

Quick Guide for the  
**Phase Out of  
Business-to-Consumer  
Expanded Polystyrene  
(EPS)**



AUSTRALIAN PACKAGING  
COVENANT ORGANISATION

VERSION 2: JANUARY 2023

# Introduction to the Quick Guide

The Quick Guide & Action Plan for EPS has been developed to support relevant businesses with their phase out of business-to-consumer (B2C) expanded polystyrene (EPS) as outlined in the Roadmap to Implement the National Phase Out of Business-to-Consumer EPS Packaging (EPS Roadmap).

**This Quick Guide will support businesses with setting out the relevant path forward in the phase out, defining what is in scope, outlining alignment with other EPS bans, and identifying a viable alternative for EPS.**

**Businesses can also find the link to the EPS Action Plan at the end of this Quick Guide.**



**To read the Roadmap to Implement the National Phase Out of Business-to-Consumer EPS Packaging, click the thumbnail below.**



# Overview of the B2C EPS phase out

## WHY A PHASE OUT?

EPS packaging is lightweight, durable and thermally efficient, but it represents a number of challenges that need to be addressed. EPS is one of the most common materials found in illegally dumped rubbish, presenting a significant environmental hazard. It also has limited collection options, is not recyclable through kerbside recycling in Australia, and it takes up a disproportionately large space relative to its weight in transport and landfill.

**B2C EPS packaging was identified for phase out in:**

- **The National Plastics Plan**
- **The Minister's Priority List**
- **Various state and territory single-use plastic bans.**



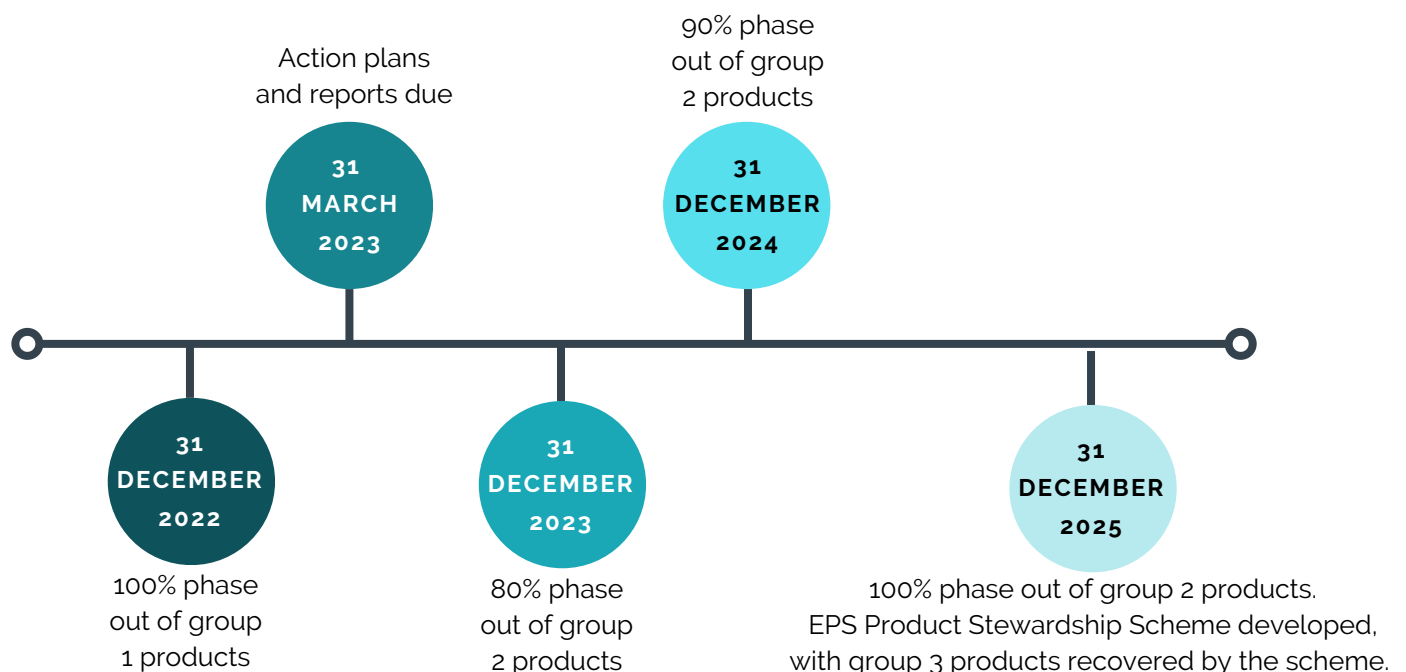
# Overview of the B2C EPS phase out

## CATEGORIES FOR ACTION

In 2021, an industry roundtable reviewed existing packaging formats for EPS phase outs and the potential strategies to achieve them. These discussions informed the development of the EPS Roadmap. The review identified five categories of EPS packaging that require different approaches:

