisdictions, there are efforts underway to harmonise waste management and resource recovery across Australia.

2.39 Officials from DCCEEW acknowledged the challenges between the three layers of government, and the constitutional responsibilities around waste management and resource recovery—which largely sit with state and territory governments. Notwithstanding this, Ms Lynch of DCCEEW explained that the

³⁷ Ms Alison Price, CEO, Waste, Recycling Industry Association Queensland (WRIQ), *Committee Hansard*, 8 May 2024, p. 17.

³⁸ Ms Alison Price, CEO, WRIQ, *Committee Hansard*, 8 May 2024, p. 21.

³⁹ Boomerang Alliance, *Submission 11*, p. 2.

Commonwealth does play a role in certain circumstances, and pointed to the provisions of the *Recycling and Waste Reduction Act 2020* (RAWR Act) relating to exports and product stewardship.⁴⁰

2.40 Regarding consultation with the various states and territories and reducing inconsistencies, Ms Lynch advised that DCCEEW engaged in:

...fairly formalised and regular communication and collaboration with the other levels of government. For three years now, we have run what's called the Resource Recovery Reference Group. This, effectively, includes senior representatives from all levels of government as well as the peak industry groups and a few of the peak non-government groups who specialise in activities in this space. That group meets on a very regular basis. It's charged, effectively, with oversight of the National Waste Policy Action Plan... That includes, effectively, oversight of how the implementation of the waste export bans are working and a whole range of other things. That regular consultation certainly helps to ensure that we are aware of issues that have been raised or that perhaps present at the first level.

...we have ALGA [Australian Local Government Association] as a member of that Resource Recovery Reference Group. We also hear directly from the states and territories about emerging issues.

...Australia's environment ministers also have a fairly robust agenda of discussion and issues that relate to this broad space.⁴¹

2.41 Ms Lynch continued that harmonisation, and a recognition that states and territories did not operate their own self-contained systems for resource recovery, was 'definitely front of mind [for the Australian government] and it's something that is a focus of effort both at an officials level and a ministerial level'.⁴² Ms Lynch explained that:

...Through the Environment Ministers' Meeting agenda, there is an active program of work around harmonising the way that things are done across the states and territories. That applies not only to the phase-out of plastic items but also to the way that materials are collected and what communities are told are recyclable and nonrecyclable. There's work underway on kerbside collections. There's also work to harmonise the way that the container deposit schemes are run and operated.⁴³

2.42 The committee received evidence that, in light of the slow progress at the national level, some jurisdictions are already pressing ahead with their own

⁴⁰ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 61.

⁴¹ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 61.

⁴² Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 62.

⁴³ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 62.

regulations in various areas, for example product stewardship for batteries (discussed later in this report).

Calls for a national framework

2.43 The committee heard that there were limited efforts from the Australian Government and DCCEEW on national harmonisation, with multiple calls from submitters and witnesses for a cohesive, consistent and targeted national approach to waste management and resource recovery.

2.44 For example, the former Chair of CEMAG emphasised the importance of any rules regarding the circular economy being enacted 'in a consistent way across the states and the Commonwealth', stating:

It needs a national cooperative approach. Neither the states nor the Commonwealth have exclusive jurisdiction. They've both got constitutional powers over important aspects of the circular economy. The best way forward, in our view, is for a cooperative agreement between the Commonwealth and the states around the circular economy and the actions that are going to be taken.⁴⁴

2.45 CEMAG's final report recommended the Commonwealth, state and territory governments work together to 'harmonise regulations, standards and specifications related to the circular economy, resource recovery and waste', with a 'clear mandate and authority to coordinate and align standards across jurisdictions'.⁴⁵ Doing so would 'establish the pace and direction for Australia's transition, clearly outlining priorities for governments, industry, researchers and others to focus their efforts towards'.⁴⁶

2.46 The Law Council of Australia (Law Council) argued for a national approach and consistent policy measures which would help to facilitate a 'coherent, efficient and environmentally responsible approach to waste reduction and reuse'. The Law Council considered that this was a:

...necessary step in Australia's achievement of its circular economy targets, and that the national approach should incorporate consistent policy measures, including application of the polluter pays principle. Inconsistency creates incentive for environmentally irresponsible waste management practices. Consistent policy-making requires active negotiation, development, implementation and enforcement with and alongside State and Territory governments. National Cabinet is an appropriate forum to discuss and implement a national waste reduction and reuse strategy.⁴⁷

⁴⁴ Professor John Thwaites, private capacity, *Committee Hansard*, 14 February 2025, p. 4.

⁴⁵ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 43.

⁴⁶ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 25.

⁴⁷ Law Council of Australia, *Submission 39*, p. 3.

2.47 The Boomerang Alliance contended that a consistent national approach 'should have been the first priority of the [Australian] government'. It argued that:

The Commonwealth must recognise that certain matters, and the circular economy and product stewardship are such matters, have national relevance and should require Commonwealth leadership to establish a consistent policy approach.⁴⁸

2.48 The Boomerang Alliance saw the current approach as 'inadequate', suggesting it should be replaced with a regulated national framework:

The current 'advisory approach' to circular economy principles and voluntary (co-regulatory) product stewardship schemes are failing to meet the desired outcomes of the [RAWR] Act. To rectify this... The Commonwealth should develop a circular economy policy framework and seek its national and regulated adoption by all States and Territories.⁴⁹

2.49 The Australian Food and Grocery Council (AFGC) submitted that industry was supportive of the phasing out of 'single-use, unnecessary and problematic products', but urged this process to include 'well-reasoned criteria and intentions, clear definitions, consistent rules across jurisdictions, and adequate time to respond, particularly where more environmentally sustainable alternatives are not readily available'.⁵⁰

2.50 The AFGC explained that greater clarity in regulation would inform the industry's investment decisions, and that clear plans:

...allow businesses to invest with certainty, change large-scale systems, train their teams and inform their customers—all of which is vital to long term change. The AFGC and our members continue to highlight the importance of harmonisation across systems and jurisdictions, especially concerning single-use plastics, kerbside recycling, and traceability... In the past 5 years, over 15 state-based single use plastic bans on other items have been enacted by individual states and territories, with every ban differing in the items banned, definitions, timing, or permitted alternatives. At times, these policies also diverge from internationally recognised models, like the Waste Hierarchy and Sustainable Packaging Guidelines, by favouring less circular alternatives.⁵¹

2.51 The WMRR argued that Australia should follow the European Union (EU) example, by introducing consistent approaches across the entire supply chain.⁵² The WMRR argued that 'like the EU there should be agreed national priorities

⁴⁸ Boomerang Alliance, *Submission 11*, p. 2.

⁴⁹ Boomerang Alliance, *Submission 11*, pp. 1–2.

⁵⁰ Australian Food and Grocery Council (AFGC), *Submission 59*, p. 6.

⁵¹ AFGC, *Submission 59*, p. 7.

⁵² WMRR, *Submission 41*, p. 1.

and policies set at the Environment Ministers Meeting and then states develop their respective approaches within the agreed parameters'.⁵³

2.52 The Australian Council of Recycling (ACOR) suggested establishing a board to deliver a harmonised framework for resource recovery and recycling:

A necessary step in national reform is the establishment of an Australian Resource Recovery Code Board (ARRCB), based on the model of the Australian Building Codes Board (ABCB), to deliver a nationally harmonised framework for resource recovery and recycling. This framework should sit under a portfolio for industry and economic development, rather than environmental protection.⁵⁴

2.53 ACOR argued that this board could be responsible for:

- the development of consistent definitions for waste and resource recovery;
- the creation of Australian Standards;
- informing decision making relating to resource recovery and recycling infrastructure; and
- determining the application of waste levies across jurisdictions and between regions to incentivise resource recovery.⁵⁵

Fragmentation in practice: kerbside collection

2.54 In 2022-23, kerbside collection services accumulated 9.9 Mt of material, comprising garbage, recycling and organics. However, only 39 per cent of that material was recovered.⁵⁶ In addition:

...high levels of contamination in kerbside collection bins contribute to lower recovery rates, as contaminated material is of lower quality, less desirable for use in new products, or cannot be recycled. Contamination occurs when the wrong items are placed in the wrong bins, or when containers that haven't been emptied are placed in the recycling bin.⁵⁷

2.55 Kerbside collection of waste was pointed to throughout the inquiry as a primary example of how regulatory and jurisdictional fragmentation is hampering efforts at resource recovery and impeding the capture of valuable materials for recycling.

2.56 The Figure 2.1, from the AFGC submission, highlights the level of fragmentation across various waste recovery streams in Australia:

⁵³ WMRR, *Submission 41*, p. 10.

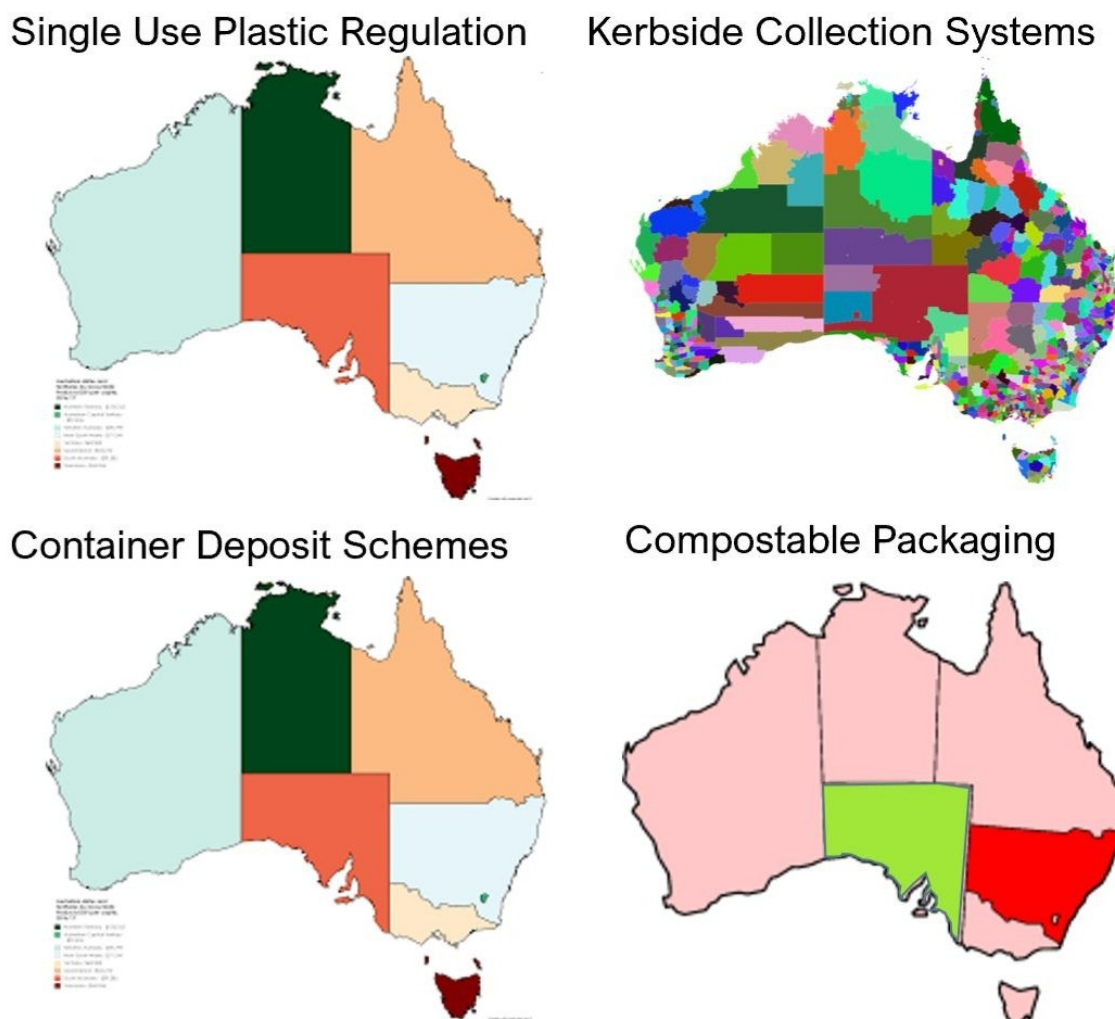
⁵⁴ Australian Council of Recycling (ACOR), *Submission 40*, p. 9.

⁵⁵ ACOR, *Submission 40*, p. 10.

⁵⁶ DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. 5.

⁵⁷ DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. 7.

Figure 2.1 Jurisdictional differences between regulatory approaches



Source: Australian Food and Grocery Council, Submission 59, p. 8.

2.57 According to Visy, one of Australia's largest operators of kerbside recycling:

One of the key barriers to increasing recovery rates and recycled content within packaging is the lack of nationwide, harmonised material eligibility. This results in different rules for different council areas, advocacy by brands to have their non-recyclable packaging deemed eligible for kerbside collection, confusion from residents trying to make decisions, increased sorting costs and additional contamination.⁵⁸

2.58 Visy argued 'we must be clear as to what is and is not recoverable through kerbside collection'.⁵⁹

2.59 ACOR similarly observed that bin lid colours were different across the country and called for a more national approach. ACOR advised that it had:

⁵⁸ Visy, Submission 79, p. 3.

⁵⁹ Visy, Submission 79, p. 3.

...mapped all the bin lid colours across the over-500 local government areas...there are over 80 different configurations across our country. Starting there would be an easy first step; there is an Australian standard.⁶⁰

2.60 ACOR argued for the simplification and standardisation of kerbside collections across states, which would 'help the community to better understand what goes where'. However, Ms Toumbourou, ACOR's CEO, acknowledged that:

...given the scale and the distribution across Australia...there might be different markets for different types of recycled commodities in different places. So there is a balance to be struck there, but simplifying would help. Even standardising bin lid colours would help. There is an Australian standard... I imagine it would be a no-brainer just to, over time, shift to that as we replace our bin collection infrastructure.⁶¹

2.61 The Australian Beverages Council Limited called for the government to support the harmonisation of kerbside recycling inclusions across Australia, 'to create a consistent supply of recycled material'.⁶²

2.62 The AFGC recommended national harmonisation of waste and recycling regulations across jurisdictions focusing on single-use plastics, kerbside collections, container deposit schemes (CDS) and compostable packaging 'to minimise confusion and build community trust and industry confidence'.⁶³

2.63 Separately, Visy argued that a nationally standardised and harmonised CDS is required. As an example of current differences, Visy explained that wine and spirit bottles are eligible in Queensland but not in other states.⁶⁴

2.64 Visy expressed support for 'kerbside bin harmonisation' and the 'rollout of the Victorian 4-bin model, which includes a standard waste bin, a commingled recycling bin for paper and cardboard, rigid plastics, and metals, a FOGO [food organics and garden organics] bin, and a standalone glass recycle bin, nationwide'.⁶⁵

2.65 Visy submitted that 'with a harmonised kerbside bin system, further methods could be adopted to assist consumers to make informed decisions about their recycling. For example, a coloured dot could then be applied to all pieces of packaging that would align to the colour of the lid of the correct bin'.⁶⁶

⁶⁰ DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. 5.

⁶¹ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 4.

⁶² Australian Beverages Council Limited, *Submission 80*, p. 7.

⁶³ AFGC, *Submission 59*, p. 3.

⁶⁴ Visy, *Submission 79*, p. 3.

⁶⁵ Visy, *Submission 79*, p. 3.

⁶⁶ Visy, *Submission 79*, p. 3.

National Kerbside Collections Roadmap

2.66 In June 2023, Australia's environment ministers agreed that a national roadmap would be developed for staged improvements to the harmonisation of kerbside collections, taking into account the circumstances of metropolitan, regional and remote communities. This was to be considered by ministers in 2024.⁶⁷

2.67 In December 2024, the National Kerbside Collections Roadmap (the Roadmap) was agreed in-principle by the environment ministers. The Roadmap provides that Australian governments will work together on the following three priorities:

Priority 1: transitioning to consistent colours for bin lids, labels, and signs to make it easier for Australians to identify the correct kerbside collection bin.

Priority 2: implementing minimum national collection lists for kerbside recycling and organics collections to improve the consistency of items that can be collected in kerbside collection bins.

Priority 3: coordinating action to increase Australia's capacity to collect and recycle additional priority items to reduce the amount of recyclable packaging and organics being sent to landfill.⁶⁸

2.68 The Roadmap states that from 2025, state and territory governments will work with industry and local governments to transition to consistent bin lids, labels and kerbside collection services. All bin lids, labels and signs (for any new or replaced kerbside infrastructure) will need to comply with the relevant Australian Standard,⁶⁹ and should be as follows:

- Red lid: general waste;
- Yellow lid: mixed recycling;
- Light blue lid: paper and cardboard;
- Purple lid: glass recycling; and
- Lime green lid: organics (including food organics and garden organics).⁷⁰

2.69 From 2025, all governments and industry will also implement minimum national collection lists for kerbside recycling and organics collection, aimed at improving the consistency of items that can be collected kerbside (with state and territory governments to work with local governments in outer regional and remote areas, where flexibility might be needed to improve resource recovery).⁷¹

⁶⁷ DCCEEW, [Environment Ministers' Meeting 9 June 2023 Agreed Communique](#), p. 3.

⁶⁸ DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. iv.

⁶⁹ AS4123.7-2006.

⁷⁰ DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. 8.

⁷¹ DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. 9.

2.70 The Roadmap includes a reporting framework and periodic national review process, to consider progress on the above actions and to 'promote continual improvement in the delivery of consistent and high performing kerbside collection' across Australia.⁷²

Calls for action

2.71 It was made clear to the committee that the issues in Australia with waste management and resource recovery are well known and have repeatedly been brought to the government's attention. Evidence stressed that further discussion was not needed; instead, the industry called for prompt action and investment to address Australia's growing waste recovery and recycling needs.

2.72 The committee also heard concerns regarding specific elements of the waste management and resource recovery framework and processes across Australia, which are canvassed later in this report. Below are some of the general observations and issues put forward in evidence about the state of the sector and the need for action.

2.73 Ms Gayle Sloan, the CEO of WMRR, suggested that there was not a need for more people or more conversations in this space; but rather a need to build capacity. Ms Sloan argued that the 'capacity within or the knowledge of the sector' has not grown, that more accountability around delivery was needed, and concluded that: 'We don't need to keep talking. We need to do'.⁷³

2.74 Dr Kirkman of Veolia ANZ similarly warned that it could 'dangerous' to 'set up more committees to talk about what the solutions are', because 'we know exactly what we need to do'. Dr Kirkman pointed to CDS that have been successfully implemented and stated there were positive signs for the waste management and resource recovery industry. However, he noted there were many disparate views in the community about how best to address waste issues:

...the policies that are in place are the right ones, and they've only recently been adopted across most states, to do more recycling, to do more composting, to have energy from waste. All those things make sense. It's just these tweaks, these nuances, where we think 'Maybe listen a bit more to the industry, the people who are doing it', rather than people outside the sector that have good ideas. I've never known a sector like it. Everyone has a view on how waste management should be done. Every householder thinks they know better how waste management should be done.⁷⁴

2.75 In noting the need for action, the WCRA argued that government policies must align with the 'climate change, renewable energy and industry reform agenda'.

⁷² DCCEEW, [National Kerbside Collections Roadmap: Staged improvements to the consistency of kerbside collections](#), 2024, p. 15.

⁷³ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 38.

⁷⁴ Dr Richard Kirkman, CEO, Veolia ANZ, *Committee Hansard*, 8 May 2024, pp. 52–53.

The WCRA contended that the 'disconnect between these policy areas' was resulting in 'significant disruption' to the sector, and that:

Without a fundamental realignment by the government, waste policy outcomes and targets remain unachievable, leading to unacceptable negative impacts on community amenities, societal liveability, and the environment in future years.⁷⁵

⁷⁵ WCRA, *Submission 1*, p. 1. See also: ARRC, *Submission 13*, p. 1.

Chapter 3

Transitioning to a circular economy

- 3.1 There has been much consideration given to implementing a circular economy in Australia and moving away from Australia's linear economy. Numerous inquiries and reports have supported the creation of a circular economy for the waste and resources sector, noting the environmental, health and economic benefits.
- 3.2 This chapter outlines the key features of a circular economy and the importance of Australia's transition towards such a model. It considers Australia's approach to the circular economy, including the recently released national Circular Economy Framework and recommendations of the Circular Economy Ministerial Advisory Group and Productivity Commission.
- 3.3 The chapter also examines the key challenges to Australia achieving circularity, and lessons that can be drawn from the transition in other countries.
- 3.4 The next chapter explores product stewardship, including stakeholder views on the value of mandatory schemes and targets, and specific schemes for products such as batteries.

Transitioning to a circular economy

- 3.5 Australia's current linear 'take-make-dispose' economy has been described as unsustainable.¹ Australia relies on exporting primary and recycled materials which are then imported as products.² A large amount of consumer goods and packaging end their life as waste.³
- 3.6 A circular economy is an economic model that promotes sustainable and efficient use of resources.⁴ There is no universally agreed definition of the circular economy, however, in practice, it requires the following elements:
 - (1) eliminating waste and pollution;
 - (2) keeping materials in use for longer;
 - (3) reducing the use of new raw materials; and

¹ Commonwealth Scientific and Industrial Research Organisation (CSIRO), *Circular Economy*, <https://research.csiro.au/circulareconomy/about/> (accessed 20 May 2024).

² DCCEEW, [*Consultation Regulation Impact Statement: Phasing out certain waste exports*](#), December 2019, p. 4.

³ CSIRO, *Circular Economy* (accessed 20 May 2024).

⁴ Circular Economy Ministerial Advisory Group (CEMAG), [*Interim Report*](#), April 2024, p. 22.

(4) regenerating natural systems.⁵

3.7 In a circular economy, products are either recycled, remanufactured or re-used after they have served their initial purpose. This minimises pressure on the environment, and helps tackle global challenges like climate change, biodiversity loss, waste, and pollution.⁶ Figure 3.1 summarises the circular economy framework:

Figure 3.1 A circular economy



Source: Commonwealth Scientific and Industrial Research Organisation, Australia's linear 'take-make-dispose' economy is unsustainable, <https://research.csiro.au/circulareconomy/about/> (accessed 25 July 2024).

3.8 The Ellen MacArthur Foundation, a non-profit organisation committed to creating a circular economy, conceives of the circular economy as 'a system where materials never become waste and nature is regenerated'.⁷ This model sees that:

Through processes of maintenance, reuse, repair, refurbishment, remanufacture, recycling, and composting, valuable resources are kept in use for as long as possible at their highest value. Waste does not exist in a circular economy. Materials once considered 'waste' become recognised as resources and are retained in the system.⁸

⁵ CEMAG, *Interim Report*, April 2024, p. 34.

⁶ DCCEEW, *Transitioning to a more circular economy*, 10 December 2024, www.dcceew.gov.au/environment/protection/circular-economy (accessed 12 February 2025).

⁷ Ellen MacArthur Foundation, *What is a circular economy?* www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview (accessed 20 February 2025).

⁸ Bellarine Catchment Network, *Submission 76*, p. 3.

3.9 According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), transitioning to a circular economy can lead to additional benefits, including:

- improving resource security;
- decreasing import dependency;
- improving economic growth and innovation; and
- increasing jobs and markets.⁹

International agreements

3.10 Australia's efforts to transition to a circular economy are underpinned by its commitment to implementing United Nations Sustainable Development Goal 12, which requires that countries achieve responsible consumption and production patterns by 2030.¹⁰ Australia is also a party to the Paris Agreement, which seeks to reduce rising greenhouse gas emissions and keep global warming to a manageable level.¹¹

3.11 In terms of managing consumption, trade, and waste responsibly, Australia has other international commitments for which it must meet certain requirements. These govern the safe international trade of hazardous chemicals, the control of persistent and harmful chemicals, and the protection of the ocean from sea-dumping and plastic pollution.¹²

Global plastic pollution treaty

3.12 In 2022, Australia endorsed the goal of ending plastic pollution by 2040 by enabling a circular economy for plastics,¹³ and has since been involved in negotiations to develop a global plastic pollution treaty.¹⁴ However, the

⁹ CSIRO, *Circular economy roadmap for plastics, glass, paper and tyres*, January 2021, p. 7; CSIRO, *Advancing the Circular Economy*, <https://www.csiro.au/en/research/environmental-impacts/sustainability/circular-economy> (accessed 20 May 2024).

¹⁰ United Nations, *Goal 12: Ensure sustainable consumption and production patterns*, www.un.org/sustainabledevelopment/sustainable-consumption-production/ (accessed 5 March 2025).

¹¹ DCCEEW, *International climate action*, 3 May 2024, www.dcceew.gov.au/climate-change/international-climate-action (accessed 18 June 2024).

¹² International Maritime Organisation, *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx, (accessed 3 June 2024); The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Australia joins global efforts to end plastic pollution', *Media Release*, 16 November 2022.

¹³ The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Australia joins global efforts to end plastic pollution', *Media Release*, 16 November 2022.

¹⁴ DCCEEW, *An international approach to plastic pollution*, 17 May 2024, www.dcceew.gov.au/about/news/international-approach-to-plastic-pollution (accessed 12 March 2025).

intergovernmental negotiating committee failed to reach agreement on an internationally legally binding instrument by the target date of December 2024.¹⁵ It was widely reported that lobbyists from the chemical and petrochemical industries exerted significant pressure on governments during the negotiations.¹⁶

- 3.13 Minister for the Environment and Water, the Hon Tanya Plibersek MP (the minister), expressed disappointment at the lack of a finalised agreement and stated that Australia remains committed to finalising a global treaty in the future.¹⁷

Australia's approach to the circular economy

- 3.14 Australia's circularity rate—the proportion of materials used that are recycled/non-virgin—is 4.6 per cent, which is below the global average of 7.2 per cent.¹⁸
- 3.15 Around 75 per cent of Group of 20 (G20) countries have an overarching circular economy policy, strategy, or framework.¹⁹ For example, the European Commission adopted a Circular Economy Package which includes a suite of measures to transition to a circular economy. One of these measures is the Circular Economy Action Plan, which promotes efficient resource use throughout the economy. The Circular Economy Package includes clear targets for reduction of waste.²⁰
- 3.16 Conversely, Australia has the fourth lowest rate of material productivity in the Organisation for Economic Co-operation and Development (OECD), 'generating only USD1.20 of economic output for every kilogram of materials consumed, compared with the OECD average of USD2.50'. A circular economy

¹⁵ The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Statement: Global plastics treaty negotiations', [Media Release](#), 4 December 2024.

¹⁶ See, for example, InfluenceMap, *Corporate Advocacy on the UN Global Plastics Treaty*, https://influencemap.org/briefing/Corporate-Advocacy-on-the-UN-Global-Plastics-Treaty-30143#briefing_section-30168 (accessed 12 March 2025); Centre for International Environmental Law, *Fossil Fuel Lobbyists Flood Final Scheduled Round of Global Plastics Treaty Negotiations*, www.ciel.org/news/inc-5-lobbyist-analysis/ (accessed 12 March 2025).

¹⁷ The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Statement: Global plastics treaty negotiations', [Media Release](#), 4 December 2024.

¹⁸ CEMAG, *Final Report: The Circular Advantage*, December 2024, p. 11; Dr Brett Molony, Science Director, Environment Research Unit, CSIRO, *Committee Hansard*, 14 February 2025, p. 9.

¹⁹ CEMAG, *Interim Report*, April 2024, p. 15.

²⁰ DCCEEW, *National Waste Policy 2018*, p. 12.

could add up to \$210 billion in gross domestic product value, and 'an additional 17 000 full-time equivalent jobs in Australia by 2047-48'.²¹

- 3.17 In recent years, Australia has committed to a national circular economy transition and taken steps to give effect to various policies and programs that incorporate circular economy principles. These are discussed below.

Circular Economy Ministerial Advisory Group

- 3.18 In 2022, environment ministers made an agreement to transition Australia to a circular economy. The minister established the Circular Economy Ministerial Advisory Group (CEMAG) to provide advice to government on this transition. In June 2023, Australia's environment ministers agreed that:

...the Australian Government will lead development of a national framework to direct Australia's transition to a circular economy, informed by the work of the Circular Economy Advisory Group.²²

- 3.19 Professor John Thwaites AM, who chaired CEMAG, told the committee that the work involved:

...very extensive stakeholder engagement; I think we engaged with more than 250 stakeholders around the country. We held five major workshops with industry, the food industry, plastics, Chemistry Australia, superannuation and investors. We took all that information and put it in our interim report and in our final report.²³

- 3.20 CEMAG presented an interim report in April 2024, summarising its preliminary advice of 2023, and concluded its work with a final report to government in December 2024.

Interim report

- 3.21 CEMAG's interim report of April 2024 made numerous preliminary recommendations, including the following:

- develop a National Circular Economy Framework, to articulate a clear vision for a circular economy for Australia and to define 'circular economy' for Australia;²⁴
- set national and sector-based circular economy targets and measure and report on progress against upstream indicators of circularity;²⁵

²¹ Drawing on findings by KPMG, as cited in: CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 14.

²² DCCEEW, [Environment Ministers' Meeting 9 June 2023 Agreed Communiqué](#), p. 2.

²³ Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 1.

²⁴ CEMAG, [Interim Report](#), April 2024, p. 7.

²⁵ CEMAG, [Interim Report](#), April 2024, p. 8.

- embed circular economy principles and actions across key climate policies including all net zero sector plans, to support emissions reductions;²⁶
- develop an assessment on how the circular economy can be adopted to maximise the recovery of valuable resources to help deliver the net zero transition;²⁷
- develop an Australian Circular Economy Systems Map, including identification of pain points and barriers to a circular economy transition;²⁸
- leverage Commonwealth procurement in building and infrastructure to explore circular innovation before approaching the market;²⁹
- embed circular economy principles in infrastructure Federation Funding Agreements;³⁰ and
- introduce a national 'recycled content first' procurement policy to help drive recycled content markets and ensure national consistency.³¹

Final report

3.22 CEMAG summarised the challenges Australia faces in introducing more circularity to the economy:

As a primary materials exporter, Australia faces structural factors that affect circularity, such as large volumes of low value waste from mining and higher material demands driven by geographic spread and population growth. Achieving even incremental increases in circularity—like a 1% rise—requires substantial effort but can significantly benefit Australia’s long-term sustainability and resource security. This journey will require strategic, targeted actions that reflect Australia’s unique conditions and opportunities.³²

3.23 In December 2024, CEMAG delivered its final report to government, making 14 core recommendations and 12 supporting sector-specific recommendations. The final report made several key observations, including that:

- early movers in the circular economy 'stand to gain significant economic and financial advantages', with significant risks to those economies and industries which lag behind—for example, 'without ambitious domestic

²⁶ CEMAG, [Interim Report](#), April 2024, p. 10.

²⁷ CEMAG, [Interim Report](#), April 2024, p. 10.

²⁸ CEMAG, [Interim Report](#), April 2024, p. 11.

²⁹ CEMAG, [Interim Report](#), April 2024, p. 12.

³⁰ CEMAG, [Interim Report](#), April 2024, p. 13.

³¹ CEMAG, [Interim Report](#), April 2024, p. 13.

³² CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 11.

reform', Australia could become a 'destination for low-quality goods' that are no longer accepted internationally;³³

- a strong market for recycled materials 'remains a missing foundation in Australia's circular economy', which reduces financial incentives to divert material from landfill;³⁴
- Australia needs to move beyond the current National Waste Policy and 'must take action earlier in the product and material life cycle';³⁵
- introducing more circular supply chains 'creates additional local sources of materials that can strengthen Australia's supply chain resilience' and boost local manufacturing;³⁶
- a circular economy can help to reduce pressure on the cost of living and offer consumers more affordable options, while reducing waste and costs for industry;³⁷
- a circular economy 'offers a powerful opportunity to address' issues with new types of waste and pollutants, by 'designing them out as well as creating systems to recover material, divert toxic substances from landfill and curb the environmental footprint of emerging waste streams';³⁸
- the circular economy framework needs to address virgin resource consumption rates at the beginning of the material life cycle; 'extending material and product use in the middle of the life cycle; and recovering materials and products at their end of life';³⁹
- a transition to a circular economy needs consumers and communities to understand what that means while seeing the benefits from their involvement; 'making it easier for consumers to find clear, specific information about products can greatly increase' participation in the circular economy and empower consumers to use more circular products;⁴⁰ and
- a 'proactive and predictable regulatory approach' together with environmental standards for materials and products in Australia are essential for a competitive and effective circular economy, and would be achievable via an 'agile, clear and comprehensive legislative instrument'.⁴¹

³³ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 15.

³⁴ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 41.

³⁵ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 23.

³⁶ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 16.

³⁷ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 16.

³⁸ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 19.

³⁹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 26.

⁴⁰ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 78.

⁴¹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 33.

3.24 CEMAG made clear it had not made specific recommendations on the economic settings around a circular economy (such as taxes and fines/penalties). It noted that, as recommended by its interim report, the current inquiry by the Productivity Commission would be better placed to consider such levers (discussed below).⁴² Professor Thwaites elaborated at a hearing that CEMAG:

...saw that doing a Productivity Commission report would allow a real exploration of those [economic] levers. We did hear of some cases where tax incentives didn't necessarily work so well in Europe around repair where, for one reason or another, there were unintended consequences. We believe that those things need to be properly and robustly explored in order to ensure that you get the best outcome.⁴³

3.25 The primary recommendations of CEMAG⁴⁴ were:

- **Recommendation 1:** Introducing a new National Circular Economy Policy Framework, which includes achievable targets, market opportunities and clearly defined priorities for governments, industry, researchers and others;⁴⁵
- **Recommendation 2:** Mainstreaming circular economy principles in policies and programs, in particular net zero and climate policies; grants and procurements 'that significantly influence materials production and use'; and Australian Government corporate planning and reporting processes;⁴⁶
- **Recommendation 3:** Recognising First Nations peoples and Knowledge systems, and integrate Knowledge systems and practices into the transition;⁴⁷
- **Recommendation 4:** Legislating a Circular Economy Act to provide an overarching, integrated regulatory framework 'to regulate the environmental performance of materials and products, including imports' in line with priorities which should include mandatory product stewardship and mandatory disclosure requirements for businesses;⁴⁸
- **Recommendation 5:** Harmonising circular economy rules to boost productivity, through a governance model which modernises and harmonises regulations, standards and specifications; with a clear cross-

⁴² CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 21.

⁴³ Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 3.

⁴⁴ Summarised at: CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 6.

⁴⁵ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 25.

⁴⁶ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 25.

⁴⁷ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 25.

⁴⁸ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 35.

jurisdictional mandate, a time-bound delivery of results, industry engagement and an independent chair;⁴⁹

- **Recommendation 6:** Using public procurement to grow and diversify markets, by including circularity requirements in all major agreements relating to procurement of materials, products and services and by leveraging Commonwealth procurement power;⁵⁰
- **Recommendation 7:** Partnering internationally to develop supply chain partnerships with strategic international partners;⁵¹
- **Recommendation 8:** Unlocking Australia's competitive innovation edge through the circular economy, implementing a more strategic approach to innovation funding which drives market-disrupting and whole-of-supply-chain innovations (with consideration of a challenge-based funding model);⁵²
- **Recommendation 9:** Embedding circularity in sustainable finance and corporate strategies, making it easier for business to reflect the circular economy in their corporate strategies, planning and disclosures;⁵³
- **Recommendation 10:** Giving industry a front door to circular economy expertise, in order to support businesses to collaborate throughout the supply chain;⁵⁴
- **Recommendation 11:** Defining and building skills in the existing and emerging workforce, including by defining and tracking circular economy jobs and skills; through the development of micro-credentials; and supporting a challenge-based undergraduate competition;⁵⁵
- **Recommendation 12:** Supporting place-based transformation: regions, remote, precincts and regeneration, noting that a 'place-based approach

⁴⁹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 43.

⁵⁰ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 43.

⁵¹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 43.

⁵² A challenge-based funding model is a mechanism for allocating funding by inviting applicants to propose solutions to 'specific challenges with targeted outcomes'. The model is 'designed to stimulate innovation and collaboration...often bringing together diverse stakeholders such as businesses, academia and government'. For example, the Australian Government could 'challenge the market to create scalable circular packaging solutions for a single type of packaging': see, CEMAG, [Final Report: The Circular Advantage](#), December 2024, pp. 53, 54 and 56.

⁵³ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 61.

⁵⁴ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 60.

⁵⁵ A challenge-based undergraduate competition would involve inviting undergraduate students to compete to propose solutions to circular economy challenges: see, CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 67.

tailors strategies to the unique strengths, resources and needs of specific regions';⁵⁶

- **Recommendation 13:** Partnering with First Nations enterprises, people and communities, 'early and on an ongoing basis', noting they will play a critical role in Australia's circular economy transition;⁵⁷ and
- **Recommendation 14:** Empowering consumers and communities by building circular economy literacy, for example, by implementing packaging disclosure requirements and 'establishing reparability ratings to guide consumers towards sustainable choices'.⁵⁸

- 3.26 Underpinning CEMAG's recommendation for a new National Circular Economy Policy Framework is its observation that 'the lack of a clear, overarching national approach is a major gap, creating uncertainty and limiting investment and policy confidence'. CEMAG underscored the need for national policy leadership, stating that 'without a unifying policy framework, Australia risks a fragmented and less effective transition'.⁵⁹
- 3.27 CEMAG's recommendation for a Circular Economy Act is intended to support the goals of a national policy framework by setting 'clear, adaptable and predictable' regulations 'to lift the environmental performance of products entering the economy'.⁶⁰
- 3.28 CEMAG pointed out that the current *Recycling and Waste Reduction Act 2020* is limited in its power to set design standards for products, in contrast to the European Union (EU) framework which outlines when and how ecodesign requirements can be set for specific product groups.⁶¹ CEMAG recommended that Australia adopt similar ecodesign provisions to support circularity-focused improvements in product design, stating that a robust ecodesign framework would complement and enhance the effectiveness of product stewardship schemes (see further discussion below).⁶²
- 3.29 CEMAG also emphasised that regulatory inconsistencies between different Australian jurisdictions have a detrimental impact on businesses, stating, 'Australian businesses are ready to embrace and expand the use of circular goods and services, but fragmented regulations across jurisdictions are holding

⁵⁶ CEMAG, [Final Report: The Circular Advantage](#), December 2024, pp. 71 and 74.

⁵⁷ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 79.

⁵⁸ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 79.

⁵⁹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 23.

⁶⁰ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 5.



⁶¹ CEMAG, [Final Report: The Circular Advantage](#), December 2024, pp. 34, 36–37.

⁶² CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 37.

them back'.⁶³ Accordingly, CEMAG called for circular economy rules to be harmonised across jurisdictions to promote business growth, productivity and operational efficiencies.⁶⁴

3.30 Further, the final report presented 12 supporting recommendations, specific to the following four areas: built environment; food and agriculture; resources; and water. It was put to CEMAG by stakeholders that sector-focused priorities would 'better engage those responsible for implementation across industry and government', especially in material-intensive sectors and supply chains 'where Australia holds a competitive advantage'.⁶⁵ Figure 3.2 outlines the sector-specific supporting recommendations:



Figure 3.2 Supporting recommendations – CEMAG final report

Built environment 	Food and agriculture 
a) Develop a national built environment circular economy strategy	a) Leverage existing food and agricultural programs to support circularity
b) Include circular economy and 'design for end of life' in the National Construction Code	b) Provide business support and training for small to medium enterprises (SMEs)
c) Support uptake of low-carbon, circular materials through certification and standards	c) Leverage environmental, social and governance (ESG) to drive circularity and cut emissions in food supply chains

⁶³ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 5.

⁶⁴ CEMAG, [Final Report: The Circular Advantage](#), December 2024, pp. 5 and 44.

⁶⁵ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 27.

Resources	Water
 <p>a) Provide pre-competitive information supporting secondary processing and second life</p>	 <p>a) 'All options on the table' in the National Water Initiative</p>
<p>b) Embed circular economy into environmental, social and governance (ESG) frameworks</p>	<p>b) Reduce barriers for markets for biochar and other organic materials</p>
<p>c) Increase research capability and coordination</p>	<p>c) Build integrated water cycle management into Australian Government precinct policies</p>

Source: CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 7.

Ministerial response to CEMAG's final report

- 3.31 On 7 March 2025, the minister wrote to the Chair of CEMAG, welcoming the release of the final report as 'an important step in our circular economy journey'. The minister stated that CEMAG's advice 'provides a pathway to capitalise on the opportunities of the circular economy' and 'provides an exceptional basis for Australia to further our circular economy transition'.⁶⁶
- 3.32 The minister stated that the Australian Government has already completed the first of CEMAG's core recommendations by releasing Australia's Circular Economy Framework in December 2024. The minister also asserted that 'substantial progress' has been made in relation to CEMAG's second and fourth core recommendations (to mainstream circular economy principles in policies and programs, and to include circularity requirements in all major public procurement agreements, respectively).⁶⁷

⁶⁶ The Hon Tanya Plibersek MP, [Response to the Final Report of the Circular Economy Ministerial Advisory Group](#), 7 March 2025, p. 1.

⁶⁷ The Hon Tanya Plibersek MP, [Response to the Final Report of the Circular Economy Ministerial Advisory Group](#), 7 March 2025, p. 1.

- 3.33 In relation to CEMAG's 12 supporting recommendations relating to four specific sectors, the minister recognised that 'achieving greater circularity in Australia will require addressing barriers in these sectors'.⁶⁸
- 3.34 The minister acknowledged that 'more will need to be done' to implement CEMAG's recommendations.⁶⁹

Australia's Circular Economy Framework

- 3.35 In December 2024, the Australian Government released the first national Circular Economy Framework.⁷⁰ The framework was issued concurrently with CEMAG's final report. Professor Thwaites acknowledged that the release of the framework meant that CEMAG's first key recommendation had been adopted.⁷¹
- 3.36 DCCEEW officials gave evidence that the framework was:
- ...heavily informed both by research that the CSIRO have undertaken and by the work of the advisory group [CEMAG]...as well as our own departmental research and consultation with a range of different stakeholders... It's one that we consulted with across government departments as well to make sure that there's good buy-in to it.⁷²
- 3.37 Figure 3.3 summarises the framework.

⁶⁸ The Hon Tanya Plibersek MP, [Response to the Final Report of the Circular Economy Ministerial Advisory Group](#), 7 March 2025, p. 3.

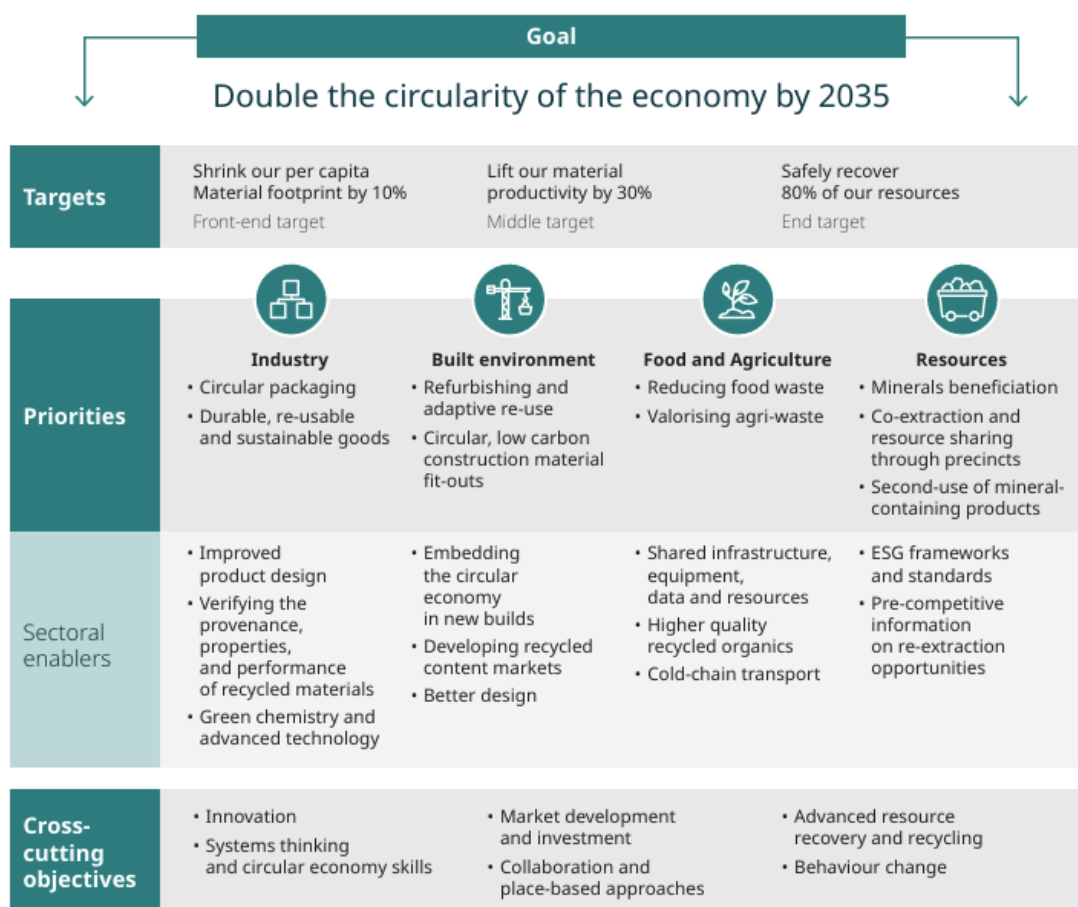
⁶⁹ The Hon Tanya Plibersek MP, [Response to the Final Report of the Circular Economy Ministerial Advisory Group](#), 7 March 2025, p. 4.

