AUSTRALIAN
FOOD AND GROCERY
COUNCIL

SUBMISSION

SUBMISSION TO

Productivity Commission Inquiry into Waste Generation and Resource Efficiency

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PREFACE

The Australian Food and Grocery Council is the peak national organisation representing Australia's packaged food, drink and grocery products industry.

The membership of the AFGC comprises more than 170 companies, subsidiaries and associates which constitutes in the order of 80 per cent of the gross dollar value of the highly processed food, beverage and grocery products sectors. (A list of members is included as Appendix A.) The AFGC represents the nation's largest manufacturing sector. By any measure Australia's food, drink and grocery products industry is a substantial contributor to the economic and social welfare of all Australians. Effectively, the products of AFGC's member companies reach every Australian household.

The industry has an annual turnover in excess of $54 billion and employs 165 000 people – almost one in five of the nation's manufacturing workforce. Of all Australians working in the industry, half are based in rural and regional Australia, and the processed food sector sources more than 90 per cent of its ingredients from Australian agriculture.

The AFGC's agenda for business growth centres on public and industry policy for a socioeconomic environment conducive to international competitiveness, investment, innovation, employment growth and profitability.

The AFGC's mandate in representing member companies is to ensure a cohesive and credible voice for the industry, to advance policies and manage issues relevant to the industry and to promote the industry and the virtues of its products, enabling member companies to grow their businesses.

The Council advocates business matters, public policy and consumer-related issues on behalf of a dynamic and rapidly changing industry operating in an increasing globalised economy. As global economic and trade developments continue to test the competitiveness of Australian industry, transnational businesses are under increasing pressure to justify Australia as a strategic location for corporate production, irrespective of whether they are Australian or foreign owned. In an increasingly globalised economy, the ability of companies to internationalise their operations is as significant as their ability to trade globally.

Increased trade, rationalisation and consolidation of businesses, increased concentration of ownership among both manufacturers and retailers, intensified competition and dynamic, increasingly complex and demanding consumers are features of the industry across the globe. Moreover, the growing global middle class of consumers is more sophisticated and discerning, driving innovation and differentiation of products and services.

The AFGC is working with governments in taking a proactive, even tactical, approach to public policy to enable businesses to tackle the threats and grasp the dual opportunities of globalisation and changing consumer demands.

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1 EXECUTIVE SUMMARY

Implementing genuine environmental policy and reform is a complex issue. Incorporating a broader view of waste generation and its position within the overall production and consumption of goods and services is essential when considering waste management policy in Australia.

The development of systems such as processing, packaging and refrigeration have been integral to the improved delivery of foods and other products to consumers and in environmental terms makes an important contribution. The consumer benefits of product quality, convenience and enhanced safety are well documented. Less well documented are the substantial environmental benefits of reduced wastage of water and raw materials throughout the life of the products. The AFGC Environment Report in 2003 made significant contributions to the assessment of such benefits. While there is always a potential negative impact associated with these benefits, such benefits clearly outweigh the costs. Greater process efficiency through the chain and improved packaging efficiency and recovery combine to reduce such costs. For a variety of reasons, including concern for the environment, the food, beverage and grocery industry constantly promotes efficiencies in its operations and in the management of its products and packaging.

Environmental reporting plays an important role in furthering cooperation between industry, government and consumers for the benefit of the environment. Accurate reporting enables industry to document and quantify examples of good performance, identify areas for improvement and consider key issues affecting the future of the sector.

A comprehensive national framework that takes into account the broader issues associated with production through to waste management is required. This would result in a more comprehensive policy process that embraces the complex task of reducing environmental impact while also considering the economic and social issues.

The AFGC strongly supports the revised National Packaging Covenant as the most appropriate and equitable policy option for. Industry is acutely aware of the challenges and responsibilities they face to ensure improvements are made and data is provided. The key benefit of the co-regulatory approach is particularly evident given the diverse nature of the industry. Shared responsibility provides signatories with the capacity and flexibility to innovate and invest where they can make a difference, without the costly impost of generic and inefficient regulation. However, the AFGC believes that the setting of targets in the Covenant without adequate data or robust impact is questionable.

Collection of accurate, verifiable data on packaging flows must be a priority for the revised Covenant if its economic, environmental and social impacts are to be quantified as the basis for future waste management policy decisions. Industry has shown a willingness to absorb these additional costs of data collection and reporting as long as the Covenant continues to serve as the primary policy vehicle for post-consumer packaging waste management in
Australia.

