Single-Use, Problematic and Unnecessary Plastic Packaging

Version 2 - Updated October 2020

APCO

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Executive Summary

The Australian Packaging Covenant Organisation (APCO) has been charged to develop a coordinated, whole-of-supply chain approach to support the achievement of the 2025 National Packaging Targets (2025 Targets). Essentially creating a new sustainable pathway for how Australia manages packaging, including a systemic change to the way we create, collect and recover used packaging.

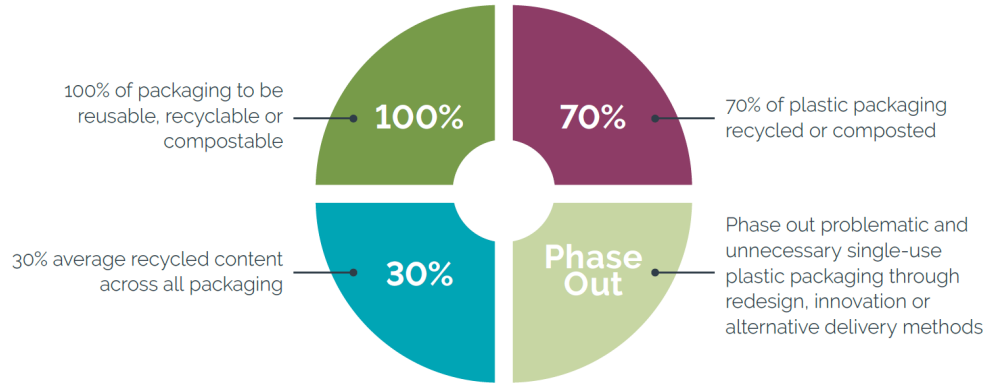

Figure 1: Australia's 2025 National Packaging Targets

Under the National Waste Policy Action Plan;

- Target 5: Phase-out problematic and unnecessary plastics by 2025;
- Action 5.4: Identify problematic and unnecessary plastic packaging to provide an evidence base for industry to take co-ordinated action

APCO has worked with a range of stakeholders to establish a methodology to identify problematic and unnecessary single-use plastic packaging. Within this document we present findings from the 2019 research and analysis, and industry/government consultations on how to approach the phase-out of problematic and unnecessary single-use plastic packaging.

There is significant momentum globally on the phase-out of single-use plastic items, with movement already underway internationally in the form of voluntary systems. These have been identified as a valuable step in preparing markets and enabling emerging innovation prior to, or in the absence of, regulatory interventions. APCO has considered global initiatives in the definitions and assessment framework presented.

As per the definitions and assessment framework that has been developed to identify priority packaging for phase-out, APCO recommends the development and adoption of innovation, substitution or redesign solutions to address the associated issues. A list of items requiring further investigation for potential phase-out is also highlighted for ongoing review in 2020.

It is recognised that community education is vital to achieving phase-out approaches and driving behavioural change, particularly around identifying necessary packaging that may serve an important functional purpose.

APCO acknowledges that the avoidance of unintended negative consequences is a key consideration when utilising the assessment framework to identify problematic and

unnecessary single-use plastic packaging. Specifically, any approach taken should not create any additional negative environmental or social impact, including food waste or reduced access to products for vulnerable community members.

This framework aims to support industry and government to take a collective and considered approach to the phase-out of problematic and unnecessary single-use plastic packaging items.

Overview of APCO Approach

The approach of assessing problematic and unnecessary, single-use plastic packaging in Australia was undertaken throughout 2019 by APCO to ensure that information:

- Is relevant within a national context and is not focused on any specific jurisdiction, industry sector or product type;
- Is directly applicable to plastic packaging available within the Australian market, whether those items are manufactured locally or imported;
- Draws on local and international initiatives, definitions and phase-out approaches to ensure consistency.

APCO undertook extensive consultation with industry and government to develop a rigorous and transparent approach to identifying items for phase-out. This included two national workshops, ten working group meetings and one public survey, all intended to encapsulate the feedback of a broad group of stakeholders.

The terms problematic, unnecessary and single-use plastic packaging are defined as a collective in combination with an assessment framework tailored directly to packaging.

It is recognised that intervention needs to be supported throughout the entire supply chain, starting with manufacturers, through to brand owners, retailers and consumers. It is through the assessment framework that Australia can support a collective agenda to meet the 2025 Target of phasing out problematic and unnecessary, single-use plastic packaging in a considered and transparent approach.

