



Australian Packaging Covenant

Smarter packaging, less waste, cleaner environment

Sustainable Packaging Guidelines

“Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.”

World Commission on Environment and Development, 1987, *Our Common Future*

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1.0 Introduction

The Sustainable Packaging Guidelines ('the guidelines') assist Covenant signatories and others to review and optimise consumer packaging to make efficient use of resources and reduce environmental impact without compromising product quality and safety.

All signatories to the Australian Packaging Covenant must adopt these guidelines.

Under the Covenant, signatories agree to work together to implement and promote the principle of product stewardship for packaging. This means that responsibility for the environmental impacts of packaging is shared by companies throughout the packaging supply chain (raw material suppliers, packaging manufacturers and suppliers, brand owners and retailers), consumers, waste service providers, recyclers and all levels of government—Australian, state, territory and local.

It is envisaged that signatories along the packaging supply chain will work co-operatively to share specific packaging evaluations to avoid duplication and to minimise the overall cost of evaluations.

The guidelines articulate the definition and principles of 'sustainable packaging' so that all parties in the packaging supply chain work toward the same vision. The guidelines assist the design, manufacture and end-of-life management of packaging, tackling the sometimes conflicting demands of market performance and cost, consumer protection, and the environmental health, while meeting the needs of a sustainable society. The guidelines advise companies about the issues they need to consider when reviewing their packaging to make it more sustainable.

Sustainable packaging is fit-for-purpose, resource-efficient, made from low-impact materials, and reusable or recyclable at the end of its useful life.

These guidelines follow the waste hierarchy—the first step is to ask whether packaging is necessary or can it be avoided?

Signatories are encouraged to move towards this vision through continuous improvement and by embedding the guidelines within their packaging development processes.

The guidelines have been developed with the input of companies within the supply chain. They will be reviewed within 5 years of their release to make sure they remain relevant.

International context

Consumer packaging is an international issue. Australian brand owners that are exporting products to the European Union are required to meet the Packaging and Packaging Waste Directive [94/62/EC](#) and its Essential Requirements.

The Sustainable Packaging Coalition (SPC) in the USA developed *Design Guidelines for Sustainable Packaging* which build on the core packaging design principles (form, function and cost) and integrate environmental criteria. The US guidelines lead designers to question 'why' and 'why not' and they are not, and cannot be, prescriptive. The SPC approach and the Essential Requirements have guided the development of these Australian guidelines.

1.1 Defining sustainable packaging

Four key principles need to be considered in the design or procurement of packaging to improve its sustainability. Table 3 shows the many strategies that can be pursued to achieve each principle.

The first of these is that packaging needs to be 'fit for purpose', that is, designed to meet market and consumer needs at minimal cost. Design issues relating to functionality, cost and market appeal are not specifically covered in the guidelines but it is acknowledged that these will guide the selection of appropriate sustainability design strategies.

Table 1: Principles and strategies for sustainable packaging

Principles	Potential strategies
1. Fit-for-purpose: Packaging should be designed to meet market and consumer needs, while minimising net impact in a cost-effective way.	<ul style="list-style-type: none">• Meet technical performance requirements• Minimise supply chain costs• Meet consumer needs and expectations, including for accessibility.
2. Resource efficiency: Packaging should be designed to minimise the use of materials and other	<ul style="list-style-type: none">• Minimise materials• Use recycled materials

resources without compromising product quality and safety.	<ul style="list-style-type: none"> • Minimise transport impacts • Maximise water and energy efficiency.
3. Low-impact materials: Packaging should be designed to minimise the environmental and social impact of materials and components. Materials should be selected on science and incorporate a whole-of-lifecycle approach.	<ul style="list-style-type: none"> • Minimise risks associated with potentially toxic and hazardous materials • Use renewable or recyclable materials • Use materials from responsible suppliers.
4. Resource recovery: Packaging should be designed to maximise its potential for recovery and recycling and to minimise the environmental and social impacts of its disposal.	<ul style="list-style-type: none"> • Design for reuse where appropriate • Design for recovery • Design for litter reduction • Inform consumers about appropriate disposal.