⁷⁰ DCCEEW, [Australia's Circular Economy Framework](#), 2024.

⁷¹ Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 1.

⁷² Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 13.

Figure 3.3 Australia's Circular Economy Framework at a glance



Source: DCCEEW, [Australia's Circular Economy Framework](#), 2024, p. 6.

3.38 As shown above, the framework sets the goal of doubling the circularity of Australia's economy by 2035.⁷³ This goal will be measured through three targets which cover the front-, middle- and end-of-product life cycle:

- (1) Reducing material footprint by 10 per cent.
- (2) Lifting materials productivity by 30 per cent.
- (3) Safely recovering 80 per cent of our resources.⁷⁴

3.39 The material footprint measures 'how much material is consumed to make the products or services used in Australia'. It can be reduced through improving design and material choices, such as using recycled and more durable materials in products.⁷⁵

3.40 Materials productivity measures 'the efficiency with which raw materials (such as metals, minerals, and biomass) are used in production processes'. It can be

⁷³ DCCEEW, [Australia's Circular Economy Framework](#), 2024, p. 4.

⁷⁴ DCCEEW, [Australia's Circular Economy Framework](#), 2024, pp. 5–6 and 9.

⁷⁵ DCCEEW, [Australia's Circular Economy Framework](#), 2024, p. 9.

increased through scaling Australian innovation, advanced manufacturing on shore, and domestic reuse of Australian recycled materials.⁷⁶

- 3.41 Increasing Australia's resource recovery rate will require actions like designing products in a way that makes them easily recovered at end-of-life and supporting active markets for recovered resources.⁷⁷
- 3.42 A Branch Head within DCCEEW's Circular Economy Division described the framework's goal of doubling circularity as 'ambitious, but feasible', and pointed to the four sectors where Australia could build on its competitive advantage to make significant shifts in circularity: industry, built environment, food and agriculture, and resources.⁷⁸
- 3.43 In terms of implementing the framework, there will need to be 'a range of systemwide changes',⁷⁹ and actions by governments, businesses, investors, researchers, non-government organisations and the Australian community.⁸⁰

Productivity Commission circular economy inquiry

3.44 In response to CEMAG's interim report, in August 2024 the Productivity Commission (PC) commenced an inquiry into the opportunities of a circular economy.⁸¹ The PC's terms of reference require it to examine several matters relevant to the committee's work, including:

- priority circular economy opportunities for Australia, including identification of the sectors, products or supply chain segments where there is the greatest potential for improvements, and where other countries have made the greatest progress towards circularity; and
- barriers to enhanced materials productivity and prospective approaches to addressing them—including regulatory frameworks and policy actions.⁸²

⁷⁶ DCCEEW, [Australia's Circular Economy Framework](#), 2024, p. 9.

⁷⁷ DCCEEW, [Australia's Circular Economy Framework](#), 2024, p. 9.

⁷⁸ Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 14.

⁷⁹ Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 14.

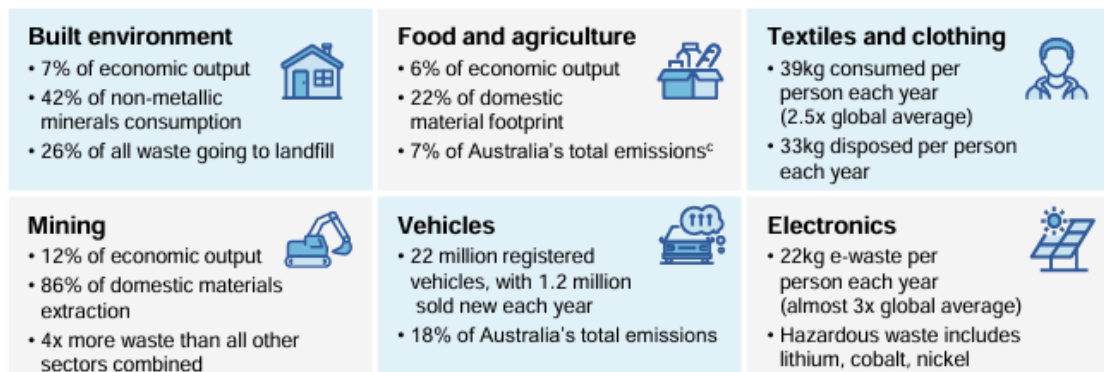
⁸⁰ DCCEEW, [Australia's Circular Economy Framework](#), 2024, pp. 30–34.

⁸¹ The Hon Tanya Plibersek MP, Minister for the Environment and Water, and The Hon Jim Chalmers MP, Treasurer, 'Productivity Commission inquiry to explore circular economy benefits', [Media Release](#), 23 August 2024.

⁸² Productivity Commission, *Opportunities in the circular economy*, www.pc.gov.au/inquiries/current/circular-economy#draft (accessed 19 February 2025).

3.45 The PC's inquiry has received strong interest and published over 180 submissions.⁸³ The PC released an interim report on 5 March 2025, which identified and explored six priority areas where there are potential circular economy opportunities (shown in Figure 3.4 below): built environment; food and agriculture; textiles and clothing; mining; vehicles; and electronics.⁸⁴

Figure 3.4 Six priority areas explored in the Productivity Commission's interim report



a. Statistics show contribution and impacts in Australia. b. Built environment statistics are for the construction sector. c. Emissions statistics are for direct (scope 1) emissions.

Source: Productivity Commission, [Australia's circular economy: Unlocking the opportunities—Interim report](#), March 2025, p. 6.

3.46 The priority areas were selected based on three broad considerations:

- environmental and economic significance of the materials used;
- applicability of circular economy opportunities to Australia (including behaviours and practices that Australian governments can more readily influence); and
- whether there are viable policies to reduce barriers to taking up circular economy opportunities.⁸⁵

3.47 The interim report made three recommendations:⁸⁶

⁸³ Productivity Commission, *Opportunities in the circular economy—View submissions and brief comments*, www.pc.gov.au/inquiries/current/circular-economy/submissions (accessed 3 March 2025).

⁸⁴ Productivity Commission, *Australia's circular economy: Unlocking the opportunities—Interim report*, March 2025, p. 6.

⁸⁵ Productivity Commission, *Australia's circular economy: Unlocking the opportunities—Interim report*, March 2025, p. 57.

⁸⁶ The interim report's recommendations are relevant policy changes that the Productivity Commission has included as final recommendations in past inquiries, which governments have not yet fully implemented. Productivity Commission, *Australia's circular economy: Unlocking the opportunities—Interim report*, March 2025, pp. 13, 20 and 22.

- (1) the Australian Government's evaluation of the Motor Vehicle Service and Repair Information Sharing Scheme in 2025-26 should assess certain criteria;
- (2) introduce a product labelling scheme for household appliances and consumer electronics; and
- (3) include reuse and repair targets in the National Television and Computer Recycling Scheme and increase the use of tracking devices.

3.48 Additionally, for each priority area, the PC stated that it was considering the following potential policy changes:⁸⁷

(1) built environment

- enabling fit-for-purpose use of recycled materials in public projects;
- coordination mechanisms to enhance the benefits of sustainable procurement policies; and
- reducing unnecessary regulatory barriers to prefabricated construction;

(2) food and agriculture

- reducing food waste through food relief and donation to charity; and
- recognising the benefits of biogas in carbon reporting;

(3) textiles and clothing

- product labelling for textiles and clothing;

(4) mining

- reducing regulatory barriers to circular economy opportunities for mining waste and alternative post-mining land uses;

(5) vehicles

- establish the foundations of a robust end-of-life electric vehicle battery industry;

(6) electronics

- product stewardship for small electronics, including embedded lithium-ion batteries; and
- product stewardship for small-scale photovoltaic systems.

3.49 The PC acknowledged that progress towards a circular economy has been slow, with barriers to circular economy opportunities including 'prescriptive, outdated or inconsistent regulations; coordination challenges and difficulties

⁸⁷ Productivity Commission, [Australia's circular economy: Unlocking the opportunities—Interim report](#), March 2025, pp. 13–24.

diffusing circular innovations; and limited practical information on circular opportunities'.⁸⁸

- 3.50 The PC also mentioned that it was considering cross-sectoral, system-wide opportunities to improve circularity, including supporting businesses to adopt and diffuse circular economy-related innovations.⁸⁹ The PC noted that it received evidence on 'subsidies and tax incentives to encourage investment in circular opportunities, such as tax credits or accelerated depreciation', however the interim report did not make any recommendations on the economic settings around a circular economy.⁹⁰
- 3.51 The committee expects this to be covered in the PC's final report, as recommended by CEMAG.
- 3.52 The PC sought further submissions by 11 April 2025 to inform the final report, which is due by 23 August 2025.⁹¹

Support for a circular economy

- 3.53 The committee received strong support for a circular economy and for Australia to welcome both the environmental and economic opportunities presented by a truly circular waste and resource framework. This section presents some of that support.
- 3.54 The committee heard that a circular economy would provide 'a boost to the Australian economy', while also helping to 'mitigate exposure to raw material price volatility and supply, including imports'.⁹² Professor Thwaites observed that a circular economy would be a 'real opportunity for jobs and prosperity'.⁹³
- 3.55 The CSIRO's Circular Economy Lead and Senior Principal Research Scientist, Dr Heinz Schandl, observed:

⁸⁸ Productivity Commission, [Australia's circular economy: Unlocking the opportunities—Interim report overview](#), March 2025, p. 2.

⁸⁹ Productivity Commission, [Australia's circular economy: Unlocking the opportunities—Interim report](#), March 2025, pp. 25, 159–160.

⁹⁰ Productivity Commission, [Australia's circular economy: Unlocking the opportunities—Interim report](#), March 2025, p. 159.

⁹¹ Productivity Commission, *Opportunities in the circular economy* (accessed 6 March 2025).

⁹² South Australian Environment Protection Authority and Green Industries South Australia, *Submission 66*, p. 3.

⁹³ Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 7.

The research...shows that the short-term economically attractive opportunities are many... In the long term, you see a more beneficial economic outcome if you fully engage in a circular economy.⁹⁴

- 3.56 The Australian Marine Conservation Society (AMCS) and WWF emphasised the wide-ranging benefits of a circular economy:

There are significant environmental and social benefits associated with circular economy transition, and clearly an urgent imperative to make this transition to reduce risks in relation to pollution, biodiversity loss, and climate change. At the same time, there is also strong evidence to show that while initial investment to achieve a truly regenerative circular economy is significant, the long-term economic benefits are substantial.⁹⁵

- 3.57 Friends of the Earth Australia expressed its belief that 'building a zero waste and truly circular economy is crucial to address our interconnected environmental crises' because:

Raw material extraction often degrades our environment causing biodiversity loss, material production processes use vast amounts of energy that can contribute to dangerous climate change, and after consumption become waste in our environment and human health.⁹⁶

- 3.58 Several submitters mentioned that a circular economy is an important factor in the net zero transition. For example, Mr Reed of the Australian Industry Group stated:

The circular economy—material efficiency, design of products, and buildings, for that matter, to minimise the amount of new material that is required—is a very important and underdiscussed tool towards net zero.⁹⁷

- 3.59 Huhtamaki, a global manufacturer of food packaging, was supportive of a circular economy approach, arguing that it 'implies a holistic approach to packaging incorporating the sourcing, production, functionality and end of life of packaging where all the stakeholders share some responsibility'.⁹⁸

- 3.60 Visy, Australia's largest recycler of kerbside recycling, offered its support for requirements to create packaging which was designed for circularity—recovery and recycling. Visy explained that this includes:

...using materials that can be recycled back into packaging—and keeping material at its highest and best use. Currently there is confusion around

⁹⁴ Dr Heinz Schandl, Senior Principal Research Scientist and Circular Economy Lead, CSIRO, *Committee Hansard*, 14 February 2025, p. 14.

⁹⁵ WWF Australia and Australian Marine Conservation Society (AMCS), *Submission 68*, p. 5.

⁹⁶ Friends of the Earth Australia, *Submission 36*, [p. 1].

⁹⁷ Mr Tennant Reed, Director, Climate Change and Energy, Australian Industry Group, *Committee Hansard*, 5 August 2024, p. 49. See also, Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 7.

⁹⁸ Huhtamaki, *Submission 3*, p. 3.

certain products, such as packaging with composite materials, which leads to contamination of recycling streams, resulting in lower recovery rates and higher rates of material ending up in landfill.⁹⁹

- 3.61 The Ecocycle Group of Companies argued that importers should also be required to ensure that 'products are reusable, repairable, and recyclable at the end of their life'.¹⁰⁰
- 3.62 The Waste Management and Resource Recovery Association of Australia (WMRR) argued that, in order to create a circular economy in Australia by 2030, Australia needs to 'accelerate the creation of a national framework that requires integrated action across the supply chain, heavily at the beginning'.¹⁰¹
- 3.63 Some submitters called for the implementation of national and sector-based circular economy targets. For example, the Law Council of Australia urged the Australian Government 'to introduce measurable (and enforceable) sector-based targets, in order to begin necessary steps toward the target of an 80 per cent waste recovery rate by 2030'.¹⁰²

Challenges to achieving circularity

- 3.64 While overall witnesses and submitters were strongly supportive of circularity in Australia's waste and resource system, evidence also suggested that there were several issues to be addressed and overcome before Australia could achieve a circular economy.
- 3.65 In its 2024 report, *Australian material flow analysis to progress to a circular economy*, the CSIRO noted that Australia's current circular economy approach focuses on packaging and consumer goods, yet housing and transport make up 53 per cent of the country's material footprint. The CSIRO suggested that focussing on housing and transport could therefore make a 'real difference' in embracing circularity—for example, by incorporating more crushed concrete into new concrete (within quality and safety limits).¹⁰³
- 3.66 In a similar vein, an issue commonly mentioned by inquiry participants was the 'policy overemphasis on recycling' and a tendency to overlook the importance of processes at the start of the supply chain (such as design and production) and

⁹⁹ Visy, *Submission 79*, p. 4.

¹⁰⁰ Ecocycle, *Submission 75*, p. 2.

¹⁰¹ Waste Management and Resource Recovery Association of Australia (WMRR), *Submission 41*, p. 2.

¹⁰² Law Council of Australia, *Submission 39*, p. 4.

¹⁰³ CSIRO, [Australian material flow analysis to progress to a circular economy: Summary report](#), March 2024, p. 7.

actions further up the waste hierarchy (such as reuse and repair).¹⁰⁴ For instance, the Plastic Free Foundation submitted that:

To achieve these targets [in the National Waste Policy Action Plan] and create a safe circular economy for plastics in Australia, waste avoidance efforts must shift away from the current focus on recycling and diverting waste from landfill and instead start with an approach to responsible consumption and production.¹⁰⁵

3.67 Likewise, the WMRR argued that all governments:

...continue to place too much emphasis on the end of the supply chain (collection, sorting and processing) with insufficient policy or regulatory action looking at the initial design, manufacturing and consumption of the products.¹⁰⁶

3.68 Similarly, the Australian Council of Recycling acknowledged:

...it is a whole-of-system concern. At the moment, there does seem to be an inordinate focus on end of pipe. We do absolutely need to consider what happens at the production and consumption end.¹⁰⁷

3.69 The Australian Council of Recycling noted that other key challenges to achieving a circular economy include:

- 'a misalignment between environmental protection objectives on the one hand, and circular economy objectives on the other, whereby many recoverable resources are regulated as industrial or regulated wastes that present a contamination risk';
- 'policy priorities and settings for resource recovery and recycling across Australia are fragmented and uncertain, particularly across industry sectors';
- 'the regulatory imbalance between raw/virgin materials and recovered/recycled materials'; and
- 'the uncertainty and long timeframes associated with the development/redevelopment of resource recovery and recycling facilities'.¹⁰⁸

¹⁰⁴ Ms Anne Walker, National Executive Director, Catholic Religious Australia, *Committee Hansard*, 20 September 2024, p. 45. See also, Catholic Religious Australia, *Submission 18*, p. 2; Ms Kate Noble, Senior Manager—Oceans Policy, WWF Australia, *Committee Hansard*, 5 August 2024, p. 14; Ms Cip Hamilton, Plastics Campaign Manager, AMCS, *Committee Hansard*, 5 August 2024, p. 15.

¹⁰⁵ Plastic Free Foundation, *Submission 61*, [p. 3].

¹⁰⁶ WMRR, *Submission 41*, p. 2.

¹⁰⁷ Ms Suzanne Toumbourou, Chief Executive Officer (CEO), Australian Council of Recycling (ACOR), *Committee Hansard*, 8 May 2024, p. 3. See also, ACOR, *Submission 40*, p. 9.

¹⁰⁸ ACOR, *Submission 40*, p. 9.

International examples of the circular economy

3.70 Evidence to the committee argued there were overseas examples of circular economies which could be drawn upon in developing Australia's approach to similar issues, particularly in the EU, as detailed below.

3.71 CEMAG's final report recommended introducing a new Circular Economy Act which 'should include a clear framework for setting standards for the design of imported and locally manufactured goods mirroring the approach in the European Union'.¹⁰⁹ Professor Thwaites explained that EU legislation incorporates:

...the Ecodesign for Sustainable Products Regulation, which enables the setting of standards for durability and reparability and also provides schemes for enforcement of that. [CEMAG] recommended that that should apply within Australia.¹¹⁰

Box 3.1 EU Ecodesign for Sustainable Products Regulation

The Ecodesign for Sustainable Products Regulation (ESP Regulation) came into force in the EU in July 2024, replacing the Ecodesign Directive 2009/125/EC (the Directive).¹¹¹ While the Directive established a framework for setting eco-design requirements for energy-related products, the ESP Regulation broadened this scope to almost all physical products and reinforced the range of eco-design requirements that can be set. New eco-design requirements can include rules to:

- improve product durability, reusability, upgradability and reparability;
- enhance the possibility of product maintenance and refurbishment;
- make products more energy and resource-efficient;
- address the presence of substances that inhibit circularity;
- increase recycled content;
- make products easier to re-manufacture and recycle;
- set carbon and environmental footprints; and
- improve the availability of information on product sustainability.

The European Commission intends to adopt the first working plan for the ESP Regulation in the first half of 2025 which will list the products for which eco-design requirements will be prioritised in the coming years. The commission will consult the Ecodesign Forum (comprising a broad range of

¹⁰⁹ CEMAG, *Final Report: The Circular Advantage*, December 2024, p. 33.

¹¹⁰ Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 3.

¹¹¹ A transition regime is in place to enable the Directive to continue to operate until 2030 when it will ultimately be replaced in full by the ESP Regulation: European Commission, *Implementing the Ecodesign for Sustainable Products Regulation*, https://green-business.ec.europa.eu/implementing-ecodesign-sustainable-products-regulation_en (accessed 13 March 2025).

stakeholders and key ecodesign actors) before the adoption of the first ESP Regulation working plan.¹¹²

- 3.72 Professor Thwaites said that while it was too early to assess whether the EU legislation has been successful, similar approaches have been 'demonstrably successful in countries like the Netherlands' which have a significantly higher circularity rate than Australia.¹¹³
- 3.73 The WMRR argued that to transition its economy from linear to circular, 'Australia needs a framework similar to the EU's Waste Directives in order that all states and territories have a consistent approach towards products placed on market, how these are to be managed through their lifecycle including collection and management at end of life'.¹¹⁴
- 3.74 The WMRR argued that 'we can learn a lot from the EU and their Green Deal about how you bring countries (not states) together to develop both an economic and environmental blueprint for success'.¹¹⁵
- 3.75 Some submitters pointed to additional arrangements in other countries, suggesting that Australia also follow these examples to progress its circular economy. For example, MRA Consulting Group highlighted that:
- France has banned certain products, mandated reuse requirements, and implemented right to repair legislation and repairability requirements.
 - Scotland charges packaging fees for producers who make packaging that cannot be reused or recycled.
 - The EU has mandatory return systems for plastic and glass bottles, and aluminium cans.¹¹⁶
- 3.76 In a joint submission, the AMCS and WWF also offered support for the EU model, suggesting that it provided 'an example of what can be achieved when there is strong appetite and ambition for transitioning to a circular economy'. The AMCS and WWF observed that:

¹¹² European Commission, *Ecodesign for Sustainable Products Regulation*, https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/ecodesign-sustainable-products-regulation_en (accessed 13 March 2025).

¹¹³ Professor John Thwaites AM, private capacity, *Committee Hansard*, 14 February 2025, p. 3.

¹¹⁴ WMRR, *Submission 41*, p. 6.

¹¹⁵ WMRR, *Submission 41*, p. 10.

¹¹⁶ MRA Consulting Group, *Submission 31*, pp. 69–70. Mandatory schemes include deposit return systems for plastic and glass bottles, and aluminium cans. See: European Parliament, *New EU rules to reduce, reuse and recycle packaging*, 24 April 2024 www.europarl.europa.eu/news/en/press-room/20240419IPR20589/new-eu-rules-to-reduce-reuse-and-recycle-packaging (accessed 4 March 2025).

The European Green Deal, which sets out a vision and path for Europe to become the first climate-neutral continent, includes the EU's 2020 Circular Economy Action Plan as a key pillar. The Plan comprises initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented, and the resources used are kept in the EU economy for as long as possible. While the pathway to a circular economy for Australia will be unique to the Australian context, there is much to be gained by assessing the relevance and applicability of the EU's approach to Australia's market, geography and environmental considerations.¹¹⁷

- 3.77 MRA Consulting Group suggested following the European example by flagging certain products that should be banned,¹¹⁸ and 'giving proponents...six months to produce an alternative version, which does not cause environmental harm or they are banned'.¹¹⁹
- 3.78 A Branch Head within DCCEEW's Circular Economy Division also noted that Australia has 'a number of international partners...who are quite interested in circularity' and that Australia is well-placed to 'take advantage of our proximity, particularly to South-East Asia and other countries' that are moving towards a circular economy.¹²⁰

The importance of financial incentives

- 3.79 Some submitters argued that increasing landfill levies—while reducing recycling levies—would help to incentivise the use of recycled materials, and that landfill levies also needed harmonisation across jurisdictions in order to work effectively. Submitters and witnesses suggested that landfill levies and taxes would be effective regulatory measures in waste management and recycling and in the promotion of a circular economy.
- 3.80 The committee also heard about the efficacy of the United Kingdom's (UK) Plastic Packaging Tax, and notes the PC is continuing its work in examining the role of taxes and levies in a circular economy. These matters are discussed below.

¹¹⁷ WWF Australia and AMCS, *Submission 68*, p. 5.

¹¹⁸ The European Union (EU) has banned several single-use plastics including plastic plates, cutlery, straws, balloon sticks and cotton buds. It has also banned cups, food and beverage containers made of expanded polystyrene, and all products made of oxo-degradable plastic. See: European Commission, *Single-use plastics*, https://environment.ec.europa.eu/topics/plastics/single-use-plastics_en (accessed 4 March 2025).

¹¹⁹ MRA Consulting Group, *Submission 31*, p. 67.

¹²⁰ Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 15.

Landfill levies

3.81 Mr Mark Biddulph of Cleanaway put forward a strong message regarding the role of taxes and levies in waste management, saying: 'tax what you don't want and incentivise what you do want'. Mr Biddulph called for taxing landfill and increasing the cost of disposal, while incentivising, for example, gas capture and recycling. He explained that:

...taxes have always been introduced at the bottom of the waste hierarchy to encourage industry to move further up. Landfill levies increase the cost of disposal and incentivise and enable the development of resource recovery infrastructure. A tax or levies on top of resource recovery will increase the cost of resource recovery and place the economic viability at risk.¹²¹

3.82 MRA Consulting Group noted that, as businesses generate 80 per cent of Australia's waste, raising the cost of landfilling would drive behaviour change in favour of recycling:

More materials are recycled because landfilling costs more... Australia and particularly rural regional Australia, is still characterised by cheap (under-priced) landfill...we still landfill 40% of the materials generated by the economy... Recyclers compete with landfill for materials. Higher landfill gate fees...allows recyclers to compete for access to recyclable materials... Most people in Australia do not realise that recycling is in direct competition with landfill for access to materials. Changing that economic balance is the key role of the levy.¹²²

3.83 Dr Kirkman of Veolia Australia and New Zealand (ANZ) asserted that the biggest driver to a circular economy was landfill levies. However, in Australia, 'landfill levies differ per state, differ between metro or rural areas and differ by waste type, and the complexity of that means that you're not always getting the right outcomes.' Dr Kirkman commended announcements in early 2024 that Victoria was increasing its landfill levies, to better align with New South Wales (NSW).¹²³

Harmonisation of landfill levies

3.84 Many submitters called for harmonisation of landfill levies across jurisdictions, including between local councils. Veolia ANZ argued that discrepancies can lead to adverse outcomes:

Waste or landfill levies can act as a powerful regulatory tool to improve recycling and recovery rates. However, regional and inter-state variations in levy rates have led to a levy avoidance industry, where waste is improperly disposed of in areas with low or no levies. This results in increased

¹²¹ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, pp. 44 and 48.

¹²² MRA Consulting Group, *Submission 31*, pp. 52 and 73.

¹²³ Dr Richard Kirkman, CEO, Veolia Australia and New Zealand (ANZ), *Committee Hansard*, 8 May 2024, p. 51.

stockpiling and illegal dumping and greenhouse gas emissions rise when waste is transported unnecessarily long distances.¹²⁴

- 3.85 The Australian Resources Recovery Council (ARRC; formerly the National Waste and Recycling Industry Council) submitted that landfill levies were a 'key regulatory tool':

They have a significant effect on both the commercial environment of nearly every waste and recycling business and community behaviour. They also generate significant amounts of funds for each jurisdiction. Therefore, carefully considered levy regulations nationwide are essential to advancing Australia towards a circular economy.¹²⁵

- 3.86 Mr Biddulph of Cleanaway suggested that the harmonisation of landfill levies across Australian jurisdictions was important and 'definitely required'. He explained that harmonisation:

...stops waste from being transferred out of state and incentivises to invest higher up the waste hierarchy. I also recommend an audit across Australia of what the capacity is, and alternatives and trends need to be looked at as well... Harmonising the waste levy will stop the transfer of waste but also...encourage that infrastructure and recycling.¹²⁶

- 3.87 On a similar note, the Waste Contractors and Recyclers Association of NSW (WCRA) advised that reform was required:

WCRA conducted a review of these levies in 2019, revealing disparities across jurisdictions in levy rates, waste types levied, and reinvestment of levy funds into waste and recycling activities. Urgent reform is needed to ensure levies achieve their intended outcomes and do not drive waste down the hierarchy.¹²⁷

- 3.88 Similarly, the Law Council of Australia called for 'consistency of...landfill levies across Australia'.¹²⁸

- 3.89 Some submitters expressed frustration at Australia's lack of financial incentives to drive problematic waste streams—and especially plastic—out of the circular economy, and to increase demand for recycled materials over virgin alternatives. Several submitters and witnesses suggested that Australia should introduce a tax on plastic packaging, similar to the UK.

¹²⁴ Veolia ANZ, *Submission 14*, p. 3.

¹²⁵ Australian Resources Recovery Council (ARRC), *Submission 13*, p. 17. At the time of submitting and presenting to the committee, the ARRC was known as the National Waste and Recycling Industry Council (NWRIC). This report refers to the entity as the ARRC.

¹²⁶ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, pp. 45 and 48–49. See also: MRA Consulting Group, *Submission 31*, pp. 4 and 8.

¹²⁷ Waste Contractors and Recyclers Association of New South Wales, *Submission 1*, p. 7.

¹²⁸ Law Council of Australia, *Submission 39*, p. 3.

UK Plastic Packaging Tax

3.90 The UK's Plastic Packaging Tax (PPT) came into force on 1 April 2022. It applies to all business which manufacture or import plastic packaging components, that contain less than 30 per cent recycled plastic. Packaging should only contain recycled plastic when permitted under other regulations and food safety standards. Companies need to register for the PPT if they:

- expect to import into the UK or manufacture in the UK 10 tonnes or more of finished plastic packaging components in the next 30 days; or
- have imported into the UK or manufactured in the UK 10 tonnes or more of finished plastic packaging components in the last 12 months.¹²⁹

3.91 Originally charged at £200¹³⁰ per tonne in April 2022, since 1 April 2024 the tax has been charged at £217.85¹³¹ per tonne.¹³²

3.92 The tax was introduced to tackle plastic packaging pollution, with estimates that around five million tonnes of plastic are used annually in the UK. Only a small proportion of this is recycled, and the remainder sent to landfill or exported. The PPT aims to provide:

...a clear economic incentive for businesses to use recycled plastic material in their packaging. The tax should create a greater demand for recycled plastic material and therefore stimulate increased levels of recycling and collection of plastic waste.

The increased demand should also help divert plastic from landfills or incineration.

Increasing the demand for recycled plastic material should, in turn, result in increased investment in recycling infrastructure to facilitate this.¹³³

¹²⁹ United Kingdom (UK) Government, *Guidance—Plastic Packaging Tax: steps to take*, 2 January 2024, www.gov.uk/guidance/check-if-you-need-to-register-for-plastic-packaging-tax (accessed 18 March 2025).

¹³⁰ The approximate equivalent of \$351.60 AUD (using the average GBP to AUD exchange rate in April 2022 of 1.758): Exchange Rates UK, *British Pound to Australian Dollar Spot Exchange Rates for 2022*, www.exchangerates.org.uk/GBP-AUD-spot-exchange-rates-history-2022.html (accessed 18 March 2025).

¹³¹ The approximate equivalent of \$418.90 AUD (using the average GBP to AUD exchange rate in April 2024 of 1.9229): Exchange Rates UK, *British Pound to Australian Dollar Spot Exchange Rates for 2024*, www.exchangerates.org.uk/GBP-AUD-spot-exchange-rates-history-2024.html (accessed 18 March 2025).

¹³² UK Government, *Guidance—Plastic Packaging Tax: steps to take*, 2 January 2024 (accessed 18 March 2025).

¹³³ GWP Group, *A beginners guide to the Plastic Packaging Tax*, 8 January 2025, www.gwp.co.uk/guides/plastic-packaging-tax/ (accessed 18 March 2025).

Support for financial incentives

3.93 Some submitters suggested introducing control measures and financial levers, similar to those used overseas. For example, Catholic Religious Australia proposed:

...the implementation of a plastic tax, such as those being introduced in the EU or UK. These have various forms of taxes imposed on manufacturers and importers of non-recycled plastic products... Australia should ultimately extend this tax further to all goods containing plastics, to slow plastic production...the ultimate goal should be to disincentivise the manufacturing and importation of plastic, and push businesses towards more sustainable material choices.¹³⁴

3.94 In a similar vein, the Bellarine Catchment Network suggested measures to phase down the use of plastic, including the imposition of taxes:

Current federal policies, aimed at reducing the amount of plastic waste, have failed. Their focus on recovery, particularly recycling, and not on reducing the production and consumption of plastics is an inherent weakness.

We must have policies that cap or phase down the use of plastics. It's time to follow other countries and introduce plastics control measures and taxes as we see with the UK's Plastic Packaging Tax, Canada's Federal Plastic Registry and the EU's Green Deal.¹³⁵

3.95 Mr Rick Ralph of the ARRC also supported a plastics tax in Australia, arguing that the UK's PPT presented a 'very simple way of funding the recycling opportunity', with the tax applied at the front end of the supply chain, and the money raised from the tax used to 'promote local recycling'. Mr Ralph stressed that without a mandate 'to actually make sure we use recycled content in this country', there was no incentive for businesses to invest in using Australian recycled content.¹³⁶

3.96 Pact Group also argued that 'Australia could do well' to consider a similar enforcement mechanism to the PPT, where a fee per tonne is paid for packaging that contains less than the required percentage of local recycled material.¹³⁷

3.97 Other witnesses expressed caution around the efficacy of the PPT. Ms Tanya Barden, Chief Executive Officer of the Australian Food and Grocery Council, posited that all elements of the waste and recycling system needed to be in place before implementing any taxes at the front of the supply chain, stating that:

¹³⁴ Catholic Religious Australia, *Submission 18*, p. 7.

¹³⁵ Bellarine Catchment Network, *Submission 76*, p. 7.

¹³⁶ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, pp. 10–11. See also: Mr David Finlayson, Group Commercial Manager, Martogg Group, *Committee Hansard*, 5 August 2024, p. 9.

¹³⁷ Pact Group, *Submission 34*, p. 8.

...to impose recycled content targets before there is a significant increase in recycling infrastructure will lead to a situation like in the UK where brand owners face penalties for noncompliance due to a lack of supply of recycled content. To provide brand owners with no financial support for the significant packaging design changes, capital equipment changes and additional costs of procuring recycled content risks adding to consumer inflation at a time when other costs of manufacturing and transporting food and groceries continue to rise.¹³⁸

¹³⁸ Ms Tanya Barden, CEO, Australian Food and Grocery Council, *Committee Hansard*, 5 August 2024 p. 29.

Chapter 4

Product stewardship schemes

- 4.1 Product stewardship schemes enable a product's lifecycle impacts to be managed in terms of their effects on the environment and health. They also promote the circular economy and help to address waste generated in a range of industries.¹
- 4.2 This chapter discusses product stewardship (including extended producer responsibility) schemes and targets, and submitter and witness views on their effectiveness and operation. Waste and recycling industry stakeholders canvassed a variety of policies and actions which could be taken to address issues in the waste and resource industry, and which are addressed throughout this chapter, including:
- progress on mandated product stewardship schemes;
 - improvement of the viability of product stewardship schemes; and
 - the role and necessity of traceability frameworks.
- 4.3 The next chapter focuses more specifically on packaging stewardship—as a subset of product stewardship—and goes into greater detail on specific packaging issues, such as those around plastics, mandatory packaging requirements and the inclusion of recycled content in Australian packaging.

Product stewardship schemes

- 4.4 Product stewardship schemes support environmentally sound management of products and material over their life cycle, including at the end of their useful life. Product stewardship recognises that everyone who imports, designs, produces, sells, uses and disposes of products has a shared responsibility to reduce the environmental and human health and safety impacts of those products.²
- 4.5 According to the Product Stewardship Centre of Excellence, a not-for-profit group that seeks to reduce waste generation, product stewardship 'aims to drive environmentally beneficial outcomes through good design and clean

¹ Department of Climate Change, Energy, the Environment and Water (DCCEEW), [Environment Ministers' Meeting 10 November 2023 Agreed Communiqué](#), p. 1.

² DCCEEW, *Product stewardship in Australia*, 3 October 2021, www.dcceew.gov.au/environment/protection/waste/product-stewardship (accessed 7 February 2025).

manufacturing, including the use of components and materials that are easier to recover, reuse, and recycle'.³

4.6 Australian environment ministers have agreed that product stewardship schemes play a key role in holding producers accountable for managing their waste and driving circularity.⁴ These schemes can be:

- government accredited industry-led voluntary schemes;
- co-regulatory arrangements between industry and government; or
- mandatory schemes under law.⁵

4.7 These various scheme formats are described below:

- **Voluntary** schemes encourage stewardship, without regulation. Voluntary accreditation arrangements 'must meet specific requirements to ensure [industry carries] out their activities in a transparent and accountable manner'.
- **Co-regulatory** schemes are delivered by industry and regulated by the government. The regulations 'specify outcomes to be achieved, and identify liable parties that are responsible for those outcomes'. Liable parties join a co-regulatory arrangement.
- **Mandatory** schemes place legal obligations on parties to take certain actions in relation to a product (for example, arranging for the recycling of products at end-of-life, or banning certain substances or materials from use in products).⁶

4.8 The *Product Stewardship Act 2011* was in force from 2011 but was repealed and ceased to have effect after 15 December 2020.⁷ Product stewardship schemes in Australia are now controlled under the *Recycling and Waste Reduction Act 2020* (RAWR Act) and associated rules. The RAWR Act provides the legislative

³ Product Stewardship Centre of Excellence, *Product Stewardship*, <https://stewardshipexcellence.com.au/product-stewardship/> (accessed 5 June 2024).

⁴ DCCEEW, *Environment Ministers' Meeting 10 November 2023 Agreed Communiqué*, p. 1.

⁵ DCCEEW, *Product stewardship schemes and priorities*, 4 February 2025, www.dcceew.gov.au/environment/protection/waste/product-stewardship/products-schemes (accessed 2 March 2025). The *Recycling and Waste Reduction Act 2020* (RAWR Act) provides for voluntary, co-regulatory and mandatory product stewardship schemes. Government accredited industry-led schemes include, for example, mobile phones; tyres; large plastic bags and aluminium cladding; co-regulatory arrangements include televisions and computers, and plastics and packaging. For details on existing and emerging product stewardship initiatives across Australia, see the Product Stewardship Gateway: Product Stewardship Centre of Excellence, *Product Stewardship Gateway*, <https://gateway.stewardshipexcellence.com.au/> (accessed 4 March 2025).

⁶ Department of the Environment and Energy, *Review of the Product Stewardship Act 2011, including the National Television and Computer Recycling Scheme: Consultation paper*, March 2018, p. 3.

⁷ The now-repealed Act can be found at: www.legislation.gov.au/C2011A00076/latest/details (accessed 17 February 2025).

framework for voluntary product stewardship, for accreditation of voluntary schemes, and for co-regulatory and mandatory stewardship schemes. It also provides for penalties for non-compliance in any authorised arrangements, and for the relevant minister to revoke or amend accreditation.⁸

- 4.9 Applications for accreditation can be submitted to government at any time, with accreditation lasting five years.⁹ The RAWR Act provides that the minister can table a statement in Parliament regarding the operation, performance, and coverage of accredited arrangements.¹⁰ The Act also requires the yearly publication of a product stewardship priority list, to identify the products and materials most in need of industry-led product stewardship action (discussed later in this chapter).¹¹
- 4.10 Government accredited industry-led voluntary schemes include arrangements for recycling mobile phones, tyres, large plastic bags, batteries, plastics and packaging, newspapers and magazines, aluminium cladding, and plastic paint pails.¹²
- 4.11 There are several co-regulatory arrangements for recycling televisions, computers, and printers (in addition to the plastics and packaging scheme mentioned above).
- 4.12 Despite having legislative frameworks for mandatory product stewardship since 2011, Australia currently has only one national mandatory product stewardship scheme—the Product Stewardship for Oil (PSO) Scheme—aimed at increasing the recycling of used motor oil (discussed towards the end of this chapter).
- 4.13 In addition, the National Product Stewardship Investment Fund, administered by the Department of Climate Change, Energy, the Environment and Water (DCCEEW), provided financial support to set up new product stewardship

⁸ See, for example: *Recycling and Waste Reduction Act 2020*, Part 5.

⁹ The application fee for a new application (as of 19 February 2025) is \$5900 and \$3900 for a renewal application. See: DCCEEW, *Product stewardship accreditation*, 31 January 2025, www.dcceew.gov.au/environment/protection/waste/product-stewardship/product-schemes/voluntary-product-stewardship (accessed 19 February 2025).

¹⁰ DCCEEW, *Product stewardship accreditation*, 31 January 2025 (accessed 19 February 2025).

¹¹ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024, www.dcceew.gov.au/environment/protection/waste/product-stewardship/ministers-priority-list (accessed 4 March 2025).

¹² DCCEEW, *Product stewardship schemes and priorities*, 4 February 2025 (accessed 2 March 2025).

arrangements or improve existing ones.¹³ It also funded the Product Stewardship Centre of Excellence through a \$1 million grant.¹⁴

Voluntary vs mandatory product stewardship

4.14 There was broad acknowledgement of the importance of product stewardship schemes in Australia, including voluntary schemes, and the role of such schemes in a circular economy. Many submitters pointed to the container deposit schemes (CDS) in place across the country at the state level, as an example of successful mandatory product stewardship.

4.15 However, the inquiry heard considerable and widespread concerns that voluntary product stewardship schemes are largely ineffective, due to the lack of consequences for non-compliance, lower recovery rates, and limited resourcing.¹⁵ Accordingly, there were calls to make product stewardship schemes mandatory in Australia.

The limits of voluntary schemes

4.16 Professor John Thwaites gave evidence that the Circular Economy Ministerial Advisory Group (CEMAG) 'heard time and time again that [voluntary product stewardship schemes] weren't working, because they weren't mandatory'. Professor Thwaites noted that free-rider issues 'meant that the companies doing the right thing were essentially subsidising those that weren't'. Consequently, he expressed the need for mandatory schemes 'that all companies have to comply with so you've got a level playing field'.¹⁶

4.17 CEMAG's final report to the Australian Government emphasised that 'voluntary schemes face challenges with set-up costs and free rider issues' and pointed out that, in contrast to Australia's reliance on voluntary product stewardship schemes, 'other developed countries with successful product stewardship schemes have tended to apply more mandatory approaches'. CEMAG therefore recommended that a priority of any new National Circular Economy Policy Framework should be to implement mandatory product stewardship 'in a way that increases the focus on mandatory participation, reporting, measurement and governance principles'.¹⁷

¹³ Applications for funding are now closed, with grants offered between \$300 000 and \$1 million.

¹⁴ DCCEEW, *Product stewardship in Australia*, 3 October 2021 (accessed 7 February 2025).

¹⁵ Mandatory packaging requirements, including recycled content minimums, are discussed in detail in the following chapter.

¹⁶ Professor John Thwaites, private capacity, *Committee Hansard*, 14 February 2025, p. 3.

¹⁷ Circular Economy Ministerial Advisory Group (CEMAG), [*Final Report: The Circular Advantage*](#), December 2024, p. 38.

- 4.18 The Australian Marine Conservation Society (AMCS) and WWF Australia similarly suggested that 'voluntary frameworks have been in place in Australia for 20 years and have not driven the market quickly enough to address issues of product recyclability'.¹⁸
- 4.19 Some submitters, such as MRA Consulting Group, pointed to lower recovery rates associated with voluntary schemes, which only address small tonnages in comparison to mandatory schemes which 'have consistent recovery rates above 60 per cent'. By way of example, it noted that voluntary schemes for tyres and batteries were 'capturing more than 15 per cent of product placed on market' and 'the remaining 104 schemes...have a recovery rate of less than 10 per cent'.¹⁹
- 4.20 The Total Environment Centre submitted that product stewardship schemes 'only target finite aspects of the environmental damage caused by their products...without addressing impacts of production, transport, product disposed of outside the scheme, including legacy waste'.²⁰ This was echoed by the Boomerang Alliance which noted that voluntary schemes 'do not include responsibility for the entire lifecycle of a product'.²¹
- 4.21 In line with the evidence of Professor Thwaites, the Total Environment Centre pointed out that voluntary schemes effectively penalise organisations that join while 'less reputable competitors avoid incurring the additional cost'.²² Boomerang Alliance also highlighted the lack of sanctions or penalties for non-compliance in voluntary schemes.²³
- 4.22 Similarly, Re.Group observed that when engaging in voluntary schemes, the desired outcomes would not be achieved as only the 'good actors' are at the table, trying to do the right thing—the 'bad actors...are undercutting the people who are trying to do the right thing'.²⁴
- 4.23 EcoCycle expressed the view that co-regulatory and voluntary product stewardship schemes lacked 'proper funding'. EcoCycle argued that insufficient funding placed:

...undue pressure on recyclers who bear the financial risks associated with investing in specialised operations and technology to handle the ever-changing materials used by manufacturers. The process of reclaiming valuable commodities does not sufficiently cover the costs of assets,

¹⁸ WWF Australia and Australian Marine Conservation Society (AMCS), *Submission 68*, p. 7.

¹⁹ MRA Consulting Group, *Submission 31*, p. 4.

²⁰ Total Environment Centre, *Submission 8*, p. 2.

²¹ Boomerang Alliance, *Submission 11*, p. 3.

²² Total Environment Centre, *Submission 8*, p. 2.

²³ Boomerang Alliance, *Submission 11*, p. 3.

²⁴ Mr Garth Lamb, Chief Development Officer, Re.Group, *Committee Hansard*, 8 May 2024, p. 28.

collection, transportation, and recycling, creating high exit barriers and dependency on the schemes. Furthermore, the recovered commodities are subject to international price fluctuations and cannot be relied upon to significantly contribute to operational cost recovery.²⁵

- 4.24 The Waste, Recycling Industry Association of Queensland (WRIQ) observed that while some product stewardship schemes were 'working brilliantly', others were not operating as well. Ms Alison Price, Chief Executive Officer (CEO) of the WRIQ, suggested that industries better at advocacy 'start to drive the outcomes of the product stewardship scheme', with their driver being to 'reduce the cost of that [scheme] so they don't add as much cost to their products'. Ms Price detailed the outcomes of such an approach, stating:

What that results in is sometimes some subpar recycling outcomes, where, if you're always driving to the lowest possible cost, you're going to get the lowest common denominator in terms of recycling outcomes. That is, for me, the big weakness in product stewardship schemes. You see these schemes that are being developed by people that come from outside the industry and don't have that experience. They're reinventing the wheel, attempting to learn how to recycle on the fly, with a government mandate to do so. It's not always creating the best outcomes, even though it is very important for our community to have those schemes.²⁶

- 4.25 Conversely, the Australian Mobile Telecommunications Association (AMTA) pointed to MobileMuster—a government accredited, voluntary product stewardship scheme for old mobile phones—as an example of a successful voluntary scheme. Through MobileMuster's recycling process, the AMTA advised that over 95 per cent of the materials in returned mobile phones are recovered.²⁷ The AMTA argued that MobileMuster's voluntary nature enabled it to respond well to evolving environmental needs and technological changes. Through MobileMuster:

...both liable and non-liable parties have come together, on a voluntary basis, to take collective action and drive the mobile telecommunications industry towards a more sustainable and circular economy.²⁸

Calls for government regulation

- 4.26 Many submitters and witnesses recommended that Australia follow international examples and implement mandatory product stewardship

²⁵ EcoCycle, *Submission 75*, p. 2.