Domestically, the majority of states and territories have been proactive in publicly announcing their approach to single-use plastic pollution (not specific to packaging). APCO will be supporting government in these approaches to ensure alignment and the avoidance of potential perverse outcomes.

Table 1. Summary of State and Territory government priority single-use plastics regulation (as of December 2019)

Jurisdiction	Plastic bag ban	CDS	Single-use plastics (SUP)
QLD	1 July 2018	1 November 2018	QLD's Plastic Pollution Reduction Plan includes intention to legislate in 2020 to ban: • SUP straws (with exemptions) • SUP stirrers, plates and cutlery

			• Following further analysis, coffee cups, other plastic cups and heavyweight plastic shopping bags.
NSW	No	1 December 2017	The NSW Government has indicated intention to take action in 2020 on single-use plastics.
ACT	1 November 2011	30 June 2018	ACT Government announced in December 2019 that legislation will be tabled in 2020 phasing out: • SUP cutlery and stirrers • EPS takeaway food and beverage containers • SUP fruit and vegetable barrier bags • SUP drinking straws (with exemptions) • Oxo-degradable plastic products.
VIC	1 November 2019	No	The Victorian Government indicated its earlier work on plastic pollution will be incorporated into a broader Circular Economy Policy.
TAS	1 November 2013	Government committed to having a scheme in place by 2022	June 2019 Draft Waste Action Plan includes a target to Work at the national level and with local government and businesses in Tasmania to help phase-out problematic and unnecessary plastics by 2030. City of Hobart planning a by-law banning certain SUPs in Hobart.
SA	4 May 2009	1977; currently being reviewed	Consulting on draft legislation until 7 February 2020. Planning to table legislation in H1 2020 prohibiting: • SUP drinking straws (with exemptions) • SUP cutlery and beverage stirrers • EPS cups, bowls, plates and clam shell containers • Oxo-degradable plastic products. • Other products to be added by Regulations.
WA	1 July 2018	To commence 2 June 2020	Undertook initial consultation on SUPs in 2019. Western Australian government agencies have been directed to stop buying avoidable single-use plastic items—including plastic cups, straws, plates and cutlery.
NT	1 September 2011	3 January 2012	From 1 January 2019, the City of Darwin implemented changes to council permits and leases to phase-out single-use plastic items including disposable coffee cups, smoothie cups, lids, straws, cutlery, stirrers, plates, bowls, and takeaway containers from use on council land, including at markets and events.

Definitions

The below definitions aim to support industry and government to take a harmonious approach to the phase-out of problematic and unnecessary single-use plastic packaging items.

Packaging is defined in the *National Environment Protection (Used Packaging Materials) Measure 2011* to mean all packaging products made of any material, or combination of materials, for the containment, protection, marketing or handling of consumer products. This also includes distribution packaging.
For clarity, consumer packaging includes:

- Primary packaging – materials directly containing the product.
- Secondary packaging – materials used to contain single or multiple primary packed products.
- Tertiary packaging – materials used to distribute packaged and unpackaged products.

Problematic plastic packaging is packaging that, in Australia, is *currently*:

- Difficult to collect/recover for reuse, recycling or composting purposes; or,
- A material that hinders, disrupts or obstructs opportunities to recover other materials or resources; or
- A significant contribution to the plastic litter problem; or
- Made using, manufactured with (PFAS, BPA), contains or has contained hazardous chemicals or materials that pose a significant risk to human health or the environment.

This type of packaging may not be considered problematic should emerging technologies result in effective collection/recovery for reuse, recycling or composting purposes, provided it can be removed from the environment.

Single-use plastic packaging is likely to be designed to be discarded after single use and is routinely disposed of after its contents have been unpacked or exhausted.

Unnecessary plastic packaging can currently be reduced or substituted with non-plastic fit-for-purpose alternatives and/or can be eliminated entirely without compromising the consumer's access to the product, inability to meet health or safety regulations, or causing undesirable environmental outcomes.

We note that there may be necessary case-by-case exemptions for packaging required for occupational, health and safety standards, including packaging regulated for specific industry use such as therapeutic and hazardous goods.