1.2 How to use these guidelines

The guidelines explain practical steps to help signatory companies to analyse and document their packaging sustainability strategy.

Questions provided can be used to guide the research and analysis of design options for each of the sustainable packaging principles. Lists are not intended to be exhaustive but instead show the types of issues that may assist the review.

It is acknowledged that the design of packaging is a complex challenge, balancing a range of needs and opportunities. Signatories are encouraged to select the strategies that are most appropriate to each individual product and market. As a principle-based document, the guidelines are not prescriptive.

Signatories need to review their packaging using the guidelines and document their review process so it can be audited, if required. The Australian Packaging Covenant Council ('Covenant Council') will undertake random audits of signatories to assess whether or not the guidelines have been adequately applied in the review process. In

their annual reports to the Covenant Council, signatories will also need to document the adoption and use of the guidelines.

A reporting template is included in Appendix B.

Some signatories may have their own assessment process that they believe will achieve the same outcomes as these guidelines. The first action plan for using this assessment process in lieu of the guidelines will need to justify their choice. Signatories could also use other evaluation tools such as Life Cycle Assessment software or Packaging Impact Quick Evaluation Tool (PIQET) to demonstrate that they have considered the guidelines' sustainability principles and strategies in the design or procurement of packaging.

The Covenant Council will support the implementation of the guidelines through capacity-building, education and information programs.

2.0 Adoption and implementation of the guidelines

Signatories to the Australian Packaging Covenant must:

- apply the Sustainable Packaging Guidelines to all new packaging; and
- commit to review all existing consumer packaging within a reasonable timeframe in accordance with the guidelines.

Implementation is by self-assessment. The Covenant Council will undertake random audits of a sufficient number of signatories to ensure a high level of compliance.

The application of the guidelines will vary depending on the nature of signatories' operations. All signatories are required to clearly document their review process and the initiatives they undertake to make their packaging more sustainable. Failure to provide documented evidence of compliance to an auditor would result in a show-cause letter to the signatory.

Implementation of procedures to meet sustainable packaging targets should follow a general risk-management approach, incorporating the following steps:

- Define the review mechanism or framework;
- Identify the opportunities, risks and barriers;
- Assess the factors within the control of the organisation;
- Ensure those factors that are identified within the control are enacted and are functional and effective; and

- Report on the process.

While the outcome is important, the Covenant focuses on the process and follow-up actions taken to review the packaging to make it more sustainable. Sometimes the adoption of one design strategy over another may result in trade-offs—for example, using recycled content in a package may require thicker material to compensate for loss of strength; or lighter-weight packaging may be less recyclable. Given the potential for trade-offs, the critical issue is documenting the decision-making process.

All Covenant signatories must document how each of the strategies in the guidelines have been considered during their design or procurement processes. The documentation must describe the improvements implemented, or reasons why a particular opportunity could not be pursued at the current time.

It is recognised that some companies—particularly small importers—may have limited ability to influence the design of the packaging. These companies need to demonstrate that they have reviewed their packaging based on the questions in the guidelines, and have taken all reasonable efforts to work with their suppliers to improve its sustainability.

2.1 Step-by-step guide

A review means considering and applying the principles and strategies in the guidelines to the packaging type, category or stock-keeping unit (SKU) in question.

All new packaging initiatives must be reviewed against the guidelines' strategies to ensure that the most sustainable alternatives are considered. All decisions must be documented.

All existing packaging must be reviewed in accordance with the individual signatory company's schedule.

An effective packaging review involves the following 10 steps:

1. Undertake background research on sustainable packaging and the opportunities that might be available for your packaging type.
2. Identify staff members who are able to conduct the review, or engage suitably qualified consultants instead.
3. Develop a suitable documentation and filing system (or use the template provided in Appendix B).