Category	Item	Examples
<b>Group 1</b>	Consumer EPS packaging for immediate phase out	Loose-fill packaging. Food and beverage EPS.
<b>Group 2</b>	Consumer moulded EPS packaging for medium term phase out	Moulded packaging for small to medium sized electrical and electronic products. Products in Group 1 with longer life cycles beyond 2022.
<b>Group 3</b>	Consumer moulded EPS packaging for product stewardship	Large and heavy, fragile or precision products over 45 kg e.g. fridges, large white goods, air conditioners and pumps.
<b>Group 4</b>	Consumer EPS suitable for reuse	Boxes for fresh produce - meat, fish, fruit and vegetables. Gelato tubs where reuse model is in place.

## TIMELINE FOR PHASE OUT



# EPS packaging in and out of scope



## EPS loose-fill packaging

Packing peanuts generally used to protect products during transportation e.g. void fill or cushioning in e-commerce.



## Consumer food and beverage packaging

Single-use hot and cold cups, tubs, bowls, plates, trays and clamshells for food service. Trays to package fresh fruit or meat for retail sale.



## Moulded consumer packaging

Protective packaging for white/ brown goods and electronics, e.g., computers, printers, TVs, fridges, air conditioners, ovens, fridges, toasters, as well as furniture and other homewares.



IN SCOPE



OUT OF SCOPE

## B2C packaging in a proven reuse model

Closed loop delivery system (ability for back loading) e.g., bulk cold home delivered meal services.



## Produce boxes (B2B)

Transporting fresh or frozen produce including fish, meat, fruit and vegetables.



## Specialist packaging (B2B)

Medical applications e.g., organ transport or pharmaceuticals.



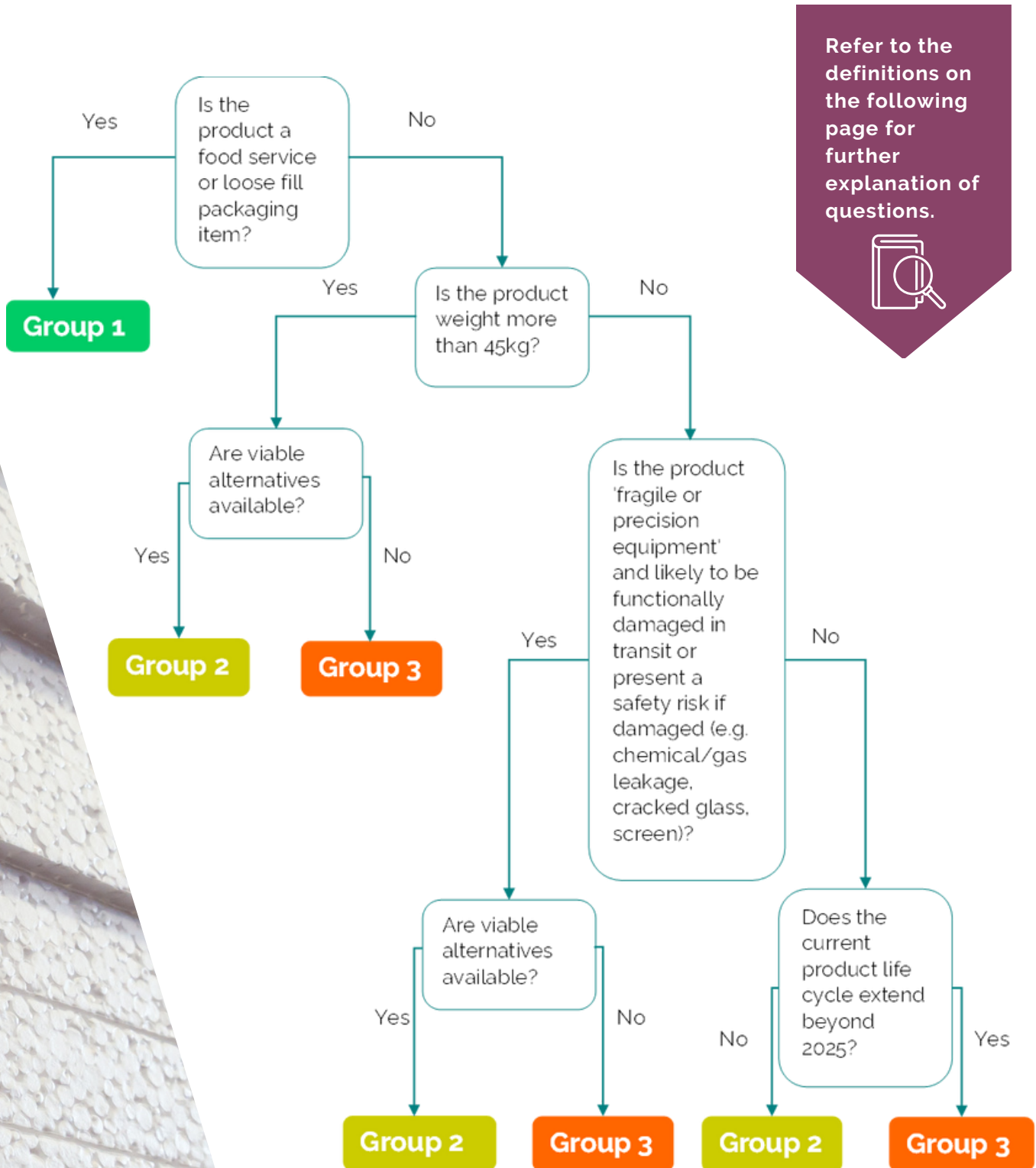
## Packaging requiring installation by a specialist