Assessment Framework

The below criteria is intended to classify if a packaging item is considered a problematic and unnecessary and single-use plastic, and therefore suitable for phase-out. Each step is linked to the above definitions and is intended to be based on trusted data sources.

Step 1: Identifying single-use plastic packaging*

Is your packaging a single-use plastic?

Question	Action
1. The packaging is partially or fully manufactured using a plastic of any kind (including bioplastics)?	If Yes, then answer the next question
2. The packaging is: • Routinely disposed of after a single use or after its contents have been used or unpackaged, and typically not refilled. • Not durable, washable, or routinely used for its original purpose multiple times before disposal.	If Yes to both points, go to Step 2.

**It should be noted that single-use packaging excludes packaging that contains toxic or hazardous products that are intended to be disposed of in a regulated manner and not re-used through a current reuse model.*

If you answered no to any of the questions above, then the packaging is not classified as single-use plastic packaging and you do not need to continue.

If you answered yes to both of the following questions, the packaging is classified as single-use plastic packaging. Go to Step 2.

Step 2: Identifying and prioritising problematic plastic packaging

Is your plastic packaging problematic?

For every yes answer place a score of 1 in the subsequent column and total up the score. The higher the score, the higher the priority packaging and identified areas of impact or concern to direct approach.

Question	Answer	Score
Collection: 3. Do less than 80% of the population have access to a comingled recycling bin, kerbside collection and/or alternative collection/drop-off points (CDS/CDL or large-scale EPR model) for this packaging?	Yes/No	
Sorting: 4. Is the packaging unable to be accurately sorted into material streams for recycling OR does it cause issues at MRFs or other sorting facilities (i.e. it is known to cause kerbside recycling contamination)?	Yes/No	
Reprocessing/recycling: 5. Does the packaging cause significant damages or losses during material reprocessing through current recycling processes and systems?	Yes/No	

Question	Answer	Score
End markets: 6. Does the packaging currently have extremely limited or no value end markets, domestically or exported?	Yes/No	
Environmental and human health impacts: 7. Has the packaging been identified as a significant litter issue as determined by credible litter reports (e.g. National Litter Index, Clean Up Rubbish Report, AMDI, or other state-based reports)?	Yes/No	
8. Is there evidence that the packaging is likely to cause widespread harm through environmental impacts: toxicity; breakability; windblown, biodiversity harm? Are the impacts likely to be non-reversible or long lasting?	Yes/No	
9. Is the packaging made using, manufactured with, contains or has contained hazardous chemicals or materials that pose a significant risk to human health or the environment (applying the precautionary principle)?	Yes/No	
Other: 10. Is the item/material intended to be recovered through an organics recycling system but is not certified compostable (e.g. as per ISO 18606, ISO 14021, EN13432, ASTM D-6400 and AS4736)?	Yes/No	
11. Is the item/material unsuitable for waste to energy plants, e.g. because it is hazardous or toxic?	Yes/No	
	Total score	/9

Don't have access to the data to answer questions 3-6? Use PREP to assess the recyclability of packaging instead.

If you answered no to all of the questions above, then the packaging is not classified as problematic plastic packaging.

If you answered yes to one or more of the above questions, the packaging is classified as problematic. Go to Step 3.

Step 3. Identifying unnecessary plastic packaging

Question: Is your plastic packaging unnecessary?

Question	Answer
12. Can the plastic packaging be reduced, avoided or substituted without compromising the ability to meet standards for human health, OHS or food safety, or any other government regulations, including but not limited to TGA, Hazardous Goods etc.?	Yes/No

13. Can the plastic packaging be reduced, avoided or substituted without causing any undesirable outcomes such as reduced access for vulnerable consumers, increased food waste or other environmental impacts?	Yes/No

If you answered no to any of the questions above, then the packaging is not classified as unnecessary packaging.
If you answered yes to any of the questions above, the packaging is classified as unnecessary plastic packaging.

A reminder that plastic packaging must be identified as single-use, problematic and unnecessary to be addressed under this Target.