4. Compile a list all different types and formats of packaging used by the signatory company. Document the packaging range by logical (product or packaging material) groupings—such as dry goods in laminate bags; carbonated drinks in PET bottles; dry goods in blister packs with cardboard backing; and other categories such as roll-on deodorants. The range might also be assessed by SKU in those companies with limited numbers of SKUs.
5. Develop the most appropriate method and schedule for reviewing new and existing packaging.
6. For each logical grouping or review stage, identify people within the signatory company (or outside as appropriate) who have the range of relevant skills and responsibilities. This could include:
 - packaging technologist
 - product and or consumer specialist
 - marketing representative
 - distribution representative
 - packaging supplier
 - packaging engineer
 - environment manager
 - packaging supplier or manufacturer.
7. Identify helpful information sources. There is a considerable amount of publicly available and non-confidential information available (see Appendix C). Investigate best-practice sustainable design in the packaging category.
8. Undertake the review. The review requires the team to work through the strategies in the guidelines to determine what (if any) opportunities exist to move to more sustainable practices
9. The review process must be documented. Decisions, discussion and the underlying evidence for those decisions must be retained on file for independent auditing and continuing sustainability improvement.
10. The decisions that lead to current or future action would form the basis of the signatory company's action plan and annual report.

3.0 Sustainability design strategies

The decision-making process for each of the principles and strategies mentioned below, at a minimum, must be documented and substantiated. This should demonstrate that the signatory company has reasonably considered an issue and documented the process.

The Sustainable Packaging Guidelines assists in the design, manufacture and end-of-life management of packaging to meet the sometimes conflicting demands of the market for performance and cost, consumer protection and the environment.

Where there are conflicting objectives, signatories should document the steps they have taken to minimise the adverse environmental impacts of their packaging across the packaging and recovery chains without diminishing the ability of their packaging to perform its primary function(s).

3.1 Maximise water and energy efficiency

The strategy

Where possible, energy and water consumption should be reduced by: minimising the amount of material used for packaging; taking steps to make production and distribution more efficient; and considering the use of renewable energy.

Why is it important?

Efficiency improvements reduce the environmental impacts of packaging and generate financial savings across the packaging supply chain. Improving energy efficiency is the most cost-effective way to reduce greenhouse gas emissions.

Key questions

If you answer 'no' to any of the questions below, please provide the reasons for that response.

- Has the amount of material in the packaging been minimised to reduce the amount of water and energy used in production?
- Have you and your suppliers taken steps to optimise the energy efficiency of production processes and distribution?
- Have you and your suppliers taken steps to optimise the water efficiency of production processes?

- Have you considered using renewable energy for manufacturing, for example by purchasing a percentage of GreenPower?

3.2 Minimise materials (source reduction)

The strategy

Minimise packaging by using the optimal combination of primary, secondary and/or tertiary packaging. This includes eliminating unnecessary materials in packaging design; reducing the size, weight or thickness of packaging; and optimising void space within the design.

Why it is important?

Source reduction is a simple strategy to reduce the environmental impacts of packaging throughout its life cycle. Reducing the amount of packaging delivers bottom-line cost and productivity benefits, and conserves resources, water and energy.

Key questions

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Is the packaging necessary?
- Is the package designed to be fit-for-purpose but not over-packaged?
- Has the package been designed to use the minimum amount of material to suit the required level of functionality?
- Has the package been designed to minimise the number of separate layers of materials or the number of components?
- Could the amount of material used in the package be reduced further? List and consider these options.
- What is the likely impact of these options on functionality, product protection and consumer safety?
- What is the acceptability of these options for the consumer? Describe or comment on this acceptability within the supply chain.
- Does the design of the package allow the product to be completely dispensed, i.e. to avoid product wastage?

3.3 Use recycled materials

The strategy

Packaging should maximise the use of recycled material where it reduces the environmental footprint; is physically possible; is not detrimental to the function of the packaging or packaged product; and would not violate applicable health and safety standards. All material selection should be based on sound science and where possible, a whole-of-lifecycle approach.

Why it is important?