²⁶ Ms Alison Price, Chief Executive Officer (CEO), Waste, Recycling Industry Association Queensland (WRIQ), *Committee Hansard*, 8 May 2024, pp. 19–20.

²⁷ The Australian Mobile Telecommunications Association (AMTA) advised that nearly 97 per cent of mobile phone manufacturers, and 94 per cent of mobile phone carriers participate in MobileMuster. See: AMTA, *Submission 54*, p. 3.

²⁸ AMTA, *Submission 54*, pp. 3–4.

schemes, citing the success of the state-based mandatory CDS (Box 4.1) and mandatory PSO Scheme (discussed later in this chapter).

- 4.27 Visy, a large Australian packaging and recycling company, told the committee there was an 'overwhelming consensus' across industry for government regulation of product stewardship. Visy explained that some companies had already made the 'principled decision' to implement product stewardship, choosing 'sustainability over cost'. Visy noted, however, the broader benefits of government regulation, stating that if the government 'regulates and makes rules, as opposed to guidelines, then everyone has to move at the same time, so no-one is comparatively [financially] disincentivised'.²⁹

Box 4.1 Container deposit schemes

Various inquiry participants highlighted that CDS around the country have been effective at reducing container litter and encouraging recycling.³⁰ Pact Group, a plastic recycling, reuse and packaging manufacturing company, noted that:

The South Australian [container deposit] scheme, the first in Australia, has been running since 1977 and has resulted in an 80% return rate of containers. Since the scheme was introduced in 2017 in New South Wales, there has been 52% reduction in the volume of eligible container litter in 2020, more than 300,000 tonnes of materials were recycled.³¹

The committee heard that 'CDS demonstrates the power of mandated and properly funded product stewardship schemes', with Re.Group elaborating that:

...strong product stewardship schemes will help fund the recovery of problematic wastes, improve product design to reduce recovery costs, and reduce the "free-rider" problem. Mandatory product stewardship is vital to resolving the problems presented by hazardous wastes such as lithium ion batteries, but also more commonplace materials such as product packaging, mattresses, tyres and paint (all of which have voluntary product stewardship schemes).³²

²⁹ Mr Ben Fourniotis, General Manager, Government Relations, Visy, *Committee Hansard*, 14 February 2025, p. 5.

³⁰ See, for example, Australian Council of Recycling (ACOR), *Submission 40*, Attachment 1, [p. 43]; Mr Asela Atapattu, Acting Executive Director, Strategy and Policy, Environment Protection Authority (EPA), New South Wales (NSW), *Committee Hansard*, 20 September 2024, pp. 21–22.

³¹ Pact Group, *Submission 34*, [p. 6].

³² Re.Group, *Submission 49*, [p. 6].

Similarly, the Plastic Free Foundation argued that the success of state and territory CDS 'provides an excellent example of the importance of legislating product stewardship'.³³

4.28 A key recommendation of CEMAG's final report to the Australian Government is to introduce a new Circular Economy Act which would strengthen product stewardship provisions, and would:

...equip the Australian Government with a streamlined, agile and proactive tool to regulate the environmental performance of materials and products, including imports, in line with the priorities of the National Circular Economy Policy Framework.³⁴

4.29 CEMAG argued that 'a stronger mandatory product stewardship framework will catalyse action across supply chains' and that national product regulation needed support by 'better monitoring and compliance'. CEMAG contended that 'without ongoing oversight, schemes are likely to fail even when backed by regulation'.³⁵

4.30 Ms Sloan, the CEO of the Waste Management and Resource Recovery Association of Australia (WMRR), encouraged Australia to stop 'trying to reinvent the wheel', observing that products are already subject to stewardship by multinationals domiciled in the European Union (EU). Australia could be 'braver and bolder' and 'pick up a lot of that legislation, rather than continuing to develop our own'.³⁶

4.31 Huhtamaki described what it saw as the prerequisites for any successful mandatory product stewardship scheme:

Any viable product stewardship scheme must include an economically viable and stable end market for the material. This requires a product or range of products that can utilise the recycle, a market that demands these products and a collection / reprocessing network that satisfy this demand.

[Mandatory schemes] must be aligned with the packaging design regulations promoting materials with the least environmental impact and the capabilities of the resource recovery sector. Until this direction is clear any attempt to introduce such schemes may be misguided and result in adverse outcomes.³⁷

³³ Plastic Free Foundation, *Submission 61*, [p. 3].

³⁴ CEMAG, [Final Report: The Circular Advantage](#), December 2024, pp. 35 and 38.

³⁵ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 5.

³⁶ Ms Gayle Sloan, CEO, Waste Management and Resource Recovery Association of Australia (WMRR), *Committee Hansard*, 8 May 2024, p. 39.

³⁷ Huhtamaki, *Submission 3*, pp. 4–5.

4.32 The Local Government Association of Queensland (LGAQ) was in support of mandatory product stewardship and stressed the importance of mandatory obligations throughout the supply chain. The LGAQ argued that:

...long term positive changes can only be expected if...obligations are put on the producer and importer of a product into the Australian economic zone. This is due to the producer being the only party able to make design choices that consider the whole-of-life impact of a product and optimise those.³⁸

4.33 The Australian Council of Recycling (ACOR) suggested there were several limitations with the existing approach to product stewardship, arguing that the 'current system saddles recyclers with the burden of contamination and hazards from poorly designed products and irresponsible disposal practices'. Ms Toumbourou of ACOR called for 'fit-for-purpose mandated product stewardship schemes', which deliver real outcomes, and continued that:

Much more needs to be done to ensure that regulatory frameworks, including product stewardship, more comprehensively address responsibilities of those operating upstream.³⁹

4.34 The Boomerang Alliance called for the conversion of 'all existing [voluntary and co-regulatory] product stewardship to mandatory schemes, and ensure all future [product stewardship] schemes are managed under mandatory arrangements'.⁴⁰ Mr Jeffrey Angel, the Director of Boomerang Alliance, explained that mandatory schemes need outcomes and targets, and that the Australian Government has the legal frameworks for mandatory schemes already in place. Mr Angel argued that 'we have to overcome...the cultural and resource malaise inside the [Commonwealth] department [of Climate Change, Energy, the Environment and Water]', and contended that:

...suppliers of products [should be] required to take full responsibility for their products through their entire lifecycle. We must review all current product stewardship policies and practices and matters regarding waste exports of plastic, glass, tyres and paper to confirm they comply with the principles of a circular economy. Commonwealth policies and practices must be supported with state and territory policies, such as bans on particular products and landfill disposal, state based EPR [extended producer responsibility] where necessary and the promotion of reuse of resources.⁴¹

³⁸ Local Government Association of Queensland (LGAQ), *Submission 25*, p. 12.

³⁹ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, pp. 2 and 5.

⁴⁰ Boomerang Alliance, *Submission 11*, p. 1.

⁴¹ Mr Jeffrey Angel, Director, Total Environment Centre and Boomerang Alliance, *Committee Hansard*, 20 September 2024, p. 14.

- 4.35 Likewise, MRA Consulting Group argued that 'all schemes need to be mandatory to have any real and lasting effect',⁴² and that Australia should start by legislating that product developers 'consider the end-of-life fate—reuse, recycling, landfill—of their products'.⁴³
- 4.36 The Law Council of Australia advocated for 'full scale mandatory product stewardship of all items imported to or produced in Australia', and for schemes to 'be backed by clearly communicated incentives—rather than simply penalties'.⁴⁴
- 4.37 Minderoo called for co-regulatory schemes to 'have clear, legally binding requirements for producers to manage the lifecycle of their product', and for effective legislation that:
- ...sets out the scope of costs in the scheme, stimulates infrastructure development, develops markets (for example through mandatory recycled content) and promotes producer behaviour that drives more sustainable choices.⁴⁵
- 4.38 Cleanaway offered strong support for mandated product stewardship and design schemes, arguing that the waste industry was not the producer of the waste itself but was 'left to deal with other people's problems'. Mr Biddulph, Head of Corporate Affairs at Cleanaway, explained that focus should instead be on product stewardship and design 'to stop [production of] those multilayered products that are almost impossible to recycle'.⁴⁶ Mr Biddulph cautioned, however, that supply surety was needed before companies felt confident making the considerable investments needed to establish processing facilities. For example, Cleanaway:
- ...recently announced an MOU [memorandum of understanding] with Viva Energy to investigate chemical recycling of hard-to-recycle plastics. But we're talking hundreds of millions of dollars, and, for Cleanaway to invest that sort of money, we would wait for mandatory packaging and regulations before we make that investment.⁴⁷
- 4.39 As will be highlighted later in this report, the government has recently completed consultation on packaging regulation reform, where over 80 per cent of respondents preferred Commonwealth regulation of packaging—and

⁴² MRA Consulting Group, *Submission 31*, p. 4.

⁴³ MRA Consulting Group, *Submission 31*, pp. 69–70.

⁴⁴ Friends of the Earth Australia, *Submission 36*, p. 6.

⁴⁵ Minderoo, *Submission 52*, p. 10.

⁴⁶ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, p. 49.

⁴⁷ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, pp. 49–50.

65 per cent supported an EPR scheme with mandatory requirements. Respondents were also in strong support of:

- establishing an approach that supports the transition to a circular economy for packaging in Australia;
- a national ban on a limited set of problematic packaging inputs (for example, per- and polyfluoroalkyl substances);
- mandatory national minimum recycled content thresholds;
- mandatory on-pack recyclability labelling obligations; and
- nationally consistent approaches across related systems (for example, CDS and kerbside recycling).⁴⁸

4.40 While submitters broadly supported product stewardship schemes and their objectives, various other suggestions were put forward about how such schemes could be improved in Australia—beyond making such schemes mandatory.

4.41 ACOR, for example, suggested that product stewardship schemes must:

...better manage inherent conflicts of interest and genuinely invest in real recycling outcomes, especially in areas that pose an existential risk to the entire recycling supply chain such as highly combustible, loose and embedded batteries—where the ongoing hazards faced by our sector have not yet been met with a sufficiently urgent regulatory intervention.⁴⁹

4.42 The Waste Contractors and Recyclers Association of New South Wales (WCRA) stated that product stewardship schemes were 'commendable in their intent' but required 'significant reform to fulfil their role in the circular economy'. The WCRA suggested that the facilities to process the materials collected through these schemes were lacking and struggled to find end-user markets, 'especially in the face of cheap international imports'.⁵⁰

Extended producer responsibility schemes

4.43 Extended producer responsibility (EPR) schemes are a type of product stewardship arrangement that 'places primary responsibility on the producer, importer and sometimes the seller of the product'. Through EPR schemes, 'producers or importers are required to fund activities to reduce the environmental, health and safety impacts of a product'.⁵¹

⁴⁸ DCCEEW, *Reform of packaging regulation: Consultation summary*, 11 March 2025, www.dcceew.gov.au/environment/protection/waste/packaging/reforming-packaging-regulation/consultation-summary (accessed 12 March 2025).

⁴⁹ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 2.

⁵⁰ Waste Contractors and Recyclers Association of New South Wales (WCRA), *Submission 1*, p. 5.

⁵¹ DCCEEW, *Product stewardship*, 3 October 2021, www.dcceew.gov.au/environment/protection/waste/publications/national-waste-reports/2013/product-stewardship (accessed 20 June 2024).

4.44 The difference between EPR and product stewardship was explained by the LGAQ:

While product stewardship schemes involve approaches to better manage the impacts of products and materials on the social, economic and environmental values of a country, the producer responsibility schemes involve a specific type of product stewardship that places the primary responsibility on the producer of a product.⁵²

4.45 DCCEEW, in reference to an Organisation for Economic Co-operation and Development (OECD) policy paper, stated that EPR schemes are:

...designed to promote the integration of environmental costs associated with goods throughout their life cycles into the market price of the products.

...an EPR scheme is characterised by:

- the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities
- the provision of incentives to producers to take into account environmental considerations when designing their products...⁵³

4.46 Some EPR schemes exist in Australia, such as CDS implemented by states and territories. Arguments in favour of mandatory EPR schemes are discussed below.

Support for mandatory extended producer responsibility schemes

4.47 Various submitters supported the introduction of mandatory EPR schemes. For example, the AMCS and WWF Australia argued for establishing:

...mandatory extended producer responsibility schemes for the most challenging products on the market (with regard to pollution risk and toxicity as well as recyclability), with packaging being a first step. Draw on the EU experience and progress to implementation swiftly.⁵⁴

4.48 Dr Kirkman, CEO of Veolia Australia and New Zealand argued that 'mandated producer responsibility schemes are critical' for Australia to reach its waste and resource ambitions. Dr Kirkman explained that this means producers, manufactures and retailers would need to ensure their products are recyclable. Further, a modulated fee depending on the recyclability of a product would help drive behaviour, together with truthful labelling. He explained:

You can deliver a bottle of water to someone in a plastic container that's almost 100 per cent recyclable, or you can put it in a container that's made of three different materials and write on it that it's recyclable...you can do it in a way which is recyclable, and you can do it in a way which isn't. That's the choice to be made. If you were influenced with a small fee, I think you'd

⁵² LGAQ, *Submission 25*, p. 12.

⁵³ DCCEEW, *Product stewardship*, 3 October 2021.

⁵⁴ WWF Australia and AMCS, *Submission 68*, p. 6.

make the right decision. And there'll be very little cost for people to make that switch.⁵⁵

- 4.49 The LGAQ placed emphasis on the need for EPR schemes as they place 'primary responsibility on the producer of a product'.⁵⁶ The LGAQ suggested translating Australia's 'current work on mandated product stewardship schemes into well-regulated extended producer responsibility schemes'.⁵⁷
- 4.50 Some submitters called for legislating EPR for all packaging. For example, Tetra Pak, a food processing and packaging company, highlighted that 'EPR delivers the highest recycling outcomes at the lowest cost to the economy', and 'creates a market for all collected and sorted materials, and is based on the net cost of managing each material at its end-of-life'.⁵⁸
- 4.51 Minderoo submitted that 'very few [Australian] schemes would satisfy the definition for extended producer responsibility (EPR), which is an embodiment of the pollution pays principle, mandatory and designed to ensure the accountability of producers and importers'. Minderoo pointed out that 'each state and territory has implemented (or is implementing) mandatory EPR in the form of container deposit schemes for beverage containers' but that this is 'problematic...as this creates different obligations for industry across jurisdictions, as well as triggering mutual recognition requirements'.⁵⁹ Several submitters argued for the harmonisation of CDS across jurisdictions to 'minimise confusion and build community trust and industry confidence',⁶⁰ and make things easier for network operators and the beverage industry.⁶¹
- 4.52 Similarly, the South Australian Environment Protection Authority (SA EPA) and Green Industries South Australia (GISA) argued for 'a regulated extended producer responsibility scheme for packaging'.⁶² The SA EPA and GISA pointed out that the:

...ability to address matters related to product design and product stewardship at a state level is critically limited by the [SA] *Mutual Recognition Act 1993* (MR Act), economies of scale for manufacturing and

⁵⁵ Dr Richard Kirkman, CEO, Veolia Australia and New Zealand, *Committee Hansard*, 8 May 2024, p. 51.

⁵⁶ LGAQ, *Submission 25*, p. 12.

⁵⁷ LGAQ, *Submission 25*, p. 6.

⁵⁸ Tetra Pak, *Submission 51*, pp. 1 and 3.

⁵⁹ Minderoo, *Submission 52*, p. 8.

⁶⁰ Australian Food and Grocery Council, *Submission 59*, p. 3.

⁶¹ Re.Group, *Submission 49*, [p. 6].

⁶² South Australian Environment Protection Authority (SA EPA) and Green Industries South Australia (GISA), *Submission 66*, p. 4.

national markets. The MR Act requires that if goods may be lawfully sold in one state or territory, then they may also be lawfully sold in any other state or territory without having to comply with requirements which would otherwise prevent or restrict the sale of the goods.⁶³

- 4.53 Other submitters, such as Doctors for the Environment Australia, highlighted that the EU's policy frameworks set more stringent requirements by using EPR schemes to require manufacturers to take responsibility for the entire life cycle of their products, and that Europe has 'a greater number of mandatory EPR schemes in the EU compared to Australia'.⁶⁴
- 4.54 Ms Sloan encapsulated stakeholders' broad sentiment when she told the committee, 'we do need to move a lot faster'.⁶⁵

NSW product stewardship law reform

- 4.55 The committee also received evidence that, in the absence of national guidance, the New South Wales (NSW) Government was progressing work more broadly on EPR schemes:

We have felt [extended producer responsibility] is the domain of the Commonwealth government, mainly to ensure that market consistency or reduce common market impact. However, in New South Wales we have started on this journey, starting with the container deposit scheme.⁶⁶

- 4.56 On 18 March 2025, the Hon Penny Sharpe MLC, NSW Minister for Climate Change, Energy, Heritage and the Environment, introduced the Product Lifecycle Responsibility Bill 2025 to the NSW Legislative Council to establish a product stewardship framework, for brand owners of certain products.
- 4.57 In introducing the bill, Minister Sharpe advised the NSW Government had 'been prompted to action by the lithium ion battery fire crisis' in NSW,⁶⁷ and by the need to have a system which can 'easily and quickly regulate products causing problems, whether they are a risk to safety or...the environment'.⁶⁸ Additionally, Minister Sharpe explained that the NSW Government selected a mandatory scheme in response to the shortcomings of existing Commonwealth voluntary product stewardship schemes, noting that 'appropriate regulatory

⁶³ SA EPA and GISA, *Submission 66*, p. 3.

⁶⁴ Doctors for the Environment Australia, *Submission 20*, p. 5.

⁶⁵ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 5 August 2024, p. 44.

⁶⁶ Mr Asela Atapattu, Acting Executive Director, Strategy and Policy, EPA, NSW, *Committee Hansard*, 20 September 2024, p. 20.

⁶⁷ Battery stewardship is discussed later in this chapter.

⁶⁸ The Hon Penny Sharpe MLC, NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, and Minister for Heritage, Product Lifecycle Responsibility Bill 2025, [Second Reading Speech](#), 18 March 2025.

oversight of product stewardship organisations...is not present in current voluntary schemes'.⁶⁹

4.58 Minister Sharpe explained that the bill would establish a framework which:

...allows the Minister to prescribe, by regulation, requirements across the entire life cycle of a product, including the development, design, creation, production, assembly, supply, use or re-use, collection, recovery, recycling or disposal of the regulated product.

Too often and, in fact, most of the time, products are designed without any consideration of what will happen to them when their use has ended. This must change. Those who make the products and those who sell the products must take some responsibility for where they end up...

The bill provides a comprehensive suite of considerations and oversight improvements to ensure that brand owners take responsibility for products across their life cycles and risk is managed appropriately.⁷⁰

4.59 While noting that the legislation would work 'alongside Commonwealth laws', the minister argued that the bill represented 'nation-leading reform' and in the first instance, would be used to apply a product stewardship framework for batteries.⁷¹ The minister advised that the bill had been drafted as a standalone Act, so that it 'can easily be used by other states and territories as a template to regulate product stewardship'.⁷²

4.60 The bill was passed by the NSW Parliament on 28 March 2025.⁷³ Its passage was widely applauded by stakeholders,⁷⁴ with the CEO of WMRR expressing relief that the NSW Government 'will have the necessary regulatory tools to oversee

⁶⁹ The Hon Penny Sharpe MLC, NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, and Minister for Heritage, Product Lifecycle Responsibility Bill 2025, [Second Reading Speech](#), 18 March 2025.

⁷⁰ The Hon Penny Sharpe MLC, NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, and Minister for Heritage, Product Lifecycle Responsibility Bill 2025, [Second Reading Speech](#), 18 March 2025.

⁷¹ The Hon Penny Sharpe MLC, NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, and Minister for Heritage, Product Lifecycle Responsibility Bill 2025, [Second Reading Speech](#), 18 March 2025.

⁷² The Hon Penny Sharpe MLC, NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, and Minister for Heritage, Product Lifecycle Responsibility Bill 2025, [Second Reading Speech](#), 18 March 2025.

⁷³ Parliament of NSW, *Product Lifecycle Responsibility Bill 2025*, www.parliament.nsw.gov.au/bills/Pages/bill-details.aspx?pk=18720 (accessed 3 April 2025).

⁷⁴ See, for example: WMRR, 'WMRR calls for all states to act now and make battery stewardship mandatory', [Media Release](#), 28 March 2025; Battery Stewardship Council, 'NSW passes groundbreaking legislation to mandate battery recycling', [Media Release](#), 31 March 2025.

stewardship organisations and enforce requirements across a product's entire lifecycle'.⁷⁵ The WMRR stated that it:

...urgently calls on all Environment Ministers across the nation to act quickly to reduce the risks of battery fires and progress aligned state-led reforms for mandatory battery product stewardship, now that NSW has passed this vital piece of legislation.⁷⁶

Minister's product stewardship priority list

4.61 The RAWR Act requires the publication of a product stewardship priority list before the end of each financial year, known as the Minister's Priority List. It identifies the products and materials most in need of industry-led product stewardship action, with reasons for the product listing, actions required and expected time frames. If there is insufficient industry action, the RAWR Act provides for co-regulatory or mandatory measures.⁷⁷

4.62 In announcing the priority list for 2022-23, Minister for the Environment and Water, the Hon Tanya Plibersek MP, noted that:

...there are existing industry-led initiatives for tyres and mattresses recycling, but unfortunately not enough businesses are voluntarily participating. The addition of these products on the Minister's product stewardship priority list means that if participation does not increase, the government will consider regulation.

..."The priority list makes our intentions clear—if industry does not act, the Government will."⁷⁸

4.63 The 2023-24 priority list includes clothing textiles, tyres, plastics in health care products in hospitals, mattresses, and child car seats.⁷⁹

4.64 Several products that were on the 2022-23 list are not on the 2023-24 list, as the government is progressing regulation for these categories 'due to insufficient progress by industry'. These categories include 'problematic and unnecessary

⁷⁵ WMRR, 'WMRR calls for all states to act now and make battery stewardship mandatory', [Media Release](#), 28 March 2025.

⁷⁶ WMRR, 'WMRR calls for all states to act now and make battery stewardship mandatory', [Media Release](#), 28 March 2025.

⁷⁷ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024 (accessed 20 February 2025).

⁷⁸ The Hon Tanya Plibersek MP, Minister for the Environment and Water, 'Labor taking action on recycling of mattresses, tyres and healthcare plastics', [Media Release](#), 8 November 2022.

⁷⁹ DCCEEW, *Minister's Priority List 2023-24*, 24 November 2023, www.dceew.gov.au/environment/protection/waste/product-stewardship/ministers-priority-list-23-24 (accessed 5 June 2024). DCCEEW note that while the RAWR Act is under review (see Chapter 1), the 2023-24 Minister's Priority List will remain unchanged.

single use plastics', electronic waste from photovoltaic systems, electrical and electronic products, and oil containers.⁸⁰

4.65 Some of these categories are discussed below, while single use plastics are discussed as part of problematic waste streams in a later chapter.

Electronic and solar photovoltaic waste

4.66 Photovoltaic (PV) systems are Australia's fastest growing waste stream. In October 2024 the Australian Government estimated that from 2019 to 2030, PV and battery storage system waste will increase 18-fold, from around 3500 tonnes to 62 000 tonnes.⁸¹ More recently, DCCEEW representatives indicated that solar PV waste for 2024 was expected to total 52 000 tonnes and reach 90 000 tonnes by 2030.⁸²

4.67 In response to slow progress to address electronic waste, the Australian Government has committed to develop a regulated product stewardship scheme to reduce waste from small electrical and electronic equipment (SEEE) and solar PV systems.⁸³ The scheme's primary focus is to increase the recycling of end-of-life SEEE and solar PV systems, and to reduce waste, and encourage repair and re-use.⁸⁴ Consultation on a proposed scheme closed in July 2023.⁸⁵

4.68 DCCEEW gave evidence that as of May 2024, it was working on developing a regulatory scheme for PV panels, saying 'our intention...is to look at renewable energy systems, including, for example, other components of renewable energy systems in the future, but we'll start initially with PV panels'.⁸⁶

4.69 A further update was provided by officials in February 2025, who indicated that through a six-month design process with industry 'it became clear that that [scheme] wasn't something that would be able to be industry led...which is why...we've progressed to looking at regulatory action from the

⁸⁰ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024 (accessed 20 February 2025). DCCEEW notes that while the review of the RAWR Act is underway, no changes to the Minister's Priority List will be made.

⁸¹ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024 (accessed 12 March 2025).

⁸² Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 22.

⁸³ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024 (accessed 20 February 2025).

⁸⁴ DCCEEW, [Wired for change: Regulation for small electrical products and solar photovoltaic system waste](#), June 2023, p. 27.

⁸⁵ DCCEEW, *Regulation for small electrical products and solar photovoltaic systems*, <https://consult.dcceew.gov.au/regulation-small-electrical-products-solar-pv> (accessed 11 February 2025).

⁸⁶ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, Senate Environment and Communications Legislation Committee, Budget Estimates, 29 May 2024, p. 91.

Commonwealth'. Officials were unable to provide a timeframe for when regulation would be implemented.⁸⁷

- 4.70 The committee puts forward its views and recommendations on these issues in the report's concluding chapter.

Oil containers

- 4.71 The listing of oil containers on the 2022-23 priority list related to containers used to store oil, including containers made from plastic, metal and other materials.⁸⁸ Industry was tasked with designing and implementing a product stewardship scheme for plastic oil containers by December 2023, however insufficient progress has been made. The Australian Government is currently considering regulation for oil containers through the packaging reform work mentioned above.⁸⁹

Specific product stewardship schemes

- 4.72 This section details several product stewardship schemes operating in Australia and explores submitter views on specific product stewardship arrangements raised during the inquiry, including oil, tyres, batteries, textiles, clothing and footwear, food and organics and unprocessed scrap metal.
- 4.73 This section also presents the evidence on the PSO Scheme, currently the only Commonwealth mandatory stewardship scheme in Australia.

Mandatory Product Stewardship for Oil Scheme

- 4.74 The PSO Scheme is a mandatory product stewardship scheme introduced in 2001 to increase the amount of used oil recycled in Australia. Under these arrangements, incentives are paid to industry to encourage the management and re-refining of used and recycled oil. Oils include petroleum-based oils,⁹⁰ and their synthetic equivalent, but do not include diesel or diesel blends.⁹¹
- 4.75 Mr Taylor of the WRIQ observed that the 'user-pays component' of product stewardship was 'very powerful' and pointed to the oil scheme as a successful

⁸⁷ Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, pp. 21–22.

⁸⁸ DCCEEW, *Minister's Priority List 2022-23*, 24 November 2023, www.dcceew.gov.au/environment/protection/waste/product-stewardship/ministers-priority-list/2022-23 (accessed 4 March 2025).

⁸⁹ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024 (accessed 4 March 2025).

⁹⁰ Including, for example: lubricant based oils; lubricants for engines, pumps and bearings; greases; hydraulic fluids; transmission oils; or the synthetic equivalents of such goods. See *Product Stewardship (Oil) Act 2000*, ss. 1(a).

⁹¹ DCCEEW, *Product Stewardship for Oil (PSO) Scheme*, 16 April 2024, www.dcceew.gov.au/environment/protection/used-oil-recycling/product-stewardship-oil-program (accessed 12 February 2025).

model. Mr Taylor advised that in addition to the oil stewardship scheme being mandatory, it 'rewards outcomes'. He explained:

There's a real tendency to try to introduce schemes that maximise collection but don't cover the whole supply chain out to the end user and the finished product.

The real strength of the product stewardship for oil program is that it rewards the highest recovery and end use of that material. You can apply that concept to other materials—batteries, for instance. Obviously, we always need to compete with the international export parity but if there was a domestic scheme that rewarded the remanufacturing or the use of those recoverables from product stewardship schemes then it would be a way of killing two birds with one stone—stimulating the local economy—and that is what has happened with the waste oil program: we have a number of state-of-the-art used oil refineries in Australia that would compete with anything in the world.⁹²

- 4.76 However, those engaged with the PSO Scheme raised some concerns with the operation of the mandatory scheme, suggesting these concerns have not been addressed through a much-needed scheme review. Southern Oil Refining (SOR) argued that the 'waste oil recycling industry plays a crucial role in waste management, resource recovery, and reduction of greenhouse gas emissions'. However, in relation to the PSO Scheme, the SOR explained that:

The PSO is held up as a product stewardship scheme that largely works. Unfortunately, however, the lack of action with the PSO review has seen these settings becoming increasingly fragile. It is a matter of fact that the very small levy applied to new lubricants, and the levy benefits for the sector, have remained largely stagnant for over 20 years...

Most of the used oil refinery infrastructure in Australia is reaching end of operational lifespans and is now facing increased maintenance turnaround which impact on waste oil processing and escalation in operating expenses. Without this support that enables re-investment, we face significant risks that could reverse the progress made.⁹³

Tyres

- 4.77 Since the last local manufacturing plant closed in 2010, all tyres are now imported into Australia.⁹⁴ An industry-led Tyre Product Stewardship Scheme (TPSS), accredited by the federal government and authorised by the Australian Competition and Consumer Commission (ACCC), manages the environmental and human health impacts of end-of-life tyres.
- 4.78 The ACCC first authorised the TPSS in 2013 and re-authorised the scheme in 2018 and 2024. Industry participation in the TPSS to date has been minimal.

⁹² Mr Richard Taylor, President, WRIQ, *Committee Hansard*, pp. 18–19.

⁹³ Southern Oil Refining, *Submission 4*, pp. 2 and 3.

⁹⁴ Tyre Stewardship Australia, *Submission 47*, p. 1.

Tyres have been listed on the Minister's Priority List and work to determine next steps for regulation was expected to be finalised at the end of 2024.

4.79 Tyre Stewardship Australia, which leads the current industry-led scheme, recommended that 'a co-regulatory or mandated product stewardship scheme for tyres and related rubber-based products is needed and should be introduced expeditiously'.⁹⁵

4.80 In order to be successful, Tyre Stewardship Australia argued that the new scheme 'requires an operating environment characterised by a nationally consistent regulatory framework that supports and emphasises circular economy outcomes over just resource recovery' and that 'it must be made more profitable to process end-of-life tyres...for recycling than to bury them, stockpile them, dump them, or to recover them for export to be burnt as fuel'.⁹⁶

4.81 The Australian Tyre Recyclers Association (ATRA), the national body for the used tyre collection and recycling sector, pointed out that the 'used tyre industry is already heavily regulated primarily at a State and Territory level', proposing that a 'co-regulated scheme build-on the existing regulatory framework of State and Territory laws, rather than create a new set of Federally legislated industry standards'.⁹⁷

4.82 ATRA supported additional regulatory intervention 'that works with the existing market and...that tackles waste generators as the source of any residual problems of stockpiling and dumping'.⁹⁸ ATRA noted that:

...while Product Stewardship is an important policy tool, it is not the only one and, in some instances may be an unnecessary overreach. Alternate policy approaches may be more appropriate, for example a relatively simple landfill ban on used disposal would substantially increase the recovery rate for this material, without a complex and highly interventionist federal regulation/ product stewardship scheme.⁹⁹

4.83 The Tangaroa Blue Foundation submitted that:

In the case of tyres, the tyre stewardship scheme was implemented in 2014 to encourage sustainable use of Australia's end-of-life tyres. However, there are multiple challenges associated with the tyre stewardship scheme. First, recycled tyre crumb rubber surfaces contain harmful and carcinogenic substances, which can be ingested by users, such as children. This research is especially concerning when considering the use of crumb rubber in children's soft fall playgrounds within the Great Barrier Reef Catchment Area...consideration must be taken whether crumb rubber is a fit-for-

⁹⁵ Tyre Stewardship Australia, *Submission 47*, p. 1.

⁹⁶ Tyre Stewardship Australia, *Submission 47*, p. 2.

⁹⁷ Australian Tyre Recyclers Association (ATRA), *Submission 48*, pp. 5–6.

⁹⁸ ATRA, *Submission 48*, p. 4.

⁹⁹ ATRA, *Submission 48*, p. 4.

purpose recycling product and whether the tyre stewardship scheme is working as intended. Unfortunately, this is not a circular economy as these microplastics are leaking into the environment but also because the end-of-life for these products, i.e., soft fall playgrounds, artificial turf, etc., is still landfill. Thus, the tyre stewardship scheme is a delay to landfill rather than a true circular economy.¹⁰⁰

Clothing

- 4.84 In 2022-23, an estimated 860 kilotonnes (kt) of textiles, leather and rubber waste were generated in Australia. More than a third of this was clothing.¹⁰¹ In 2023 alone, 222 kt of clothing ended up in landfill. In the same year, 1.4 billion new items of clothing were sold in Australia, at an average of 53 items of new clothing, per person.¹⁰²
- 4.85 In June 2023, Australia's environment ministers agreed to the Australian fashion industry implementing a product stewardship scheme by 30 June 2024. It was agreed to closely monitor industry participation in this and other schemes and to take steps to regulate product stewardship outcomes, if required.¹⁰³
- 4.86 On 1 July 2024, Australia's clothing product stewardship scheme commenced. Called *Seamless* and aimed at making Australian clothing circular by 2030, as of December 2024, over 300 organisations had registered as either *Seamless* members or supporters. The funds raised through *Seamless* will contribute to four priority areas: circular design; circular business models; closing the loop; and citizen behaviour change. *Seamless* is funded by a:
- ...financial contribution (levy) paid by stewards to the PSO [Product Stewardship Organisation], on each new item of clothing they place on the market. The PSO will be governed by an independent industry board with input from an Advisory Group.¹⁰⁴
- 4.87 The contribution is 4c per unit and it is recommended that payments are based on clothing placed on the market in the previous period (quarter, half year or year).¹⁰⁵
- 4.88 In launching *Seamless*, Minister Plibersek made clear that the scheme 'would be mandated if not taken up by enough businesses', stating: 'I want to see industry

¹⁰⁰ Tangaroa Blue Foundation, *Submission 29*, p. 2.

¹⁰¹ DCCEEW, *National Waste and Resource Recovery Report 2024* (prepared by Blue Environment Pty Ltd), January 2025, p. 46.

¹⁰² Seamless, *National clothing benchmark*, www.seamlessaustralia.com/circular-economy-showcase (accessed 22 January 2025).

¹⁰³ DCCEEW, *Environment Ministers' Meeting 9 June 2023 Agreed Communiqué*, p. 2.

¹⁰⁴ Australian Fashion Council, *Seamless Design Summary Report*, May 2023 (updated May 2024), p. 13.

¹⁰⁵ Australian Fashion Council, *Seamless Design Summary Report*, May 2023 (updated May 2024), p. 13.

leadership...But if I don't see enough movements in a year, then I will regulate'.¹⁰⁶

Battery stewardship

4.89 Batteries are generally classified as dangerous goods under relevant state and territory legislation.¹⁰⁷ Product stewardship of batteries was a key concern of witnesses and submitters, particularly given the fire risks when batteries are incorrectly disposed of in household waste.

4.90 Mr Mark Biddulph of Cleanaway stressed that batteries continued to be a major issue for the waste industry, suggesting that anecdotally, this may be related to the 'proliferation of disposable vapes'. Mr Biddulph explained how 'fire is possible through the entire waste journey':

The battery goes into a household bin, whether it is the recycling or the general waste bin. It gets tipped into the back of a truck. The compaction can cause that to ignite. That in the industry would be called a hot load. It puts our drivers and the general community at risk. Think about if you had a hot load in the middle of Melbourne city.¹⁰⁸

4.91 Mr Rick Ralph of the Australian Resources Recovery Council (ARRC; formerly the National Waste and Recycling Industry Council) went so far as to say that 'embedded batteries are a cancer to us', with ARRC workers 'having to manage fires in recycling trucks' on a daily basis. Mr Ralph called for urgent action on batteries, in light of the harm they were causing the environment, industry assets and workers.¹⁰⁹

4.92 Mr David Singh of Re.Group explained the real-world consequences of batteries in waste. He stated that within Re.Group's 10 materials recovery facilities (MRFs) across the country, there would be a 'smoulder caused by a battery or an embedded battery on a weekly basis', with two significant fires at the Dandenong MRF in Melbourne in the six months leading up to May 2024. He gave evidence that 'each of those fires costs [Re.Group] around \$250,000'.¹¹⁰ Mr Singh called for a battery deposit scheme, and described the costs associated with batteries in waste:

¹⁰⁶ Australian Fashion Council, *Seamless Clothing Stewardship Scheme*, <https://ausfashioncouncil.com/program/seamless/> (accessed 17 March 2025).

¹⁰⁷ DCCEEW, answers to questions taken on notice, IQ24-000102, 8 May 2024 (received 23 May 2024).

¹⁰⁸ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, p. 45.

¹⁰⁹ Mr Rick Ralph, CEO, Australian Resources Recovery Council (ARRC), *Committee Hansard*, 8 May 2024, p. 14. At the time of submitting and presenting to the committee, the ARRC was known as the National Waste and Recycling Industry Council (NWRIC). This report refers to the entity as the ARRC.

¹¹⁰ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 24.

One of the biggest costs is collecting all the water that is used to extinguish the fire and ensure the fire doesn't spread. It's all contaminated. It's got foam. It's got other retardants in it. That all then has to go for water treatment, and all the material [rubbish or recycling] that's wet has to go to landfill. And there is the lost production. It's a massive issue. Every year, when we renegotiate our insurance, the last piece that is negotiated is all the very fine wording around batteries, battery risk and battery fires and all the things that we're doing. So this is a massive, massive issue.¹¹¹

- 4.93 Lithium Australia likewise pointed out the risks and hazards—to both people and the environment—caused by damaged batteries, including significant fires, 'some of which occur under the surface of landfills' and are 'extremely difficult' to extinguish. Lithium Australia recommended mandating the recycling of spent batteries and a national ban on the disposal of batteries to landfill. It concluded that Commonwealth leadership was needed for Australian jurisdictions to:

...implement a consistent set of regulations covering all stages of batteries, including the manufacture, use, collection, transportation, and end-of-life processing/recycling. Regulations must cover all individuals and businesses who may at any time possess large-format batteries, including warehousing of batteries before use.¹¹²

State-based battery stewardship

- 4.94 The B-cycle Scheme launched nationally in 2022. Operated via the Battery Stewardship Council (BSC) and authorised by the ACCC, B-cycle is the government accredited industry-led voluntary product stewardship scheme for batteries, supported by all jurisdictions.¹¹³ B-cycle offers drop-off points across the country for regular AA and other batteries; button batteries; rechargeable batteries, and easily removable batteries. However, B-cycle cannot accept mobile phone, laptop or television batteries, lead acid batteries, or exit/emergency light batteries.¹¹⁴
- 4.95 The Queensland Government has recently announced a \$2 million program to support councils to expand battery collection points, and to work with industry to reduce fire risks. In making the announcement, the Queensland Government

¹¹¹ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 24.

¹¹² Lithium Australia noted that such bans were already in place in the Australian Capital Territory, South Australia and Victoria, and proposed in Western Australia. Lithium Australia, *Submission 2*, pp. 2–3.

¹¹³ B-Cycle Battery Recycling, *About B-cycle*, <https://bcycle.com.au/about/battery-stewardship-council/> (accessed 12 March 2025).

¹¹⁴ B-cycle Battery Recycling, *What batteries can be B-cycled?*, <https://bcycle.com.au/how-you-can-b-cycle/battery-types-accepted/> (accessed 12 March 2025).

noted that there were more than 200 battery-related fires in Queensland, in the 12 months up to February 2025.¹¹⁵

- 4.96 In NSW, the Environment Protection Authority (EPA) has partnered with B-cycle to provide drop-off points for small household batteries. Batteries over five kilograms and lithium-ion batteries can be dropped off through other, more limited locations. NSW is trialling the collection of embedded batteries at select locations (including items such as electronic toothbrushes; smart watches; e-bikes and vapes).¹¹⁶
- 4.97 A similar approach to NSW is taken in other jurisdictions for the collection of various batteries and other e-waste, such as in Victoria¹¹⁷ and Tasmania.¹¹⁸
- 4.98 With B-cycle's current legal authorisation due to expire in September 2025, the BSC has lodged an application with the ACCC for a new authorisation to give effect to 'B-cycle 2.0'. The new scheme was designed in consultation with a wide variety of stakeholders and aims to address the key challenges faced by B-cycle 1.0, including through regulatory reform to address free riders.¹¹⁹ Adaptability and flexibility are also built into the new scheme design, to accommodate 'the rapidly shifting stewardship landscape'.¹²⁰
- 4.99 The ACCC invited public submissions on BSC's application by 16 April 2025, with further consultation to be undertaken in July/August 2025 on a draft determination, before the final determination is made in August/September 2025.¹²¹

¹¹⁵ The Hon Andrew Powell, Queensland Minister for the Environment and Tourism and Minister for Science and Innovation, *Bin Blaze Ban: new strategy to boost the response to battery fires*, [Media Release](#), 13 February 2025.

¹¹⁶ NSW EPA, *Safe battery recycling*, 9 December 2024, www.epa.nsw.gov.au/Your-environment/Recycling-and-reuse/household-recycling-overview/Safe-battery-recycling (accessed 12 March 2025).

¹¹⁷ Sustainability Victoria, *Recycle e-waste*, www.sustainability.vic.gov.au/circular-economy-and-recycling/at-home/recycling-at-home/e-waste (accessed 12 March 2025).

¹¹⁸ Rethink Waste Tasmania, *News Updates: Household battery recycling drop-off points*, <https://rethinkwaste.com.au/household-battery-recycling/> (accessed 12 March 2025).

¹¹⁹ Battery Stewardship Council, *Application to ACCC to revoke and substitute authorisation AA1000476*, 18 March 2025, [pp. 69–70, 155–250].

¹²⁰ Battery Stewardship Council, *Application to ACCC to revoke and substitute authorisation AA1000476*, 18 March 2025, [p. 70].

¹²¹ Australian Competition and Consumer Commission, *Battery Stewardship Council*, www.accc.gov.au/public-registers/authorisations-and-notifications-registers/authorisations-register/battery-stewardship-council-0 (accessed 3 April 2025).

NSW regulation

4.100 As of August 2024, the NSW EPA was taking the lead in product stewardship reform for all batteries, in collaboration with Queensland and Victoria. In December 2024, NSW and Victoria presented a draft regulatory impact statement to an Environment Ministers' Meeting, which assessed options for mandatory measures to ensure batteries are safely managed throughout their life cycle. NSW committed to introduce mandatory battery regulation in 2025, in consultation with industry and local government.¹²²

4.101 As detailed earlier in this chapter, product stewardship legislation—to be applied in the first instance to batteries—was introduced into the NSW Legislative Council on 18 March 2025 and passed the NSW Parliament on 28 March 2025. As noted by Minister Sharpe, the NSW legislation has been drafted in such a way that it can apply in other states and territories. Minister Sharpe stated that other ministers and regulators were supportive of the NSW bill, and 'had expressed interest in adopting a similar approach'. The minister also noted the limitations of the Commonwealth's voluntary product stewardship approach:

Standardising this approach across States will be important for providing consistency nationally while also ensuring we have appropriate protections in place...

The second step of this process will be to draft regulations to make product stewardships mandatory for problematic products, including certain classes of battery where there is an existing Commonwealth stewardship accreditation. This allows the Government to act urgently to address battery fires and reduce free riders in the current system. The regulation would mandate product stewardship for batteries that are captured under existing Commonwealth voluntary product stewardship schemes... Another reason for pursuing this action in New South Wales is that the Commonwealth battery schemes are voluntary and, to date, they have seen very low recovery rates. The current schemes are not effectively able to address the challenge we face.¹²³

4.102 The CEO of B-cycle, Ms Libby Chaplin, offered support for the nationwide expansion of the mandatory NSW scheme, noting a nationally consistent approach would reduce regulatory fragmentation. Ms Chaplin stated the NSW regulation of batteries was a 'pivotal moment for battery recycling in Australia'

¹²² NSW EPA, *NSW leads the charge on mandatory battery safety*, 10 December 2024, www.epa.nsw.gov.au/News/Media-Releases/2024/EPAMedia241211-NSW-leads-the-charge-on-mandatory-battery-safety (accessed 12 March 2025).