Is the packaging a single-use plastic	✓
Is the packaging problematic	✓
Is the packaging unnecessary	✓

Priority Items

Plastic Material	Impact	Key Actions
Expanded polystyrene (EPS) food and beverage service containers	• Not currently recyclable through kerbside or at a drop off point • Lightweight material that has an extremely high litter propensity • Contact with heat for human consumption has shown health concerns	• Recyclable or certified compostable alternatives widely available to deliver the same function
Expanded polystyrene (EPS) packaging fill	• Not currently recyclable through kerbside or at a drop off point • Lightweight material that has an extremely high litter propensity	• Recyclable alternatives widely available to deliver the same function
Non-certified compostable packaging (including oxo-degradable, landfill-degradable or other claimed degradable plastics)	• Greenwashing and false claims of 'degradability', including oxo-degradable and landfill degradable. • Fragment into micro plastics contributing to plastic pollution, difficult to identify, consumer confusion and potential for contamination of recycling streams or organics recycling streams.	• Certification to Australian standards *or European standards* required. • Alternatives widely available – reuse, recyclable or certified compostable

Light weight plastic bags	• Top item called out globally for phase-out • Limited recycling for flexible plastics • Can be avoided	• Avoid where possible • Utilise widely recyclable or reusable alternatives available

The above packaging has been identified as the priority for action in Australia. For any packaging that is identified, a considered approach must be taken to ensure the most appropriate action. Actions can be broken down into three key areas:

- Eliminate through innovation: Can the packaging be avoided altogether within the context it is being used? Can the product and packaging be innovated to eliminate its need?
- Alternatives: Are options available that can be used to substitute the plastic packaging whilst still delivering the intended function and not causing unintended consequences. Can a reuse model be introduced?
- Design optimisation: In accordance with the Sustainable Packaging Guidelines, can the packaging be redesigned to optimise material efficiency, designed for recovery or recycled content incorporated?

From the consultation completed throughout 2019, the most important factors identified in managing the transition away from problematic and unnecessary plastic packaging were maintaining functionality and clear communication to consumers. Further details on outcomes from the consultation processes in 2019 have been summarised and are provided in Appendix A.

Packaging for Further Investigation

Plastic Material	Impact	Key Actions
Rigid PVC packaging	• Contaminates high value plastic materials (e.g. PET) • Has limited to no value recycling markets locally • Not suitable for waste to energy applications • Manufactured using harmful chemicals	• Greater understanding of viable alternatives. • Investigate impact on accessibility and longevity in, for example, the pharmaceutical sector
Rigid PS	• Has limited to no value recycling markets locally • Manufactured using harmful chemicals	• Greater understanding of viable alternatives. • Investigate impact on accessibility and longevity in, for example,the pharmaceutical sector
Problematic multi-laminate soft plastics	• Limited recycling for flexible plastics • Multi-laminates that contain PVC, PS or any bioplastic are not recyclable through the REDcycle program	• Investigate impact on food waste and other product losses. • Greater detail needed on viable alternatives in some applications.

Additional Resources/Information

- The Sustainable Packaging Guidelines can be used to analyse and document packaging that is fit-for-purpose, resource-efficient, made from low-impact materials, and reusable or recyclable at the end of its useful life.
- Human health, OHS and food safety are critical for consideration to ensure the contents the plastic packaging is protecting is not compromised. Adherence to these regulatory standards is paramount.
- Utilise PREP to classify the recyclability of the plastic packaging locally with feedback on the issues as to why it may not be able to be considered recyclable in terms of collection, sorting or end markets.
- Refer to the Quickstart Guides that APCO has recently developed to support additional detail to 'Design for Recycling'.
- The lifecycle impacts of alternative packaging should be assessed so as to not substitute plastic packaging with something that potentially has a greater environmental impact.
- Brands will be required to consult with their customers and associated groups who may be impacted by the elimination or use of alternative plastic packaging due to access requirements for vulnerable consumers.