Using recycled materials in packaging helps to create sustainable markets for packaging recovered from households and other sources. Recycled materials generally use less energy and water to manufacture, and generate lower greenhouse-gas emissions than virgin materials of the same type. Some recycled materials also offer cost savings.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- What is the amount and percentage of recycled material in the consumer packaging unit? (specify source, that is, pre or post-consumer)
- What is the amount and percentage of recycled material in secondary packaging? (specify source, that is pre- or post-consumer)
- What is the amount and percentage of recycled material in the tertiary packaging unit? (specify source, that is pre or post-consumer)
- Could alternative formats or materials incorporate recycled material or offer a better environmental impact solution? If so, how much, and why were they not selected?
- Is it possible to use more post-consumer recycled material? If not, please explain the rationale.
- Have you determined whether the technical requirements of the packaging can be met using recycled content and if so, how much recycled content is the maximum you can use?
- Have you discussed the use of recycled materials with your marketing department and identified any market concerns?

If a recycled-content claim is made, is the minimum level of recycled content specified in accordance with AS/NZS 14021 (Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling)).

3.4 Use renewable materials

The strategy

Packaging should be designed to use renewable and/or recyclable materials wherever possible. All material selection should be based on sound science and a whole-of-lifecycle approach.

Why it is important?

Renewable materials such as paper, cardboard and biopolymers reduce demand for non-renewable virgin materials. If the raw materials are grown using sustainable farming and forestry practices then they are likely to have a lower environmental impact than those generated by the extraction and processing of non-renewable materials.

Using recyclable materials provides the option the package will be recovered and recycled at the end of its life, also reducing demand for non-renewable virgin materials.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- What is the potential for and availability of materials derived from a renewable source?
- Are the renewable raw materials grown and harvested using sustainable farming or forestry practices?
- What is the potential for incorporating recyclable materials?
- Describe your understanding of the extent to which the packaging used is collected for recycling in the geographic area(s) where the product will be sold?

3.5 Minimise risks associated with potentially toxic and hazardous materials

The strategy

Companies should consider their common law liabilities, assess the packaging for potentially toxic or hazardous substances that are likely to pose risk, and endeavour to reduce that risk accordingly.

Why it is important?

If used at levels that exceed regulatory limits, potentially toxic or hazardous substances may pose risks to ecosystems and human health. Avoiding or minimising the use of potentially toxic substances may reduce the costs associated with disposal of hazardous wastes from manufacturing.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Have you applied conventional and conservative risk management principles in the selection of substances for packaging applications (for example, any inks, pigments, stabilisers and adhesives)? This includes, where possible, eliminating toxic and hazardous substances or minimising such substances where their use is necessary.
- Does the packaging meet Australian and /or international standards in relation to the levels of potentially toxic and harmful substances? For example, the EU Packaging Directive specifies that the combined weight of heavy metals (mercury, lead, cadmium and hexavalent chromium) in a package or any of its components must not exceed relevant Australian standards.

3.6 Use materials from responsible suppliers

The strategy

Packaging materials should be purchased from companies that have a commitment to environmental sustainability and a documented environmental management system.

Why is it important?

Product stewardship is a commitment to responsible environmental management at every stage of the packaging supply chain, including the manufacture of raw materials and components. Companies can reduce the environmental impacts of their packaging by working with suppliers that have a strong commitment to responsible environmental management.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Are your raw materials sourced from suppliers who have documented environmental management systems?
- Do you give preference to suppliers that are signatories (if applicable) to the Covenant?
- Are you or your suppliers engaged in a sustainability program such as the PACIA / EPA Victoria Sustainability Leadership Framework?

3.7 Design for transport

The strategy

Packaging should be designed to maximise the efficiency of transport through light weighting, fully utilising shipping space ('cubing out') and using bulk packaging for distribution where appropriate.

Why it is important?

More efficient distribution packaging (secondary and tertiary packaging) can result in energy, water, material and cost savings.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Can the distribution packaging be reduced or eliminated through redesigning the primary or secondary package, and vice versa?

- Are you currently using shelf ready/retail ready packaging? Is it being used effectively? If it is not being used effectively, has this been communicated to others in the supply chain?
- Have you used light weighting (source reduction) strategies in your package design? Have you considered the overall environmental impact of light weighting? Does your design for transport have a negative impact on the recyclability of the used packaging?
- Have you designed your consumer packaging to maximise the secondary or tertiary packaging space, for example, in pallet configuration?
- Are you fully using transport options such as pallet efficiency and truck height? Are there any efficiencies that can be achieved?
- Is there an opportunity to switch to more efficient vehicles, hybrid vehicles or renewable energy sources for your distribution fleet?
- Do you consider back-loading of used packaging or waste products once deliveries have been made? Can your distribution network aid the recovery of used packaging?