¹²³ The Hon Penny Sharpe MLC, NSW Minister for Climate Change, Minister for Energy, Minister for the Environment, and Minister for Heritage, Product Lifecycle Responsibility Bill 2025, *Second Reading Speech*, 18 March 2025.

and noted that B-cycle had been 'calling for stronger regulation for some time now to eliminate free riders and ensure safe and sustainable battery disposal'.¹²⁴

4.103 B-cycle stated that it would work closely with the NSW Government to 'advocate for national consistency' and 'ensure a harmonised approach to battery stewardship across Australia'.¹²⁵ It highlighted that the NSW legislation is:

...specifically designed so that it can readily be adopted by other jurisdictions. This important legislation is paving the way for a nationwide, government-backed approach to battery recycling.¹²⁶

The need for national leadership

4.104 The committee heard that some jurisdictions are progressing their own regulations around batteries and e-waste because they cannot wait for the Australian Government to act given the risk of battery-related fires.

4.105 Further, despite state and territory approaches to managing battery and other e-waste and the B-cycle co-regulatory voluntary scheme, there remains no overarching, mandatory national regulation or product stewardship scheme for batteries. Noting the implementation of B-cycle, batteries were removed from the Minister's Product Stewardship Priority List from 2021-22 onwards.¹²⁷

4.106 In mid-2024, DCCEEW told the committee that the 'collection, storage and movement of batteries is a very serious issue', which was 'on the government's radar'—including addressing issues with a lack of collection infrastructure and safe storage places. DCCEEW advised in early May 2024 that the Department of Industry, Science and Resources (DISR) was developing a national battery strategy, examining manufacturing and recycling capacity as part of the strategy's development—while pointing out that the Commonwealth's responsibility was administration of international agreements concerning the global movement of batteries, namely the Basel Convention.¹²⁸

¹²⁴ Lorna Gloria, 'NSW leads the way as the first state to regulate batteries', *RetailWorld*, 24 March 2025, <https://retailworldmagazine.com.au/nsw-leads-the-way-as-the-first-state-to-regulate-batteries/> (accessed 24 March 2025).

¹²⁵ Battery Stewardship Council, 'NSW passes groundbreaking legislation to mandate battery recycling', *Media Release*, 31 March 2025.

¹²⁶ Battery Stewardship Council, 'NSW passes groundbreaking legislation to mandate battery recycling', *Media Release*, 31 March 2025.

¹²⁷ DCCEEW, *Minister's Priority List 2021-22*, 26 October 2022, www.dcceew.gov.au/environment/protection/waste/product-stewardship/ministers-priority-list/2021-22 (accessed 17 March 2025).

¹²⁸ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, pp. 63 and 67.

4.107 DISR released the National Battery Strategy (NBS) on 23 May 2024, as part of the Future Made in Australia program. The NBS includes the vision that 'by 2035, Australia is a globally competitive producer of batteries and battery materials, providing secure and resilient battery supply chains'.¹²⁹ The NBS was 'developed in consultation with industry, researchers, unions, state and territory governments, and the community', and supported financially by:

...the \$523.2 million Battery Breakthrough [administered by the Australian Renewable Energy Agency] that will provide production-linked incentives to Australian battery manufacturers. This initiative will boost economic resilience by building capability in high value areas of competitive advantage across the battery value chain. Additionally, the \$20.3 million Building Future Battery Capabilities measure will build future battery industry skills and capabilities and strengthen national collaboration.¹³⁰

4.108 In September 2024, the Australian Renewable Energy Agency released a consultation paper, seeking stakeholder feedback on program outcomes, design features and focus areas of Battery Breakthrough. Written submissions closed in October 2024.¹³¹

4.109 In early 2025, DCCEEW told the committee that in relation to product stewardship for batteries, work was progressing at a state level. Ms Bird of DCCEEW explained that through consultation on the National Television and Computer Recycling Scheme:

...batteries came up as a very specific and primary concern...with states and territories having the predominant lead. [The states and territories] are experiencing a lot of these issues [with batteries] most directly in their own systems. It was a matter of urgency for them, which is why New South Wales is taking that forward.¹³²

4.110 Evidence to the inquiry expressed disappointment at the lack of mandated, national regulation on this issue. For example, the Director of the Boomerang Alliance, Mr Jeffrey Angel, told the committee that a lack of national leadership to address batteries was a major concern:

...the Commonwealth [has] clearly given up as the leader and key states, in particular, New South Wales, Queensland and Victoria rebelled and they are now urgently developing a response to an emergency situation and

¹²⁹ Department of Industry, Science and Resources, [National Battery Strategy: Leading the charge towards a competitive and diverse Australian battery industry](#), May 2024, p. 5.

¹³⁰ Department of Industry, Science and Resources, [National Battery Strategy: Leading the charge towards a competitive and diverse Australian battery industry](#), May 2024, p. 10.

¹³¹ Australian Renewable Energy Agency, *Battery Breakthrough Initiative*, <https://arena.gov.au/funding/battery-breakthrough-initiative/> (accessed 17 March 2025).

¹³² Ms Chloe Bird, Head, Supply Chain Initiatives Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 20. See also, DCCEEW, [Environment Ministers Meeting Communique 21 June 2024](#), p. 2.

anticipate product responsibility plans by the end of the year [2024] to combat the fire risk to the entire collection and recycling infrastructure.¹³³

4.111 Mr Angel noted that continued delays and inaction in developing national guidance would mean that states and territories have no choice but to take independent action, despite the risk that 'we may end up with a multitude of state based schemes':¹³⁴

If the end result of the debate about a circular economy on packaging or batteries is, 'The Commonwealth is not doing it, so we're not going to do anything,' that's a completely unacceptable conclusion, and states will need to act unilaterally.¹³⁵

4.112 In August 2024, Ms Sloan of the WMRR pointed out that the NSW minister had indicated they would introduce legislation regarding batteries if the federal government did not act.¹³⁶ As noted above, NSW has since pressed forward with legislation to implement a mandatory, government-regulated framework for product stewardship, which has been designed for use by other states and territories as model legislation to regulate product stewardship.

4.113 Lithium Australia cautioned that Australia should 'not offshore the responsibility of safe handling and disposal of batteries and ought to implement a phased ban on export permits for batteries and e-waste'. To support this, Lithium Australia called for batteries and/or e-waste to be classified under the RAWR Act as a Regulated Waste Material.¹³⁷

4.114 The ARRC called for a mandatory, fit-for-purpose product stewardship scheme for lithium-ion batteries and 'the immediate ban of indiscriminate and unauthorised disposal of these forms of batteries in all waste and recycling bins'.¹³⁸

4.115 Mr Biddulph suggested that an education program was needed—to be developed between government and industry—so that the public understood that batteries should not be put into bins, while also providing convenient

¹³³ Mr Jeffrey Angel, Director, Total Environment Centre and Boomerang Alliance, *Committee Hansard*, 20 September 2024, p. 13.

¹³⁴ Mr Jeffrey Angel, Director, Total Environment Centre and Boomerang Alliance, *Committee Hansard*, 20 September 2024, p. 17.

¹³⁵ Mr Jeffrey Angel, Director, Total Environment Centre and Boomerang Alliance, *Committee Hansard*, 20 September 2024, p. 19.

¹³⁶ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 5 August 2024, p. 44.

¹³⁷ Lithium Australia, *Submission 2*, p. 3.

¹³⁸ ARRC, *Submission 13*, p. 4.

battery disposal facilities with suitable reprocessing facilities: 'there needs to be capacity for these batteries to go somewhere to be recycled'.¹³⁹

4.116 The committee presents its view and recommendations around battery stewardship in Chapter 8.

Unprocessed scrap metal

4.117 It is estimated that Australia exports over 1 million tonnes of unprocessed ferrous scrap metal annually. This unprocessed scrap metal includes an estimated 267 600 to 321 200 tonnes of attached waste materials such as glass, plastic, textiles and tyres.¹⁴⁰

4.118 A large portion of Australia's scrap metal is exported to developing countries, with India, Indonesia and Vietnam receiving between 50–60 per cent of Australia's scrap metal exports, and a further 35–40 per cent exported to Bangladesh, Taiwan, Thailand and Malaysia.¹⁴¹

4.119 It was submitted by the Sell & Parker Group, an Australian metal recycler, that, once exported, ferrous scrap is 'either charged directly to a steel furnace or crudely processed', and that 'waste is burned, with little environmental oversight'.¹⁴² Sell & Parker observed that:

As a result of the export of the unprocessed ferrous scrap, the Australian steel industry currently imports processed steel scrap metal to replace the exported unprocessed scrap metal to meet its needs as it moves to decarbonise steel manufacturing processes. While this addresses the decarbonisation of the steel making, it comes at a financial cost compared to consuming local scrap.¹⁴³

4.120 Various submitters called for a national ban on the export of unprocessed scrap metal, citing a range of environmental, social and economic benefits. These submitters also highlighted that a ban would lead to greater policy consistency by treating unprocessed scrap metal in line with the treatment of other waste streams under the RAWR Act and related rules.

¹³⁹ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, p. 50.

¹⁴⁰ NWRIC, [Economic and Environment Benefits from an Australian Unprocessed Ferrous Scrap Metal Export Ban](#), November 2023, p. 3 (based on modelling by the Australian Economic Advocacy Solutions on Australian Bureau of Statistics data).

¹⁴¹ NWRIC, [Economic and Environment Benefits from an Australian Unprocessed Ferrous Scrap Metal Export Ban](#), November 2023, p. 3 (based on modelling by the Australian Economic Advocacy Solutions on Australian Bureau of Statistics data).

¹⁴² Sell & Parker Group, *Submission 27*, p. 2.

¹⁴³ Sell & Parker Group, *Submission 27*, p. 3.

4.121 In a report prepared for the ARRC, it was found that the retention of Australian ferrous scrap metal for processing locally is an 'important economic and environmental opportunity for Australia'.¹⁴⁴

4.122 Similarly, the WCRA contended that regulating the export of unprocessed scrap metal could reduce emissions and support local industries. It noted that Australia has the capacity to process the scrap metal currently being exported, with the revenue from state landfill waste levies potentially covering these costs.¹⁴⁵

4.123 Modelling commissioned by the ARRC and the Australian Steel Institute found that processing scrap material in Australia provides a higher value add and employment contribution to the Australian economy compared to unprocessed exports:

For every 10,000 tonnes of ferrous scrap metal, scrap metal processors create \$4,840,358 in value add and 37.2 jobs. By contrast, unprocessed ferrous scrap metal exporting businesses only create \$1,344,544 in value and 10.3 jobs. As a consequence of the smaller value add and employment contribution, unprocessed scrap exports leads [sic] to a foregone \$374.3 million of value add to the Australian economy and 2,877 fewer Australian jobs.¹⁴⁶

4.124 The Waste and Recycling Industry Association of Western Australia called for the federal government to 'formally investigate regulating unprocessed ferrous scrap metal exports', to:

...significantly reduce Australia's greenhouse gas emissions, to preserve and create new Australian jobs, to help secure the future of the Australian recycling and sovereign steel industries and to enhance Australia's overall environmental duty of care.¹⁴⁷

4.125 Steel manufacturers, such as BlueScope, argued that a restriction on exports of unprocessed scrap metal would be consistent with the government's policy objectives, and support Australian steel manufacturers who are 'having to import scrap to supplement the limited scrap available domestically'. Bluescope Steel also pointed out that 71 countries have now either banned, or are placing limits on, the exports of steel scrap.¹⁴⁸

4.126 Waste and recycling businesses, such as Sims Metal and EcoCycle, identified the benefits in supporting the development of the Australian 'green steel' industry.¹⁴⁹ InfraBuild likewise argued that prohibiting the export of

¹⁴⁴ Sims Metal, *Submission 22*, Attachment 2, p. 7.

¹⁴⁵ WCRA, *Submission 1*, p. 4.

¹⁴⁶ Sims Metal, *Submission 22*, Attachment 2, p. 3.

¹⁴⁷ Waste and Recycling Industry Association of Western Australia, *Submission 23*, p. 2.

¹⁴⁸ BlueScope Steel Limited, *Submission 26*, p. 2.

¹⁴⁹ Sims Metal, *Submission 22*, p. 2; EcoCycle, *Submission 75*, p. 5.

unprocessed scrap metal aligns with key objectives of the RAWR Act, including the promotion of a circular economy.¹⁵⁰

4.127 This was echoed by the Australian Steel Institute, which argued the legislative tools already exist to prohibit the export of unprocessed steel scrap, in alignment with government policy goals. The institute suggested that by utilising existing policy levers, the industry's 'supply chain members will gain much greater circular economy, environmental and decarbonisation benefits'.¹⁵¹

¹⁵⁰ InfraBuild, *Submission 67*, p. 4.

¹⁵¹ Australian Steel Institute, *Submission 45*, pp. 3–4.

Chapter 5

The need for stronger packaging reform

- 5.1 Packaging waste remains a key issue in waste reduction and resource recovery, with the volume of packaging placed on the market each year in Australia increasing.
- 5.2 Between 2017-18 and 2021-22, packaging quantities increased by approximately four per cent per annum,¹ which was 'almost three times the rate of population growth over the same period'. Of the packaging placed on the market in 2021-22, the overall recovery rate was approximately 56 per cent, mostly for the recycling of the following materials: glass; metals; paper and cardboard; plastics; and wood. The recovery rate for paper and cardboard was highest at 68 per cent, followed by glass at 63 per cent, with plastics remaining at a low recovery rate of 20 per cent.²
- 5.3 Packaging impacts on both environmental and human health. Evidence increasingly shows that human health is impacted by the commonly used chemicals and polymers in plastics. Studies have shown that both known toxic and unidentified chemicals can 'leach from various plastic products, including single-use plastic food packaging, cups and bowls, into the environment and into liquid or food that we then consume'.³
- 5.4 Australians have made clear that they want to see action on packaging. A recent survey found that 73 per cent of respondents 'demand new packaging laws that shift the costs of collecting and recycling packaging waste from taxpayers to producers'. In addition, the results showed that 88 per cent of respondents support the reinstatement of soft plastic collections, funded by packaging producers, and that the 'fast tracking of soft plastic collections is a top priority for Australians'.⁴
- 5.5 As will be noted in this chapter, there is also strong support from industry and environmental organisations for better packaging stewardship.
- 5.6 Despite community and long-term industry support for change, Australia has repeatedly failed to meet the packaging reform targets set by the Australian Packaging Covenant Organisation (APCO). Australia will need to address

¹ Excluding timber.

² Department of Climate Change, Energy, the Environment and Water (DCCEEW), [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 68.

³ Minderoo, *Submission 52*, pp. 11–12.

⁴ Boomerang Alliance, 'New Poll: Aussies urge environment ministers cut the wrap', [Media Release](#), 9 December 2024.

increasing volumes of packaging in the market as it moves to a circular economy, better resource management and improved environmental outcomes.

- 5.7 These matters are discussed in this chapter, which examines Australia's packaging framework, including the role of and outcomes achieved by APCO, before outlining current efforts towards packaging reforms, including mandatory regulatory schemes. The related issues surrounding the use and disposal of plastics are examined in the next chapter.
- 5.8 This chapter also explains the Australian recycling and labelling standards, including the Australasian Recycling Label and ReMade in Australia. It then outlines calls for packaging regulation to include a mandated minimum amount of Australian recycled content, and the role of traceability frameworks in better tracking the use of various packaging material types and their volume of recycled content.

Packaging framework

- 5.9 Since 1999, Australian businesses and governments have had a mandatory national co-regulatory framework for packaging. Under the framework, those businesses with an annual turnover of \$5 million or more, and that produce or sell packaging or packaged products, are obliged to design more sustainable packaging to increase recycling and reduce litter. This includes plastic, glass, paper, cardboard, and metal packaging.⁵
- 5.10 The framework is made up of:
- the Australian Packaging Covenant (the Covenant), which is an industry-led packaging product stewardship scheme administered by APCO that aims to reduce the negative environmental impacts of packaging; and
 - the National Environment Protection (Used Packaging Materials) Measure 2011 (NEPM), federal legislation which aims to ensure that businesses that choose not to become APCO members cannot gain commercial advantage over those organisations that are members. The NEPM requires businesses to make their packaging more sustainable.⁶
- 5.11 Consumer packaging is defined in the NEPM to mean all packaging products made of any material or combination of materials associated with consumer

⁵ DCCEEW, *Taking responsibility for our packaging*, 2 August 2023, www.dcceew.gov.au/environment/protection/waste/packaging/taking-responsibility-for-our-packaging (accessed 4 June 2024).

⁶ DCCEEW, *Taking responsibility for our packaging*, 2 August 2023 (accessed 4 June 2024). A 2021 independent review of the co-regulatory arrangement identified failures with the National Environment Protection (Used Packaging Materials) Measure 2011 (NEPM) implementation and enforcement; DCCEEW advised that the NEPM would 'be overtaken by a reformed packaging regulatory scheme'. See: DCCEEW, *Submission 7*, p. 6; and DCCEEW, answers to written questions on notice, IQ24-000124, 15 July 2024 (received 26 July 2024).

products. This includes the containment, protection, marketing or handling of these products, as well as packaging associated with distribution.⁷ Compliance and enforcement actions under the NEPM are the responsibility of participating jurisdictions, under their regulations.⁸

- 5.12 APCO clarified that consumer packaging includes primary, secondary or tertiary packaging (including plastic bags):

Primary packaging is the container directly containing the product.

Secondary packaging includes the materials used to contain single or multiple primary packed products.

Tertiary packaging includes materials used to distribute packaged and unpackaged products, including pallets, wrapping stretch film, shippers, shrink film, strapping, and cartons.⁹

Australian Packaging Covenant

- 5.13 The Covenant was established under the *National Environment Protection Council Act 1994* and the NEPM to set out the shared responsibility for packaging between governments and business. Under the Covenant, brand owners in the packaging supply chain with an annual turnover of more than \$5 million must meet their statutory obligations regarding packaging by:

- being a signatory to the Covenant;
- being part of an equivalent industry arrangement recognised by participating jurisdictions; or
- complying with obligations under the NEPM.¹⁰

- 5.14 The Covenant, which is a compulsory, co-regulatory product stewardship framework, has two goals to support the reduction of environmental impacts of consumer packaging:

- focusing on the supply chain for consumer packaging and looking at the design, use and sale of packaging and packaged products, and minimising waste associated with the generation and consumption of consumer packaging; and
- preventing the impacts of fugitive packaging on the environment by capturing materials or waste before they enter the environment.¹¹

⁷ National Environment Protection (Used Packaging Materials) Measure 2011, ss. 3(1).

⁸ DCCEEW, answers to written questions on notice, IQ24-000124, 15 July 2024 (received 26 July 2024).

⁹ Australian Packaging Covenant Organisation (APCO), *The Australian Packaging Covenant*, <https://apco.org.au/the-australian-packaging-covenant> (accessed 5 February 2025).

¹⁰ APCO, *Submission 78*, p. 1.

¹¹ APCO, *The Australian Packaging Covenant* (accessed 5 February 2025).

5.15 The Covenant is managed and administered by APCO in consultation with the Commonwealth, state and territory governments.¹² However, APCO noted there were limitations to the operation of the Covenant, particularly around enforcement:

A critical weakness of the co-regulatory framework is enforcement. APCO's members account for most of the packaging placed on the market in Australia, estimated at between 70% and 81% of all packaging in 2022-23. It is vital, however, that participation be increased to as close to 100% of packaging as possible.¹³

5.16 APCO went on to describe the issue of 'free-riding', whereby businesses gain an advantage by not participating in the co-regulatory environment, the 'activities of which are funded by their competitors and deliver industry and public benefit'. APCO further explained that:

Free-riding diminishes the Covenant by reducing the total resources upon which APCO can draw. If free-riding is not adequately addressed, it will erode the resolve of participating companies to contribute resources and even to continue their participation.¹⁴

Historical packaging covenants

5.17 Since introduction of the national co-regulatory framework and the first packaging covenant in 1999, the covenants have been subject to ongoing reviews and revision of their targets.

The First Covenant (2000 to 2005)

5.18 The First Covenant was signed in 1999 and was a self-regulatory agreement between industries in the packaging chain and government. It had a lifespan of five years, and was 'not prescriptive', did not tell companies how to make or use packaging, and did not 'implement regulation requiring businesses' to take back any of their products from the waste stream.¹⁵

5.19 The First Covenant was criticised by the Institute for Sustainable Futures on behalf of the Nature Conservation Council of New South Wales (NSW), which found that the covenant had:

¹² APCO, *The Australian Packaging Covenant* (accessed 5 February 2025).

¹³ APCO, *Submission 78*, p. 4.

¹⁴ APCO, *Submission 78*, p. 5. Businesses can become a signatory to the Covenant, or meet compliance obligations under the NEPM, as implemented in each jurisdiction where a business sells or distributes its products; see APCO, *The Australian Packaging Covenant* (accessed 5 February 2025).

¹⁵ Department of the Environment and Heritage, *National Packaging Covenant Action Plan*, 5 September 2001, <https://webarchive.nla.gov.au/awa/20011005034024/http://www.ea.gov.au/industry/waste/covenant/general.html> (accessed 1 April 2025).

...no specific requirements for baseline data collection, coordination and standardised data collection and assumptions. Hence, there is no accurate, accessible and consistent measure of the trends in packaging waste generated and diversion from landfill...

The lack of a consistent, independently verified data set for the production, disposal and recycling of packaging waste is a major impediment to its management and minimisation. After four years of operation of the Covenant system, this is a major indictment of its efficacy and usefulness to meet its own goals, or any reasonable goals expected of a regulatory framework.¹⁶

The Second Covenant (2005 to 2010)

5.20 There was extensive review and revision of the First Covenant in 2004, in recognition at that early stage that the model needed to be 'significantly strengthened if it was to continue'. Revised Covenant Performance Goals were set for the period 15 July 2005 to 30 June 2010 (the Second Covenant), as follows:

- increase the amount of post-consumer packaging recycled to 65 per cent by 2010 (from 48 per cent in 2003);
- increase the recycling rate of non-recyclable packaging¹⁷ to 25 per cent by 2010 (from 10 per cent in 2003); and
- no new packaging to landfill (against 2003 baseline data).¹⁸

5.21 The 2010 Annual Report of the National Packaging Covenant found that there was an improvement in the overall recycling rate over this five-year period. It noted that while there was a reduction in the volume of packaging going to landfill (34.5 per cent), this target was 'an aspirational goal'.¹⁹

The Third Covenant (2010 to 2015)

5.22 The Third Covenant was endorsed in 2010 (for 2010 to 2015), 'supported by a five-year Strategic Plan that was reported against annually', along with goals for 'packaging design, recycling and product stewardship' and an increased focus on 'workplace and public place recycling and litter reduction programs'.²⁰

5.23 The 2014-15 Annual Report of the Covenant shows that multiple targets in the Third Covenant were not met—including a failure to meet targets for the improved recycling rates for used packaging; buying products made from

¹⁶ Institute for Sustainable Futures, University of Technology Sydney, [Review of the National Packaging Covenant](#), February 2004, p. 18.

¹⁷ Including plastics, non-recyclable paper, and cardboard packaging.

¹⁸ The baseline data was not provided. National Packaging Covenant Council, [The National Packaging Covenant](#), July 2005, pp. 30–31.

¹⁹ The National Packaging Covenant, [2010 Annual Report](#), pp. 12 and 14.

²⁰ Australian Packaging Covenant, [Australian Packaging Covenant](#), January 2017, p. 6.

recycled packaging; and for the implementation of formal product stewardship schemes of Covenant signatories.²¹

The Fourth Covenant (2015 to 2020)

5.24 By 2016, consensus was reached on the Fourth Covenant, refocusing the 'goals to areas where industry could have the most influence, such as sustainable packaging design and supply chain collaboration'.²² It was at this stage that APCO was formed. In November 2016 it was determined that the governance arrangements around the Covenant would be modified:

...to achieve greater transparency and accountability in the delivery on the work of the Covenant and account for industry forming APCO, a company limited by guarantee registered under Australian Securities Investment Commission. Operational features of the Covenant were removed to improve efficiencies in delivery.²³

2025 National Packaging Targets

5.25 In 2018, Australia established National Packaging Targets, to be achieved by 31 December 2025, with delivery of the targets the responsibility of APCO in collaboration with industry, government and the packaging value chain. The targets apply to all packaging made, used and sold in Australia.

5.26 The 2025 targets are as follows:

- 100 per cent of packaging being reusable, recyclable, or compostable;
- 70 per cent of plastic packaging being recycled or composted;
- 50 per cent average recycled content included in packaging (revised from 30 per cent in 2020); and
- the phase out of problematic and unnecessary single-use plastic packaging.²⁴

5.27 Halfway through the 2018 to 2025 period, APCO found that it was unlikely that the National Packaging Targets would be met by the end of 2025.²⁵ APCO have stated that as it 'is clear that the Targets will not be fully met' by 2025, a 'revised target date will be established'.²⁶ In the interim, the committee heard that:

²¹ Australian Packaging Covenant, *Annual Report 2014-15*, p. 7.

²² Australian Packaging Covenant, *Australian Packaging Covenant*, January 2017, p. 6.

²³ Australian Packaging Covenant, *Australian Packaging Covenant*, January 2017, p. 6.

²⁴ With various material-specific targets for subcategories set in 2019, including: plastics (20 per cent), paper (60 per cent), metal (35 per cent), glass (50 per cent). See APCO, *Australia's 2025 National Packaging Targets*, <https://apco.org.au/national-packaging-targets> (accessed 5 February 2025).

²⁵ APCO, *Australia's 2025 National Packaging Targets* (accessed 5 June 2024).

²⁶ APCO, *Australia's 2025 National Packaging Targets* (accessed 18 February 2025).

...environment ministers advised APCO of their support for the targets remaining in place to guide industry activity and action towards the circular economy while packaging regulations were being reformed.²⁷

5.28 The most recent data against the targets was released in December 2024, reflecting progress up to 2022-23. The data shows little or no progress and that the 2025 targets are not on track to be met. Table 6.1 shows progress against each of the four targets, since implementation in 2018.

Table 6.1 Summary of the 2025 National Packaging Targets and progress to 2022-23

Target	Target	2017-18 result	2018-19 result	2019-20 result	2020-21 result	2021-22 result	2022-23 result
100% of all Australia's packaging will be reusable, recyclable or compostable	100%	88%	89%	86%	86%	84%	86%
70% of Australia's plastic packaging will be recycled or composted	70%	16%	18%	16%	18%	20%	19%
50% average recycled content will be included across packaging ^a	50%	35%	38%	39%	39%	40%	44%
Problematic and unnecessary single-use plastic packaging will be phased out ^{b,c}	Reduction in priority items	Baseline	-41%	-31%	-28%	-33%	-40%

Source: APCO, [Australian Packaging Consumption & Recovery Data 2022-23](#), December 2024, p. 10.

APCO's 2030 Strategic Plan

5.29 APCO developed a 2030 Strategic Plan, which was finalised in August 2024, and was developed to reflect consultation with members and stakeholders between 2022 and 2024. The consultation and discussions identified that a 'business-as-usual approach will not deliver the required outcomes', and that a 'new approach is needed'. Four key issues were identified, as follows:

- action throughout the value chain is crucial to deliver the National Packaging Targets and Goals of the Covenant;
- critical economic gaps must be closed, including in design, collection, recovery and end-markets;
- all brand owners must take on cost responsibility, on an equitable and efficient basis; and
- APCO must strengthen its links across the system, 'ensure full participation and free-rider protection, streamline administration, and maintain clear accountability to members and governments'.²⁸

5.30 Reflecting the above issues, APCO submitted that its 2030 Strategic Plan was 'broader and more ambitious' than the previous plan. The 2030 plan introduced

²⁷ Mr Chris Foley, Chief Executive Officer (CEO), APCO, *Committee Hansard*, 20 September 2024, p. 26.

²⁸ APCO, *Submission 78*, p. 2.

two new major areas of activity, relating to the 'eco-modulation of APCO member fees', meaning that:

- Each member's fees will be determined based on the amount and type of packaging they place on the market
- Fees payable for each material type will be determined based on the downstream cost of managing the material
- For the first time, APCO's member fee model will incentivise and reward packaging elimination and reduction, reuse, design for recovery and use of recycled content.

Using funds raised through eco-modulated fees, APCO will enter contracts with operators and producer responsibility organisations in the downstream system to procure collection, recycling and consumer education services that will support achievement of the National Packaging Targets and Goals of the Covenant.²⁹

5.31 On the other hand, Mr Jeffrey Angel of the Total Environment Centre and the Boomerang Alliance challenged the notion that the 2030 Strategic Plan was more ambitious, stating:

The 2030 plan...supports a weakening of the current national targets, both extending to 2030 from 2025, which [APCO] admit we're not going to get to, and having lower levels of achievement for recycled content, for example.³⁰

5.32 The Chief Executive Officer (CEO) of APCO, Mr Chris Foley, argued that APCO 'haven't lowered the ambition' but rather 'reset the trajectory around what we believe is achievable within the system, using the levers articulated in the strategy'.³¹

5.33 Mr Foley explained that APCO was confident it would be able to meet the targets set out in the 2030 Strategic Plan because the industry has reached a 'tipping point', post-COVID:

...businesses, our members, genuinely want a social licence to continue their business. Many of those are hugely reliant on packaging and accept that the game has to change. They've invested millions of dollars in resetting, and, although you'll say that some of the targets aren't being achieved, there are many—individual retailers like 7-Eleven and some of the big supermarkets and big brand owners—who have invested massive amounts of money...³²

5.34 APCO noted the Australian Government was 'leading a process to reform the regulatory framework for packaging', which it welcomed, and noted that its Strategic Plan 'does not pre-empt or seek to influence any regulatory reform

²⁹ APCO, *Submission 78*, p. 3.

³⁰ Mr Jeffrey Angel, Director, Total Environment Centre and Boomerang Alliance, *Committee Hansard*, 20 September 2024, p. 15.

³¹ Mr Chris Foley, CEO, APCO, *Committee Hansard*, 20 September 2024, p. 27.

³² Mr Chris Foley, CEO, APCO, *Committee Hansard*, 20 September 2024, p. 27.

decision agreed by Environment Ministers, including with regard to APCO's role'. APCO continued that it:

...will remain closely engaged with governments to ensure that the Plan, including any and all elements of it, can be aligned as required as the reform process continues.³³

5.35 On 17 March 2025, APCO joined several other major stakeholders in endorsing a mandatory national product stewardship scheme for packaging by 2026 (see further discussion below).³⁴

Packaging reform

Latest packaging reform developments

5.36 The effectiveness of Australia's national co-regulatory framework for packaging was independently reviewed in 2021. The review found that significant reform was needed.³⁵ As the Department of Climate Change, Energy, the Environment and Water (DCCEEW) noted, the co-regulatory arrangement established in 1999 is 'no longer fit-for-purpose and will not deliver a circular economy for packaging'.³⁶

5.37 In 2022, Australia's environment ministers agreed to reform packaging regulation by 2025, with all packaging available in Australia to be designed to be recovered, reused, recycled, and reprocessed safely in line with circular economy principles.³⁷

5.38 In 2023, environment ministers agreed to additional reform details, including to:

- make industry responsible for the packaging they place on the market under a new regulatory scheme;
- introduce mandatory packaging design obligations based on international best practice;
- make the Australian Government the regulator which will:
 - require packaging to comply with a National Packaging Design Standard;
 - require minimum amounts of recycled content in packaging; and

³³ APCO, *Submission 78*, pp. 1 and 2.

³⁴ Boomerang Alliance, *Environment/Industry groups agree on packaging waste action*, 17 March 2025, www.boomerangalliance.org.au/environment_industry_groups_agree_on_packaging_waste_action (accessed 17 March 2025).

³⁵ DCCEEW, *Reforming packaging regulation*, 21 February 2025, www.dcceew.gov.au/environment/protection/waste/packaging/reforming-packaging-regulation (accessed 25 February 2025).

³⁶ DCCEEW, *Reforming packaging regulation*, 14 January 2025 (accessed 18 February 2025).

³⁷ DCCEEW, *Reforming packaging regulation* (accessed 4 June 2024).

- prohibit harmful chemicals being used in packaging.³⁸

5.39 DCCEEW stated that the work to reform national packaging regulation would:

...support industry's transition to more easily recyclable plastics by including mandatory design requirements so that packaging is designed to minimise waste and be recovered, reused, recycled and reprocessed safely in line with circular economy principles.³⁹

Design for Kerbside Recyclability Grading Framework

5.40 In 2024, DCCEEW established an independent National Design Standard Working Group, which was to put recommendations to government to improve the 'recyclability and circularity of packaging in Australia'. In December 2024, the working group released its key recommendation, being the 'Design for Kerbside Recyclability Grading Framework', for DCCEEW-led consultation.⁴⁰

5.41 The framework was developed using international best practice and sought to 'build on things like the APCO sustainable design guides and the international experience we're seeing in places like the European Union on better packaging design'.⁴¹ The framework 'provides flexibility to influence behaviour change', and shows how recyclable different packaging materials are, based on the availability of collection; sortation; recycling and reprocessing services; and end markets.⁴² The framework:

...reflects recyclability through the kerbside system by assigning grades (A-G) for each major material type: rigid and flexible plastics, fibre, metal and glass... The Framework also provides advice on how to improve design for recycling for each material type. It does not compare the relative merits between materials or recommend preferred materials.⁴³

5.42 Mr Cameron Hutchison, a Branch Head from DCCEEW's Circular Economy Division, stated that the framework sends:

³⁸ DCCEEW, [Environment Ministers' Meeting 10 November 2023 Agreed Communiqué](#), p. 1.

³⁹ DCCEEW, answers to written questions on notice, IQ24-000120, 15 July 2024 (received 26 July 2024).

⁴⁰ DCCEEW, [Design for Kerbside Recyclability Grading Framework: for DCCEEW-led industry consultation in 2025](#), December 2024, p. 3.

⁴¹ Mr Cameron Hutchison, Head, Waste and Resource Recovery Policy Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 11.

⁴² DCCEEW, [Design for Kerbside Recyclability Grading Framework: for DCCEEW-led industry consultation in 2025](#), December 2024, p. 4.

⁴³ DCCEEW, [Design for Kerbside Recyclability Grading Framework: for DCCEEW-led industry consultation in 2025](#), December 2024, p. 4.

...a really strong signal...that we will mandate rules around this but this is some general guidance about the direction you need to go in. So it's signalling to industry that we're on that journey.⁴⁴

5.43 Mr Hutchison continued that if packaging regulations were to be 'embedded in mandatory rules, we want to make sure we're getting the settings right so we can effect the change that we want and we don't have perverse outcomes'. He further noted that the department intends to undertake:

...more targeted consultation on [the framework] to understand what some of the barriers in the Australian context are...to ensure that what we are working and presenting to our stakeholders is relevant to the Australian context so that it aligns with our collection systems and our recycling capacity.⁴⁵

5.44 The development of the framework is 'one part of a larger national reform plan for managing packaging in Australia'.⁴⁶ DCCEEW sought feedback on the framework by 18 April 2025, with further work being completed to test the framework, alongside the evaluation of 'additional packaging types and alternative collection pathways'.⁴⁷

New packaging regulatory scheme

5.45 DCCEEW consulted on potential options for reform of Australia's packaging regulations, in October 2024, with further work needed in 2025 to 'evaluate additional packaging types and alternative collection pathways'.⁴⁸

5.46 Preliminary outcomes from the October 2024 consultation, which received 426 responses,⁴⁹ suggest that there is strong support for packaging reform. Over a third of respondents to the consultation (35 per cent) were from industry or business, expressing their support for:

- Commonwealth regulation of packaging, particularly extended producer responsibility (EPR) schemes with either mandatory or co-regulatory

⁴⁴ Mr Cameron Hutchison, Head, Waste and Resource Recovery Policy Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 18.

⁴⁵ Mr Cameron Hutchison, Head, Waste and Resource Recovery Policy Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, pp. 11 and 12.

⁴⁶ DCCEEW, [Design for Kerbside Recyclability Grading Framework: for DCCEEW-led industry consultation in 2025](#), December 2024, p. 4.

⁴⁷ DCCEEW, *Reforming packaging regulation*, 21 February 2025 (accessed 25 February 2025).

⁴⁸ DCCEEW, *Reforming packaging regulation*, 14 January 2025 (accessed 18 February 2025).

⁴⁹ This number includes 'a letter from an individual supported by 12 400 signatories and campaign style letters from 8773 individuals submitted by a campaign organiser as one response': see DCCEEW, *Reform of packaging regulation: Consultation summary*, 21 February 2025, www.dcceew.gov.au/environment/protection/waste/packaging/reforming-packaging-regulation/consultation-summary (accessed 25 February 2025).

arrangements—over 80 per cent of respondents preferred Commonwealth regulation of packaging and 65 per cent supported an EPR scheme with mandatory requirements;

- EPR scheme revenue funds being reinvested into the packaging supply chain;
- the proposed objective of reform: to reduce the environmental impacts of packaging by establishing an approach that supports the transition to, and maintenance of, a circular economy for packaging in Australia (with 95 per cent of respondents supporting this statement);
- a national ban on certain problematic packaging inputs (e.g. carbon black, oxo-degradables, per- and polyfluoroalkyl substances (PFAS));
- mandatory on-pack recyclability labelling obligations; and
- nationally consistent approaches across related systems and initiatives such as kerbside recycling, container deposit schemes (CDS) and single-use plastic bans.⁵⁰

5.47 Survey respondents also expressed support for mandatory national minimum recycled content thresholds and a financial mechanism which uses eco-modulation to drive more sustainable packaging design.⁵¹

5.48 At a hearing in February 2025, DCCEEW officials provided an update on the reform work, advising they were working through the outcomes of the 2024 consultation with a view to providing advice to government on the most suitable model for packaging reform.⁵²

Australian recycling and labelling standards

5.49 The Australasian Recycling Label (ARL) is a labelling system used in both Australia and New Zealand. It aims to provide consumers with 'easy-to-understand recycling information on packaging', and by reducing confusion, save time and reduce contamination in the recycling stream. The ARL provides instructions on packaging as to how each element can be recycled.⁵³

5.50 APCO assumed responsibility for the administration of the ARL in 2018, including holding the exclusive licence for the label. Since 2022, APCO has

⁵⁰ DCCEEW, *Reform of packaging regulation: Consultation summary*, 21 February 2025 (accessed 25 February 2025).

⁵¹ DCCEEW, *Reform of packaging regulation: Consultation summary*, 21 February 2025 (accessed 25 February 2025).

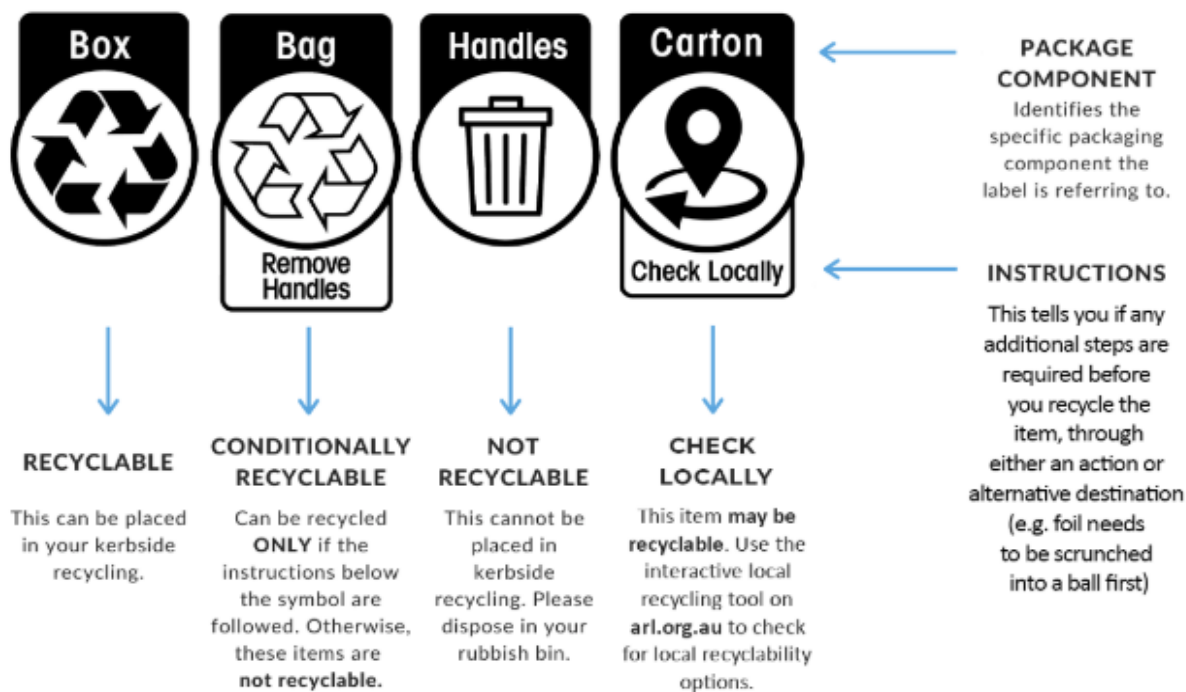
⁵² Ms Cathryn Geiger, Head, Partnerships, Infrastructure and Analysis Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 18; Mr Cameron Hutchison, Head, Waste and Resource Recovery Policy Branch, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 18.

⁵³ Australasian Recycling Label (ARL), *About the Australasian Recycling Label (ARL) program*, <https://arl.org.au/about> (accessed 18 February 2025).

owned and operated the label with the support of Planet Ark and PREP Design.⁵⁴

5.51 The ARL labelling system is demonstrated in Figure 5.2:

Figure 5.2 Australasian Recycling Label system



Source: ARL, *About the Australasian Recycling Label (ARL) program* (accessed 18 February 2025).

5.52 Tetra Pak explained that the ARL communicates to consumers if a package can be recycled, however, this is based on whether councils collect the packaging in kerbside recycling bins and does not include access to CDS. This means that beverage cartons, for example, are labelled 'not recyclable' when they are recyclable through a CDS. Tetra Pak called for Australia to align its approach 'with the European model and include packaging collected through all methods, including CDS, to properly communicate to the community what materials are recyclable'.⁵⁵

ReMade in Australia

5.53 In line with the Environment Minister's agreement in 2022 to move toward a circular economy by 2030, the Australian Government launched the 'ReMade in

⁵⁴ ARL, *About the Australasian Recycling Label (ARL) program* (accessed 18 February 2025).

⁵⁵ Tetra Pak, *Submission 51*, p. 2.

Australia' scheme (ReMade scheme), aimed at helping Australians to 'shop in a sustainable way' through improved labelling.⁵⁶

5.54 DCCEEW consulted on the ReMade scheme in 2022 and 2023, with consultation feedback now 'being incorporated into the certification trade mark rules'.⁵⁷

5.55 DCCEEW advised that the ReMade scheme would be applied to consumer products and will 'explicitly preference the use of recycled content in products and create a certified trade mark that can be used on products that are made in Australia with recycled material'.⁵⁸ DCCEEW would 'provide further updates on the scheme in early 2025'.⁵⁹ At the time of writing, further updates do not appear to have been made.

5.56 In its submission, the Waste Management and Resource Recovery Association of Australia (WMRR) voiced some concerns with the ReMade scheme, arguing that:

Sustainable design actions [should] include incentives, guidelines and standards. Loosely a certification system has been proposed under ReMade in Australia which is actually a traceability scheme and does not address consumer confidence in products, only the certification.⁶⁰

The need for mandatory packaging regulations

5.57 There was strong support for the introduction of mandatory packaging regulations, and for rules around packaging to mandate a recycled material component, using resources generated in Australia. Mandatory schemes would also help to provide investment confidence for companies implementing new, innovative and expanded packaging facilities.

5.58 In a statement on 17 March 2025, a diverse range of major stakeholders including the Boomerang Alliance, WMRR, Australian Council of Recycling (ACOR), Soft Plastics Stewardship Australia and APCO made a 'breakthrough' joint statement, offering support for the introduction of 'a mandatory national Product Stewardship Scheme for Packaging by 2026 that applies targets and producer responsibility across the life cycle, including for soft plastics'. These stakeholders noted that they were waiting for the government to 'resolve key

⁵⁶ DCCEEW, *ReMade in Australia*, 18 December 2024, www.dceew.gov.au/environment/protection/waste/consumers/remade-in-australia (accessed 19 February 2025).

⁵⁷ DCCEEW, *ReMade in Australia*, 18 December 2024 (accessed 19 February 2025).

⁵⁸ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 64.

⁵⁹ DCCEEW, *ReMade in Australia*, 18 December 2024 (accessed 19 February 2025).

⁶⁰ Waste Management and Resource Recovery Association of Australia (WMRR), *Submission 41*, p. 6.

operating principles [for managing packaging waste and recycling] following on from the Commonwealth consultation report last year'.⁶¹

- 5.59 In releasing the statement, the Boomerang Alliance noted that the upcoming federal election would 'likely stall any progress on packaging reforms', leading the industry and environment groups to issue the statement. The Boomerang Alliance continued that while the scope and design of an EPR scheme would be subject to negotiation, 'these schemes when effectively implemented, work to reduce waste and increase recovery. They can be instrumental in establishing a circular economy system for packaging'.⁶²

Packaging design regulation

- 5.60 The views put forward in the March 2025 statement were echoed by these industry groups in evidence to the committee, as detailed below.