Where a consumer product is required to be installed by a professional installer and the packaging is retained by the business.



# Decision tree

The decision tree below can be used by businesses to determine which category for action their relevant EPS packaging falls into.



# Definitions

Category	Definition	Examples
<p><b>Large and heavy</b></p>	<p>A piece of equipment over 45kg. This weight does not include the weight of the packaging.</p>	<p>Examples of large appliances include refrigerators, microwaves, heat pumps, air conditioning units, etc. These products are often referred to as whiteware or white goods.</p> <p>Examples of large electronics include large televisions, desk top computers, etc. These products are often referred to as brown ware or brown goods.</p>
<p><b>Fragile</b></p>	<p>Items that could easily break when dropped without having protective packaging.</p> <p>Risks can include leakage of gas, chemicals or radiation, broken pieces causing injury, functional damage where the product won't operate as intended.</p> <p>Fragile products can be measured as packaged product that regularly fails the drop tests occurring as part of quality standard checks. Examples of regular drop tests include procedures following ITSA standards (or equivalent) including, but not limited to, the following General Simulation Tests:</p> <ul style="list-style-type: none"> <li>• Procedure 3A - Parcel Delivery System Shipments 150 lb (70kg) or Less</li> <li>• Procedure 3B - Less-Than-Truckload (LTL) Shipment</li> <li>• Procedure 3E - Similar Packaged-Products in Unitized Loads for Truckload Shipment</li> <li>• Procedure 3F - Distribution Centre to Retail Outlet Shipment 100 lb (45 kg)</li> <li>• Procedure 3K - Fast Moving Consumer Goods for the European Retail Supply Chain</li> <li>• Procedure 6-Amazon.com</li> </ul>	<p>Glass, ceramics, porcelains, clay, certain electronics, etc.</p>

Category	Definition	Examples
<b>Precision</b>	A piece of equipment whose accuracy determines the quality of the device, where it can be determined that there is a standard or code for protective packaging and transportation requirements.	Items that follow requirements for the safe packaging and transportation of refrigeration and air-conditioning equipment with pre-charged refrigerants.
<b>Viable alternative</b>	A replacement packaging that successfully provides equivalent protective qualities as EPS.	Can be determined via the page below 'identifying a viable alternative'.
<b><u>Product packaging life cycle</u></b>	A product life cycle is the amount of time taken for a product to go from being introduced into the market until it is sold/taken off the shelves.	