3.8 Design for reuse

The strategy

Companies should consider whether reuse is practical and environmentally beneficial. Reusable packaging, including distribution packaging, should be designed to be reused safely and cost effectively.

Why it is important?

Reusing a package increases the material's useful life, and gives a greater return from the energy, materials and water used to manufacture the package in the first place. It avoids the need for single-use packaging, which in turn reduces demand for new material and conserves resources, energy and water, and reduces pollution. It also reduces the need to recover or dispose of single-use packaging at end of life.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Have you considered and compared the environmental benefits of reusable packaging with single-use packaging?
- Do you have supply-chain confirmation that the package is capable of reuse for the intended application under normal conditions, without risk to the product or to the health and safety of supply-chain workers and consumers?
- Has the product been designed to maximise the number of return trips / reuse.
- Is the packaging format applicable for reconditioning once the packaging has fulfilled its designated purpose? If the product cannot be reconditioned, can the reusable packaging be recycled?

3.9 Design for recovery

The strategy

Packaging should maximise recovery and recycling at end-of-life by using recyclable materials; avoiding materials or components that may contaminate the recycling process; and by informing consumers about appropriate disposal.

Why it is important?

The recovery of packaging at end-of-life has many benefits. It reduces the environmental impacts and costs of disposal; it helps to conserve non-renewable resources; and it provides raw materials for manufacturing that have a lower environmental impact and are often more cost-effective than virgin materials.

It is optimal for packaging to be made of only one material that can be recycled and includes recycled content.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- To what extent are the packaging materials collected for recycling in the geographic area in which the product will be sold?
- How much of the packaging is recyclable? (A definition of 'recyclable' is provided in Schedule 6 of the APC).
- How many materials are being used in this package? If more than one material is used, are the different materials compatible in the recycling process?

- Are any materials bonded together and therefore difficult to recycle? If yes, has an alternative format/system been considered?
- Has the packaging been designed to minimise the impacts that any components such as closures, labels, sleeves, carry handles, etc. may have on the recycling process?
- Have you consulted with recyclers or composters (depending on the intended recovery process) to find out whether any components will cause problems in the recovery process or in the end product?
- If compostable materials are being considered, has reference been made to industry standards such as the PACIA's document, *Using Degradable Plastics in Australia – A product stewardship guide and commitment*?
- Is packaging of this type and purpose included in the Australian Council of Recyclers (ACOR) *Kerbside recycling specifications*? Have these specifications been considered in the packaging design?
- Have you developed and implemented appropriate labelling on the packaging to encourage consumers to recycle or compost?
- In accordance with any labelling legislation where the package will be sold, is your packaging clearly labelled indicating the preferred recycling or composting stream?
- Is rigid plastic packaging labelled with PACIA's plastics identification code?

3.10 Design for litter reduction

The strategy

Any package that tends to be found in the litter stream (such as fast food and beverage packaging) should be designed to reduce the likelihood of it becoming litter.

Why it is important?

Litter reduces the visual amenity of public places and is a potential hazard to wildlife. Collecting and disposing of litter by local government imposes a significant cost to the community. Litter is a significant resource loss of valuable recyclable resources.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Do you understand where, when and how the product will be used and by whom?
- Is the package likely to be consumed away from home and therefore have the propensity to become litter?
- To what extent is this packaging type represented in the litter stream¹?
- How many separate or easily separable components that could end up as litter does the packaging item have (for example, screw cap lids, peel-off seals), and can they be reduced?
- Has the package been designed to minimise the number of separate or separable components?
- Do you provide advice for consumers on the label to encourage appropriate disposal or recovery?
- What steps have you undertaken to reduce the occurrence of your packaging in the litter stream.
- Have options been considered for away-from-home recycling as part of an overall littering abatement program?