- 5.61 Ms Gayle Sloan, CEO of WMRR, expressed concern that when export regulations were first considered, a review of packaging systems was not conducted, despite packing being a key part of the supply chain. Ms Sloan argued that Australia now has 'more targets and no solutions':

We don't have design rules, we don't have regulation, but we continue to put intervention at the end of the chain and not the start. So we've got more costs coming into what's a fragile system, and we've got no consequence of putting poorly designed packaging on the market. A really strong example of that, which is really disappointing, is that you can still put packaging with PFAS openly on our market and there are no consequences for doing that. There are real challenges for us as a sector to manage this packaging, and it goes well beyond the recycling and recovery sector.⁶³

...Enforceable, mandatory rules with clear frameworks assist everyone in the supply chain. So APCO is doing its best, potentially, with what it has, but we need better.⁶⁴

- 5.62 The WMRR also noted that 'there is no restriction on the design of products that can be placed on market in Australia', arguing there should be clear obligations placed on producers to share 'risk and cost for managing the lifecycle of products and their environmental impacts'.⁶⁵ The WMRR expressed the hope

⁶¹ Boomerang Alliance, *Environment/Industry groups agree on packaging waste action*, 17 March 2025, www.boomerangalliance.org.au/environment/industry-groups-agree-on-packaging-waste-action (accessed 17 March 2025).

⁶² Boomerang Alliance, *Environment/Industry groups agree on packaging waste action* (accessed 17 March 2025).

⁶³ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 36.

⁶⁴ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 43.

⁶⁵ WMRR, *Submission 41*, pp. 4 and 6.

that through 'the proposed packaging design rules we may see some of these challenges addressed'.⁶⁶

5.63 ACOR similarly pointed to the dearth of existing regulation, saying:

...we are not managing, for example, what goes into the products that are put on market. We are not ensuring, for example, that they procure domestic recycled content, which is a priority given that it all ends up at waste at end of pipe, and we need to manage that waste and recover as much as possible.⁶⁷

5.64 Tetra Pak reflected that the 'voluntary nature of the [packaging] Covenant, its narrow focus on recycling (as opposed to overall environmental outcomes such as greenhouse pollution reduction), as well as other key aspects of the Covenant arrangement negatively impact our industry's ability to improve'.⁶⁸

5.65 The AMCS and WWF Australia argued that the Australian Government should 'implement policy and regulation that help to drive down consumption of all virgin materials (including but not limited to plastics)'.⁶⁹ Ms Hamilton of the AMCS told the committee that Australia needed mandatory targets which:

...are strengthened and prioritises [sic] avoidance and reuse ahead of recycling and composting. Australia needs genuine policy and regulations that focus on reducing consumption of needless plastics and sets a clear pathway to support businesses to enact solutions at the scale needed to inflict real change.⁷⁰

5.66 Visy argued that both the community and industry would benefit from 'clear rules on the recoverability and recyclability of packaging'. Visy pointed to the 2024 Recycling Behaviours Report, which showed that 'almost 30% of people say they find recycling confusing and almost 20% of people still believe that their recycling bin just goes to landfill'. Visy put forward suggestions for improvement, including that the rules:

...should be run by an independent organisation and not be subject to advocacy. The APCO guidelines should be revised to prevent non-recyclable packaging from receiving the Australasian Recycling Label (ARL). The ARL should then be mandatory on all packaging, indicating whether it is recyclable through kerbside recycling, CDS, return to store or landfill, and all other recycling labels should be banned.⁷¹

⁶⁶ WMRR, *Submission 41*, p. 4.

⁶⁷ Ms Suzanne Toumbourou, CEO, Australian Council of Recycling (ACOR), *Committee Hansard*, 8 May 2024, p. 3.

⁶⁸ Tetra Pak, *Submission 51*, p. 2.

⁶⁹ WWF Australia and Australian Marine Conservation Society (AMCS), *Submission 68*, p. 7.

⁷⁰ Ms Cip Hamilton, Plastics Campaign Manager, AMCS, *Committee Hansard*, 5 August 2024, p. 15.

⁷¹ Visy, *Submission 79*, p. 4.

- 5.67 Re.Group, an Australian recycling and resource recovery company, observed that consumers are increasingly demanding more recycling, and expressed optimism that this was leading to genuine progress, including 'brand owners asking for mandated targets and driving product redesign' and greater engagement with APCO on product design.⁷²
- 5.68 While the Australian Food and Grocery Council (AFGC) expressed support for national packaging design standards, it noted the 'significant capital investment required by food and grocery manufacturers to upgrade or install new packaging plants and equipment, in order to meet new design standards'. According to the AFGC, 'where new packaging formats are required, costs can exceed \$100,000,000 per facility. In addition, food and grocery manufacturers are simultaneously facing additional costs of procuring recycled content and participation in product stewardship schemes'.⁷³
- 5.69 The AFGC argued that, similar to support provided to the waste and recycling sector, food and grocery manufacturers should be supported by governments to make the required changes.⁷⁴ Specifically, the AFGC called for adoption of 'tax incentives to support food and grocery manufacturers to make necessary changes to packaging capital equipment necessary to meet packaging design standards and improved environmental outcomes'.⁷⁵
- 5.70 The AFGC further recommended that the government develop packaging design standards that consider the full lifecycle of products to mitigate unintended environmental and community impacts, such as food waste increase or food safety reduction.⁷⁶
- 5.71 ACOR stated that the agreement between all Australian jurisdictions to focus on the regulation of packaging is 'a welcome step'—but warned such regulation needed to be 'delivered meaningfully' and have the right impact, for example by ensuring that 'the right collection infrastructure exists'.⁷⁷
- 5.72 While supporting packaging design rules and minimum recycled content, MRA Consulting similarly made the point that 'recycled content is not enough to get to the recycling rates that we expect for packaging'. MRA Consulting

⁷² Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 28.

⁷³ Australian Food and Grocery Council (AFGC), *Submission 59*, p. 6.

⁷⁴ AFGC, *Submission 59*, p. 6.

⁷⁵ AFGC, *Submission 59*, p. 3.

⁷⁶ AFGC, *Submission 59*, p. 8.

⁷⁷ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 3.

suggested a 'broader suite of actions' are needed, including building the required infrastructure for sorting materials.⁷⁸

5.73 However, Huhtamaki expressed some caution around the mandating of packaging regulations, noting the sector was very complex, and pointing out that in its experience:

...the diversity of capability and sophistication within the resource recovery sector is incredibly complex. As such the ability to develop packaging design regulations that allow recovery of packaging materials across Australia is incredibly difficult. Further to this the need for packaging to be food contact safe and the ability of the reprocessing industry to meet these demands makes it even more challenging.⁷⁹

Mandating recycled content

5.74 Alongside mandated packaging regulations, submitters and witnesses recognised the importance in a circular economy of any mandated packaging regulation including a requirement to use recycled material, and Australian recycle wherever possible.

5.75 The CEO of APCO gave evidence that 'the concept of recycled content mandates is actually supported by most of our members and certainly the recycling system, because it does provide...certainty and clarity'.⁸⁰

5.76 Cleanaway argued that to encourage more investment in domestic recycled content, consideration 'should be given to mandating Australian recycled content for new packaging made in Australia', and to 'mandating packaging design rules to enable recycling'.⁸¹

5.77 Visy argued that 'increasing the recycled content levels in packaging is essential to ensure durable end markets and the stability of the recycling industry'. Visy suggested this was a particularly significant issue for plastics:

Without a requirement for recycled content in plastic packaging, redemption rates and end markets will continue to fall short of community expectations... Any packaging reform should also offer clear rules, rather than guidelines, on the recoverability and recyclability of packaging.⁸²

5.78 Visy offered its support for recycled content mandates, noting that 'the countries in the world that do recycling best all have extended producer responsibility and other types of schemes for packaging'. Visy was in favour of regulation over

⁷⁸ Mr Mike Ritchie, Managing Director, MRA Consulting, *Committee Hansard*, 20 September 2024, pp. 49–50.

⁷⁹ Huhtamaki, *Submission 3*, p. 3.

⁸⁰ Mr Chris Foley, CEO, APCO, *Committee Hansard*, 20 September 2024, p. 37.

⁸¹ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, p. 44.

⁸² Visy, *Submission 79*, p. 4.

guidelines, saying that while 'guidelines can help, rules are better' as they are ultimately 'what moves the dial'.⁸³

5.79 Mr Rick Ralph of the Australian Resources Recovery Council (ARRC), which represents more than 450 small, medium, national and global waste and recycling businesses in Australia, likewise called for mandating Australian recycled content into material, similar to the United Kingdom's (UK) Plastic Packaging Tax.⁸⁴

5.80 Mr David Finlayson of Martogg Group, a local manufacturer of food grade and non-food grade recycled polymers made from post and pre-consumer waste plastics, also called for Australian content to form a part of any mandatory packaging framework. Pointing to the failure of the APCO targets, Mr Finlayson argued that recycled content targets needed to be mandated, and went on to say that:

Without Australian content being part of the mandatory approach to this issue, even if recycled content becomes mandatory we'll see imports replacing Australian-made product, which is really defeating the purpose of the whole circular economy initiative.⁸⁵

5.81 Rino Recycling, the operator of a construction and demolition materials recycling facility in Brisbane, was supportive of a circular economy utilising more locally-sourced recycled materials, but noted that this was challenging due to the lower prices of virgin materials. It also argued that a key challenge to increasing offtake of locally sourced recycled materials is that 'engineering standards and project procurement regulations...continue to specify the use of virgin materials as opposed to recycled and recovered resources'. As a result, Rino Recycling called for mandating local recycled content requirements in government funded construction and infrastructure projects, and price support via, for example, tax incentives and production credits.⁸⁶

5.82 In a similar vein, the AFGC pointed out that while many brands would like to use local recycled content, there are practical difficulties which mean that 'many brands have no option but to import recycled content':

...[using local recycled content] requires increased infrastructure to create post-consumer recycled content (PCR)... a significant challenge lies in

⁸³ Mr Ben Fourniotis, General Manager, Government Relations, Visy, *Committee Hansard*, 14 February 2025, p. 5.

⁸⁴ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 10.

⁸⁵ Mr David Finlayson, Group Commercial Manager, Martogg Group, *Committee Hansard*, 5 August 2024, pp. 8–9 and 11. See also, Martogg Group of Companies, *Submission 60*, [p. 2].

⁸⁶ Rino Recycling, *Submission 55*, pp. 1–2.

procuring recycled content domestically, especially soft plastics, due to supply limitations from the lack of local collection and recycling.⁸⁷

- 5.83 Accordingly, AFGC highlighted the need for investment in domestic recycling infrastructure coupled with the phased introduction of post-consumer recycled content targets.⁸⁸

A lack of local markets

- 5.84 While supportive of Australian packaging being made onshore, using Australian recycled materials, submitters and witnesses expressed concerns over a lack of local markets and infrastructure, which were needed to process materials onshore.

- 5.85 For example, Pact Group noted that 'the plastic recycling sector in Australia is still relatively young and must compete with imported materials...from the Asian region',⁸⁹ while the Waste Contractors and Recyclers Association of NSW (WCRA) submitted that 'Australia...struggles to find end-user markets, especially in the face of cheap international imports'.⁹⁰

- 5.86 The WMRR argued that 'Australia has consistently failed to value products and materials made from recycled materials' and that, to date, there has been a failure 'to place any emphasis on reducing demand for virgin material and increasing demand for recycle'.⁹¹

- 5.87 Re.Group suggested that introducing disincentives to use virgin material, such as paperwork or financial penalties for using non-locally sourced materials, may help to change market behaviour.⁹² Re.Group advised:

When you can put material into the market, with no thought to the cost of recovering it at the end, no thought to the complexity of recovering it at the end, there is no incentive on you to put a more recyclable material into the market than a less recyclable material.⁹³

- 5.88 Similarly, the ARRC explained that the 'domestic market for end-user recycled products is limited and competitive' and that the 'cost of processing these commodities domestically is significantly higher compared to internationally, which is reflected in the purchase price for these products'.⁹⁴

⁸⁷ AFGC, *Submission 59*, p. 6.

⁸⁸ AFGC, *Submission 59*, p. 6.

⁸⁹ Pact Group, *Submission 34*, p. 8.

⁹⁰ Waste Contractors and Recyclers Association of New South Wales, *Submission 1*, p. 5.

⁹¹ WMRR, *Submission 41*, p. 6.

⁹² Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 25.

⁹³ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 27.

⁹⁴ ARRC, *Submission 13*, p. 7.

- 5.89 The ARRC expressed frustration that there are no government restrictions on the 'importation of new or recycled tyres, glass, plastics, paper and cardboard materials to Australia' which then 'creates a situation where domestic producers struggle to find markets for their products as there is little incentive for buyers to purchase local over imported products'.⁹⁵
- 5.90 The ARRC submitted that:
- ...as Australia's population grows, the only way to prevent more waste going to landfill will be urgent and concurrent increased investment in both processing infrastructure and developing of long-term end user markets across all recycled material streams.⁹⁶
- 5.91 Minderoo suggested the 'inclusion of a market mechanism that incorporates external costs (environmental (including resource efficiency), climate change and human health) into the price of virgin plastic to help address the price difference between virgin and recycled plastic'.⁹⁷

Utilising government procurement rules

- 5.92 Some submitters suggested amending government procurement rules to help drive demand for local recycled materials. For example, the Australia and New Zealand Recycling Platform, a not-for-profit which collects and recycles e-waste under the National Television and Computer Recycling Scheme, called for leveraging 'government purchasing power (across all tiers of government) to institute sustainable procurement and drive the circular economy'.⁹⁸
- 5.93 Likewise, Ai Group acknowledged that 'federal agency purchasing decisions can drive circular economy transition', and that:
- ...procurement processes should be designed to deliver environmental and economic value. This includes considering whether the procurement need can be satisfied by...repair or refurbishment, as well as the inclusion of recycled content and lower embodied carbon products.⁹⁹
- 5.94 Similarly, the AMCS and WWF Australia called for 'widespread and effective use of economic levers to drive innovation, reuse, recovery and recycling, including fiscal and procurement measures at the national level'.¹⁰⁰

⁹⁵ ARRC, *Submission 13*, p. 7.

⁹⁶ ARRC, *Submission 13*, p. 2.

⁹⁷ Minderoo, *Submission 52*, p. 8.

⁹⁸ Australia and New Zealand Recycling Platform, *Submission 43*, p. 3.

⁹⁹ Ai Group, *Submission 53*, p. 2.

¹⁰⁰ WWF Australia and AMCS, *Submission 68*, p. 7.

Environmentally sustainable procurement policy

5.95 The Australian Government implemented the first phase of its Environmentally Sustainable Procurement Policy from 1 July 2024, in recognition of its purchasing power in driving progress towards a circular economy. The policy applies 'climate, environment and circularity principles' to new approaches to market, for the procurement of construction services; furniture, fittings and equipment; information and communication technology goods; and textiles.¹⁰¹

5.96 In utilising the policy, government entities will be required to consider, among other things, whether:

- the goods contain (or have used) recycled materials;
- the product is durable, repairable, reusable and/or recyclable;
- the goods are refurbished or existing goods are being reused;
- the goods are recycled at the end of their useful life; and
- the goods are returned to resource recovery through a take-back or end-of-life scheme.¹⁰²

5.97 The first phase of the policy was implemented from 1 July 2024, with the second phase commencing 1 July 2025, as outlined below:

Figure 5.3 Schedule for the Australian Government Environmentally Sustainable Procurement Policy (categories and thresholds)

Commencement date	Procurement category	Value threshold for Policy application
Phase One 1 July 2024	Construction Services	≥ \$7.5 million (including GST) total estimated procurement value
	Furniture, Fittings and Equipment	≥ \$1m (including GST) total estimated procurement value
Phase Two 1 July 2025	ICT Goods	≥ \$1m (including GST) total estimated procurement value
	Textiles	≥ \$1m (including GST) total estimated procurement value

Source: DCCEEW, [Environmentally Sustainable Procurement Policy](#), July 2024, p. 9.

5.98 In response to questions around whether any instructions had been issued to the department to increase the content of recycled material in government procurement practices, DCCEEW pointed to the ReMade scheme (discussed above). Regarding the procurement policy, DCCEEW acknowledged the key

¹⁰¹ The policy applies to non-corporate Commonwealth entities and prescribed corporate Commonwealth entities listed in section 30 of the Public Governance, Performance and Accountability Rule 2014, and does not apply to Commonwealth grants, other financial arrangements, or contracts delivered overseas either in whole or in part. DCCEEW, [Environmentally Sustainable Procurement Policy](#), July 2024, pp. 8–9.

¹⁰² DCCEEW, [Environmentally Sustainable Procurement Policy](#), July 2024, p. 7. See also: Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 64.

role Commonwealth procurement could play in environmental sustainability, observing that the federal government:

...has significant buying power. It was an election commitment by this government to implement this environmentally sustainable procurement policy to drive the use of recycled content. The buying power of the Commonwealth is estimated to be about \$74.8 billion. That would be the amount that was contracted on goods and services during 2022-23.¹⁰³

5.99 DCCEEW provided advice on how government entities are required to measure, report and benchmark the increased use of recycled content in government procurement under this policy:

Firstly, all departments, when they're procuring, will be asking suppliers to indicate different categories of information, for example whether they know if it's recycled content that's being used in products. They need to report that. We're very interested in knowing whether that's Australian recycled content, where that's able to be determined... We hope that by establishing a baseline and encouraging reporting that will flow through the system, and eventually we will be able to get better data on where the recycling itself comes out of Australia's recycling sector... The reporting sets a baseline which the government will then consider for future ambitions and targets.¹⁰⁴

5.100 The ARRC acknowledged the development and implementation of the policy but noted that it does not contain any specific targets. The ARRC said the policy should mandate 'procurement that actually goes into federally funded roads or infrastructure' as well as 'establish some reporting mechanisms on an annual basis for each of the departments' to provide a breakdown of purchases.¹⁰⁵

5.101 Similarly, the Waste, Recycling Industry Association of Queensland reflected that the procurement policy 'lacks a lot of detail and it lacks the practicalities'.¹⁰⁶

5.102 The 2024 National Waste Policy Action Plan (2024 Action Plan) includes 'investment in infrastructure, procurement and funding support' as one of its three priority areas for governments to focus on, and explains that:

Opportunities exist to promote circular design of products (i.e. to design out waste, design for durability, reparability and recyclability, and encouraging innovation) through sustainable procurement. Increasing the amount of goods and infrastructure containing recycled materials, also supports our

¹⁰³ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 64.

¹⁰⁴ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 64.

¹⁰⁵ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 14.

¹⁰⁶ Ms Alison Price, CEO, Waste, Recycling Industry Association of Queensland, *Committee Hansard*, 8 May 2024, p. 19.

transition towards a circular economy and helps to grow the recycling and reprocessing industry.¹⁰⁷

5.103 Commonwealth, state and territory governments are currently developing implementation plans to support the 2024 Action Plan.¹⁰⁸

5.104 The committee makes observations and recommendations in Chapter 8, around government procurement and purchasing power.

A traceability framework

5.105 Closely tied with the need for packaging reform is the ability to trace the content included in Australian packaging, including the volumes of recycled Australian material included in new packaging.

National Framework for Recycled Content Traceability

5.106 In November 2023, environment ministers endorsed a national framework for recycled content traceability. The framework is a national guideline that aims to improve trust in recycled materials by guiding businesses to collect and share information about recycled materials.¹⁰⁹

5.107 The framework aims to support Australia's transition towards a circular economy, by providing high level guidance to industry to implement recycled content traceability in Australian supply chains. The framework is voluntary and available to businesses of all sizes in the supply chain, applies to all recycled materials and recycled content products in Australia, and allows businesses to select the best way to trace recycled materials for their needs.¹¹⁰

5.108 In implementing the framework, it was noted that—to move to a circular economy—Australia needs to use more recycled materials, but manufacturers need to be sure about 'its quality and where it comes from. It is often difficult to find this information in Australia', which in turn reduces demand and hampers verification of any claims made about recycled content.¹¹¹

¹⁰⁷ DCCEEW, *National Waste Policy Action Plan 2024*, p. 6.

¹⁰⁸ DCCEEW, *National Waste Policy Action Plan*, 14 February 2025, www.dcceew.gov.au/environment/protection/waste/publications/national-waste-policy-action-plan (accessed 26 February 2025).

¹⁰⁹ DCCEEW, *National Framework for Recycled Content Traceability*, 12 February 2025, www.dcceew.gov.au/environment/protection/waste/recycled-content-traceability (accessed 26 February 2025).

¹¹⁰ DCCEEW, *National Framework for Recycled Content Traceability*, 12 February 2025 (accessed 13 February 2025).

¹¹¹ DCCEEW, *National Framework for Recycled Content Traceability*, 12 February 2025 (accessed 17 February 2025).

5.109 In October 2024, DCCEEW released an implementation guide to support businesses to participate in traceability in accordance with the framework.¹¹² DCCEEW is also developing online tutorials for businesses and consulted in October and November 2024 on the focus areas for these tutorials.¹¹³

The need for mandatory traceability

5.110 A number of submitters and witnesses offered their support for traceability frameworks and making them mandatory, rather than voluntary.

5.111 Mr Singh, the Managing Director of Re.Group, lent support for traceability, stating:

You see a lot of beverage containers at the moment that say, 'A hundred per cent recycled content.' Every time I look at that, I go, 'Where did the material come from?' It would be lovely to know how much of that is Australian recycled content as opposed to recycled content from somewhere that's not traced, not tracked and not overly auditable.¹¹⁴

5.112 Re.Group proposed a traceability model that starts with accountability for each tonne moving in and out of a recycling facility:

Then there's a record of where the material is going for it to be remanufactured, so you've got that traceability on a tonnage basis signed off on at both ends. Then the remanufacturer is accountable on a mass balance again, so every tonne in is accounted for as a tonne out. There's a register so you can follow that whole chain of custody all the way through, from material delivered to a recycling facility right through to pellets coming out of a PET [polyethylene terephthalate] facility that are going to a beverage company.¹¹⁵

5.113 ACOR argued that a traceability framework 'would ensure that genuine recycling outcomes are rewarded by being verified'.¹¹⁶ ACOR also stated that such a framework could help to improve data, as currently, 'we're not seeing good data on the difference between domestic recycled material and imported recycled material, noting that you could, most likely, procure recycled material offshore at a lower cost than what you might onshore'.¹¹⁷

¹¹² DCCEEW, [Step-by-step implementation guide for recycled content traceability](#), October 2024.

¹¹³ DCCEEW, *National Framework for Recycled Content Traceability*, 12 February 2025 (accessed 25 February 2025).

¹¹⁴ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 23. See also: Mr David Finlayson, Group Commercial Manager, Martogg Group, *Committee Hansard*, 5 August 2024, pp. 11–12.

¹¹⁵ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 24.

¹¹⁶ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 4.

¹¹⁷ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 3.

5.114 While the AFGC welcomed the national framework, it expressed caution that the framework was proposed to be voluntary, and suggested that instead, 'a mandatory approach is critical to provide food and grocery manufacturers with the confidence needed to use quality recycled materials, thereby supporting the circular economy'. The AFGC submitted that:

Mandatory recycled content traceability in the recycling sector is essential to confirm the provenance of the material from collection/sortation and therefore validate that claimed recycled content sold to brand owners is actually recycled content. Put simply, without mandatory traceability at the beginning of the PCR supply chain (the recycling sector), it is effectively broken at the first link. Without traceability in the first link, it is redundant to mandate other sectors procure recycled content.¹¹⁸

5.115 Minderoo also offered its support for mandatory traceability requirements, saying mandatory recycled content would 'drive markets'. Minderoo continued that 'mandatory traceability would also support clean material cycles, avoiding safe chemicals which contaminate recycling'.¹¹⁹

5.116 In a similar vein, Martogg Group supported a 'national framework for recycled content traceability' and stated that the 'voluntary nature of these framework guidelines will limit their effectiveness'.¹²⁰

5.117 Despite this support for mandatory traceability frameworks, the committee also heard from some submitters that such an approach was not necessary.

5.118 The WMRR for example argued that complex traceability schemes were not needed. It instead argued that 'we need to require people to buy from licenced recyclers in Australia. We're a heavily regulated system—we have to have licences to receive waste and make this product. Buy from there'.¹²¹

Calls to follow international examples

5.119 Some submitters suggested that Australia follow the example of other countries which have legislation in place to minimise unnecessary plastic packaging, and to better encourage the use of locally-sourced recycled product.

5.120 For example, the ARRC argued that:

...we need to actually mandate Australian recycling content into material. The UK have the Plastic Packaging Tax. To create that local pull, they actually applied a requirement that, if you use plastics in the country or you import plastics into the country and those materials cannot be verified to have 30 per cent recycled content in them, then you pay a contribution figure of about 200 and something dollars a tonne to the government. Now, that to

¹¹⁸ AFGC, *Submission 59*, p. 10. Emphasis in original.

¹¹⁹ Minderoo, *Submission 52*, p. 7.

¹²⁰ Martogg Group of Companies, *Submission 60*, [p. 2].

¹²¹ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, pp. 41–42.

me would be a very simple way of funding the recycling opportunity. You apply it at the front end and then use those moneys to promote local recycling.¹²²

5.121 Ms Sloan of WMRR advised that it had been asking the government to examine various measures, including waste directives like recent packaging regulations implemented in the European Union (EU), and urged Australia to stop 'reinvent[ing] the wheel'. Ms Sloan explained that the EU system was:

...a comprehensive system that builds on the waste directives, which already place the generator obligation on packages, around how you manage at end of life, and your responsibilities and how they contribute financially to it, but goes further into PFAS and other design elements.¹²³

...

We actually just need to pick up a lot of that legislation, rather than continuing to develop our own. We seem to think that we have to develop our own every time...¹²⁴

5.122 TOMRA, a sorting, collection and reverse-vending technology organisation, urged the Australian Government to align its future regulations to those of the EU, specifically, the packaging regulations that require, for example:

- separate collection of at least 90 per cent per annum of single-use plastic bottles and metal beverage containers through CDS;
- packaging that enters the market must be produced to contain nil or only a minimal amount of harmful substances;
- all packaging put on the market must be recyclable;
- packaging should be designed with recycling in mind;
- packaging weight and volume must be reduced to the minimum required for functionality; and
- every company or online seller that ships goods to a European country in which they do not have a branch must have a representative for EPR in each of these countries.¹²⁵

5.123 TOMRA pointed out that many nations have 'progressive reusable packaging policies and targets to significantly minimise single use packaging waste generated by the takeaway sector'. For example, in Portugal, Netherlands, Denmark, Germany and Sweden, there are various approaches, such as: taxes on single use takeaway packaging; bans on on-site consumption of disposable packaging at workplaces, restaurants, and festivals; and requiring providers of

¹²² Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, pp. 10–11.

¹²³ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 37.

¹²⁴ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 39.

¹²⁵ TOMRA, *Submission 56*, pp. 2–3. See also, Mr Markus Fraval, Senior Vice President, Strategy and Business Development, Asia Pacific, TOMRA Collection, *Committee Hansard*, 20 September 2024, p. 57.

takeaway drinks and food to offer alternative reusable packaging to customers.¹²⁶

5.124 The Kew East Community Recycling Team summarised some of the approaches in various European countries, and pointed to Germany, France, the Netherlands, Belgium and Sweden as all countries which have strong packaging regulations and circular economy objectives.¹²⁷

5.125 In line with the approach taken overseas, several submitters called for the introduction of penalties to incentivise producers to redesign their packaging to include more local product. For example, Pact Group identified that the 'UK and EU have implemented a plastic levy based on the % of recycled content used in packaging as a way of encouraging increased use of recycled materials in packaging and discouraging use of virgin resin'. Pact Group suggested that Australia follow suit and 'introduce a mechanism to ensure companies that place packaging on the Australian market comply with the minimum recycled content requirements'.¹²⁸

5.126 Pact Group noted that the EU packaging regulation will require non-EU producers of recycled materials to meet EU standards, and that recycled content for plastic must meet EU environmental standards.¹²⁹ Pact Group argued that Australia should establish a scheme where 'producers and brand owners pay a fee per tonne for packaging that contains less than the required percentage', and for revenue from this scheme to 'be reinvested to the Recycling Modernisation Fund'.¹³⁰

5.127 In a similar vein, Reloop proposed 'modulated fees...[to] reflect the degree of ease or difficulty of recovering and/or recycling end of life packaging materials'.¹³¹ Reloop explained that in Europe, producers are charged a fee per tonne which is administrated by a central scheme coordinator under government legislation. The funds are then used to support collection and recycling programs.¹³²

5.128 Likewise, MRA Consulting Group drew attention to Scotland's packaging fees for producers who make packaging that cannot be reused or recycled.¹³³

¹²⁶ TOMRA, *Submission 56*, p. 4.

¹²⁷ Kew East Recycling Community Team, *Submission 73*, pp. 35–41.

¹²⁸ Pact Group, *Submission 34*, p. 8.

¹²⁹ Pact Group, *Submission 34*, p. 8.

¹³⁰ Pact Group, *Submission 34*, p. 8.

¹³¹ Reloop, *Submission 21*, p. 3.

¹³² Reloop, *Submission 21*, p. 2.

¹³³ MRA Consulting Group, *Submission 31*, pp. 69–70.

5.129 Tetra Pak commented on the EPR in Belgium, which:

...provides for fully industry funded collection, sorting and recycling, relieving the pressure of rates, as well as incentivising packaging design for recyclability and providing an incentive to consumers to purchase more recyclable packaging.¹³⁴

¹³⁴ Tetra Pak, *Submission 51*, p. 3.

Chapter 6

Problematic waste streams

- 6.1 While there are various definitions of 'problematic waste', this report adopts a broad definition encompassing waste streams that are challenging because they are unable to be efficiently, economically or safely handled through the standard waste management and resource recovery system, or that can be hazardous to human health or the environment if improperly disposed. Forms of waste that fall within this category include plastics, electronics, end-of-life solar photovoltaic systems, and batteries. Many of these waste streams have been discussed in other chapters throughout this report.
- 6.2 This chapter will focus on the considerable evidence received about the impacts of plastics (especially soft plastics and single-use plastics) and the development and deployment of plastic waste management practices and infrastructure. The complexities in the plastic waste stream are highlighted by the low rates of recovery and recycling for various plastic types and the proportion of recovered plastic material in Australia which is currently processed offshore (discussed below).
- 6.3 This chapter also discusses cross-cutting issues in waste management, including contaminants in the waste stream, and the role of converting waste materials into energy.
- 6.4 The next chapter considers waste export regulations and submitter views on the impact, need and efficacy of the exporting rules.

Australian Plastics Flows and Fates Study

- 6.5 The most recent national data on plastics was released in June 2024, through the Australian Plastics Flows and Fates Study 2021-22 (Plastics Study), prepared for the Department of Climate Change, Energy, the Environment and Water (DCCEEW). The Australian Plastic Flows and Fates project has been conducted annually since 2000 and provides a time series picture of plastics flows across all polymer types and applications.¹
- 6.6 The key findings of the Plastics Study include that for 2021-22:
- 3.92 million tonnes (Mt) of plastics were consumed in Australia, with 2.85 Mt of plastics reaching their end-of-life in Australia;
 - 412 500 tonnes of plastics were recovered, of which:

¹ The Australian Plastic Flows and Fates project was formerly called the Australian Plastics Recycling Survey. Department of Climate Change, Energy, the Environment and Water (DCCEEW), answers to written questions on notice, IQ24-000129, 15 July 2024 (received 26 July 2024).

- 396 300 tonnes were recycled; and
 - 16 200 tonnes were sent to energy recovery;
 - the national plastics recovery rate (recycling and energy recovery) was 14.5 per cent, an increase on the 2020-21 rate of 14 per cent—but leaving more than 85 per cent of plastics going directly to landfill;
 - the national plastics recycling rate was 13.9 per cent, compared with 12.6 per cent in 2020-21; and
 - plastics reprocessing capacity in Australia was approximately 483 600 tonnes per year at the end of 2022, whereas actual reprocessing in 2021-22 was 267 700 tonnes (55 per cent of potential capacity).²
- 6.7 The Plastics Study observed that there is an 'ongoing and significant challenge with respect to increasing recovery of scrap plastics', with local manufacturers of certain resins ceasing production over the last 13 years. The study noted that 59 per cent of plastic products are now manufactured overseas and:
- ...assuming the recovered plastics are to be incorporated into new and similar products, then a significant proportion of this material must be returned into these overseas supply chains at an acceptable price and quality.³

Recycled content of plastic products

- 6.8 The Plastics Study found that in 2021-22, 1.59 Mt of plastic resins went into local plastic product manufacturing, predominantly sourced from locally manufactured and imported virgin resin (1.37 Mt) and locally processed or overseas sourced recycle into local manufacturing (214 900 tonnes).⁴
- 6.9 The Plastics Study concluded that:
- The overall average proportion of recycled content used across all local plastic product manufacturing of 13.5%. The quantity of plastic recycle includes material sourced from both pre-consumer and post-consumer scrap sources. This is a reasonably notable increase on the 11.5% recycled content rate estimated for 2020-21.⁵

The unique issues with plastics

- 6.10 Tangaroa Blue Foundation explained that:

² DCCEEW, [Australian Plastics Flows and Fates Study 2021-22—National Report](#) (prepared by Blue Environment Pty Ltd), June 2024, p. 1.

³ DCCEEW, [Australian Plastics Flows and Fates Study 2021-22—National Report](#) (prepared by Blue Environment Pty Ltd), June 2024, p. 1.

⁴ The Plastics Study noted there was insufficient information available to determine the recycled content of imported finished products; DCCEEW, [Australian Plastics Flows and Fates Study 2021-22—National Report](#) (prepared by Blue Environment Pty Ltd), June 2024, p. 59.

⁵ DCCEEW, [Australian Plastics Flows and Fates Study 2021-22—National Report](#) (prepared by Blue Environment Pty Ltd), June 2024, p. 59.

Recycling is still currently a challenge for many items due to the numerous types of plastic included in their design, e.g., a plastic water bottle may use PET [polyethylene terephthalate] for the bottle, PP [polypropylene] for the bottle cap and PE [polyethylene] for the label. By using three types of plastic, the drink bottle is more difficult to recycle because each type of plastic must be separated prior to recycling. Moving forward, we must design and develop plastic items for which there is no alternative material to those that can be recycled more easily... Design is a critical factor in determining which plastics are necessary because some items are unnecessarily over-packaged.⁶

6.11 To assist processing facilities, Tangaroa Blue Foundation suggested that Australia 'mandate the use of single polymer types...as often as possible for plastic products' to make separating easier for facilities, and 'enhancing the overall speed and cost-effectiveness of the recycling process'.⁷

6.12 Similar points were raised in relation to soft plastics, which the Chief Executive Officer (CEO) of SECOS Group Ltd, a company that manufactures sustainable packaging materials, called 'the more sinister, more difficult plastics'.⁸ Ms Gayle Sloan of the Waste Management and Resource Recovery Association of Australia explained that:

One of the reasons that soft plastics is so problematic is that we've got different polymers—as many as seven polymers within the soft plastic—and they all act differently. You can't therefore put it all into chemical; you can only do it with the polyethylene. Unless we mandate and restrict the types of polymers placed on market—which even New Zealand has done—we are making it really hard for ourselves.⁹

6.13 Options for the management of soft plastics are discussed below.

Environmental and human health impacts

6.14 The committee heard strong concerns regarding the environmental and human health impacts of plastics and their associated waste management and recycling processes.

6.15 The World Health Organization (WHO) has stated that the 'plastic crisis is also a health crisis' and that 'scientific research has documented a wide range of risks and potential adverse impacts on human health at every stage of the plastics lifecycle'.¹⁰ The WHO noted that scientific studies have shown some of the

⁶ Tangaroa Blue Foundation, *Submission 29*, p. 4.

⁷ Tangaroa Blue Foundation, *Submission 29*, p. 2.

⁸ Mr Richard Tegoni, Chief Executive Officer (CEO) and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 6.

⁹ Ms Gayle Sloan, CEO, Waste Management and Resource Recovery Association of Australia, *Committee Hansard*, 5 August 2024, p. 45.

¹⁰ World Health Organization, [Ensuring the integration of health aspects within the international legally binding instrument on plastic pollution, including in the marine environment](#), November 2024, p. 1.

chemicals and additives in plastics 'can cause hormonal imbalance, reproductive disorders, infertility and increase the risks of renal disease and cancer' and are linked to risk factors for cardiovascular diseases, amongst other health issues.¹¹

6.16 Minderoo indicated there is extensive scientific evidence showing that harmful chemicals found in plastic packaging can leach into the liquid and food that humans consume and may lead to various diseases. Minderoo submitted that:

...plastic additives disrupt endocrine function and increase risk for infertility, obesity, cardiovascular disease, renal disease, and cancers. Infants in the womb are at particularly high risk, with plastic chemical exposures in parents linked to their babies' increased risk of prematurity, stillbirth, low birth weight, birth defects of reproductive organs, impaired neurodevelopment and lung growth, and childhood cancer; as are young children, with early-life exposures to plastic chemicals increasing the risk of various diseases in later years.¹²

6.17 Plastic chemicals can also leach into the air, water and soil throughout a product's life cycle.¹³ Minderoo suggested that there should be clear and targeted design standards to address chemical safety as well as a traceability system to provide information on plastics and their chemicals of concern.¹⁴

6.18 Similarly, Toxics Free Australia (TFA) submitted that 'packaging waste has been a prime source of PFAS [per- and polyfluoroalkyl substances] contamination entering the composting and recycling sectors'. TFA argued that a major issue is:

...chemical contamination caused by plastic waste recycling especially in the push to use non-recyclable plastics and other residual wastes in roads, building and construction materials and infrastructure, and through plastic reprocessing (pelletisation and thermo-extruded recycled plastic products).¹⁵

6.19 Ms Cip Hamilton of the Australian Marine Conservation Society (AMCS) told the committee that it is estimated up to 145 000 tonnes of plastic leak into Australia's environment every year, amounting to over 250 kilograms of plastic per minute. She observed that 'plastics leak into the environment at all stages through production, use and end disposal' and that:

¹¹ World Health Organization, *Ensuring the integration of health aspects within the international legally binding instrument on plastic pollution, including in the marine environment*, November 2024, pp. 1–2.

¹² Minderoo, *Submission 52*, p. 12. Minderoo has developed an open-access database that maps research on the human health impacts of a wide range of plastic-associated chemicals: Minderoo, *Plastic Health Map*, <https://r.flo.minderoo.org/Systematic-Evidence-Map/> (accessed 13 March 2025).

¹³ Minderoo, *Submission 52*, pp. 11–12.

¹⁴ Minderoo, *Submission 52*, p. 14.

¹⁵ Toxics Free Australia, *Submission 70*, [p. 5].

Plastic pollution is having devastating effects on marine life and, increasingly, ocean ecosystems. Plastics can also have a devastating impact on the health of our corals, the building blocks of our iconic reefs. Preventing plastics from entering our environment benefits our oceans and wildlife, Australia's fishing and tourism industries, human health and prevents unnecessary wastage of resources.¹⁶

6.20 AMCS provided the committee with a report that elaborated on the harm that plastics can cause to marine environments and animals:

Animals that ingest marine plastic can face significant harm, and for a range of animals, such as seabirds and turtles, even ingesting one piece of plastic can be enough to cause severe damage. Research tells us that macroplastics—large plastic items such as plastic bags, balloons and cutlery—cause the most damage to marine animals through ingestion or entanglement, but emerging research is beginning to show how harmful microplastics—plastic particles less than 5mm in diameter—can be to our marine environments, our marine animals and our own health.¹⁷

6.21 DCCEEW recognises a list of chemicals of concern used in some plastics, including diethylhexyl phthalate, dibutyl phthalate, bisphenol A and nonylphenol, due to their high aquatic toxicity and endocrine disruption concerns. The list is 'intended for use by importers, exporters, manufacturers and retailers of plastic products, to inform environmentally sound product choices and contribute to global phase-out efforts'.¹⁸

6.22 In June 2024, environment ministers noted that removing per- and polyfluoroalkyl substances (PFAS) in packaging is an urgent priority for all jurisdictions and will be dealt with through national design standards.¹⁹

National Roadmap: Harmonising action on problematic and unnecessary plastics

6.23 In December 2024, environment ministers agreed to release a summary of a national roadmap which outlines a process to harmonise action on problematic and unnecessary plastics.²⁰ The stated rationale behind the development of the roadmap was that:

...the current approaches taken in each jurisdiction to manage similar plastics items differently adds complexity for some businesses operating

¹⁶ Ms Cip Hamilton, Plastics Campaign Manager, Australian Marine Conservation Society (AMCS), *Committee Hansard*, 5 August 2025, p. 15.

¹⁷ AMCS, *Supermarkets report*, additional information received August 2024, p. 8.

¹⁸ DCCEEW, *Chemicals of concern in plastics*, 3 January 2025, www.dcceew.gov.au/environment/protection/chemicals-management/chemicals-of-concern-plastics (accessed 13 March 2025).

¹⁹ DCCEEW, *Environment Ministers Meeting Communiqué 21 June 2024*, p. 2.

²⁰ DCCEEW, *Environment Ministers Meeting Communiqué 10 December 2024*, p. 1.

nationally, and puts Australia's plastics import, export, and manufacturing markets at a disadvantage. Greater harmonisation will also increase opportunities for reuse and market development for alternative products.²¹

6.24 The roadmap sets out three Work Areas which will guide Australian governments' collective action:

- (a) Harmonising existing actions—to better align existing actions already being taken on plastics
 - The roadmap identifies 24 plastic items/materials (predominantly single-use) that were regulated differently across jurisdictions as of October 2024, and outlines steps to minimise variations.²²
- (b) Taking future action together—to better align future actions on plastics across Australia
 - The roadmap outlines that before any jurisdiction progresses regulatory action on new plastic items/materials, the National Plastics Harmonisation Working Group (the Working Group) should advise on alignment and investigate taking possible coordinated action.
- (c) Set national model definitions—to harmonise definitions used as far as possible, supporting Work Areas One and Two
 - The roadmap outlines that the Working Group will develop model definitions for certain terms for use in government initiatives.²³

Solving Plastic Waste Cooperative Research Centre

6.25 Since 1 July 2024, a ten-year Solving Plastic Waste Cooperative Research Centre (CRC) has been examining Australia's plastic waste problem, to:

...ensure that focused, industry-driven collaboration between the research sector, governments and the entire plastics value chain is effectively enabled over the next decade to transform the way plastic products are designed,

²¹ DCCEEW, *Harmonising action on problematic and unnecessary plastics*, 21 February 2025, www.dcceew.gov.au/environment/protection/waste/plastics-and-packaging/harmonising-action-problematic-unnecessary-plastics (accessed 14 March 2025).

²² These plastic items/materials are: expanded polystyrene (EPS) food trays; single-serve pre-packaged condiment containers (e.g. soy sauce fish); produce stickers; bread tags; cotton buds with plastic sticks/stems; microbeads in rinse off personal care and cleaning products; balloon release; balloon plastic accessory items; EPS consumer food containers (e.g. cups and clamshells); expanded plastic packaging (all loose fill and for moulded products where the item weighs 45 kilograms or less); heavyweight shopping bags; barrier bags (including produce bags); cups with and without lids; bowls with and without lids; food containers; pizza savers; lightweight bags; straws; cutlery; plates; stirrers; confetti; plastic film signage outdoors for promotional or advertising purposes; and degradable plastics.

²³ The priority terms for endorsement by the end of 2025 are: 'plastic'; 'plastic item'; 'single-use (plastic item)'; 'reusable (plastic item)'; 'repurposed (plastic item)'; 'compostable (plastic)'; 'degradable (plastic)'; '(plastic) shopping bag'; and '(plastic) barrier bag'.

manufactured, used, recovered, and recycled, and how microplastic soil pollution is remediated. This will be achieved by developing improved product designs, new materials, technologies, and processes, and by exploring new business models and economic systems.²⁴

- 6.26 Mr Richard Tegoni, CEO of SECOS Group Ltd, told the committee that SECOS was part of the CRC, and working with universities and key not-for-profit organisations while 'contributing money and using our research and development centre in Melbourne' to deliver 'technology over time to effectively develop the next generation of biopolymers'.²⁵

The National Plastics Recycling Scheme for soft plastics

- 6.27 In May 2023, the Australian Food and Grocery Council (AFGC) was provided with \$985 000 by the Australian Government, through the National Product Stewardship Investment Fund, to develop the National Plastics Recycling Scheme (NPRS).²⁶

- 6.28 The NPRS aims to collect and process soft plastics back into commodities, including food grade recycled material. The CEO of the AFGC explained that the scheme design is:

...for brands to fund a scheme that allows for kerbside collection of soft plastic where it's available, other collection methods such as return to store or depots where it's not available, and to be able to have the brand owners' fees vary according to whether or not the brands use recycled content and whether they comply with packaging design standards. That's incentivising them to drive change in their packaging. Those monies are then used to fund the incremental costs of collecting and processing the soft plastics... The scheme also requires brands to use recycled content.²⁷

- 6.29 A trial was conducted in 2022-23, whereby households in six council areas across New South Wales (NSW), South Australia and Victoria used distinctive bags for separating soft plastics in their commingled recycling bins. The trial also included four materials recovery facilities and other downstream processors. The AFGC advised that the trials were successful 'in proving the community

²⁴ Solving Plastic Waste Cooperative Research Centre, *Changing the way we design, use, and reuse plastics to contribute to a circular economy for plastics and a cleaner, safer environment*, www.plasticwastecrc.com/ (accessed 11 February 2025). For marine plastic waste pollution measures, see: DCCEEW, answers to written questions on notice, 15 July 2024 (received 26 July 2024).