Appendix A

	Industry	Government

Opportunities	• Consumer education:
	  o ARL
	  o National labelling and certification systems to build confidence and address greenwash
	  o Education on reasons for packaging
	• Leadership:
	  o Find common ground and drive outcomes
	  o Don't wait for government but look for opportunities to collaborate with governments
	  o Leverage actions occurring in overseas markets
	• Innovation and new solutions:
	  o R&D
	  o Testing, trialling
	  o Redesign problematic packaging
	  o New/simplified material suppliers
	  o Capture value from recycled materials; new/expanded recycling industries and export
	  o Waste to energy
	• Product stewardship/EPR:
	  o Return/recycling bins at markets at retail outlets
	  o Other takeback and product stewardship schemes
		• Consumer education and engagement:
		  o Improve 'waste literacy' (including on food waste)
		  o Bring the community on board and publicise good news responses
		  o Local council education programs (including on compostability and litter)
		• Building a coherent national approach:
		  o Agree/align aims and objectives
		  o Alignment/compatibility on regulations and waste infrastructure/MRF standards
		  o Standardise materials, certification, guidelines
		  o Support companies that are taking the lead
		  o Learn from overseas jurisdictions/models
		  o Support action in remote and regional communities
		• Institutional and policy levers:
		  o MEM and APCO
		  o Reporting against the 2025 Targets
		  o Legislative interventions: bans and targets, expanded CDS, product stewardship
		  o Incentives for behaviour change
		  o Financial support: R&D, capex for packaging manufacturers, pilot projects, capability, capacity
		  o Funding mechanisms: hypothecation of waste levies, tax/levy on virgin material/SUPs
		  o Procurement of recycled content

Challenges	• Policy/institutional complexity:
	  o Unclear problem definition: Waste, litter, marine, circular economy, fossil-based plastics
	  o Conflicting goals e.g. food waste
	  o National inconsistency: definitions, bin lid colours, MRF standards/outputs/infrastructure
	  o Lowest common denominator holds everyone back
	  o Mixed views on role of energy recovery
	• Infrastructure:
		• Policy/institutional complexity:
		  o Unclear problem definition: Waste, litter, marine, circular economy, fossil-based plastics
		  o Need for role clarification and shared responsibility between levels of government
		  o Lack of harmonised approaches/regulations/standards/definitions
		  o Timing – need time to develop and implement policy, legislation
		  o Election cycles

	○ Gaps in recycling, reprocessing and composting infrastructure ○ Lack of data/transparency on material flows through waste infrastructure • Economics and markets: ○ Recycled content: lack of demand; lack of consistent supply; high cost ○ Sustainable packaging: lack of options on the market (including compostables); lack of demand ○ Competitiveness concerns; costs of transition (e.g. product changes, certifications) ○ Transition times, existing investments/contracts ○ Remote and regional transport distances ○ Accounting for externalities • Community engagement: ○ Building/keeping social license ○ Perception of plastic and packaging not taking into account utility ○ Public awareness and behaviour change/expectations ○ Greenwashing/misinformation/confusion esp. definitions and labels • Technical challenges: ○ Composite materials ○ Creating commercially viable operational systems and processes for food service industries ○ Delivering 100% recyclable etc. while maintaining full packaging functionality, shelf life etc.	○ Making the NEPM work to catch free riders ○ Mixed views on role of energy recovery ○ Engagement with different industry and NGO perspectives • Infrastructure: ○ Gaps in recycling, reprocessing and composting infrastructure ○ MRFs , set up for recycling in China ○ Lack of data/transparency on material flows through waste infrastructure • Geographical differences ○ Greater lack of infrastructure in some jurisdictions e.g. CDS waste recovery capacity in NT ○ Resources – some councils/governments need funding ○ Remote and regional transport distances ○ Viable alternatives to SUPs for hot foods and hot and humid storage conditions • Community engagement: ○ Lack of trust ○ Community expectations and public pressure ○ Messaging – not right, misinterpreted ○ Education • Technical challenges: ○ Technology to identify and count soft plastics (3) 'Downcycling' ○ Compostables in comingled recycling stream and vice versa
Initiatives	• Education: ○ Consumer and business education on ARL ○ Expand labelling to include recycled content, compostability, reuse ○ Support capability development in state and local governments • Policy tools: ○ Define scope and definitions of Problematic and Unnecessary SUPs ○ 'Packaging for a circular economy' – clarify objectives and policy gaps ○ Strategy/policy on compostable packaging	

	o List of items to phase-out o Matrix of material types • Problematic and unnecessary SUPs phase-out models: o Pilot based on recycling rather than composting o EPS packaging phase-out o Sectoral project on healthcare o Whole-of-system approach to beverage cups • Reuse models o Redesign for reduce and reuse o Pilots and case studies, including beverage cups/containers, shopping bags o Public education and labelling • Support government action: o Bans (oxo-degradable plastics and others) • Technical work: o Packaging materials consolidation o Projects on specific material types o Investment in infrastructure, recycling technologies by governments.