3.11 Design for consumer accessibility

The strategy

For packaging to be accessible it must be designed to be easy for the consumer to open, have legible labelling and not compromise safety or quality.

Sustainable packaging cannot meet consumers' needs and expectations if it is not accessible.

Why it is important?

Easy-to-open and functional packaging is a major consumer concern as well as a health and safety issue. Some sections of the community have difficulty with product labelling

¹ Data on packaging in the litter stream is available from Keep Australia Beautiful (see the reference list in Appendix C).

and packaging. Companies that don't address this factor are likely to suffer commercial consequences.

For a consumer to get full satisfaction from the product the packaging needs to be functional and useable—this includes the ability to open and close.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Has the consumer's ability to access the product within the packaging been adequately considered in the design process? For example, has a consumer specialist analysed the actions required to interact with the product.
- Have you considered whether the level of information on the packaging ensures the consumer is aware of its contents and how to open the package?
- Have you considered the demographic of the consumer who will use the product? Are there any limiting factors typically associated with these consumers?
- Can changes be made to improve the ability of the consumer to use the product without compromising the safety, security or quality?
- To what extent has your company ever received any complaints in relation to accessibility of packaging?
- Could an alternative design be used efficiently to minimise the requirement for tools such as a knife or scissors?

3.12 Provide Consumer Information on Sustainability

The strategy

Where possible, any environmental claims made about such things as recycled content of packaging, recyclability or degradability should be made clear to consumers of the packaging or packaged product through clear information or advice.

Why it is important?

Consumer understanding, awareness and behaviour have a large impact on resource recovery and recycling of used packaging materials.

Environmental labelling on packaging must refer to AS/NZS ISO 14021:2000 (Environmental labels and declarations—self-declared environmental claims (type II environmental labelling)). Failure to properly adhere to labelling guidelines may raise issues of Trade Practices law.

Key questions to be considered in the review process

If you answer 'no' or 'none' to any of the questions below, please provide the reasons for that response.

- Will any environmental claims be made about the packaging item?
- Has information been used on packaging to encourage recycling for example the mobius loop (refer to AS/NZS 14021)?
- Has plastic packaging been identified with the voluntary Plastics Identification Code that marks plastic containers to identify the plastic resin from which they are made? (Note that this code is not intended to be a guarantee of recycling or to provide companies with a platform for environmental claims. Copies of the Code and Guidelines for its use are available from PACIA.)
- Has appropriate information about litter prevention been included on all packaging of products likely to be consumed away from home?
- What environmental issues have been considered during development of the product's marketing strategy, for example, use of environmental claims, logos and consumer education?
- If recycling logos are to be used on the packaging, have you identified existing systems that will be able to recycle the packaging?

4.0 Other methods and tools

A number of alternate methodologies and design tools to these guidelines are currently used to support sustainable packaging design.

A number of these may be more comprehensive in their assessment than is required under these guidelines. In these cases, the signatory company must be able to document their evaluation against each the four principles of these guidelines. Similarly, a signatory company would be considered compliant if it has an Environmental

Management System and documentation that shows that each of the four principles can be met.

Where signatories to the Covenant elect to implement other methodologies and design tools, the onus is on them to demonstrate that these meet or exceed the requirements of these guidelines and to document the process that has been implemented.

Appendix A: Application of the guidelines under the Australian Packaging Covenant

Example 1 – A small importer of packaged vases and other fragile products

Having become a signatory to the Australian Packaging Covenant and committed to assess their current packaging against the Guidelines, the importer would be expected to do the following:

1. Consider their product range and decide if there are sufficient common features between some of the products that they can be considered jointly. For example, they might all come from the same manufacturer, or might all be glass vases but supplied from different manufacturers.
2. Having determined how many reviews need to be undertaken (and for a small product range they might best be done SKU by SKU), the importer then needs to decide who should be involved in each review. The makeup of the review team and the rationale for its composition must be documented, for example:
 - a sales person or packaging specialist who understands the customer's packaging requirements, including the product's usability;
 - a representative of the purchasing department, or a supplier liaison officer;
 - a representative of the warehouse where the consignments are unpacked and routed to customers; and
 - a senior manager.
3. If the importer does not believe they have sufficient in-house skills to respond to the sorts of issues raised in the guidelines, then they might also engage an external packaging expert or engage with their raw materials or packaging

suppliers to assist in the reviews. Assistance and support may also be available from the Covenant.