²⁵ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 1.

²⁶ DCCEEW, *National Product Stewardship Investment Fund*, 18 May 2023, www.dcceew.gov.au/environment/protection/waste/product-stewardship/national-product-stewardship-investment-fund (accessed 19 February 2025).

²⁷ Mrs Tanya Barden, CEO, Australian Food and Grocery Council (AFGC), *Committee Hansard*, 5 August 2024, p. 30.

will recycle more soft plastics via the convenience of the kerbside bin', with feedback suggesting that:

...investment confidence to construct the missing soft plastic recycling infrastructure would increase significantly with increased government support.²⁸

6.30 The AFGC argued that targeted initiatives like the NPRS 'offer significant circular economy benefits', with the focused approach supporting the 'development of tailored circular economy solutions, including infrastructure improvements, to enhance the sustainability of products throughout their lifecycle'.²⁹

6.31 There was some opposition expressed to the NPRS. Martogg Group commented that the NPRS was an 'avid proponent of chemical recycling of soft plastics as the prime solution' to soft plastic waste. However, Martogg Group suggested that the future of plastics chemical recycling in Australia was 'unclear', and that:

...neither domestic mechanical nor chemical recycling will solve this problem in the absence of meaningful domestic markets for their products.

Export of suitably processed soft plastics will undoubtedly become an increasingly critical part of the flexibles recycling solution.³⁰

Soft Plastics Taskforce

6.32 On 27 February 2025, the Australian Competition and Consumer Commission (ACCC) granted authorisation to Coles Group, Woolworths Group and ALDI Stores to continue collaboration to 'recycle stockpiled soft plastics and continue with the pilot in-store collection program until 31 July 2026'. The ACCC explained that:

The ACCC first authorised this collaboration on 30 June 2023, following the collapse of REDcycle, which operated a soft plastics collection and recycling program. In July 2024, the ACCC granted interim authorisation that allowed the supermarkets to continue to collaborate through the Soft Plastics Taskforce as the previously authorised conduct was due to expire.³¹

²⁸ AFGC, *Submission 59*, p. 11; MRA Consulting Group, *Submission 59*, Attachment 2, p. 9; AFGC, [Soft Plastic: Collection & Sortation Trial Results](#), p. 2.

²⁹ AFGC, *Submission 59*, p. 11.

³⁰ Martogg Group, *Submission 60*, pp. 10–12.

³¹ Australian Competition and Consumer Commission (ACCC), *ACCC proposes to authorise major supermarkets to continue cooperation on soft plastics recycling*, 19 December 2024, www.accc.gov.au/media-release/accc-proposes-to-authorise-major-supermarkets-to-continue-cooperation-on-soft-plastics-recycling (accessed 19 March 2025); ACCC, *Coles Group on behalf of itself and participating supermarkets*, www.accc.gov.au/public-registers/authorisations-and-notifications-registers/authorisations-register/coles-group-on-behalf-of-itself-and-participating-supermarkets-3 (accessed 19 March 2025).

- 6.33 In its notification of the proposed authorisation, the ACCC stated that it was 'very concerning that the vast majority of stockpiles left over from REDcycle have not been processed almost two years later' (REDcycle collapsed in 2023). The ACCC further acknowledged that the rate of progress is 'still significantly limited by the available processing capacity of soft plastic processors'.³²
- 6.34 As of October 2024, there were 43 stores running pilot soft plastics collection schemes, across NSW and Victoria. The pilot programs had collected 36 tonnes of soft plastics.³³

Single-use plastics

- 6.35 The committee heard that Australia is the world's second-largest producer of single-use plastic waste per person.³⁴ A wide range of stakeholders underlined the importance of moving away from single-use plastics to a system and culture of reuse and refill.³⁵
- 6.36 Ms Hamilton of the AMCS commented that 'individuals...should be able to freely engage in a system that allows them to shop without plastic and to avoid needless disposable items in their day-to-day lives'.³⁶ Arguing in favour of prioritising reuse and refill, Ms Hamilton stated:
- In comparison to a throwaway culture, reuse can provide immense benefits. A reuse and refill system is simple yet impactful. It involves creating products and packaging that can be safely reused multiple times. This approach decreases waste and maximise the value of resources and energy that would otherwise go into producing new materials. Importantly, reuse reduces the need for single-use plastics and reduces plastic pollution.³⁷
- 6.37 Product stewardship of plastics and packaging is currently governed by co-regulatory arrangements between industry and government under the National Environment Protection (Used Packaging Materials) Measure 2011. In June 2023, environment ministers agreed to introduce a new packaging

³² ACCC, *ACCC proposes to authorise major supermarkets to continue cooperation on soft plastics recycling*, 19 December 2024 (accessed 19 March 2025).

³³ ACCC, *ACCC proposes to authorise major supermarkets to continue cooperation on soft plastics recycling*, 19 December 2024 (accessed 19 March 2025).

³⁴ Ms Cip Hamilton, Plastics Campaign Manager, AMCS, *Committee Hansard*, 5 August 2024, p. 20.

³⁵ See, for example, Friends of the Earth Australia, *Submission 36*, p. 2; Ms Cip Hamilton, Plastics Campaign Manager, AMCS, *Committee Hansard*, 5 August 2024, p. 15; Ms Kate Noble, Senior Manager—Oceans Policy, WWF Australia, *Committee Hansard*, 5 August 2024, p. 21; Mr Jeffrey Angel, Director, Total Environment Centre and Boomerang Alliance, *Committee Hansard*, 20 September 2024, pp. 18–19; and Mr Markus Fraval, Senior Vice President, Strategy and Business Development, Asia Pacific, TOMRA Collection, *Committee Hansard*, 20 September 2024, p. 58.

³⁶ Ms Cip Hamilton, Plastics Campaign Manager, AMCS, *Committee Hansard*, 5 August 2024, p. 16.

³⁷ Ms Cip Hamilton, Plastics Campaign Manager, AMCS, *Committee Hansard*, 5 August 2024, p. 15.

regulatory framework including problematic and unnecessary single use plastics. The framework will 'develop mandatory packaging design obligations, so packaging is designed to minimise waste and be recovered, reused, recycled and reprocessed'.³⁸ Consultation on potential reform options closed in October 2024.³⁹ DCCEEW is currently considering the feedback received through the consultation process.⁴⁰

Approaches to certain types of plastics

6.38 There was a range of discussion around plastic bans and other measures to reduce the amount of plastic waste being produced. It was noted that there are varying types of plastic and that solutions would depend on the type of plastics in the waste stream.⁴¹

State-based plastic bans

6.39 All states and territories have implemented lightweight plastic shopping bag bans (under 35 microns thick).⁴² Some jurisdictions like the Australian Capital Territory and South Australia have also banned heavyweight plastic shopping bags (over 35 microns thick).⁴³ Bans on certain other single-use plastics are in place in a range of states and territories, though there is significant variation in the items/materials that are banned across different jurisdictions.⁴⁴

6.40 While acknowledging the 'significant action by states and territories', Minderoo argued that 'efforts to phase out unnecessary single-use packaging and products

³⁸ DCCEEW, [Environment Ministers' Meeting 9 June 2023 Agreed Communiqué](#), p. 1.

³⁹ DCCEEW, *Reforming packaging regulation*, 21 February 2025, www.dcceew.gov.au/environment/protection/waste/packaging/reforming-packaging-regulation (accessed 4 March 2025).

⁴⁰ For more details on the co-regulatory framework for packaging (including plastic packaging) and the latest reform developments, see Chapter 5.

⁴¹ See, for example: Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 6.

⁴² DCCEEW, [National Waste Policy Action Plan 2024](#), p. 11. See also, DCCEEW, [National Waste Policy Action Plan Progress Summary Report 2023](#), p. 24.

⁴³ City Services, ACT Government, *Single-use plastics*, www.cityservices.act.gov.au/recycling-and-waste/single-use-plastics (accessed 14 March 2025); Green Industries South Australia, *Guide to the ban on plastic shopping bags and food bag tags*, www.replacethewaste.sa.gov.au/guideline-bags-and-tags (accessed 14 March 2025); South Australian Environment Protection Authority and Green Industries South Australia, *Submission 66*, p. 1.

⁴⁴ DCCEEW, [National Waste Policy Action Plan Progress Summary Report 2023](#), p. 24; AMCS, *Which Australian states are banning single-use plastics?*, 1 September 2024, www.marineconservation.org.au/which-australian-states-are-banning-single-use-plastics/ (accessed 14 March 2025).

have lacked effective coordination. Some state and territory governments have had low ambition'.⁴⁵

- 6.41 Ms Leonard of Friends of the Earth Australia suggested that since Australians have accepted a ban on single-use plastic bags, they would be expecting more plastic bans to come. She called for the scope of the bans to be expanded to include 'plastic water bottles...as well as all of the plastic that's currently captured by 10c container deposit legislation, and just keep the 10c container deposit legislation for glass items only'.⁴⁶

Bioplastics

- 6.42 Bioplastics are different from conventional plastics in that they are biodegradable (where materials are converted to natural substances) or biobased (either in full or in part derived from renewable resources like plants).⁴⁷
- 6.43 There were disparate views put to the committee about the role of bioplastics in addressing waste and moving to a circular economy.
- 6.44 SECOS Group Ltd argued that bioplastics technology was the 'only current solution that can safely replace conventional plastic in the world. There's nothing else in the world that can do it'. Mr Richard Tegoni, CEO of SECOS Group Ltd, hoped that bioplastics would be 'given a priority in the agenda to solve the waste problem for plastic', suggesting that over the complete lifecycle, bioplastic was cheaper than conventional plastic.⁴⁸
- 6.45 Mr Tegoni further explained the difference between conventional plastic and bioplastics:

Standard plastic that has been produced now for decades comes from a petroleum based hydrocarbon method. Usually petrochemical companies produce the resins that produce that. They're made, and they've been made for decades. Compostable plastics use compostable materials, and there are different types of resin grades. Our resin grade uses cornstarch in particular, and cornstarch is a 100 per cent renewable material. There are other materials, other compostable materials and compatibilisers that are used to make sure they're safe. They're tested independently, globally and within

⁴⁵ Minderoo, *Submission 52*, p. 5.

⁴⁶ Ms Freja Leonard, No More Gas Campaign Coordinator, Friends of the Earth Australia, *Committee Hansard*, 5 August 2025, p. 21.

⁴⁷ Australasian Bioplastics Association, *Bioplastics Explained*, <https://bioplastics.org.au/bioplastics/bioplastics-explained/> (accessed 11 February 2025).

⁴⁸ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, pp. 2 and 4.

Australia to make sure there are no toxins and that there are no residual materials that are left in the environment.⁴⁹

6.46 Mr Tegoni pointed out there was currently no regulation on what products could be claimed to be 'biodegradable', and that certified, 'genuinely compostable plastic' in the market was one to two per cent.⁵⁰

6.47 As part of the Solving Plastic Waste CRC, Minderoo is working with several organisations to develop 'a process for the Australian production of polyhydroxyalkanoate (PHA), a biodegradable plastic from the bioprocessing of sugarcane feedstock (sugar and bagasse)'.⁵¹

6.48 A representative from WWF Australia observed that while there was 'a lot of excitement around bioplastics', in reality, they make up a 'very tiny fraction of the plastics market globally and in Australia', without a viable treatment and management pathway in Australia. WWF Australia argued that:

A widespread shift from reduction of certain types of single-use plastics or other packaging materials and a wholesale shift to bioplastics is just not a good outcome...for anyone apart from the bioplastics producers.⁵²

Waste-to-energy

6.49 The role of converting waste materials into energy was discussed during the inquiry, as a way of dealing with certain types of waste. The committee heard mixed views on the economic and environmental impacts of waste-to-energy.

6.50 For example, Mr Ralph, CEO of the Australian Resources Recovery Council (formerly the National Waste and Recycling Industry Council) suggested that 'every sensible, mature economy uses an energy-calorific value for the materials that we physically can't do anything with'.⁵³

6.51 Dr Kirkman, CEO of Veolia Australia and New Zealand, called for Australia to 'double down on recovering energy from non-recyclable, non-compostable waste'. He said Australia was 'one of the only developed countries that puts all its non-recyclable waste into landfill', and he argued there was a 'huge opportunity for anaerobic digestion—so producing renewable biogas, as well as

⁴⁹ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 3.

⁵⁰ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 3.

⁵¹ Minderoo, Submission 52, pp. 5–6.

⁵² Ms Kate Noble, Senior Manager—Oceans Policy, WWF Australia, *Committee Hansard*, 5 August 2024, pp. 18–19.

⁵³ Mr Rick Ralph, CEO, Australian Resources Recovery Council, *Committee Hansard*, 8 May 2024, p. 11.

energy from waste'.⁵⁴ In discussing waste-to-energy, Dr Kirkman further advised that:

...there are two principal technologies that are globally recognised as being safe and working: there's anaerobic digestion, which just treats food waste and organics, and then there's mixed residual waste, which is not recyclable, which goes to what we call 'energy from waste'. Some people call that incineration; it does have an incineration aspect to it, but we call it energy from waste because it's not just an open bonfire; it's very controlled.⁵⁵

6.52 Despite these assurances, there were other witnesses who questioned the impact and efficacy of waste-to-energy processes.⁵⁶ Ms Leonard of Friends of the Earth Australia argued that drifts of chemical, including persistent organic pollutant chemicals, could result from waste incineration. Ms Leonard gave the example of the 'bioaccumulation of PFOS [perfluorooctane sulfonate]' near waste-to-energy incineration sites in the Netherlands which leached into chicken eggs from local farms, as well as 'toxic fly ash with the polyphenol bromides leaking into the rivers and leaking into the soil'.⁵⁷ Ms Leonard stated that:

For [Australia] to adopt a waste-to-energy project or any kind of industry in that regard is really just kicking the can down the road and creating a concentrated toxic problem for us down the track. That is not a solution... It could be argued that if we start incinerating plastic waste, once we've burnt it for energy, once we've burnt it all, we're going to start looking for more plastic waste to incinerate.⁵⁸

6.53 Doctors for the Environment Australia were similarly concerned about potential air quality issues and the greenhouse gas emissions which might be generated by any waste-to-energy combustion processes. The group argued that this solution 'sits toward the bottom of the waste hierarchy and should be considered much less important than reducing, re-using and recycling waste products'.⁵⁹

6.54 The Centre for Safe Air emphasised that any new recycling or waste management policies and practices should 'not inadvertently increase the health

⁵⁴ Dr Richard Kirkman, CEO, Veolia Australia and New Zealand (ANZ), *Committee Hansard*, 8 May 2024, p. 51.

⁵⁵ Dr Richard Kirkman, CEO, Veolia ANZ, *Committee Hansard*, 8 May 2024, p. 54.

⁵⁶ See, for example, Boomerang Alliance, *Submission 11*, p. 2; Mr Charles Street, President, No Waste Incinerators in Lara and Greater Geelong Incorporated, *Committee Hansard*, 5 August 2024, p. 25.

⁵⁷ Ms Freja Leonard, No More Gas Campaign Coordinator, Friends of the Earth Australia, *Committee Hansard*, 5 August 2024, p. 22.

⁵⁸ Ms Freja Leonard, No More Gas Campaign Coordinator, Friends of the Earth Australia, *Committee Hansard*, 5 August 2024, p. 22.

⁵⁹ Doctors for the Environment Australia, *Submission 20*, p. 6. See also: Centre for Safe Air, *Submission 5*; Catholic Religious Australia, *Submission 18*, p. 4; Residents Against the Richmond Valley Incinerator Inc, *Submission 64*, p. 5; Blue Mountains Unions & Community, *Submission 71*, p. 6.

burden associated with waste', in particular through poor air quality and emissions from waste-to-energy facilities. The centre argued that:

...there is a need for comprehensive human health risk assessments to form part of the EIS process when considering new [waste-to-energy] facilities, taking into account the individual specifications of each facility...⁶⁰

6.55 Ms Perrett, President of the Bellarine Catchment Network, argued that waste incineration 'has no part in the circular economy'. Ms Perrett suggested it was 'greenwashing' to call it waste-to-energy, calling it a 'glossy term' which to the community sounded better than landfill. Ms Perrett also noted that there were no operating residual waste incinerators in Australia, with two being built in Western Australia which were '10 years beyond schedule and still not operational'.⁶¹

6.56 Likewise, Martogg Group warned against burning soft plastics to generate energy:

Do not incinerate soft plastics to generate energy since almost all "soft plastics" polyolefin resins are made from oil and gas feedstocks. This is tantamount to burning highly refined fossil fuels which only contributes to GHG [greenhouse gas] production, and it is certainly not recycling.⁶²

Contaminants

6.57 Contamination of the waste stream is a key issue preventing effective resource recovery and recycling. This can be driven by both contamination in the waste stream, as well as the adequacy of the industry, facilities and regulation supporting resource recovery.

6.58 Regarding contaminants and cross-jurisdictional issues, it was put to the committee that there is often an 'inconsistency between the regulatory tolerance for the contaminant within different sectors and at different points within the material supply chain [sic]'. Because of this:

...the waste management and recycling industry (the end recipient) is left largely responsible for managing the presence of these contaminants, with stringent (largely unachievable) requirements. It is these stringent requirements which are placing at risk, continued investment in key infrastructure which is pivotal to the federal government meeting its circular economy targets.⁶³

⁶⁰ Centre for Safe Air, *Submission 5*, pp. 2–3.

⁶¹ Ms Vicki Perrett, President, Bellarine Catchment Network, *Committee Hansard*, 5 August 2024, pp. 24 and 26. See also: Mr Charles Street, President, No Waste Incinerators in Lara and Greater Geelong Incorporated, *Committee Hansard*, 5 August 2024, p. 25.

⁶² Martogg Group of Companies, *Submission 60*, [p. 11]. See also, Mr David Finlayson, Group Commercial Manager, Martogg Group, *Committee Hansard*, 5 August 2024, p. 13.

⁶³ Name Withheld, *Submission 57*, p. 2.

6.59 To address emerging contaminants in the waste and resource chain, it was suggested that efforts be concentrated at the start of the supply chain to minimise the presence of contaminants, alongside encouragement for state governments to:

...support the waste and recycling sector in working cooperatively with compliant operators to manage legacy contaminants to ensure that investment in key infrastructure such as organics processing facilities is not put at risk.⁶⁴

6.60 Ms Price of the Waste, Recycling Industry Association of Queensland explained the tension in balancing risk and dealing with emerging contaminants:

With recycled products, often there is the perception of a lot of risk. With environmental regulation, I'm not saying that a lot of that regulation is not a good idea, but sometimes environmental regulators don't see the bigger picture, or their standards simply evolve to presence or absence... As regulators, we need to look at how we manage these emerging contaminants and what risks we're willing to take in order to get better outcomes for recycling.⁶⁵

6.61 Mr Tegoni of SECOS Group Ltd gave evidence that PFAS contamination was an issue with some biodegradable materials but not certified compostable materials. He explained that:

There's no regulation as to who wishes to claim their product is...'biodegradable'. There are companies that have produced biodegradable materials that people think are compostable. They think they're certified but they've used PFAS. There is no PFAS in certified compostable materials.⁶⁶

6.62 There is an inquiry underway by the Senate Select Committee on PFAS regarding the extent, regulation and management of PFAS. Amongst other things, the inquiry is exploring the health, environmental, social, cultural and economic impacts of PFAS and the effectiveness of current and proposed federal and state and territory regulatory frameworks in addressing the risks of PFAS. The select committee presented an interim report in March 2025 which focused on the impacts of living in a community affected by PFAS, with Wreck Bay as a case study. The select committee is due to present its final report to Parliament by 5 August 2025.⁶⁷

⁶⁴ Name Withheld, *Submission 57*, p. 3.

⁶⁵ Ms Alison Price, CEO, Waste, Recycling Industry Association Queensland, *Committee Hansard*, 8 May 2024, p. 19.

⁶⁶ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 3.

⁶⁷ Parliament of Australia, *Select Committee on PFAS (per and polyfluoroalkyl substances)*, www.aph.gov.au/Parliamentary_Business/Committees/Senate/PFAS_per_and_polyfluoroalkyl_substances (accessed 17 March 2025).

Food and organics

6.63 The 2024 National Waste and Resource Recovery Report, prepared on behalf of DCCEEW, noted the increasing rates of garden organics (GO) and food organics and garden organics (FOGO) kerbside collection:

About 53% of Australians had access to a kerbside organics collection service in 2022-23. The proportion with access to FOGO, at 28%, now exceeds the proportion with GO only (24%). Organics services were pioneered in the south eastern portion of the mainland, but are now spreading across the country with high levels in Tas [Tasmania] and WA [Western Australia]. Collected material is generally composted, reducing waste to landfill, and enhancing soil in urban or agricultural markets.⁶⁸

6.64 Further, data presented from 2022-23 indicates the tonnes of organics collected by local governments in kerbside bin services has 'exceeded that of dry recyclables since 2020-21' (dry recyclables includes, for example, mixed packaging and paper). A total of 1.80 Mt of dry recyclables were collected in 2022-23, compared with 2.07 Mt of organics.⁶⁹

6.65 FOGO collection services will increase in coming years. In early 2025, the NSW Government became the first jurisdiction to mandate FOGO collection services for households, by July 2030, and for businesses and institutions (in stages) from July 2026. The NSW Government will provide FOGO bins at premises like supermarkets, pubs, cafes, universities, schools, hotels and hospitals. The NSW Government explained:

With FOGO taking up to a third of household red bin capacity, this legislation will help take some pressure off landfill. It also takes us one step closer to a circular economy in NSW, where resources are recycled, reused and repurposed.

The new laws are backed by a \$81 million FOGO Fund to go largely to Councils for infrastructure including bins, kitchen caddies and liners, contamination audits, community education programs and staffing, including a \$9 million boost in funding.⁷⁰

6.66 It is apparent that Australia will need to implement improved composting facilities to ensure that GO and FOGO collection can form part of the transition to the circular economy.

⁶⁸ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 59.

⁶⁹ DCCEEW, [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. 58.

⁷⁰ NSW Department of Climate Change, Energy, Environment and Water, Minister for Energy and Climate Change, 'NSW Government taking action on waste crises', *Ministerial releases*, 25 February 2025, www.nsw.gov.au/ministerial-releases/nsw-government-taking-action-on-waste-crisis (accessed 26 February 2025).

6.67 For example, Mr Biddulph of Cleanaway explained that a real difference would be made to landfill volumes with the uptake of food and organics processing. However, he noted there were costs involved and that councils were 'very slow' to take this approach:

Implementing that fourth bin, processes and extra trucks is a massive cost for councils, so they're very slow on the uptake, but that would definitely make a difference to landfill capacity, and the contents of the landfill would start to be more inert than a putrescible landfill.⁷¹

6.68 SECOS Group submitted that there were 'significant benefits' to the development of 'compostable substitutes to conventional plastics', including reduced landfill costs to councils with compostable bags and kitchen caddies deployed in FOGO programs, and enabling more packaged food waste to be diverted to organic composters.⁷²

6.69 Mr Tegoni, CEO of SECOS Group, suggested that two of the issues facing Australia—diverting food waste and replacing conventional plastic—were being tackled as two separate issues which could instead be considered together. Mr Tegoni argued that:

People who are trying to recycle plastic say, 'Well, compostable plastic is not part of that problem. We don't want compostable plastics. You can't recycle it. It's not meant to be recycled', so they will object to compostable plastics. People in organic waste streams haven't put their mind to the fact that what they're doing by using compostable plastic is also replacing conventional plastic at the same time. The two problems are intrinsically linked, but they're managed very separately in silos.

In regards to the organic recycling stream, 80 per cent of councils and composters use, and are happy to use and accept, compostable bin liners.⁷³

6.70 Mr Tegoni called for the banning of the problem—plastics—and not the solution, which he saw as compostable products, including bioplastics.⁷⁴

⁷¹ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, p. 49.

⁷² SECOS Group, *Submission 28*, p. 2.

⁷³ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 3.

⁷⁴ Mr Richard Tegoni, CEO and Executive Director, SECOS Group Ltd, *Committee Hansard*, 5 August 2024, p. 5.

Chapter 7

Waste export regulations and the Recycling Modernisation Fund

- 7.1 As discussed earlier in this report, the first of the seven National Waste Policy Action Plan targets provides for the regulation of waste exports.
- 7.2 This chapter provides explanatory material on waste export regulations and unpacks key issues and suggestions from submitters around how the export regulations are operating in practice. It then considers the impacts of the waste export regulations and their effectiveness in delivering a circular economy. Finally, it discusses the Recycling Modernisation Fund which was established to support the waste export regulations by expanding Australia's capacity to sort, process and remanufacture certain materials.
- 7.3 The next chapter presents the committee's views and recommendations, informed by the evidence received throughout the inquiry.

Exporting waste

- 7.4 In 2022-23, around 5 per cent (3.62 million tonnes (Mt)) of the waste that Australia generated was exported internationally.¹ In July 2020, prior to waste export regulations coming into effect, Australia was exporting over 4.2 Mt of waste annually. Materials that became the subject of the regulations—waste plastic, paper, glass, and tyres—made up over 30 per cent (over 1 Mt) of this waste.²
- 7.5 Beginning in 2017, several countries to which Australia exported its recyclable material introduced or tightened restrictions on certain imports, including China, Indonesia, India, Malaysia, and the Philippines.³
- 7.6 At the time, there were concerns that continued export of Australia's waste could lead to inadvertent environmental and human health impacts. This is because countries receiving Australia's waste may have lower regulatory standards or overwhelmed recycling infrastructure, which could lead to

¹ Department of Climate Change, Energy, the Environment and Water (DCCEEW), [National Waste and Resource Recovery Report 2024](#) (prepared by Blue Environment Pty Ltd), January 2025, p. xiv.

² DCCEEW, *Submission 7*, p. 3.

³ DCCEEW, [Consultation Regulation Impact Statement: Phasing out certain waste exports](#), December 2019, p. 4.

undesirable impacts, such as burning of waste or leakage of waste into the environment.⁴

7.7 Trends also suggested that exports of certain recyclable materials would no longer be cost-effective or permissible in future.⁵

7.8 However, it was also pointed out to the committee that—especially during peak periods, such as the Christmas/summer period—exports were necessary to alleviate the burden on Australian facilities:

Most facilities have a fixed tonnage rate in which they can process the material once we are presented it for recycling. A lot of the time we need the relief valve; we need the ability to export those materials, because we can't stockpile them. The sites simply don't have the capacity. We need to move the material out as quickly as it comes in.⁶

Waste export regulations

7.9 Beginning in 2020, Australia has regulated the export of various waste streams. These export regulations were agreed to by the former Council of Australian Governments (COAG) in August 2019.⁷

7.10 COAG agreed that Australia should establish a 'timetable to ban the export' of plastic, paper, glass, and tyres, 'while building Australia's capacity to generate high-value recycled commodities and associated demands'.⁸ The Department of Climate Change, Energy, the Environment and Water (DCCEEW) explained that to reach this position:

...there was a range of work that had been done in consultation between the Commonwealth and state and territory governments at the time, looking at opportunities to effectively respond to that situation with China Sword, and that this policy position was put to COAG and was agreed to by COAG.⁹

7.11 However, in a response to a question on notice, DCCEEW later advised that it had been unable to locate any written record 'of a proposal to introduce a waste export ban prior to the 9 August 2019 meeting' of COAG. The department's

⁴ DCCEEW, [Consultation Regulation Impact Statement: Phasing out certain waste exports](#), December 2019, p. 14.

⁵ DCCEEW, [Consultation Regulation Impact Statement: Phasing out certain waste exports](#), December 2019, p. 4.

⁶ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 23.

⁷ Throughout this inquiry and report, these measures were collectively referred to as the 'export bans'. Council of Australian Governments (COAG), [COAG Meeting and Priorities](#), pp. 5 and 6. See also: DCCEEW, answer to question on notice, 8 May 2024 (received 31 May 2024), p. 2.

⁸ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 57.

⁹ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 57.

understanding was 'that the proposal for a waste export ban was raised under other business and subsequently agreed at that meeting'.¹⁰ The origin of the policy proposal for a waste export ban is still unclear to the committee. It was not recommended by any of the inquiries or reviews outlined in Chapter 2.

7.12 Following the passage of the *Recycling and Waste Reduction Act 2020* (RAWR Act), a staged approach of waste export regulations commenced for certain materials. This began with a ban on the export of waste glass from January 2021, followed by:

- mixed plastics from 1 July 2021;
- whole used tyres from 1 December 2021;
- single resin or polymer plastics from 1 July 2022; and
- mixed and unsorted paper and cardboard from 1 July 2024 (with licences required for the export of mixed paper and cardboard from 1 October 2024).¹¹

7.13 DCCEEW's website states that: 'by ensuring we only export properly processed waste glass, plastic, tyres and paper, we are preventing these materials from being dumped overseas, reducing harm to the environment and human health'.¹²

7.14 Under the export regulations framework, exporters may only export waste if it meets the relevant requirements. That is, waste glass, plastic, tyres, and paper, may only be exported if it has been processed into a value-added material, which can be reused or remanufactured overseas.¹³

7.15 Exporters also need to:

- hold a waste export licence for the specific waste type; and
- declare each consignment to DCCEEW as well as the Australian Border Force.¹⁴

7.16 DCCEEW told the committee that the requirements for the most recent export ban, on paper and cardboard, were communicated to the industry in November

¹⁰ DCCEEW, answers to questions taken on notice, IQ24-000095, 8 May 2024 (received 31 May 2024).

¹¹ DCCEEW, *Waste exports*, www.dcceew.gov.au/environment/protection/waste/exports (accessed 22 April 2024); The Hon Susan Ley, Former Minister for the Environment, *House of Representatives Hansard*, 27 August 2020, p. 5751; DCCEEW, *Exports of waste paper and cardboard*, www.dcceew.gov.au/environment/protection/waste/exports/paper-cardboard (accessed 17 September 2024).

¹² DCCEEW, *Waste exports* (accessed 21 January 2025).

¹³ Department of Agriculture, Water and the Environment, *Cost Recovery Implementation Statement Waste Export Ban*, p. 3.

¹⁴ DCCEEW, *Waste exports* (accessed 21 January 2025).

2023, with the draft rule released for consultation in early May 2024.¹⁵ The rules concerning paper and cardboard have been in force since 1 July 2024, regulating the export of waste paper and cardboard from 1 October 2024.¹⁶

- 7.17 Several submitters suggested delaying the implementation of the paper and cardboard export ban for various reasons. For example, the Australian Resources Recovery Council (ARRC; formerly the National Waste and Recycling Industry Council) argued that 'it is unreasonable to expect compliance with the new Rules within such a short time frame...including altering forward purchase contracts with trading partners, within the mandated time frame'.¹⁷

The inclusion of paper and cardboard

- 7.18 DCCEEW confirmed that paper and cardboard were always intended to be included in the waste export regulations, despite some commentary suggesting the opposite. DCCEEW advised that the 'Decision Regulation Impact Statement: Phasing out exports of waste plastic, paper, glass and tyres' (Decision RIS), prepared for COAG in March 2020, contained the following:

The Decision RIS identified potential negative environmental impact from mixed and unsorted paper and cardboard exports including that it can contain contaminants such as plastic, which can be released into the environment if not carefully managed, and biohazards due to its absorbent nature.

The Decision RIS did establish that paper and cardboard sorted into one type and with low contamination levels represented a low risk to the environment and human health. The export of these materials is unregulated.¹⁸

- 7.19 DCCEEW advised that 'clean' waste paper is waste paper and cardboard that is sorted into a single type, containing low levels of prohibited (non-fibre) material.¹⁹
- 7.20 Since the Decision RIS of 2020, the government determined—based on advice from the department—to not regulate the export of 'clean streams of paper alone

¹⁵ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 57.

¹⁶ The legislation is available at: www.legislation.gov.au/F2024L00491/asmade/text (accessed 17 February 2025).

¹⁷ Australian Resources Recovery Council (ARRC), *Submission 13*, p. 8. At the time of submitting and presenting to the committee, the ARRC was known as the National Waste Recycling Industry Council (NWRIC). This report refers to the entity as the ARRC.

¹⁸ DCCEEW, answers to questions taken on notice, IQ24-000096, 8 May 2024 (received 22 May 2024). See also: Department of Agriculture, Water and the Environment, [Decision Regulation Impact Statement: Phasing out exports of waste plastic, paper, glass and tyres; Prepared for COAG consideration](#), March 2020.

¹⁹ DCCEEW, answers to questions taken on notice, IQ24-000099, 8 May 2024 (received 22 May 2024).

or cardboard alone'. DCCEEW advised the committee that there was 'very little evidence at the time of there being significant environmental harm caused by the export of those clean, separated streams. So those are not proposed to be regulated'.²⁰ The regulations as finalised reflect this position.

7.21 Over the six financial years from 2017-18 to 2022-23, clean waste paper and cardboard exports represented a yearly average of 63 per cent of total waste paper and cardboard exports²¹—meaning nearly a third of paper and cardboard exports were considered mixed stream and subject to the waste export regulations.

Application processing times

7.22 The committee was advised that the average time for licence decisions under the export regulations framework was six weeks, but that 'often they take longer, and in fact we often spend 10 or 11 weeks working with applicants to ensure that the appropriate information is available'.²² DCCEEW advised it had a dedicated assessments team²³ which looked to engage early with licence applicants to help shorten the application period.²⁴ DCCEEW later provided a breakdown of the average time, in weeks, for each application type:

Table 7.1 Average time (in weeks) for export licence applications

Stage	New applications	Variation applications	Exemption applications
Working with applicants on information requirements	12	6	10
Assessing and deciding	8	6	11
Total time	20	12	21

Source: DCCEEW, answers to questions on notice, IQ24-000098, 8 May 2024 (received 22 May 2024).

²⁰ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, pp. 58 and 65.

²¹ DCCEEW, answers to questions taken on notice, IQ24-000099, 8 May 2024 (received 22 May 2024).

²² Mr Andrew McNee, Division Head, Environmental Permitting and Compliance Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 60.

²³ As of 8 May 2024, there were 17 staff in the Waste Export Assessment team: DCCEEW, answers to questions taken on notice, IQ24-000100, 8 May 2024 (received 22 May 2024).

²⁴ Mr Andrew McNee, Division Head, Environmental Permitting and Compliance Division, DCCEEW, *Committee Hansard*, 8 May 2024, pp. 60–61.

- 7.23 There is no statutory timeframe in which DCCEEW must commence assessment of an application, nor is there a statutory timeframe to notify an applicant of a decision. Further, DCCEEW does not keep statistics about why applications may have been refused.²⁵
- 7.24 Since commencement of the scheme, to the period 31 March 2024, 16 applications for waste export licences and exemptions had been refused by the minister or delegates (for lack of adherence to the RAWR Act or its rules, or lack of sufficient information), with 110 applications withdrawn by applicants.²⁶

Export licensing fees

- 7.25 In 2022, DCCEEW proposed ways to achieve cost recovery for the administration of the waste exports scheme.²⁷ Cost recovery for the administration of the waste exports scheme was expected to commence from 1 July 2023, but was deferred until 1 July 2024.²⁸ Until then, these costs were funded by the federal government.²⁹
- 7.26 DCCEEW officials explained that as announced in the 2023-24 Budget, from 1 July 2024 the cost-recovery arrangements would apply to all waste export licensing schemes, and to all applications, variations and exemptions.³⁰
- 7.27 Ms Lynch of DCCEEW advised that since the first export ban was implemented, the 'intention was for there to be cost recovery for this scheme' and the short deferral from 2023 to 2024 was 'in recognition of a range of factors, including that it was quite an ambitious time frame for introducing' the bans. The announcements around levies and cost recovery in 2024 were to 'provide some certainty to industry, after the delays or the deferral of that policy over the last few years'.³¹

²⁵ DCCEEW, answers to written questions on notice, IQ24-000147, 21 August 2024 (received 5 September 2024).

²⁶ DCCEEW, answers to questions taken on notice, IQ24-000101, 8 May 2024 (received 22 May 2024).

²⁷ Cost recovery involves government entities charging individuals or organisations some, or all, of the efficient costs of a government activity. DCCEEW, [Regulation of Waste Exports: Cost Recovery](#), November 2022, p. 2.

²⁸ DCCEEW, *Fees and charges to export regulated waste*, 21 November 2024, www.dcceew.gov.au/environment/protection/waste/exports/apply/fees-charges (accessed 24 February 2025).

²⁹ DCCEEW, [Cost Recovery Implementation Statement - Regulation of Waste Exports 2024-25](#), p. 9.

³⁰ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 58.

³¹ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 58.

7.28 The chosen cost recovery model comprised of a flat fee across all waste streams, with different rates for the type of application: licence, exemption, variation or renewal.³² The fees are outlined in Table 7.2, and were in place between 1 July 2024 and 20 November 2024 (being the date the fee instrument was disallowed).

Table 7.2 Fee Schedule— from 1 July 2024 to 20 November 2024

Application Type	Proposed Flat Fee
Licence	\$19 090
Exemption	\$13 960
Variation	\$13 540
Licence Renewal	\$13 540

Source: DCCEEW, [Regulation of Waste Exports: Cost Recovery](#), November 2022, p. 7.

7.29 DCCEEW determined these figures by using 'actual costs incurred between 1 January 2021 to 31 January 2022 from administering the program across glass, plastic and tyre waste streams'. DCCEEW continued that:

The average number of hours spent assessing a licence variation and providing a recommendation to the delegate was 38 hours, based on 16 variations undertaken over this 12-month period. The time spent by the decision maker to consider whether to approve the application was not included in this figure.

This modelling focused on the number of hours dedicated to the assessment and did not capture the overall timeframe from the receipt of an application to when the licence variation was issued.³³

Export licence variations

7.30 DCCEEW explained how the licensing fees would apply in practice, saying that a change in circumstance did not necessarily constitute a variation:

Certain administrative changes like changing a business name—export agents, freight forwarders—is actually submitting a notification of change to the department. The fee is applied when it is a variation where we have to undertake an assessment, so it is a cost recovery that comes into play when we undertake those assessments. ...where it is a variation, where it is a change to the licence that is significant, we then go through and work with applicant on that process.³⁴

7.31 The committee pressed the department to explain what would constitute a 'significant' variation and was told that it 'really depends on the licence and

³² DCCEEW, [Cost Recovery Implementation Statement - Regulation of Waste Exports 2024-25](#), p. 11.

³³ DCCEEW, answers to questions taken on notice, IQ24-000097, 8 May 2024 (received 23 May 2024).

³⁴ Ms Kate Elliott, Branch Head, Wildlife, Waste and Environmental Permits, Environmental Permitting and Compliance Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 59.

what is already specified on the licence' and that DCCEEW couldn't be 'completely clear' as the 'circumstances in each particular application can often be different'. Ms Kate Elliott of DCCEEW went on to explain that:

If there is something specified in the licence that needs to be changed and we have to reassess the circumstances in which that licence was issued then that would be subject to an assessment fee if it is dependent on a particular instrument and dependent on that particular licence. But we will be talking to applicants upfront on what those requirements are and navigate them through that process.

...If it is in the licence and it actually has a change that has an impact on the rules, then we have to redo the assessment. If it is a contact name which is also specified in the licence instrument then that is just a notice of change.³⁵

7.32 Mr McNee of DCCEEW confirmed that 'drawing a distinction between an administrative change and a substantive change that requires detailed assessment and therefore investment of assessment officers' time' is work that would be informed by the 'specific circumstances of a particular application'.³⁶

Consideration of an export levy

7.33 The costs of administering the RAWR Act that could not be directly linked to export licence applicants were proposed to be recovered through a levy of \$3.98 per tonne, to be paid upon export of each consignment.³⁷

7.34 DCCEEW advised that it had consulted on the levy—of nearly \$4 per tonne of exports—in late 2022 and received 'strong feedback from industry that there would be perverse impacts of that arrangement'.³⁸

7.35 The Australian Government decided not to proceed with full cost recovery from 1 July 2024, as planned, but to proceed with the planned introduction of fees-for-service.³⁹ In explaining the decision not to proceed with the export levy, DCCEEW officials told the committee that:

...when we went out to test proposed cost recovery with industry [there] were a range of measures that would enable full cost recovery. That included an application fee, and variations on an application fee, plus a

³⁵ Mr Andrew McNee, Division Head and Ms Kate Elliott, Branch Head, Wildlife, Waste and Environmental Permits, Environmental Permitting and Compliance Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 59.

³⁶ Mr Andrew McNee, Division Head, Environmental Permitting and Compliance Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 60.

³⁷ DCCEEW, [Regulation of Waste Exports: Cost Recovery](#), November 2022, p. 11.

³⁸ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 58.

³⁹ DCCEEW, [Cost Recovery Implementation Statement - Regulation of Waste Exports 2024-25](#), pp. 3 and 8. See also: Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 56.

potential—or proposed—levy at that time. What has been decided by the government, and announced today [8 May 2024], is what will effectively be partial cost recovery. The costs of administering the scheme will continue to be subsidised by the government. The partial cost recovery will be charged to industry only, and that's the application fee.⁴⁰

- 7.36 Several submissions to this inquiry—which were received before the Australian Government's decision to abandon the levy—expressed a range of concerns about it.⁴¹

Disallowance of fee regulations

- 7.37 In October 2024, the Senate disallowed the Recycling and Waste Reduction (Fees) Amendment (Export of Regulated Waste Material Fees and Other Measures) Rules 2024 (Waste Fee Rules).

- 7.38 The Waste Fee Rules would have implemented cost recovery fees for applications, renewals, variations and exemption applications for export licenses related to the export of regulated waste glass, plastic, tyres, and paper and cardboard. This was intended to 'assist the Commonwealth to appropriately recover the costs of assessing applications relating to the export of regulated waste materials'.⁴²

- 7.39 There was considerable concern within the waste management and resource recovery industry about the licence fees, and the time taken for DCCEEW to consider licence applications. The evidence received by the committee played a key role in the disallowance of the Waste Fee Rules in the Senate. Notwithstanding that the rules have since been disallowed, some of the evidence received by the committee about the fees, and the processing times, is outlined below.

- 7.40 The Australian Council of Recycling (ACOR), for example, noted that the minor adjustments to a licence might be 'incredibly costly' for smaller operators,⁴³ and that the licensing process was 'time-consuming' and 'has created delays in being able to deliver...product to market'.⁴⁴

⁴⁰ Ms Kate Lynch, Division Head, Circular Economy Division, DCCEEW, *Committee Hansard*, 8 May 2024, p. 56.

⁴¹ See for example: Waste Contractors and Recyclers Association of New South Wales (WCRA), *Submission 1*, p. 4; Huhtamaki, *Submission 3*, p. 4; ARRC, *Submission 13*, pp. 3 and 8; Australian Council of Recycling (ACOR), *Submission 40*, p. 8; Waste Management and Resource Recovery Association of Australia (WMRR), *Submission 41*, p. 5.

⁴² Recycling and Waste Reduction (Fees) Amendment (Export of Regulated Waste Material Fees and Other Measures) Rules 2024, *Explanatory Statement*, p. 2.

⁴³ Ms Suzanne Toumbourou, Chief Executive Officer (CEO), ACOR, *Committee Hansard*, 8 May 2024, p. 6.

⁴⁴ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 3.

- 7.41 The Waste Contractors and Recyclers Association of New South Wales (WCRA) contended that the regulations would 'result in local market failure and long-term market disruption, particularly concerning some plastics, paper and cardboard exports'. It also claimed the process for obtaining export exemptions under the regulations was 'unworkable, with unclear and cumbersome procedures that place significant strain on the industry and its trading partners'.⁴⁵
- 7.42 The Waste Management and Resource Recovery Association of Australia (WMRR), a national peak body for the waste and resource recovery industry, stated that they were opposed to the licensing and variation fees, and explained that the nature of the market meant that industry has to constantly search for and add new buyers, but 'that's now going to cost you \$13,400 every time you add a buyer'.⁴⁶
- 7.43 In discussing variation fees, Dr Kirkman of Veolia Australia and New Zealand (ANZ), a global water, energy and waste manager, argued that the industry would be paying 'tens of thousands of dollars more for no reason'. However, Dr Kirkman suggested that 'the application process, the time line, the delays, actually getting it processed' was 'more of an issue than the cost itself'.⁴⁷

Issues raised with waste export regulations

- 7.44 Several submitters criticised how waste exports were regulated and expressed their disagreement with the export bans. Some of these arguments are outlined below.
- 7.45 Mr Rick Ralph of the ARRC told the committee that the bans were a response to a system that 'was never broken'. He continued that based on evidence collated by the ARRC, there was 'no need' for the:
- ...introduction of this unjustifiable and needless government regulatory disruption to our industry's trading market, particularly as it impacts our mixed paper and cardboard. The proposed rules of trade and setting of contamination limits will only apply to exporters and international trades...⁴⁸
- 7.46 Mr Ralph called for simplification of the system, transparency in reporting and for the government to 'let business get on with what it needs to do'.⁴⁹ He suggested an inter-governmental approach whereby waste export regulations

⁴⁵ WCRA, *Submission 1*, p. 3.