## Alignment with other EPS bans

	NSW	QLD	VIC	WA	SA	ACT	NT	TAS (Hobart)	NZ
<b>Food and beverage EPS</b>	1 November 2022	1 September 2021	1 February 2023	1 January 2022	1 March 2022	1 March 2021	2025	1 July 2021	1 October 2022
<b>Loose fill EPS</b>	-	1 September 2023	-	1 February 2023 (6 month transition)	-	Possible ban 1 July 2023	2025	-	TBC - 2024/25
<b>Moulded consumer EPS</b>	-	-	-	1 February 2023 (18 month transition)	-	Possible ban 1 July 2023	2025	-	TBC - 2024/25
<b>Other EPS e.g. meat trays</b>	-	Possible ban 1 September 2024	-	1 February 2023 (6 month transition)	1 September 2024	Possible ban 1 July 2023	-	-	TBC - 2024/25



# Identifying a viable alternative

**A key takeaway to consider when deciding on alternatives to EPS is to ensure the problem is solved, not shifted.** The likelihood of regrettable substitution could be high if the health and environmental hazards of these alternatives are not understood and communicated.

**Other foamed plastics including expanded polyethylene (EPE) and expanded polypropylene (EPP) are not recommended as an alternative** as they have many of the same problems as EPS, including a lack of recovery pathways and a propensity to become litter. The Western Australian Government have, as of December 2022, indicated an intention to include other foamed plastics in their state single-use plastic bans.

Considerations for selecting alternatives include the following:

Criteria	Description
Is the cost for the alternative comparable?	While costs may increase, will this be temporary as supply/demand increases?
Is the alternative processable with existing equipment?	Applicable to packaging manufacturers. Is there an opportunity for innovation?
Is there a chance to maintain/increase recycled content in the alternative?	Is there an opportunity to switch to a recycled content fibre supplier that has tested below the fluorine threshold?
Is the alternative available to meet demand?	Is the alternative able to meet ongoing demand year on year?
Is the alternative sustainably sourced?	FSC certification?
How does the alternative compare in a Life Cycle Assessment (LCA)?	If relevant.
Does the packaging meet the Sustainable Packaging Principles of the Sustainable Packaging Guidelines (SPGs)?	See below.

When choosing alternatives, businesses should ensure that new packaging formats have been assessed against the **Sustainable Packaging Guidelines** (SPGs).

The SPGs are designed to assist the design and manufacture of packaging that meets the sometimes-conflicting demands of the market, consumer protection and the environment.



# Identifying a viable alternative

The below list can be used to identify if an alternative is viable. If the answer is 'no' for one or a combination of the below criteria, then the alternative may not be viable. Please make sure to identify why the alternative is not viable when completing the report.

**Is the alternative functional and does it service the product effectively?**

- Does it meet the same performance requirements as the original?
- Does it need to meet the same requirements as the original packaging?
- Can the protective qualities be reduced and still meet the packaging requirements?
- Can external factors be shifted to suit the alternative? For example, could the shelf life be reduced from 12 months to 9 months?

**Does the alternative meet the necessary human health and safety requirements?**

- Is it safe for use in food contact packaging (if product is used for food contact purposes)?
- Is it suitable for food contact in the end markets in which it is sold, taking into consideration global product lines?

**Is the alternative available?**

- Is there stock available both domestically and internationally?
- Is the alternative able to meet ongoing demand year on year?

**Is the packaging recoverable?**

- Is the alternative recyclable via kerbside recycling, CDS schemes or other product stewardship collection?
- Is the alternative reusable?
- Is the alternative certified compostable?
- Is the alternative's recoverability higher or lower in the waste hierarchy than the existing packaging?

**Is the alternative not a problematic material?**

Refer to APCO's [Action Plan for Problematic and Unnecessary Single-Use Plastic Packaging](#). You do not want to use any materials listed for phase out.

**Is the alternative not listed on any state and territory single-use plastic bans?**

See here for an overview of the packaging formats included in the state and territory single-use plastic bans. You do not want to use any banned formats.

# Action Plan and Reporting

To track industry's progress in achieving the phase out of B2C EPS, an Action Plan reporting mechanism has been set up. Reporting will be collated **by 31 March 2023** and all relevant organisations should submit a report to APCO.

The data will be shared in de-identified and aggregated format with the Department of Climate Change, Energy, the Environment and Water, and will not be publicly available unless the Department would like to report on progress, with the data de-identified and aggregated as a whole.



To download the excel Action Plan please click the image below.



## Further information



To contact APCO, please visit our website

[apco.org.au](http://apco.org.au)