4. The importer should decide how often this review team can meet and therefore how long it will take to work through the product range at a practicable pace. A schedule of reviews must then be documented and included in the importer's action plan, and progress against the schedule must be available to an Australian Packaging Covenant auditor on request.
5. The importer would then conduct reviews according to the schedule, and for each SKU or grouping of SKUs would work sequentially through the guidelines documenting issues, opportunities for improvement, or reasons why current packaging components could not be altered at the current time.
6. If the importer has limited influence over the suppliers, it must still document this assertion and demonstrate that it has sincerely sought (in writing) to influence the suppliers to adopt more sustainable alternatives to the current packaging. If the importer plans to introduce a new product it must repeat the review and, as part of the purchasing plan and prior to signing the contract, influence as far as is possible the way the new product is packaged by the supplier.

All of the documents, notes of meetings, decisions made and justification for those decisions must be retained on file and made available (subject to a confidentiality agreement) to an Australian Packaging Covenant auditor.

Example 2 – A major Australian manufacturer and brand owner with hundreds of SKUs

Having become a signatory to the Covenant and committed to assessing current packaging against the Guidelines, the brand owner would be required to do the following:

1. Consider their product range and decide if there are sufficient common features between some of the products that they can consider jointly. For example, grouping all products that use a common packaging combination such as blister pack with cardboard backing, or liquid beverages in glass bottles, or cosmetics sharing a common application mode.
2. Having determined the review schedule, the brand owner then needs to decide who should be involved in each review. It must then document the composition of the review team and the rationale behind this. The team might include:

- A packaging or consumer specialist who understands the consumer's packaging requirements (including accessibility) and the company's manufacturing capability;
 - A representative of the purchasing department or supplier liaison officer;
 - A representative of the marketing department where primary decisions about the packaging are made;
 - A representative of key packaging suppliers whose decisions have a major influence on the options open to the brand owner;
 - Raw materials or packaging supplier; and a
 - Senior manager.
 - Packaging supplier or manufacturer.
3. If the Brand owner does not believe they have sufficient in-house skills to respond to the sorts of issues raised in the guidelines, they should seek advice from their packaging supplier or manufacturer. In addition, they could engage an external packaging expert to assist in the reviews. Assistance and support may also be available from the Covenant Council.
 4. The Brand owner decides how often the review team can meet and therefore how long it will take to work through product range at a practicable pace. A schedule of reviews should then be documented and included in the brand owner's Action Plan, and progress against the schedule need to be available to an Australian Packaging Covenant auditor on request.
 5. The Brand owner conducts reviews according to the schedule. For each SKU or grouping of SKUs, they would work sequentially through the guidelines and document the issues raised, opportunities for improvement or reasons why the current packaging components could not be altered at the current time.
 6. Where the opportunities are influenced by the packaging supplier (such as inclusion of recycled material, recyclability of the packaging, or opportunities for further light-weighting) requisitions in writing to the supplier must be retained, as well as the written responses of the packaging supplier.
 7. When the Brand owner plans to introduce a new product, it must conduct a full review prior to entering into contractual arrangements and packaging supply

chain commitments, and influence as far as is practicable the way the new product is sustainably packaged.

8. Where a new product is to be packaged in the same format as existing packaging that has already been assessed, it is not necessary to repeat the full exercise but the determinations made in the previous review must be revisited to ensure that no changes have occurred in the intervening period that would allow a more sustainable option to be adopted.

All documents, notes of meetings, decisions made and justification for those decisions must be retained on file and made available (subject to a confidentiality agreement) to an Australian Packaging Covenant auditor.