⁴⁶ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 37.

⁴⁷ Dr Richard Kirkman, CEO, Veolia Australia and New Zealand (ANZ), *Committee Hansard*, 8 May 2024, p. 52.

⁴⁸ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 8.

⁴⁹ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 11.

were considered not just through an environmental lens via DCCEEW, but also via the Treasury and the Department of Industry, Science and Resources, to ensure business and economic perspectives were also considered.⁵⁰

7.47 Mr Mark Biddulph of Cleanaway suggested that 'a complete ban on exports or excessive regulation could result in a perverse outcome for recycling'. Pointing to the large and mature international market for paper and cardboard, Mr Biddulph argued that:

...the licensing for exports should be an interim measure and rescinded when the Australian government is satisfied the market has self-regulated to adequate standards that include quality and supply chain management.⁵¹

7.48 The WCRA argued that 'the government's characterisation of the industry as exporting "waste with contamination" is seen as a falsehood that undermines community confidence in recycling'.⁵²

7.49 The WMRR reflected that, while the goal had been to stop the export of waste, 'there was little understanding of existing imports, the lack of recycling infrastructure or onshore demand'.⁵³ In light of this, the WMRR called for the development of 'an integrated strategic infrastructure plan across Australia based on actual fates and flows'.⁵⁴

7.50 Several submitters from within the waste and recycling industry called for a fairer sharing of the burden of the waste exports scheme across the whole supply chain. For example, ACOR observed that 'Australia does not currently place specific environmental policy restrictions on importers of materials, including for tyres, plastics or paper and cardboard products', instead 'imposing the entire burden of cost recovery on one group of stakeholders at the "end-of-pipe" rather than at generation'.⁵⁵

7.51 On a similar note, Re.Group, a recycling and resource recovery company, explained that:

The export bans have created a number of unintended consequences and, specifically, serve to impose costs and obligations caused by the import of products from the global economy on the domestic recycling sector. I think this is an important point—the issue is arising from the materials being

⁵⁰ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 11.

⁵¹ Mr Mark Biddulph, Head of Corporate Affairs, Cleanaway, *Committee Hansard*, 8 May 2024, p. 44.

⁵² WCRA, *Submission 1*, p. 3.

⁵³ WMRR, *Submission 41*, p. 3.

⁵⁴ WMRR, *Submission 41*, p. 3.

⁵⁵ ACOR, *Submission 40*, p. 7.

imported, not from the industry trying to export the excess material that we can't remanufacture domestically.⁵⁶

7.52 While supporting the overarching intent of the export bans, Mr David Singh, the Managing Director of Re.Group, noted that restrictions on exports can be problematic because of the lack of domestic recycling capacity in Australia. He observed that Australia is a 'net importer of products' and:

...with those products come packaging, and eventually those products reach the end of their life. There is not sufficient manufacturing capacity in Australia for all these materials... the massive additional amount of material simply doesn't have a home in the Australian economy at this time.⁵⁷

7.53 The Managing Director of Re.Group, Mr Garth Lamb, argued that Australia should be creating a price incentive at the other end of the supply chain, for imports—be it an application fee, a tax, a levy or similar. Mr Lamb argued that 'if we don't put that incentive at the right end of the market, it is going to be a disaster'.⁵⁸

7.54 Re.Group argued that:

...it seems reasonable to expect that the producers who supply the materials that become problematic waste should be obliged to fund their appropriate management...the Australian waste and recycling sector is carrying an unfair burden of regulation in connection with achieving the circular economy.⁵⁹

7.55 Re.Group suggested that a 'fairer, more rational, approach' would be to 'levy a smaller cost recovery charge across a much larger volume of imported goods, which in turn contributes to a levelling of the playing field so that local manufacturers can utilise local recycled content'.⁶⁰ Re.Group argued that Australia should ensure that 'the cost of recycling [is] borne by those who bring material into the system in excess of our domestic recycling capacity'.⁶¹

7.56 The Law Council of Australia put forward its view that financial incentives could lead to innovation:

Seeking financial contributions from domestic manufacturers, importers and distributors of products from which exported waste is derived—such as glass, plastic (including processed engineered fuel), tyres and paper and

⁵⁶ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 22.

⁵⁷ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 22.

⁵⁸ Mr Garth Lamb, Chief Development Officer, Re.Group, *Committee Hansard*, 8 May 2024, p. 29.

⁵⁹ Re.Group, *Submission 49*, p. 2.

⁶⁰ Re.Group, *Submission 49*, p. 2.

⁶¹ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 23.

cardboard...may lead to innovations in product design, durability, and reusability.⁶²

Onerous licensing and exemption processes

- 7.57 Some submitters raised concerns about the inefficient licensing and exemption processes associated with the waste export bans.
- 7.58 For example, ACOR, a peak industry body for recycling in Australia, argued that licensing arrangements for the export of processed recycled material 'are not fit for purpose' as the process is 'unclear and inefficient'. In relation to plastics, ACOR explained that under the existing arrangements, 'any change to the export license, such as approving a new buyer, requires a variation to be submitted which can take up to six months to approve, by which time the buyer has generally moved on'. Additionally, the 'licensing system creates the need for ongoing variations, each sometimes subject to months-long delays'.⁶³
- 7.59 The WMRR advised that it had 'seen real examples of facilities making recycled pellets/flake having to lease separate premises to hold these whilst waiting for approval from the licensing regime'.⁶⁴ The WMRR expressed frustration that the virgin material equivalent would not be subject to any restrictions in Australia.⁶⁵
- 7.60 The ARRC also raised concerns about the 'unclear and cumbersome' process for obtaining exemptions under the export ban. The ARRC explained that exemptions 'can only be granted for a single type of waste material and for a maximum of 12 months' meaning that 'for businesses seeking to export multiple commodity types, multiple exemptions must be obtained' and that in cases where a buyer changes an order after an exemption has been granted, 'the exemption is no longer valid, and a new application must be submitted'. The ARRC argued that in a dynamic global market, the exemption process places significant strain on local industry and international trading partners and is 'commercially unfeasible'.⁶⁶
- 7.61 Similarly, the WMRR raised concerns about the 'extremely slow and cumbersome licensing and exemption process' arguing that it 'fails to keep abreast with the creation of sorted materials through MRFs [materials recovery facilities]...and fails to take into consideration licensing and stockpiling requirements that exist with state regulators'.⁶⁷

⁶² Law Council of Australia, *Submission 39*, p. 4.

⁶³ ACOR, *Submission 40*, p. 5.

⁶⁴ WMRR, *Submission 41*, p. 4.

⁶⁵ WMRR, *Submission 41*, p. 4.

⁶⁶ ARRC, *Submission 13*, pp. 7–8.

⁶⁷ WMRR, *Submission 41*, p. 4.

7.62 Likewise, the WCRA submitted that 'the process for obtaining export exemptions under the regulations is considered unworkable, with unclear and cumbersome procedures that place significant strain on the industry and its trading partners'.⁶⁸ The WCRA called for a review of the export exemption licence process and 'for a more efficient and effective governance framework'.⁶⁹

7.63 Veolia ANZ raised concerns about the cost burden, particularly on smaller entities, and also the protracted approval timeframes:

The costs are in the area of tens of thousands of dollars. There will be multiple applications. That will rack up. To be fair, for smaller operators it will be a bigger issue than it will for us in terms of straight cost. I'm more concerned about the timeline and the ability to get licences in place and to have the ability to export and not stockpile. With paper and card, there'll be a point where we just landfill it.⁷⁰

7.64 A Cleanaway representative presented an example of how the variation process did not work effectively in real-time:

I have placed cardboard in Singapore transit waiting for another buyer. I can't wait for the government to charge \$13,500 over a few months to make that decision; it needs to be done within 24 hours...it is completely uncommercial to have an amendment on your destination from a government regulatory perspective. It needs to be open right from the start.⁷¹

7.65 ACOR suggested simplifying licensing arrangements by:

- allowing processors and traders to be licensed to sell a product specification that is as broad as possible;
- preapproving onshore processing facilities to reduce administration; and
- disconnecting the buyer client and country from the export licence.⁷²

Environmental impact of export regulations

7.66 Several submitters from the waste and recycling industry cautioned that the export bans were having a perverse effect on the environment, due to insufficient domestic infrastructure capacity and lack of demand for domestic processing.

7.67 Based on its experience with the plastic export ban, the Australia and New Zealand Recycling Platform (ANZRP), an e-waste manager, explained that, due to insufficient time given for the introduction of the regulations and required

⁶⁸ WCRA, *Submission 1*, p. 3.

⁶⁹ WCRA, *Submission 1*, p. 4.

⁷⁰ Dr Richard Kirkman, Chief Executive Officer, Veolia ANZ, *Committee Hansard*, 8 May 2024, p. 53.

⁷¹ Mr Brian Dalitz, Head of Commodities, Cleanaway, *Committee Hansard*, 8 May 2024, p. 47.

⁷² ACOR, *Submission 40*, p. 6.

compliance from industry, 'significant quantities of sorted and separated e-waste plastic were landfilled in Australia'. The ANZRP attributed this to the 'difficulty for some e-waste recyclers to obtain a licence to export e-plastics' and 'the absence of proven and local capacity to adequately recycle this waste'. As a result, 'recyclers faced no options but to dispose of the plastic to landfill', and while 'numerous recyclers initially stockpiled the plastic, hoping for a local solution, they faced breaching state-based regulations that govern volumes of waste that they can retain on their site(s)'.⁷³

7.68 Similarly, Veolia ANZ warned that the paper and cardboard export ban would produce worse environmental outcomes by creating stockpiling, landfilling and higher greenhouse emissions.⁷⁴ Veolia ANZ argued that the export regulations do not address the lack of Australian recycling processing capacity, 'so the ban merely drives packagers to lower-priced imported products'.⁷⁵

7.69 Re.Group argued that the restrictions, coupled with a lack of domestic capacity, would result in recyclables being stockpiled or going to landfill as 'both have been observed' through 'illegal tyre dumps and sheds filled with plastics pending suitable reprocessors'.⁷⁶ Re.Group argued that illegal dumping and stockpiling demonstrates 'that a restriction in itself is ineffective, unless a viable domestic outlet is created at the same time. Given lead times for processing facilities, the viable outlets need to be created years in advance of the restrictions being imposed'.⁷⁷

7.70 Re.Group further explained the impact of seasonality on waste generation:

Over the Christmas period, leading into December and definitely the first few weeks of January, we see a 20 to 25 per cent surge in the amount of material that is presented for recycling. Most facilities have a fixed tonnage rate in which they can process the material once we are presented it for recycling. A lot of the time we need the relief valve; we need the ability to export those materials, because we can't stockpile them. The sites simply don't have the capacity.⁷⁸

The need for export regulations

7.71 Some submitters argued that the waste export regulations were disruptive and unnecessary. For example, the ARRC argued that the export bans were never

⁷³ Australia New Zealand Recycling Platform, *Submission 43*, pp. 1–2.

⁷⁴ Veolia ANZ, *Submission 14*, p. 2.

⁷⁵ Veolia ANZ, *Submission 14*, p. 2.

⁷⁶ Re.Group, *Submission 49*, p. 2.

⁷⁷ Re.Group, *Submission 49*, p. 2.

⁷⁸ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 23.

required and that the system was 'never broken', nor was it necessary to include paper and cardboard in the regulations. Mr Ralph of the ARRC continued that:

It was a political myth, promulgated by spin, that blindsided us when government made its rushed announcement for the need to interfere in what has always been an historically orderly and secondary commodity trading market. The government's own decision RIS [Regulatory Impact Statement] confirmed that it was not in the nation's best interests to include paper and cardboard in waste export bans, and that there was a genuine lack of evidence that our recyclables were, in fact, causing international environmental harm... We were blindsided by the Morrison government. We're not quite sure where it came from.⁷⁹

7.72 Likewise, the WCRA reflected that prior to the regulations, 'Australia actively participated in a global market for recovered materials', and that this:

...participation played a crucial role in the global circular economy. The disruption caused by government regulation of the commodities trading market has been profound, leading to a fundamental disruption of the nation's recycling system.⁸⁰

7.73 Tambo Waste gave similar evidence and pointed out that there was 'more cardboard and paper domestically' than Australia could handle. Therefore:

...we need to be able to keep the export market open to ensure that there is not surplus paper and cardboard, which will drive down prices locally and force excess paper and cardboard being taken to already overcrowded landfill facilities, and not contributing to the circular economy that we are all trying to achieve.⁸¹

7.74 Veolia ANZ argued that the export ban 'doesn't make sense', suggesting that similar bans would not be applied in other industries and questioning why the recycling industry was being targeted when 'trying to get on its feet'.⁸² Dr Richard Kirkman of Veolia ANZ explained:

The circular economy is the economy, and it's a global economy. We cannot possibly balance things. Even if there are more and more facilities built for paper recycling, you will never get an exact balance between what we're putting out of the system and what's built, because we're always incrementally increasing how much cardboard and paper we collect. We can't incrementally increase facilities; either there is one or there isn't one. So the principle doesn't work.⁸³

We're in a similar situation to Cleanaway. We're a similar size, and we export about 150,000 tonnes of paper card every year. We were exporting

⁷⁹ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, pp. 8–9.

⁸⁰ WCRA, *Submission 1*, p. 3.

⁸¹ Tambo Waste, *Submission 38*, p. 1.

⁸² Dr Richard Kirkman, CEO, Veolia ANZ, *Committee Hansard*, 8 May 2024, p. 51.

⁸³ Dr Richard Kirkman, CEO, Veolia ANZ, *Committee Hansard*, 8 May 2024, p. 52.

plastic until the ban. Since that happened we've seen a degradation of the value of a tonne of plastic from...say it was \$200 a tonne; it's now \$100 a tonne. It's a huge loss of value through that ban. No-one has recouped that value anywhere.⁸⁴

- 7.75 Veolia ANZ argued that the ban is effectively 'a recycling tax' that will 'increase costs to households and businesses during a cost-of-living crisis'.⁸⁵
- 7.76 On a similar note, the Local Government Association of Queensland (LGAQ) advised that the 'current regulations under the *RAWR Act 2020* are restrictive to a level that the number of lawful exporters operating out of regional Queensland is severely limited' resulting in councils being 'forced to pay above market rates to be able to remove stockpiles of these [waste tyres and plastics] materials'.⁸⁶
- 7.77 The committee also heard that 'without data, or adequate evaluation of the waste export ban, the effectiveness of this instrument meeting its aims cannot be assessed'.⁸⁷ Accordingly, the Australian Marine Conservation Society and WWF Australia argued that the Australian Government should 'publicly report on the effectiveness of the ban on mixed-plastics and the impact it has had domestically and internationally'.⁸⁸

Reclassification of materials

- 7.78 Several submitters called for remanufactured materials, subject to the export regulations, to be reclassified as commodities rather than waste.
- 7.79 The ARRC suggested amending waste exports regulation 'to reflect it being a government regulation on "secondary commodity exports" and for it not to be referred to as "waste" in legislation'.⁸⁹ The ARRC also called for the 'export exemption licence process [to] be formally reviewed to reflect a more efficient and effective governance framework for trading secondary commodities'.⁹⁰
- 7.80 This was echoed by the WCRA, which recommended that the 'waste exports regulation be amended to reflect it as a government regulation on secondary commodity exports'.⁹¹
- 7.81 Likewise, ACOR expressed frustration that the current approach treats manufactured materials as waste rather than a commodity, which adds 'cost and

⁸⁴ Dr Richard Kirkman, CEO, Veolia ANZ, *Committee Hansard*, 8 May 2024, p. 52.

⁸⁵ Veolia ANZ, *Submission 14*, p. 2.

⁸⁶ Local Government Association of Queensland (LGAQ), *Submission 25*, p. 10.

⁸⁷ WWF Australia and Australian Marine Conservation Society (AMCS), *Submission 68*, p. 3.

⁸⁸ WWF Australia and AMCS, *Submission 68*, p. 3.

⁸⁹ ARRC, *Submission 13*, p. 3.

⁹⁰ ARRC, *Submission 13*, p. 3.

⁹¹ WCRA, *Submission 1*, p. 4.

delay to the trade of recycled commodities and fundamentally undermin[es] investment in domestic recycling infrastructure'.⁹²

Import conditions

7.82 The committee heard that there were no restrictions on what could be imported into Australia, despite the extensive restrictions placed on Australian waste and resource exports.

7.83 The ARRC gave evidence that Australia 'import[s] more than we actually produce and manufacture. Sixty per cent of all the plastics we use in this country are imported', therefore, Australia 'need[s] international markets...Circularity is international'.⁹³

7.84 Despite this, witnesses suggested the current import conditions created a 'very uneven playing field between virgin and imported materials and Australian recovered materials', and that this approach did not support a circular economy.⁹⁴

7.85 At a public hearing the ARRC explained that:

The recycling industry now has to recover this material, process it to a specification...put it into a resin, apply for a licence to a department that has no understanding of how to go forward and manage a regulation, and then it has to compete against an importer who has no such requirement to declare where the material came from, what he made it from and how much he's doing it... We're paying hundreds and hundreds of dollars above just to compete...⁹⁵

7.86 Mr David Singh of Re.Group also called it an uneven playing field, with recycled materials being imported into Australia from 'economies that have far lower costs'. Mr Singh called for incentives to use local recycled content, and more visibility on recycled content use.⁹⁶

7.87 To level the playing field, several stakeholders argued in favour of taxes, levies and other financial levers. For instance, Pact Group, an Australian-based plastic recycling, reuse and packaging manufacturing company, told the committee, 'we need eco-modulation that will advantage the domestic market'. Eco-modulation would require manufacturers or brand owners to pay a fee for placing packaging on the market, with lower fees for those who use local

⁹² ACOR, *Submission 40*, p. 5.

⁹³ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 9. See also: Ms Kate Noble, Senior Manager—Oceans Policy, WWF Australia, *Committee Hansard*, 5 August 2024, pp. 19–20.

⁹⁴ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 4.

⁹⁵ Mr Rick Ralph, CEO, ARRC, *Committee Hansard*, 8 May 2024, p. 9.

⁹⁶ Mr David Singh, Managing Director, Re.Group, *Committee Hansard*, 8 May 2024, p. 23. Recycled content regulation is discussed elsewhere in this report.

recycled content in their packaging.⁹⁷ Pact Group noted that the United Kingdom's (UK) Plastic Packaging Tax is a form of eco-modulation that has triggered a swift increase in recycled content in packaging:

...the conversion of market at mass since they put that tax on product-on-shelf for use of recycled content has been phenomenal. The industry has turned very fast. It has addressed the concept of demand.⁹⁸

7.88 The Martogg Group, which supplies plastics raw materials and recycled polymers to Australian manufacturers of plastic products, similarly suggested that a Packaging Material Recycling Levy should apply to all packaging materials placed on market by both domestic producers and importers, with the goal of incentivising minimum recycled content levels.⁹⁹

7.89 At the same time, stakeholders cautioned that any taxes or levies would need to be carefully calibrated to avoid unintended consequences and maximise effectiveness. Pact Group pointed out that in the UK the unintended consequence of imposing a tax on products that don't meet 30 per cent recycled content is that 'no-one puts a gram extra in [over 30 per cent], because that discharges the obligation'.¹⁰⁰ Further, Martogg Group critiqued the fact that the revenue raised by the UK's Plastic Packaging Tax was not pledged back to the recycling industry, but rather 'went straight into consolidated revenue and it wasn't necessarily as efficient as it possibly could be'.¹⁰¹

7.90 Although the Australian Industry Group did not express a position on the specific method of a tax or levy on virgin plastics, it stated that:

...the right settings are probably going to be different in different contexts. Food packaging and products probably require different answers to highly-specialised products of the chemicals variety... We would be cautious about making bold declarations of what's the right level and way to change the incentives structure. But the incentives structure does need to be changed because there is not a sustainable business model today in recovering most plastics.¹⁰²

⁹⁷ Mr Andrew Smith, Executive Adviser, Circular Economy, PACT Group, *Committee Hansard*, 5 August 2024, pp. 53–54.

⁹⁸ Ms Siobhan McCrory, Executive General Manager, People and Culture, Sales, Marketing and Innovation, PACT Group, *Committee Hansard*, 5 August 2024, p. 54.

⁹⁹ Martogg Group of Companies, *Submission 60*, Attachment 1, p. 1; Mr David Finlayson, Group Commercial Manager, Martogg Group, *Committee Hansard*, 5 August 2024, pp. 9 and 12.

¹⁰⁰ Ms Siobhan McCrory, Executive General Manager, People and Culture, Sales, Marketing and Innovation, PACT Group, *Committee Hansard*, 5 August 2024, p. 57.

¹⁰¹ Mr David Finlayson, Group Commercial Manager, Martogg Group, *Committee Hansard*, 5 August 2024, p. 9.

¹⁰² Mr Tennant Reed, Director, Climate Change and Energy, Australian Industry Group, *Committee Hansard*, 5 August 2024, p. 51.

7.91 The Circular Economy Ministerial Advisory Group have suggested that the Productivity Commission (PC) investigate potential economic and tax settings as part of the PC's inquiry into Australia's opportunities in the circular economy, as discussed in Chapter 3.¹⁰³

Recycling Modernisation Fund

7.92 The Recycling Modernisation Fund (RMF) was established in 2020 'to support industry to transition to the regulation of [waste] exports, by increasing Australia's onshore capacity to collect, reuse, recycle and recover waste materials affected by the regulations'.¹⁰⁴ The Australian Government is contributing up to \$250 million towards new and upgraded recycling infrastructure through the RMF.¹⁰⁵ Total investment will 'leverage' over \$1 billion, with contributions from the states, territories and industry.¹⁰⁶

7.93 Australian Government funding is provided to the states and territories under the Federation Funding Agreement—Environment and the National Partnership on Recycling Infrastructure. Funding is provided via several RMF streams: the main RMF stream, the Plastics Technology stream, the National Paper Solution stream, and the Regional and Remote stream. Under the main RMF stream, the allocation of funding to projects is decided by state and territory governments, based on the gaps they identify in recycling capacity.¹⁰⁷

7.94 DCCEEW advised that as at 4 December 2024 there were 142 projects announced and proceeding under the RMF, 68 of which were in rural and remote areas.¹⁰⁸ The following table provides a breakdown of these projects and their funding:¹⁰⁹

¹⁰³ Circular Economy Ministerial Advisory Group, *Final Report: The Circular Advantage*, December 2024, p. 21.

¹⁰⁴ DCCEEW, *Submission 7*, p. 3.

¹⁰⁵ The Australian Government committed \$190 million over four years from 2020-21 to establish the Recycling Modernisation Fund (RMF): Commonwealth of Australia, *Budget Measures: Budget Paper No. 2 2020-21*, p. 209. A further \$60.4 million was committed over four years from 2022-23: Commonwealth of Australia, *Budget Measures: Budget Paper No. 2 2022-23*, March 2022, p. 51.

¹⁰⁶ DCCEEW, *Investing in Australia's waste and recycling infrastructure*, 5 February 2025, www.dceew.gov.au/environment/protection/waste/how-we-manage-waste/recycling-modernisation-fund (accessed 28 February 2025); DCCEEW, answers to written questions on notice, IQ24-000121, 15 July 2024 (received 26 July 2024).

¹⁰⁷ DCCEEW, *Investing in Australia's waste and recycling infrastructure* (accessed 7 June 2024).

¹⁰⁸ Ms Cathryn Geiger, Circular Economy Division, DCCEEW, *Committee Hansard*, 14 February 2025, p. 21; Circular Economy Division, DCCEEW, answers to question taken on notice (IQ25-000002), 14 February 2025 (received 21 February 2025).

¹⁰⁹ The funding amounts below are rounded to one decimal place.

Table 7.3 Co-funding breakdown of RMF projects by state and territory

State/Territory	Projects announced & proceeding	Commonwealth funding (\$ million)	State funding (\$ million)	Third party funding (\$ million)	Total funding (\$ million)
New South Wales	41	23.6	15.8	107.7	147.2
Victoria	27	49.0	33.4	156.1	238.6
Queensland	24	34.7	34.7	168.0	237.3
South Australia	15	38.2	18.2	99.1	155.5
Western Australia	15	31.3	31.3	86.7	149.2
Tasmania	6	6.0	6.0	13.3	25.2
Northern Territory	12	5.5	5.5	7.3	18.2
Australian Capital Territory	1	10.5	12.7	0.0	23.2
Other territories	1	1.6	0.0	0.0	1.6
National	142	200.3	157.5	638.1	996.0

Source: DCCEEW, answers to questions on notice, IQ25-000002, 14 February 2025 (received 21 February 2025).

7.95 Of the 142 projects, 106 are processing facilities (including 19 materials recovery facilities), 29 are remanufacturing facilities, and seven are trial projects.¹¹⁰ The following table sets out the annual volumes of material expected to be processed by these projects:

Table 7.4 Annual volumes expected to be processed by RMF projects

Material Type	Recycling Type (tonnes per annum)		
	Processing	Remanufacturing	Trial
Plastics	379 373	61 555	110
Paper & Cardboard	510 994	5 625	
Glass	385 117	10 195	100
Tyres	97 033	9 300	

¹¹⁰ DCCEEW advised that: 'Processing includes sorting as well as processes further along the recycling chain such as pelletising of plastics and crumbing of tyres. Remanufacturing projects include those in which the main funded activity is remanufacturing processed waste into new products. Trial projects include projects that are looking at feasibility of scaling up a type of recycling activity and/or technology'; see Circular Economy Division, DCCEEW, answer to question taken on notice, IQ25-000002, 14 February 2025 (received 21 February 2025).

Total	1 372 517	86 674	210
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Source: DCCEEW, answers to questions on notice, IQ25-000002, 14 February 2025 (received 21 February 2025).

Criticisms of the RMF

7.96 The inquiry received several criticisms of the implementation of the RMF, including a lack of an overarching strategy to guide investment, insufficient analysis of infrastructure requirements and inadequate transparency of projects and outcomes. Some of these matters are discussed below.

7.97 ACOR welcomed the funding available via the RMF, noting that 'targeted funding has been an important lever to enable the scale in recycling systems that are necessary'.¹¹¹ However, when asked about the efficacy of the RMF, Ms Toumbourou of ACOR suggested the original intent was to have infrastructure to support the export regulations, but:

Not all of the funding has been disbursed, and potentially the majority of that infrastructure has not yet been delivered. So we haven't seen that matching up of the processing capability, specifically, across all material streams, noting that they are sometimes quite diverse with the export regulation. In some material streams we have seen a more efficient pairing up.¹¹²

7.98 The WMRR similarly argued that the RMF was 'not well implemented...the necessary supporting policies required did not all eventuate...nor was appropriate market development undertaken'.¹¹³ The WMRR submitted that while 'RMF funding has assisted in some states to increase investment', it 'has not been sufficiently focused based on data and evidence of what is required where'.¹¹⁴

7.99 The WMRR advised that it had received 'great support' from governments in relation to the RMF, seeing a 'billion dollars in investment being contracted with industry to develop facilities'. The WMRR continued, however, that it did not see:

...a matching of what was required with where it was required with that billion dollars. As of today [8 May 2024], we do not have any facilities which have been finished in WA [Western Australia], Queensland, NT [Northern Territory] or the ACT [Australian Capital Territory] from that RMF grant, which makes it really difficult for those states to process these materials.¹¹⁵

¹¹¹ Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 1.

¹¹² Ms Suzanne Toumbourou, CEO, ACOR, *Committee Hansard*, 8 May 2024, p. 3.

¹¹³ WMRR, *Submission 41*, p. 3.

¹¹⁴ WMRR, *Submission 41*, p. 5.

¹¹⁵ Ms Gayle Sloan, CEO, WMRR, *Committee Hansard*, 8 May 2024, p. 36. At the time of writing, the RMF viewer shows that five RMF projects have been completed in the Northern Territory, and none in Western Australia, Queensland or the Australian Capital Territory: see DCCEEW, *Investing in*

7.100 Providing a regional perspective, the LGAQ submitted that interventions like the RMF had 'failed to provide the necessary infrastructure in...[certain] areas to provide a suitable alternative'. The LGAQ stated that:

This is not due to lack of interest of industry to settle in locations such as Far North Queensland, but due to the economics of the relatively small volumes of materials and the complete lack of local offtake markets for the end products.¹¹⁶

7.101 According to Huhtamaki, there should be a focus on improving the coordination of investment under the RMF, towards the necessary goals:

...there was limited overarching policy framework to further co-ordinate this investment or the activities of state governments to achieve these goals. Instead it was largely industry driven at a state and territory level.¹¹⁷

7.102 Several stakeholders made suggestions for broadening the scope of the RMF to 'include a wider range of waste streams and materials'.¹¹⁸ For example, the ARRC and the Waste and Recycling Industry Association of Western Australia argued for RMF funding to be put towards 'local investment into all three waste streams, including liquid wastes',¹¹⁹ while the Australian Food and Grocery Council suggested that the funding cover 'investment in advanced recycling'.¹²⁰

Improve transparency in RMF outcomes

7.103 To improve transparency, the ARRC called for the Australian National Audit Office to conduct an audit of the RMF, and the use of its funds to:

...identify the actual additional local remanufacturing capacity that has been generated and funded by the Australian taxpayer and to identify the number of projects that have been announced but not yet realised or that have been cancelled.¹²¹

Australia's waste and recycling infrastructure, 5 February 2025, www.dceew.gov.au/environment/protection/waste/how-we-manage-waste/recycling-modernisation-fund (accessed 3 March 2025).

¹¹⁶ LGAQ, *Submission 25*, p. 10.

¹¹⁷ Huhtamaki, *Submission 3*, p. 2.

¹¹⁸ WCRA, *Submission 1*, [p. 5].

¹¹⁹ ARRC, *Submission 13*, p. 4; Waste and Recycling Industry Association of Western Australia, *Submission 23*, p. 2.

¹²⁰ Mrs Tanya Barden, CEO, Australian Food and Grocery Council, *Committee Hansard*, 5 August 2024, p. 33.

¹²¹ ARRC, *Submission 13*, p. 3.

7.104 Similarly, the WCRA argued that 'there is a need for greater transparency and analysis of...[RMF] outcomes', calling for a 'value analysis of RMF investments to determine their overall range of materials and waste streams'.¹²²

¹²² WCRA, *Submission 1*, p. 4.

Chapter 8

Committee views and recommendations

An industry still in crisis

- 8.1 In 2018, when this committee examined Australia's waste and recycling industry, it found a strong willingness in the community and across industry to recycle, repurpose and reduce waste. Despite this, the committee concluded there was a distinct lack of suitable and enduring recycling and waste management policies, infrastructure and investment.
- 8.2 The committee at the time concluded that there was a crisis in waste management, 'because Australia has grown complacent'—lagging far behind other jurisdictions and failing to invest in the proper development of a circular economy.¹ To address the crisis, the committee made 18 unanimous recommendations to significantly improve recycling rates and resource recovery in Australia.
- 8.3 In the years since, many of the committee's 2018 recommendations remain unaddressed. The evidence received by the committee in 2024 and 2025 is much the same as 2018—suggesting little has changed in practice. Australia is still not managing its waste and resources effectively, efficiently or in ways that improve environmental outcomes. This is despite community sentiment for a zero-waste future and for effective recycling and reuse schemes remaining strong. The lack of effective action has also resulted in missed opportunities for new economic, infrastructure, market, and employment growth.
- 8.4 The time for constant reviews, advisory committees and never-ending rounds of consultation is well behind us. As was succinctly put to the committee during the current inquiry, 'we don't need to keep talking. We need to do'.²
- 8.5 There was a unified view from industry and other inquiry participants that we know the solutions, and it is time for those solutions to be standardised and swiftly implemented across the waste and resource recovery sector. Urgent action must be taken to address the known issues facing the sector and benefit Australia's environment and economy.
- 8.6 Noting the views and the evidence put forward during this inquiry, the following recommendations from the committee are aimed at taking Australia

¹ Senate Environment and Communications References Committee, [Never waste a crisis: the waste and recycling industry in Australia](#), June 2018, pp. 131–132.

² Ms Gayle Sloan, Chief Executive Officer, Waste Management and Resource Recovery Association of Australia, *Committee Hansard*, 8 May 2024, p. 38.

into a truly circular economy and the next stage of resource recovery and waste minimisation.

Implementation of the circular economy

- 8.7 The evidence is clear regarding both the environmental and economic benefits of Australia implementing a circular economy and moving away from linear approaches to waste management and resource recovery.
- 8.8 The waste and resource recovery sector is united in its view that Australia must develop and increase its onshore infrastructure and capabilities as the most direct way of reducing waste going to landfill, decreasing the reliance on exports and implementing a circular economy.
- 8.9 The committee is of the view that the focus of investment and development needs to be on the whole product design, packaging and resource supply chain, and not what often happens currently at the end of the pipeline when packaging and materials enter the waste stream.
- 8.10 The circular economy reflects this idea, and while there are steps in the right direction, implementation is understandably slow. Evidence to the committee suggests that the recycling and resource recovery industry appears to be bearing the brunt of the responsibility—and cost—for the management of Australia's waste. The lack of regulation over the quality and content of imported materials, and the absence of mandating product requirements, including stewardship, means Australia is not properly considering the waste and resource pipeline holistically, allowing 'leaks' to occur.
- 8.11 Australia is not properly considering how materials are being designed and produced when it comes to their end-of-life—thus the importance of a proper circular economy and mandatory product stewardship schemes. Australia needs to increase its focus on incentivising the front end of the pipeline, to make sure design decisions maximise reuse, recycling and resource recovery. In doing so, Australia will start to develop markets for commodities which do not currently have one onshore.
- 8.12 The recent report of the Circular Economy Ministerial Advisory Group (CEMAG), including its broad recommendations, provides a clear pathway to implementation of a circular economy.
- 8.13 The committee also acknowledges the recent release of the first national Circular Economy Framework. The framework incorporates targets for Australia to double its circularity of the economy by 2035 and to do so via all stages of a product's life cycle. As noted by the Department of Climate Change, Energy, the Environment and Water (DCCEEW), the framework is ambitious.
- 8.14 It is very apparent to the committee that the ways to implement a circular economy throughout the supply chain are now well known. Multiple inquiries (including several parliamentary inquiries) have now considered this issue, and

the time for action is now. Noting this, the committee endorses the findings and recommendations of these inquiries and calls on the Australian Government to implement them as a matter of priority. In addition, the committee recommends that the government prioritise progressing and implementing the legislative framework for a circular economy, through a new, stand-alone circular economy law. CEMAG recommended the introduction of a new Circular Economy Act, which should include a clear framework for setting standards for the design of imported and locally manufactured goods.

Recommendation 1

8.15 The committee recommends the Australian Government legislate a Circular Economy Act, in accordance with the recommendation of the Circular Economy Ministerial Advisory Group (CEMAG), to implement a full circular economy framework aimed at effectively supporting Australia's waste management and resource recovery sectors, and improving environmental and economic outcomes. A legislated Circular Economy Act should reflect the findings and recommendations of the CEMAG and Productivity Commission and set a clear framework for imported and local product design, financial incentives, and regulatory enforcement.

Productivity Commission inquiry

8.16 The Productivity Commission's (PC) March 2025 interim report acknowledges that Australia's progress towards a circular economy has been slow. The committee welcomes the PC's commitment to consider policies to increase circularity and product stewardship in various waste streams, including small electronics and photovoltaic (PV) cells.

8.17 However, the committee notes that the PC interim report does not directly address the role of financial incentives, such as levies and subsidies, in driving circular economy outcomes. This is despite the CEMAG expressly calling for the PC to examine the role of financial levers in improving economic and environmental outcomes via the circular economy.

8.18 The committee appreciates that the PC is continuing its work and seeking further stakeholder views, including on the costs and implementation options associated with various reform directions. However, for the avoidance of doubt the committee reiterates the CEMAG's view that the PC should examine the role of financial incentives and economic levers in driving the circular economy and supporting industry.

8.19 The PC should also examine ways to level the playing field for importers and exporters of packaged goods, plastics and other materials, by examining the financial levers and policy settings available to equalise the conditions for both imports and exports—especially for virgin plastics. The PC should also consider the current financial policy settings in foreign jurisdictions where equalisation

and circular economy principles have been successfully implemented, including the United Kingdom's Plastic Packaging Tax.

Recommendation 2

8.20 The committee recommends that in its final report for its inquiry into opportunities in the circular economy, the Productivity Commission examine the role of economic settings and financial incentives (including levies and subsidies) in driving circular economy outcomes. The Productivity Commission should further examine:

- **the market conditions for the import and export of packaged goods, plastics and other materials;**
- **the financial levers and policy settings available to equalise conditions for importers and exporters; and**
- **the current financial policy settings in foreign jurisdictions where circular economy principles have been successfully implemented.**

National harmonisation and regulation

8.21 The committee appreciates the positive developments which have taken place within the waste and resource recovery sector since 2018, including the implementation of the *Recycling and Waste Reduction Act 2020* (RAWR Act), the development of National Waste Policies and associated Action Plans, some improvements in product stewardship and recycling standards, and the increasing acknowledgement of the importance of a circular economy.

8.22 However, the evidence shows that Australia is failing to meet many of its seven National Waste Policy Action Plan targets. DCCEEW advises that Australia is not tracking well against several targets, with increases in both plastics consumption and the amount of organic waste being sent to landfill.

8.23 Evidence to the committee demonstrates that differences between jurisdictions and the classification of waste materials in legislation, is—in part—driving these results, as is a lack of real-time, complete data. Regulatory fragmentation across jurisdictions was raised repeatedly by submitters and witnesses as a driver of these poor outcomes. As noted by the CEMAG, inconsistencies across jurisdictions are hampering market development and the ability of business to scale up at a national level.³

8.24 The committee heard directly from resource and waste companies that the absence of mandated regulatory approaches is leading to a lack of investment in technology and other infrastructure. Further, jurisdictional fragmentation across the country between local, state and the federal government, is leading to

³ Circular Economy Ministerial Advisory Group (CEMAG), [Final Report: The Circular Advantage](#), December 2024, p. 23.

perverse outcomes and prohibiting the necessary investment by companies to tackle various waste streams.

- 8.25 By way of example, witnesses and submitters pointed to discrepancies across jurisdictions in the imposition of landfill levies. Different levies across both local and state governments can drive improper waste disposal practices and levy avoidance.
- 8.26 It became apparent during the inquiry that the resource recovery industry wants a strong regulatory framework. The fact that any industry is calling for increased government regulation and mandatory, legislative frameworks should indicate to governments across Australia that reform is urgently needed, and the time is right to do it. The industry is calling for national leadership.
- 8.27 The committee sees great benefit in improved national harmonisation, to drive investment confidence and reinforce circular economy principles. The committee recommends the establishment of a centralised, cross-jurisdictional taskforce which oversees waste and resource regulation and process, to ensure that all jurisdictions are working collaboratively towards harmonised resource recovery and reuse. The taskforce should provide advice, as required, on the financial support needed to implement the circular economy—for example, via a Circular Economy Fund.
- 8.28 Further, the Environment Ministers' Meeting should take the lead on coordinating consistency between jurisdictions regarding definitions of waste and resources, and to guide the implementation of nationally consistent waste management policies, including consistent landfill levies, wherever possible.

Recommendation 3

- 8.29 **The committee recommends the Australian Government establish a cross-jurisdictional circular economy action taskforce to oversight harmonised waste prevention and recycling practices, and the shift to a circular economy across Australia. The taskforce should be empowered to improve national harmonisation in waste reduction and resource recovery, in line with circular economy principles and outcomes. The taskforce should provide an annual update on national harmonisation progress to the Australian Parliament, no later than 30 September each year.**
- 8.30 **The circular economy action taskforce should consist of representatives from the Department of Climate Change, Energy, the Environment and Water; the Treasury; the Department of Industry, Science and Resources, and any other relevant Australian Government agencies. It should also include representatives from each state and territory and from the Australian Local Government Association. The taskforce should engage with the waste and resource recovery sector and relevant consumer groups on at least a quarterly basis, and provide advice to government as required on the financial support**

needed to implement the circular economy (for example, via a Circular Economy Fund).

Recommendation 4

8.31 The committee recommends that the Environment Ministers' Meeting works to coordinate the implementation of nationally harmonised definitions for waste reduction and resource recovery, and harmonised landfill levies, wherever possible.

Mandatory product stewardship schemes

8.32 One of the best ways to support positive environmental outcomes and to deliver circularity throughout the packaging and resource supply chain is through product stewardship, as evidenced by the success of container deposit schemes (CDS). The importance of product stewardship has been noted by environment ministers, and yet governments at all levels have not grasped the opportunities in this area.

8.33 If properly implemented, product stewardship schemes incentivise those companies which place on the market large volumes of plastics, packaging and other materials to account for the life cycle of their products—both financially and environmentally. Essentially, producers must be responsible for the products they produce, especially when it comes to single-use and other problematic plastics and electronics, including batteries and PV systems, which persist in waste and resource streams.

8.34 The evidence, however, was compelling from across the industry as well as environmental groups and other stakeholders that voluntary product stewardship schemes are largely ineffective, due to a lack of consequences for non-compliance, lower recovery rates, and limited resources.

8.35 There were repeated calls for the implementation of mandatory product stewardship schemes, with commensurate investment in the required recovery, recycling and reprocessing infrastructure and markets. The industry was clear that a lack of mandatory requirements, issues with free-riders and insufficient planning and investment had halted progress on product stewardship.

8.36 A lack of mandated regulation in product stewardship is actively deterring businesses from investment in the necessary recovery, recycling and reprocessing infrastructure. The committee is concerned that yet again, this issue has been discussed over many years and across parliaments, yet mandatory schemes have failed to eventuate. This is reflected in the National Waste Policy Action Plans, where legislative frameworks and enforcement mechanisms do not exist, and targets have not been met.

8.37 There appears to be various reasons why mandated regulation has not progressed in Australia, despite comparable countries implementing

mandatory and enforceable product stewardship schemes. It was suggested to the committee that the relevant Australian Government departments may lack the resources to enforce mandatory regulations. There was also conjecture about a lack of political will to implement change, and observations about the role of lobbying from some of the industry's biggest players in slowing progress.

- 8.38 The evidence makes clear that most of the industry as well as environmental groups want progress and regulation, and yet the goalposts keep moving. Government deadlines are repeatedly missed; timeframes for targets and other outcomes are being frequently extended—and yet consultation continues. The current review of the RAWR Act may provide insights into why progress has stalled in recent years, and an opportunity for dedicated action in future.
- 8.39 Mandatory product stewardship and extended producer responsibility schemes would provide confidence to the resources industry and provide a strong signal for long-term economic investment, and such an approach was supported by the CEMAG in its final report.

Packaging

- 8.40 Inquiry participants expressed their frustration with the Australian Packaging Covenant and the Australian Packaging Covenant Organisation (APCO). Despite being established many years ago, and clear goals set out in the National Packaging Targets in 2018 (to be met by 2025), APCO has consistently failed to meet its targets and has admitted they are unlikely to be met by the end of this year.
- 8.41 Following a 2021 review, DCCEEW noted that the co-regulatory arrangement put in place in 1999 was no longer fit for purpose and in 2023, environment ministers agreed to reform, including mandatory packaging designs; compliance with a National Packaging Design Standard; and requiring a minimum amount of recycled content in packaging. Environment ministers agreed to reform packaging regulation by 2025.
- 8.42 Many of these targets have not been met, and no mandatory schemes or design requirements have been implemented. Meeting the targets and implementing packaging reform by 2025 would have played an essential role in equalling the playing field for industry. Had the 2025 targets been met, Australia's waste management and resources recovery sector would be in a very different place. The infrastructure would likely be in place for recycle to be produced and sold on shore.
- 8.43 The committee strongly endorses the important and historic 'breakthrough' statement of 17 March 2025, from the Boomerang Alliance, Waste Management and Resource Recovery Association of Australia, Australian Council of Recycling, Soft Plastics Stewardship Australia and APCO. The statement calls for a mandatory product stewardship scheme for packaging by 2026, including for soft plastics.