Appendix B: Template for reporting [example]

Company: [XYZ Beverages]	Review Reference: [aluminium packaging category]	Date: [1 July, 2010]
Contact:		Contact Details: [TBC]

Demonstrated implementation of guidelines

Design strategy	How the strategy was considered / answers to key questions	If the answers to the design strategy questions are 'no', what alternatives have been investigated?	Documentary evidence available for auditors? If the answers are no, what alternatives have been investigated?
Minimise materials (source reduction)			
Use recycled materials			
Design for transport			
Maximise water and energy efficiency			
Minimise risks associated with			

potentially toxic and hazardous materials			
Use renewable or recyclable materials			
Use materials from responsible suppliers			
Design for reuse			
Design for recovery			
Design for litter reduction			
Design for consumer accessibility			
Consumer Information			

Summary Considerations

Activities to undertake to improve sustainability of packaging format/category
<p><i>Examples:</i></p> <p><i>Work with can supplier to make cans lighter by 1%</i></p> <p><i>Use lighter exterior cardboard packaging</i></p> <p><i>Cut exterior cardboard packaging by 5% by strengthening closures.</i></p>

Environmental benefits of review
<i>Examples:</i> <i>Reduced material use by XX tonnes per year</i> <i>Decreases greenhouse gas generation by X% (t CO_{2-e}/yr)</i> <i>Decreases waste of existing packaging type by 15% (t/yr)</i> <i>Decreases water wastage by 8%</i>
Environmental Constraints:
Increased water use by XX kL per year Consultation with packaging recovery chain shows no current recovery system in place Adds x tonnes of material per year to landfill Potential to interfere with recycling sorting operations.

Appendix C: Further resources

Packaging design guidelines

Australian Council of Recyclers (ACOR) (2006), *Recycling guide for beverage and food manufacturers marketing in aluminium*, www.acor.org.au

Australian Council of Recyclers (ACOR) (2006), *Recycling guide for fillers marketing in steel cans*, Sydney, www.acor.org.au

Australian Council of Recyclers (ACOR) (2006), *Recycling guide for fillers in PET containers*, Sydney, www.acor.org.au

Australian Council of Recyclers (ACOR) (2006), *Recycling guide for fillers marketing in HDPE*, Sydney, www.acor.org.au

Envirowise (2008), *Packguide: a guide to packaging eco-design*, Didcot, Oxfordshire

Plastics and Chemicals Industries Association (PACIA) (2008 - 2009), QuickStarts: Design for sustainability with plastics, www.pacia.org.au/Content/QuickstartPublications.aspx

Sustainable Packaging Coalition (SPC) (2006), *Design guidelines for sustainable packaging*, SPC and GreenBlue, Charlottesville, USA, www.sustainablepackaging.org

WRAP (2009), *A guide to evolving packaging design*, WRAP, Banbury, UK, www.wrap.org.uk/retail/the_guide_to_evolutionary_packaging_design

Packaging design tools

Sustainable Packaging Alliance, Packaging Impact Quick Evaluation Tool (PIQET), www.sustainablepack.org

WRAP (2009), UK packaging benchmark database, WRAP, Banbury, UK, www.wrap.org.uk/retail/tools_for_change/uk_packaging_benchmark/index.html

Recycling information

Australian Council of Recyclers (ACOR) (2006), *Kerbside recycling specifications* (various), www.acor.org.au

Australian Packaging Covenant, www.packagingcovenant.org.au

Litter information

Keep Australia Beautiful (KAB) (2008), National litter index, www.kab.org.au

Standards and codes of practice

Plastics and Chemicals Industries Association (PACIA) (2003), *Plastics identification code*, PACIA, Melbourne, www.pacia.org.au

Plastics and Chemicals Industries Association (PACIA) (2007), *Using degradable plastics in Australia: a product stewardship guide and commitment*, PACIA in partnership with the Department of Environment and Water Resources, Melbourne, www.pacia.org.au

Standards Australia (2006), *AS 4736-2006, Biodegradable plastics - biodegradable plastics suitable for composting and other microbial treatment*, Standards Australia, Sydney

Standards Australia and Standards New Zealand. AS/NZS ISO 14021:2000, *Environmental labels and declarations - self-declared environmental claims (type II environmental labelling)*, Standards Australia, Sydney

International packaging regulations

European Organisation for Packaging and the Environment (European), www.euopen.be