- 8.44 APCO's support for this statement is particularly welcome, noting the organisation has up to this point been agnostic on whether such schemes should be mandatory. The committee sees this as significant progress and hopes it spurs prompt action from the government to mandate product stewardship.
- 8.45 While the committee welcomes the publication of the Design for Kerbside Recyclability Grading Framework, it stresses that other packaging reform must be progressed as a matter of urgency.
- 8.46 DCCEEW advised that, as of February 2025, it was still considering consultation outcomes to take advice to government. The committee notes that while it appears all environment ministers and the Australian Government are on the same page regarding improved packaging rules and recyclability, there is still no regulation in place. Industry is still waiting to see the outcomes of these agreements, and again lacks the certainty required to make long-term infrastructure and business investment.
- 8.47 The committee appreciates that this is a detailed and complex area of recycling and resource policy, for example, in areas of food safety in packaging design. However, until packaging reform is achieved there remains an incentive for business to continue using virgin materials (including imported materials) and to not incorporate more recycled materials into packaging. Further, while these may be complex matters, steps to address them have, for some time now, been successfully implemented overseas.
- 8.48 The committee is particularly keen to see the mandating of a requirement for new packaging developed in Australia, to use a prescribed amount of Australian recycled material. The markets for these products are currently limited, and decisions and regulation around packaging will help to drive the creation of these markets.
- 8.49 Packaging design is an essential element to supporting the other key measures needed across the waste and resource recovery sectors—particularly mandatory product stewardship, increased recyclability and the circular economy. Consideration should also be given to the quality of packaging imported from overseas, in line with the committee's previous recommendation about import regulation.
- 8.50 The committee therefore recommends that mandatory product stewardship schemes and packaging design requirements be implemented as soon as possible, with appropriate mechanisms to drive demand for recycled materials over virgin alternatives and to provide investment confidence.
- 8.51 The committee recommends that legislation be introduced—either stand-alone regulations or via amendments to the RAWR Act—to implement mandatory, national product stewardship schemes, with a particular focus on plastics, batteries and PV systems. Along with legislative amendment, there should be sufficient budgetary appropriations to provide some support for industry to

shift to product stewardship, via grants or a similar scheme, noting that the primary responsibility ought to lie with producers.

Stewardship of batteries

- 8.52 Significant concerns have been raised in many forums about the substantial environmental and human health risks associated with batteries and e-waste being placed in kerbside collection bins and in general waste streams. Batteries and e-waste, including PV systems, present some of the most problematic waste products in Australia, and PV systems are the country's fastest growing waste stream—with PV waste due to hit 90 000 tonnes by 2030.⁴
- 8.53 Considering this, it is very disappointing to see electronic waste from PV systems removed from the minister's product stewardship priority list, and to witness the slow progress on regulatory schemes for PV panels and batteries. No timeframe could be provided to the committee on when regulatory action from the Commonwealth might be expected for PV panels.
- 8.54 State-based stewardship of batteries is now progressing as the risk of battery-related fires is too great, and states and territories cannot wait for Australian Government leadership and regulatory reform. Submitters and witnesses expressed frustration at a lack of Commonwealth leadership in this area.
- 8.55 The committee welcomes the recent passage of the New South Wales (NSW) *Product Lifecycle Responsibility Act 2025* and the implementation of a mandatory product stewardship framework, which can be used as a template for introduction in other jurisdictions. The committee notes that the waste management and resource recovery industry has expressed strong support for the NSW reform and its adoption in other states and territories to ensure consistency across the jurisdictions. The committee encourages the Australian Government and other state and territory governments to carefully examine the suitability of the NSW mandatory product stewardship framework for either national or consistent state-based implementation.
- 8.56 NSW has taken an important step in addressing the serious environmental and human safety risks of batteries, which could be applied at a national level. However, it again highlights a lack of Commonwealth leadership and increased fragmentation across states and territories, with individual jurisdictions implementing their own schemes.
- 8.57 It is apparent that a lack of federal leadership on addressing battery, PV and other electronic waste means that individual jurisdictions are going it alone, leading to more fragmentation across the country, increased costs for industry, worse environmental outcomes, and serious and increased risk of battery-

⁴ DCCEEW, *Minister's product stewardship priority list*, 31 October 2024, www.dcceew.gov.au/environment/protection/waste/product-stewardship/ministers-priority-list (accessed 20 February 2025).

related fires. The committee supports the proposed improvements that B-cycle 2.0 would bring to the existing national battery recycling scheme, and notes that the new scheme design is intended to be sufficiently flexible and adaptable to align with the NSW legislation as it evolves. The committee calls on the Australian Government to mandate a product stewardship scheme for batteries as a matter of priority.

8.58 The committee makes the following recommendations considering the current review into the RAWR Act (discussed later in this chapter), and in acknowledgement that a legislated Circular Economy Act would, once in force, nationally harmonise many of these elements into a central legislative framework. The committee suggests that any recommended amendments to the RAWR Act should form part of a legislated Circular Economy Act.

Recommendation 5

8.59 The committee recommends the Australian Government amend the *Recycling and Waste Reduction Act 2020* to implement ambitious producer-funded mandatory national product stewardship schemes, packaging design requirements and rules, with mechanisms to drive demand for recycled materials. Legislative reform should progress the national harmonisation of container deposit schemes. Mandatory product stewardship schemes should immediately be implemented for problematic waste streams including:

- plastics and packaging, including soft plastics and taking into consideration packaging design;
- batteries; and
- photovoltaic systems.

8.60 In developing national, mandatory product stewardship schemes, the committee recommends the Australian Government consider the *Product Lifecycle Responsibility Act 2025 (NSW)* and its suitability as a framework for national implementation. The Australian Government should publicly release its views on the national applicability of the NSW legislation, as part of its review of the *Recycling and Waste Reduction Act 2020*.

Recommendation 6

8.61 The committee recommends the Australian Government amend the *Recycling and Waste Reduction Act 2020* to mandate that packaging produced in Australia contain a minimum amount of recycled Australian materials.

Recommendation 7

8.62 The Australian Government should offer financial incentives or other assistance to the waste and resources sector for the investment required in

infrastructure and markets to support mandated product stewardship schemes.

Extended producer responsibility schemes

- 8.63 Extended producer responsibility (EPR) schemes are a vital part of supporting product stewardship, shifting the responsibility for the life cycle of packaging and other products on to their primary producers, importers or sellers.
- 8.64 The committee heard support for mandatory EPR schemes, particularly for the most problematic waste streams. Further, a lack of federal leadership has led many states and territories to implement their own EPR schemes for certain products, as highlighted by the various CDS across the country.
- 8.65 The RAWR Act is silent on EPR schemes. To support mandatory product stewardship the committee sees significant benefit in implementing a legislative framework for EPR. This framework would also assist with the national harmonisation of CDS, as recommended above.
- 8.66 Noting that EPR would place the onus on producers, it would be appropriate that each industry is required to financially support any EPR schemes that are introduced.

Recommendation 8

- 8.67 The committee recommends the Australian Government amend the *Recycling and Waste Reduction Act 2020* to provide a national legislative framework for extended producer responsibility schemes, to be funded by industry.**

Plastics packaging

Global plastics pollution treaty

- 8.68 The committee welcomes the government's support for the development of a United Nations (UN) global plastics pollution treaty and supports Australia's recent statement to the Intergovernmental Negotiating Committee (INC) calling for harmonised design standards for plastic products. The committee is also pleased to see Australia is a signatory to the High Ambition Coalition to End Plastic Pollution (HAC).
- 8.69 The committee echoes the views of Minister Plibersek in expressing disappointment that the recent INC meeting in December 2024 failed to reach an agreement on the plastics treaty. The deadline set by the UN for an agreed global treaty has now passed. UN member states have made clear their disappointment and concern about the limited progress, and about the prioritisation of interests of those who are against the negotiation of a successful treaty.
- 8.70 It is very discouraging to see this lack of progress on an international scale, especially given the acknowledgement, made during negotiations, that plastic

pollution damages both human health and the environment. It remains unclear why this process is taking a significant time to progress. However, the statement from UN member states about the prioritising of other interests suggests that lobbying by the world's largest polluters may be a contributing factor, as are tensions between support for voluntary as opposed to mandatory approaches.

- 8.71 The committee supports Australia continuing to advocate for higher ambition on the global plastics treaty through the INC, and taking urgent action on plastics through the HAC. It is particularly important that any treaty is legally binding and enforceable, noting the limitations of voluntary schemes.

Recommendation 9

- 8.72 The committee recommends the Australian Government continue to engage strongly on the United Nations (UN) Global Plastics Treaty to End Plastic Pollution, through the UN Intergovernmental Negotiating Committee, which aims to achieve an international, legally binding instrument to eliminate plastic pollution.**

Soft plastics

- 8.73 Soft plastics remain one of the most problematic waste streams in Australia. We are one of the world's worst producers of single-use plastic waste. Plastics also present an ongoing and serious risk to human and environmental health. The many different types of plastics, the majority of which are placed into landfill; restrictive import and export conditions; and the lack of local manufacturing and processing facilities are key factors halting progress on addressing the plastic waste problem.
- 8.74 The committee welcomes the work of the Solving Plastic Waste Cooperative Research Centre, but notes its work will not conclude for some time. It is also positive to see states and territories taking action to ban certain plastics. However the lack of federal leadership on this issue is again contributing to regulatory fragmentation and moving Australia further away from a cohesive and more circular approach to plastics.
- 8.75 Progress on the Australian Food and Grocery Council's National Plastics Recycling Scheme appears to have stalled, not yet progressing beyond limited trials. It has also been some time since the collapse of REDcycle, and while the Australian Competition and Consumer Commission has authorised the three major supermarkets to continue with their Soft Plastics Taskforce, these supermarkets are still trying to process stockpiles of soft plastics left over from REDcycle, while collecting more in store and while Australia continues to put single-use and soft plastics into the waste stream.
- 8.76 Various methods are being introduced to manage plastic waste, however the committee holds some concerns about waste-to-energy, and also the chemical recycling of plastics. Some of these approaches to managing plastics are not

environmentally sound and do not address the core issue of plastics in the waste stream. Nor do they place any responsibility on the producers of the plastic, like product stewardship or EPR schemes would. Other methods as part of a circular economy, such as improved packaging regulations and product stewardship schemes are, in the view of the committee, a better way to manage soft plastics.

- 8.77 Noting the slow progress on various fronts to tackle the soft plastics problem, the committee recommends that the Australian Government, through the Environment Ministers' Meeting, take a leadership role in coordinating national harmonisation for the collection, recovery and processing of soft plastics. While the producers and vendors of soft plastics should take primary responsibility, the government should offer financial incentives or other assistance to the industry to the extent necessary to effectively collect and process soft plastics.

Recommendation 10

- 8.78 The committee recommends the Australian Government, through the Environment Ministers' Meeting, play a lead role to coordinate agreement with the state and territory governments to fast track the national harmonisation of collection, recovery and processing of soft plastics. The Australian Government should continue to offer financial incentives or other assistance to the waste and resources sector for the investment required to collect and process soft plastics.**

Climate and waste

- 8.79 Overarching the entire discussion on waste reduction, recycling and the circular economy is the negative impact of increasing levels of waste on the environment and its contribution to climate change, as well as the adverse impact on human health.
- 8.80 In its final report, the CEMAG argued that 'embracing a circular economy offers a powerful solution to the polycrisis of pollution, biodiversity loss and climate change'. It continued that embedding circular economy principles in environmental, social and governance frameworks was a 'practical way to address climate risks and opportunities'.⁵
- 8.81 As outlined in Chapter 3, the CEMAG's final report makes clear that circular economy principles should be embedded across Australian Government policies and programs, particularly net zero and climate policies. This recognises that such an approach would benefit Australia's emissions reduction goals and sustainable net zero transition.⁶

⁵ CEMAG, [Final Report: The Circular Advantage](#), December 2024, pp. 5 and 14.

⁶ CEMAG, [Final Report: The Circular Advantage](#), December 2024, p. 25.

8.82 Throughout this inquiry, submitters and witnesses called for the Australian Government to align its climate and net zero policies and emissions reduction targets with circular economy principles and product stewardship. The committee echoes these calls and suggests these issues should have the full attention of the government. The committee is hopeful that action will be taken now to address the waste crises and improve Australia's climate and emissions reduction outcomes.

Publication of and access to data

8.83 Data on waste and recycling is collated in various jurisdictions, using different definitions, collection methods and timeframes. This makes it difficult for the magnitude of Australia's waste problem and progress against the National Waste Policy Action Plan and other recovery targets to be properly assessed.

8.84 National harmonisation of definitions and approaches to waste management and resource recovery (as per the committee's earlier recommendation) will go some way to addressing this issue, noting that most of the data on waste and recycling is collected by local, state and territory governments.

8.85 However, public release of the data and increased transparency around results is needed. Data needs to be improved to track and record the volume of recycled materials and packaging which is on the market, particularly if a minimum amount of recycled content is mandated. The data also needs to be released in a timelier manner, so that government policy and the waste and resource industry can keep pace with developments in the sector.

8.86 In line with the findings of the CEMAG, the committee recommends that the Australian Government seek state and territory government cooperation to improve the consistency, quality and timeliness of waste, resource and recycling data. Further, all data—from state and territory governments and from businesses—should be released as close to real time as possible.

8.87 The committee was also told that Australia's major supermarkets—some of Australia's biggest contributors to waste—do not make any data publicly available on their progress towards APCO's National Packaging Targets. Given the volume of materials generated by supermarkets, this lack of transparency could have direct implications for data analysis and identifying the areas of greatest need in waste and resource recovery.

8.88 The committee recommends that supermarkets be made to publish this data annually, through APCO.

Recommendation 11

8.89 The committee recommends the Australian Government, through the Environment Ministers' Meeting, play a lead role to achieve cooperation between state and territory governments to improve the consistency, quality

and timeliness of waste, resource and recycling data. This data should be published on an annual basis, for the immediate year prior, and include key metrics from relevant Australian businesses.

Recommendation 12

8.90 The committee recommends the Australian Packaging Covenant Organisation be authorised to receive and publish annual data from Australia's major supermarkets and other major packaging producers and users, including their progress towards National Packaging Targets, the amount and categories of packaging being placed on the market, and the percentage of Australian recycled materials used in supermarket packaging.

Recycling Modernisation Fund

8.91 The committee heard that the Recycling Modernisation Fund (RMF) is supporting a number of infrastructure projects, including in regional and remote areas, aimed at increasing Australia's annual recovery and recycling capacity.

8.92 However, the committee received evidence suggesting there was a lack of transparency around both the allocation of funding and the outcomes delivered by the RMF. This is despite the allocation of nearly a quarter of a billion dollars to the fund. Further, there is no apparent link between the RMF and, for example, the APCO and National Waste Policy Action Plan targets. This is indicative of broader policy issues in waste recovery and resource management.

8.93 The committee supports the calls made by inquiry participants for a thorough analysis of the administration, delivered outcomes and value for money of the RMF. The committee is of the view the Australian National Audit Office should conduct an audit into the RMF's administration and operation.

8.94 The findings of an audit could also help to ensure that any future investments into the sector, including support for mandatory packaging and implementation of circular economy objectives, are targeted and fit for purpose. Contingent on the findings of the audit, the committee suggests that the government could consider if the RMF remains fit for purpose, and if so, whether its focus could be expanded and repurposed as a fund to help industry move to a circular economy.

Recommendation 13

8.95 The committee recommends the Australian National Audit Office (ANAO), as part of its 2025-26 Audit Program, conduct an audit of the administration and operation of the Recycling Modernisation Fund. Pending the findings of the ANAO, the Australian Government should consider the merits of repurposing and broadening the Recycling Modernisation Fund to become a Circular Economy Fund.

Kerbside recycling

- 8.96 There appears to be consensus amongst some of Australia's biggest waste and recycling companies for the harmonisation across the country of kerbside recycling practices.
- 8.97 The committee welcomes the agreement of Australian environment ministers to a national roadmap for kerbside collection, noting the concrete steps for governments of all levels outlined in the National Kerbside Collections Roadmap (Roadmap), and now being progressed by the National Design Standard Working Group. The committee supports the standardisation of bin lids, labels, and signs issued for kerbside collection services in accordance with the Australian Standard AS 4123.7-2006; the introduction of minimum national collection lists; and coordinated action to increase Australia's collection and recycling capacity.
- 8.98 The Roadmap, however, is vague on some details. The Roadmap documentation states that it will be subject to a reporting framework and 'periodic national review process'. Without further details on what the reporting framework might entail, and exactly when the review will take place—beyond 'periodically'—it will be hard to follow the roll-out and success of the Roadmap.
- 8.99 The committee acknowledges the Design for Kerbside Recyclability Grading Framework which is seeking to clarify the recyclability of different packaging materials, and how different materials impact on kerbside collection and recycling capacity. The framework is currently subject to another round of consultation, ending in April 2025.
- 8.100 The committee appreciates that cross-jurisdictional harmonisation requires sometimes complex policy work, but calls on the government to use both the Roadmap and the framework to progress national harmonisation of the kerbside collection of both organics and recyclable material. There is clear industry and government support for harmonisation.
- 8.101 For improved transparency, the committee further recommends that regular updates are provided on progress of the Roadmap, via the Australian environment ministers.

Recommendation 14

- 8.102 The committee recommends the Australian Government, through the Environment Ministers' Meeting, finalise the Design for Kerbside Recyclability Grading Framework at the completion of the current consultation process, and implement cross-jurisdictional harmonisation of kerbside collection for organics, recycling and landfill waste.**

Recommendation 15

8.103 The committee recommends the Australian Government, through the Environment Ministers' Meeting, provide regular updates on the progress of the National Kerbside Collections Roadmap.

Export regulations

8.104 The export regulations which have been steadily introduced over recent years have changed the operations of the resource recovery sector and how various waste streams are processed in Australia.

8.105 The evidence to the committee suggests that the export bans have resulted in a greatly increased regulatory burden on the resource recovery sector. The magnitude of cost recovery, via the licence and variation fees which were in place between July and November 2024, also had a direct and negative impact, particularly on smaller operators which could not absorb the initial cost of a licence fee and could not pay the nearly \$14 000 in charges imposed on each occasion to vary that licence.

8.106 The origin of this policy is also not apparent. The committee did not receive any clear answers or clarification on how the then-Council of Australian Governments (COAG) reached agreement on the export regime. Despite being one of the major environmental policies of the Morrison government, it appears no one knows where it came from or how it was developed.

8.107 This may explain why the committee was told that the onerous regulations, together with the licensing and fee regime, were leading to perverse outcomes. In particular, the regulations were driving increased volumes of landfill due to insufficient local capacity to process materials and were undermining efforts at recycling and the circular economy. There was also a lack of engagement from DCCEEW on addressing industry concerns. Perverse outcomes will continue to result if the standards and expectations of recycling and export standards are too high and cannot be met.

8.108 In addition, the original COAG agreement to ban the export of certain materials was made commensurate with an agreement to build Australia's capacity to generate high-value recycled materials. While the bans have progressed, there has been limited progress on the second portion of COAG's agreement and Australia's recycling capacity has stagnated.

8.109 These factors led members of the committee to disallow the fee regulations in the Senate—a step that was not taken lightly but was necessary given the circumstances. The committee calls on the Australian Government and DCCEEW to work with industry to reconsider the imposition of export variation fees, and to determine the best way to continue exporting valuable commodities in a way that supports Australian industry and the circular economy.

8.110 Any revised instrument, if and when reintroduced to the Parliament, should be accompanied by clear guidance material which explains how the rules will apply in practice—for example, outlining exactly what would constitute a 'significant' variation under any revised cost recovery scheme.

Recommendation 16

8.111 The committee recommends the Department of Climate Change, Energy, the Environment and Water work with the waste and resource recovery sector on revisions to the now-repealed Recycling and Waste Reduction (Fees) Amendment (Export of Regulated Waste Material Fees and Other Measures) Rules 2024. The department should work with industry to amend the intent of the 2024 Rules to ensure cost recovery measures do not impede the export of valuable commodities, are environmentally effective, and are sustainable in the long-term for the waste and resource recovery sector.

Imports

8.112 Submitters and witnesses drew attention to the lack of regulation on imports into Australia—in direct contrast to the stringent requirements for Australian processors moving valuable resources offshore, while being subject to strict onshore regulation. It was repeatedly put to the committee that there is not an equal playing field, with large multinational companies often able to import their packaging without scrutiny.

8.113 While not diminishing the importance of exporting 'clean' waste, the committee questions the efficacy of charging for the export of processed, value-added resources, while imports are not subject to similar regimes and oversight.

8.114 It is of particular concern to the committee that a lack of regulation on imported virgin and recycled material into the country impedes Australia's progress towards a circular economy. Australia should be careful to not import material for which there is no end-of-life market, at least until such infrastructure and markets become available.

8.115 This will occur when regulation provides investment certainty, and proper circular economy principles are applied across the community and waste sector.

Recommendation 17

8.116 The committee recommends the Department of Climate Change, Energy, the Environment and Water, together with The Treasury and the Department of Industry, Science and Resources, develop regulations for the import of virgin and recycled material and packaging into Australia. Import regulations should take account of Australia's needs in processing various waste streams and consider:

- **minimum standards and requirements for materials entering Australia;**

- **restricting the import of materials and goods which cannot be properly processed and/or recycled at their end-of-life;**
- **the current and future capacity of Australia's waste recovery and materials processing infrastructure;**
- **the role of mandatory product stewardship schemes in supporting import regulations; and**
- **the role of financial incentives, including levies and subsidies.**

RAWR Act review

8.117 DCCEEW is currently undertaking a review of the RAWR Act, the first such review since the Act was implemented in 2020.

8.118 As part of this inquiry, the committee received evidence and commentary from across industry and from environmental groups about how the RAWR Act could be amended and improved. Reviews of the Act are particularly important in the current context of moving Australia's waste management and resources sector into a circular economy.

8.119 The review will also play a key role in identifying the limitations of the RAWR Act, as identified by the CEMAG, witnesses and submitters. Considering the other recommendations made by the committee, particularly around mandatory product stewardship, EPR schemes and national harmonisation, it is vital to ensure the RAWR Act remains fit for purpose.

8.120 The committee therefore expects that the evidence received by its inquiry and the committee's recommendations (in both 2018 and 2025) be taken into consideration by DCCEEW as part of the RAWR Act review.

Recommendation 18

8.121 The committee recommends that as part of its review into the *Recycling and Waste Reduction Act 2020*, the Department of Climate Change, Energy, the Environment and Water take into consideration the evidence received, and recommendations made during this inquiry and the committee's 2018 inquiry.

Utilising government procurement power

8.122 The committee welcomes the Australian Government's implementation of the first phase of the Environmentally Sustainable Procurement Policy and concurs with DCCEEW's view that with its significant buying power, Commonwealth procurement can play a key role in promoting environmental sustainability. In spending nearly \$75 billion per year on good and services, the Commonwealth can drive the uptake of recycled and repaired products and support products which promote circularity.

8.123 However, the committee was told the new Procurement Policy does not have any targets and is vague on detail. It also only applies to a limited selection of procurement categories—construction, information and communication

technology goods, textiles and furniture, fittings and equipment—which reach a certain contract value.

8.124 Given the considerable purchasing power at not only the national level, but through state, territory and local governments, the committee suggests there would be great benefit to expanding a Sustainable Procurement Policy to all three levels of government, in order to stimulate demand, provide strong investment signals to industry and help promote net zero goals.

Recommendation 19

8.125 The committee recommends environment ministers, together with the Australian Local Government Association, develop an Environmentally Sustainable Procurement Policy to be applied to federal, state, territory and local government procurement processes.

**Senator Peter Whish-Wilson
Chair**

Coalition Senators' Dissenting Report

Introduction

- 1.1 It gives us no pleasure to have to make them. Nevertheless, the Coalition believes it is necessary to place on the record a number of reflections about this inquiry process.
- 1.2 The first is that we are disappointed that we have been left with very limited opportunity to see the full, final version of the majority report before submitting these comments.
- 1.3 It is bad enough that all non-Greens Senators were expected to respond to the final content of a more than 200-page report with completely inadequate notice. It is worse that we were left in this position in the midst of an election campaign.
- 1.4 There was also no discussion or consultation with the Coalition on any of what has turned into a laundry list of recommendations that almost wholly push for more bureaucracy, more administrative bodies, more taskforces, more meetings, and more green and red tape. Some of those recommendations also variously misunderstand previous decisions, actions and processes.
- 1.5 As is clear from almost all of the evidence presented to this inquiry, most key stakeholders, and Australians more generally, are interested in serious action and outcomes on recycling and waste issues. They are not interested in more buckpassing and bureaucracy. They are (very justifiably) tired of politicians kicking more cans down more roads and continuing to hinder and delay meaningful, enduring reforms.
- 1.6 If implemented, some of the recommendations will even trigger a series of additional costs and compliance pressures for affected stakeholders. It is also highly likely that some of these additional costs will be passed on to Australian businesses and households, particularly in the form of higher local government rates and levies associated with waste collection.
- 1.7 All of that leaves us having to make clear to the participants in this inquiry, and all of the people who come to read them, that this set of Coalition comments is significantly less expansive and insightful than we had wanted it to be. Moreover, there will presumably be various parts of the final majority report that should, in normal circumstances, have been addressed by us—but that we have not had an adequate opportunity to thoroughly review.
- 1.8 We regret that we are not able to more faithfully reflect upon those participants' evidence to the inquiry and their best interests in respect of future reform.
- 1.9 We are also dismayed that, not for the first time in relation to committee reports in this parliamentary term, the Chair has sought to present an impression that it was the Greens who were the sole instigators of this inquiry. That is patently

untrue. The reality is that the inquiry was jointly established, with them, by the Coalition. The Senate Hansard of 28 February 2024 demonstrates that this is the case—verifying that the relevant motion was co-sponsored.

- 1.10 We have increasingly come to suspect that the Greens have been intent (maybe even since the time of the inquiry's commencement) on hijacking this entire committee process in order to use the final report as a political prop for their own election campaign announcement on recycling policies.
- 1.11 In a similar vein, it should be noted that the Greens spent an excruciating amount of time in this inquiry trying to make various attacks on the former Coalition government.
- 1.12 This included trying to impute that the Morrison Government had somehow unilaterally decided, in government, to implement a waste export ban.
- 1.13 Incredibly embarrassingly for the Greens, even some basic research or even a basic understanding of the history would have made clear to them that the waste export ban was the very opposite of a unilateral or nefarious decision.
- 1.14 Instead, it reflected an agreement made by the then-Council of Australian Governments in March 2020. As part of a collective response by all nine Australian governments, and the Australian Local Government Association, to the so-called 'National Sword crisis' of 2018, that agreement committed each of Australia's Commonwealth, state and territory jurisdictions to ban the export of waste plastic, glass, tyres and paper.

Future reform

- 1.15 All of that said, we wish to place on record our gratitude to all of the people and all of the organisations who gave up their time to contribute to, and participate in, this inquiry. We would also like to particularly thank those individuals and organisations who originally suggested to us that such an inquiry was needed.
- 1.16 As is outlined in the majority report, there have historically been many reviews and inquiries into recycling policies and laws over many years.
- 1.17 This one has nevertheless come at a particularly important time.
- 1.18 As was canvassed a number of times throughout the inquiry, there has been significantly stalled progress over this parliamentary term in relation to policies on recycling, waste and waste recovery and reuse. There has also been little, if any, serious discussion or consultation with many key stakeholders from the Environment Minister or any other minister of the Albanese Government.
- 1.19 In our experience, most of them are exasperated and frustrated by what has been three years of near-complete inaction between May 2022 and May 2025.
- 1.20 This has created a number of problems that need to be urgently addressed. In particular, there needs to be serious, sustained work to address the fact that Australia's recycling laws, policies and priorities are currently too disjointed,

fragmented and inconsistent—and substantial improvements are required, including in the form of national harmonisation.

- 1.21 Recent population increases (fuelled by unsustainable levels of migration into the country) have also created new surges in the quantities of waste generation in Australia, and placed extra pressure on our domestic recycling capabilities and infrastructure.
- 1.22 Accordingly, landfill sites are under ever-increasing strain from the rising quantities of waste that are being dumped there.
- 1.23 There is also an urgent and growing need for Australian governments and policy makers to address the increasing incidence and dangers (especially for workers in Australia's waste sector) of fires caused by discarded products containing lithium batteries.
- 1.24 Many other important matters—including around the REDcycle crisis, and packaging reform—were also left unresolved in the lead-up to the federal election on 3 May.
- 1.25 It is true that this is a difficult and challenging policy area in itself for federal governments. Not least that is because Australia's system of government vests most power in respect of recycling and waste issues in the state and territory jurisdictions.
- 1.26 However, the views of many well-informed people and organisations about possible, practical ways of addressing that problem, and many other challenges, have largely been ignored—let alone acted upon.
- 1.27 After our loss at the 2022 federal election, the Coalition had genuinely hoped that the incoming Labor government would have been able to build on much of our own work from our years in government in tackling these problems.
- 1.28 In the decade to 2019, the Commonwealth government spent approximately \$30 million on waste initiatives. By contrast, in the final term of the Morrison Government, we spent more than \$500 million.
- 1.29 In government, the Coalition made the most significant investment in recycling in Australia's history, paving the way for the delivery of over \$250 million through the Recycling Modernisation Fund (RMF). This was designed to help unlock more than \$1 billion in combined investment with the states and territories and the private sector.
- 1.30 Yet subsequently, under Labor, there has been no substantive new money allocated, nor new programs or initiatives devised.
- 1.31 Some of the recommendations in the majority report touch, in a small way, on these points. We do agree with the point that an evaluation of the RMF would be a sensible step—and would help in quantifying exactly how many jobs were

created and exactly how effectively it boosted Australia's capacity to recycle our own waste.

- 1.32 However, the majority report largely baulks at any practical, immediate action.
- 1.33 In short, the most important upshot of this inquiry should have been multipartisan agreement on sensible ways forward.
- 1.34 Instead, a partisan approach has been adopted by the Greens—and no attempt has been made by them to work on constructive, collaborative solutions with us.
- 1.35 There could and should have been a genuine focus on addressing various current policy failures; reducing levels of waste in Australia and improving the settings for industry investment in recycling and waste management and recovery; and minimising the financial burden of such policies to local government, businesses and households amid the current cost of living crisis.
- 1.36 It is ironic that the Greens have chosen to title the majority report as 'No time to waste'. Sadly, much of this inquiry has degenerated into a waste of many people's goodwill and time.

Senator the Hon Jonathon Duniam
Member

Senator Leah Blyth
Member

Labor Senators' Dissenting Report

- 1.1 Labor Senators approached this inquiry in good faith, committed to working with the Chair and other members of the committee to develop constructive, evidence-based recommendations. We were prepared to reach consensus on a report that acknowledged the genuine complexities of regulating waste and recycling and supported meaningful, practical reform. Unfortunately, the Chair chose to abandon a collaborative process, instead prioritising the release of the report ahead of the federal election in an attempt to score political points. That approach compromised the committee's ability to produce a balanced and constructive report.
- 1.2 Further, any endorsement of the final report by Coalition Senators highlights the political nature of the exercise. Their support for recommendations they failed to pursue while in government—and have not constructively engaged with in opposition—can be viewed as deeply cynical. It reflects not a change of heart, but a desire to score short-term political points.
- 1.3 Labor Senators also note that many of the report's recommendations point to work already underway, in most cases initiated by the Albanese Labor Government. Since coming to office, this Government has taken significant steps to reform and strengthen Australia's waste and recycling systems, including:
 - Establishing the Circular Economy Ministerial Advisory Group, which developed the National Circular Economy Framework. CSIRO modelling indicates that following this framework could grow Gross Domestic Product by \$26 billion and reduce emissions by up to 14 per cent by 2035. This framework was welcomed at the most recent Environment Ministers' Meeting.
 - Investing more than \$1 billion, in partnership with states, territories and industry, to recycle an additional 1.3 million tonnes of material—including soft and difficult-to-recycle plastics—while creating around 3 400 jobs.
 - Introducing a Sustainable Procurement Policy to ensure the Commonwealth leads by example. This policy is among the most ambitious in the Organisation for Economic Co-operation and Development (OECD), ensuring the Australian Government buys more recycled and sustainable products and supports domestic recycling markets.
 - Working with state and territory governments to harmonise kerbside recycling systems through the Environment Ministers' Meeting, which recently agreed to a roadmap for a nationally consistent approach to recyclable items.
 - Consulting on national packaging design standards, based on independent expert advice and best practice, which will underpin the next generation of packaging regulation in Australia.

- Coordinating action on problematic and unnecessary plastics, with national agreement to avoid reversing existing jurisdictional bans and to pursue greater consistency in future reforms.
- 1.4 Labor Senators also take specific issue with several recommendations of the majority report.
 - 1.5 Recommendation 2 for the Productivity Commission to broaden the scope of its inquiry into the circular economy is not practical. The Productivity Commission is currently in the final stages of completing this report, and adjusting its scope at this late stage would only delay the delivery of an important piece of work.
 - 1.6 Recommendation 3 to establish a cross-jurisdictional circular economy taskforce is unnecessary and duplicative. The Environment Ministers' Meeting already functions as a cross-jurisdictional mechanism for aligning waste and recycling policy across governments. It is supported by a Senior Officials Group, and supplemented by industry reference groups. The proposed taskforce would add another layer of bureaucracy without providing additional value. Labor Senators would be particularly surprised to see Coalition Senators support such a recommendation, given their stated emphasis on reducing red tape and improving government efficiency.
 - 1.7 As noted above, Recommendation 19 to develop an Environmentally Sustainable Procurement Policy fails to acknowledge that this work has already been completed by the Albanese Labor Government. The Commonwealth's policy is one of the best in the OECD. Further, procurement frameworks for state and territory governments are their own responsibility, not that of the Commonwealth.
 - 1.8 These examples further illustrate that the report either duplicates or overlooks substantial work already underway. The Albanese Labor Government is not waiting for recommendations, it is delivering reform.
 - 1.9 In that context, Labor Senators remain firmly committed to building a modern, job-creating circular economy and to working with all stakeholders—including states, territories, industry and the community—to achieve lasting change. We regret that the Chair's conduct of this inquiry and the decision to release a politically motivated report has undermined the opportunity to present a united, forward-looking set of recommendations to support that goal.

Senator Karen Grogan
Deputy Chair

Senator Catryna Bilyk
Member

Appendix 1

Submissions and additional information

Submissions

- 1 Waste Contractors & Recyclers Association of NSW
- 2 Lithium Australia
- 3 Huhtamaki
- 4 Southern Oil Refining
- 5 Centre for Safe Air
- 6 Sircel Limited
- 7 Department of Climate Change, Energy the Environment and Water
- 8 Total Environment Centre
- 9 City of Gold Coast
 - Attachment 1
 - Attachment 2
- 10 Samsara Eco
- 11 Boomerang Alliance
- 12 No More Butts
- 13 National Waste Recycling Industry Council
- 14 Veolia ANZ
- 15 Barry, Leith, and Edward Brackin
- 16 Department of Natural Resources and Environment Tasmania
- 17 RMIT University Construction and Waste Lab
- 18 Catholic Religious Australia
- 19 CropLife Australia
 - 19.1 Supplementary to submission 19
- 20 Doctors for the Environment Australia
- 21 Reloop
- 22 Sims Metal
 - 22.1 Supplementary to submission 22
 - Attachment 1
 - Attachment 2
 - Attachment 3
- 23 The Waste and Recycling Industry Association of WA
- 24 Australian Academy of Technological Sciences and Engineering
- 25 Local Government Association of Queensland
- 26 Bluescope
- 27 Sell & Parker
 - Attachment 1

- 28 SECOS Group
- 29 Tangaroa Blue Foundation
- 30 Mr Benjamin Cronshaw
- 31 MRA Consulting Group
- 32 Waste & Recycling Industry Association South Australia
- 33 Waste & Recycling Industry Association Northern Territory
- 34 Pact Group
- 35 ResourceCo
- 36 Friends of the Earth Australia
- 37 Empauer Pty Ltd
- 38 Tambo Waste Proprietary Limited
- 39 Law Council of Australia
- 40 Australian Council of Recycling
 - Attachment 1
- 41 Waste Management and Resource Recovery Association of Australia
- 42 Product Stewardship Centre of Excellence
- 43 Australia and New Zealand Recycling Platform
 - Attachment 1
- 44 Confidential
- 45 Australian Steel Institute
 - 45.1 Supplementary to submission 45
- 46 Tyrecycle
- 47 Tyre Stewardship Australia
- 48 Australian Tyre Recyclers Association
- 49 Re.Group
- 50 Clean Ocean Foundation
- 51 Tetra Pak
- 52 Minderoo
- 53 Ai Group
- 54 Australian Mobile Telecommunications Association
- 55 Rino Recycling
- 56 TOMRA
- 57 Name Withheld
- 58 Waste Recycling Industry Association Queensland Inc
- 59 Australian Food and Grocery Council
 - Attachment 1
 - Attachment 2
- 60 Martogg Group
 - Attachment 1
- 61 Plastic Free Foundation
- 62 Xseed Solutions

- Attachment 1
 - Attachment 2
- 63 Australian Paper Recovery
- 64 Residents Against the Richmond Valley Incinerator Inc (RARVI)
- 65 Lithgow Environment Group Inc
- 66 South Australian EPA and Green Industries SA
- 67 Infrabuild
- Attachment 1
- 68 WWF Australia and Australian Marine Conservation Society
- 69 Dr Roslyn Irwin
- 70 Toxics Free Australia
- 71 Blue Mountains Unions & Community
- 72 The Australia Institute
- 73 Kew East Community Recycling Team
- 74 Elwood Canal Action Team
- 75 EcoCycle
- 76 Bellarine Catchment Network
- 77 No Waste Incinerators in Lara & Greater Geelong Incorporated
- 78 Australian Packaging Covenant Organisation
- 78.1 Supplementary to submission 78
- 79 Visy
- 80 Australian Beverages Council Limited
- 81 Ms Mary Pugh
- 82 LMS Energy
- 83 Confidential
- 84 Confidential

Additional Information

- 1 Australian Marine Conservation Society "Supermarkets report", August 2024.
- 2 Blue Mountains Unions and Community, Letter of Correction, received 30 September 2024.
- 3 Additional information from TOMRA regarding reuse systems (received 4 October 2024)
- 4 Report titled 'Facilitating the Adoption of Takeaway Reuse Systems, September 2024; Additional information from TOMRA (received 4 October 2024)
- 5 Additional Information from Visy regarding fibre recovery and recycling, received 25 February 2025.
- 6 Department of Climate Change, Energy, the Environment and Water, Letter of Correction, 21 February 2025 (received 25 February 2025).

Answer to Question on Notice

- 1 Department of Climate Change, Energy, the Environment and Water, answers to questions on notice, 8 May 2024 (received 22 May 2024)
- 2 Department of Climate Change, Energy, the Environment and Water, answers to questions on notice, 8 May 2024 (received 23 May 2024)
- 3 Department of Climate Change, Energy, the Environment and Water, answer to question on notice, 8 May 2024 (received 31 May 2024)
- 4 Waste and Recycling Industry of Queensland, answer to question on notice, 8 May 2024 (received 31 May 2024)
- 5 Department of Climate Change, Energy, the Environment and Water, answers to written questions on notice (received 26 July 2024)
- 6 Department of Climate Change, Energy, the Environment and Water, answers to written questions on notice (received 30 July 2024)
- 7 Australian Food and Grocery Council, answers to questions on notice (received 26 August 2024)
- 8 Department of Climate Change, Energy, the Environment and Water, answers to written questions on notice (received 5 September 2024)
- 9 NSW Environment Protection Authority, answers to questions on notice, 20 September 2024 (received 4 October 2024).
- 10 Productivity Commission, answer to a written question on notice, 17 February 2025 (received 19 February 2025).
- 11 Department of Climate Change, Energy, the Environment and Water, answers to questions on notice, 14 February 2025 (received 21 February 2025)
- 12 CSIRO, answers to questions on notice, 14 February 2025 (received 26 February 2025)

Tabled Documents

- 1 National Waste Recycling Industry Council, Photographs, tabled on 8 May 2024.
- 2 Australian Paper Recovery, Photographs tabled on 8 May 2024.
- 3 Boomerang Alliance and Total Environment Centre, Opening Statement tabled 20 September 2024.
- 4 Sims Metal, Opening Statement, tabled 20 September 2024.
- 5 Sircel Limited, Opening Statement, tabled 20 September 2024.
- 6 Australian Steel Institute, Opening Statement, tabled 20 September 2024.

Appendix 2

Public hearings and witnesses

Wednesday, 8 May 2024

Maple Room, Swissôtel Sydney
68 Market Street, Sydney

Australian Council of Recycling

- Ms Suzanne Toumbourou, Chief Executive Officer

National Waste Recycling Industry Council

- Mr Rick Ralph, Chief Executive Officer

Waste Recycling Industry Association Queensland

- Ms Alison Price, Chief Executive Officer
- Mr Richard Taylor, President

Re.Group

- Mr David Singh, Managing Director
- Mr Garth Lamb, Chief Development Officer

Australian Paper Recovery (no submission)

- Mr Darren Thorpe, Managing Director

Waste Management and Resource Recovery Association of Australia

- Ms Gayle Sloan, Chief Executive Officer

Cleanaway (no submission)

- Mr Mark Biddulph, Head of Corporate Affairs
- Mr Brian Dalitz, Head of Trading & Commodities

Veolia ANZ

- Mr Richard Kirkman, Chief Executive Officer

Department of Climate Change, Energy the Environment and Water - (via teleconference)

- Ms Kate Lynch, Division Head, Circular Economy Division
- Ms Jackie Raynor, Branch Head, Partnerships, Infrastructure and Analysis Branch
- Mr Andrew McNee, Head of Division, Environmental Permitting and Compliance Division
- Ms Kate Elliott, Branch Head, Wildlife, Waste and Environmental Permits

Monday 5 August 2024

Flinders Room, Mantra on Russell
222 Russell St, Melbourne

SECOS Group

- Mr Richard Tegoni, Chief Executive Officer

Martogg Group

- Mr David Finlayson, Commercial Manager
- Mr Heath Boucher, General Manager of Circular AU

WWF Australia and Australian Marine Conservation Society

- Ms Kate Noble, Senior Manager Oceans Policy, WWF Australia
- Ms Cip Hamilton, Plastics Campaign Manager, AMCS

Friends of the Earth Australia

- Freja Leonard, No More Gas campaign coordinator

No Waste Incinerators in Lara & Greater Geelong Incorporated

- Mr Charles Street, President
- Ms Vicki Perrett, President

Australian Food and Grocery Council

- Ms Tanya Barden, Chief Executive Officer

Waste Management and Resource Recovery Association of Australia

- Ms Gayle Sloan, Chief Executive Officer

Australian Industry Group

- Ms Molly Knox, Advisor - Industry Policy
- Mr Tennant Reed, Director, Climate Change and Energy

PACT Group

- Mr Andrew Smith, Executive Advisor, Circular Economy
- Ms Siobhan McCrory, Executive General Manager - Sales, Marketing & Innovation

Friday 20 September 2024
Maple Room, Swissôtel Sydney
68 Market Street, Sydney

Product Stewardship Centre of Excellence

- Mr John Gertsakis, Director
- Ms Rose Read, Director

Boomerang Alliance and Total Environment Centre

- Mr Jeff Angel, Director

New South Wales Government Environment Protection Authority

- Mr Asela Atapattu, Acting Executive Director Strategy & Policy

Australian Packaging Covenant Organisation

- Mr Chris Foley, Chief Executive Officer
- Mr Peter Brisbane, Head of Government Partnerships

Huhtamaki

- Mr Jano Crema, Public Relations and Sustainability Manager ANZ

Catholic Religious Australia

- Ms Anne Walker, National Executive Director
- Ms Emma Carolan, Justice Research Officer

MRA Consulting Group

- Mr Mike Ritchie, Managing Director
- Ms Esther Hughes, Planning Team Leader & Principal Environmental Consultant

TOMRA

- Mr Markus Fraval, Senior Vice President, Strategy and Business Development (Asia Pacific)
- Mr Chris Gingell, Vice President, Public Affairs (Pacific)

Sircel Limited

- Mr Anthony Karam, Chief Executive Officer
- Mr Mark Ryan, Group Commercial Officer

Sims Metal

- Mr Rod Bonnette, Chief Commercial Officer ANZ

Australian Steel Institute

- Mr David Varcoe, New South Wales State Manager
- Mr Michael Dawson, Senior Project Manager (teleconference)
- Mr Chris Page, Member, Head of Future Technologies, Bluescope

Natraplas

- Mr Renzo Petersen, Founder and Director (teleconference)
- Ms Julie Kirby, Chief Operating Officer (audio link)

Blue Mountains Unions & Community

- Ms Debra Smith, Secretary

Friday 14 February 2025

Parliament House

Committee Room 2S3

Canberra

Professor John Thwaites AM, Private capacity

CSIRO

- Dr Brett Molony, Science Director, Environment Research Unit
- Dr Heinz Schandl, Group Leader, Environment Research Unit
- Dr Alessio Miatto, Senior Research Scientist, Environment Research Unit

Department of Climate Change, Energy the Environment and Water

- Mr Cameron Hutchison, Branch Head, Waste & Resource Recovery Policy Branch, Circular Economy Division
- Ms Cathryn Geiger, Branch Head, Partnerships, Infrastructure & Analysis Branch, Circular Economy Division
- Ms Chloe Bird, Branch Head, Circular Economy Division, Supply Chain Industries Branch
- Ms Kate Elliott, Branch Head, Wildlife, Waste and Environmental Permits Branch

Department of Industry, Science and Resources

- Mr Ray Marcelo, Division Head, Strategic Policy Division
- Mr Christopher Gonzalez, Manager, CRC Grants Section