Alternatives to the current Covenant, such as container deposit legislation, have higher marginal costs due to separate competing systems, divert revenues from recycling programs

and fail to consistently achieve higher recovery rates. Recent analysis also shows that a largely voluntary approach under the Covenant has resulted in recycling rates that are broadly comparable or exceed those of CDL recycling rates in other countries.

Comprehensive national approaches are necessary to target littering behaviour, provide appropriate infrastructure support and educate consumers. The solution is to facilitate desirable behaviours through appropriate infrastructure provision and the deployment of behavioural change education and systems advice nationally.

2 INTRODUCTION

This submission is made to the Productivity Commission (the Commission) by the Australian Food and Grocery Council (AFGC) as part of its review of waste generation and resource efficiency. This submission will focus on food, beverage and grocery production, the packaging of those products and its role in the broader supply chain; the benefits of a voluntary or co-regulatory approach to waste management policy, container deposit legislation and litter management.

Food and grocery companies (like all businesses) have a triple bottom line to consider: financial profitability, social responsibility and environmental impact of their activity. Through improved environmental performance, the food and grocery industry can and has reduced operating costs, pursued new competitive opportunities and delivered greater community benefits. All of which has lead to improvements to both economic and environmental sustainability.

Implementing genuine environmental policy and reform is a complex issue. It requires a serious and committed approach based on sound science and consideration of all the impacts of current activities and proposed reforms. Collecting accurate and coordinated information is the key to understanding the impact of the manufacturing process better and guiding sustainable development of the industry.

The AFGC is supportive of the Commission's willingness to investigate and consider all production and consumption activities within and across industries that result in the generation of solid waste.

The AFGC wishes to acknowledge the Beverage Industry Environment Council's contribution to this submission.

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3 FOOD, BEVERAGE AND GROCERY VIEW

Traditionally waste management has focussed on the concept that less (or no) waste is an ultimate goal and that achievement of such a goal would result in a net benefit to the environment, economy and society. More recently the AFGC and others have pursued a broader approach to view waste in a light that identifies the complexity of waste generation within the overall supply chains for goods and services. Manufacturing activity inevitably has implications for resource use. The key challenge for the food and grocery industry is to ensure that resources are used efficiently and that impacts on the environment across the entire supply chain are minimised.

Incorporating this broader view of waste generation and its position within the overall production and consumption of good and services is essential when considering waste management policy in Australia. Given the nature of the inputs such as raw materials, water and energy, food and beverage manufacturing has considerable implications for resource use. Inputs such as water, energy and raw commodities cannot always be utilised in a manner that allows them to be available for further or secondary use. The development of systems such as processing, packaging and refrigeration have been integral to the improved delivery of foods and other products to consumers. Both processing and packaging provides greater convenience, guarantees quality and enhances safety. In environmental terms, it makes an important contribution by reducing losses, spoiling and product waste. It also enables transferring a number of processing operations from domestic to industrial kitchens. The economies of scale in industry mean these processes are more energy and water efficient and waste materials are easier to manage.

Greater process efficiency through the chain and improved packaging efficiency and recovery combine to reduce such costs. For a variety of reasons, including concern for the environment, the food, beverage and grocery industry constantly promotes efficiencies in its operations and in the management of its products and packaging.

The obvious trade-off for the benefits highlighted above, in some product areas, is a potential for increases in product packaging. Improving packaging efficiency and recovery has been a key objective of industry and government for the past decade. There have been significant improvements made including light weighting, reduced use of packaging and an increased use of recycled materials where possible.

In addressing packaging waste generation and efficiency, it is important to first understand the importance of packaging as an environmental issue, and in context with other environmental issues. The AFGC Environment Report 2003 provides a key insight into the impact of food and grocery production.

> *'The most water intensive process in the food and grocery supply chain is primary production, followed by use and consumption in the home. The relative water intensity of these two stages is, respectively, about 100 and 10 times more water intensive than most processing and packaging'*[1]

Other Australian research including life-cycle work recently completed for Dairy Australia[2] and previous CSIRO research[3] supports the view that the environmental impact of

packaging is relatively small compared to functions of preventing waste, losses and spoilage.

The AFGC Environment Report 2003 from points out that packaging contributes 4 per cent of the total greenhouse gas emissions from pasteurised milk manufacturing and distribution. When looking at the energy use per household and year throughout the supply chain, packaging stands for less than 11 per cent of the total usage for food and drinks, see Figure 1. Figure 2, shows the range of greenhouse gas emissions in carbon dioxide equivalents per kilogram of product. Again, it is an example highlighting the relatively small contribution packaging makes to the overall environmental impacts from a life-cycle perspective.

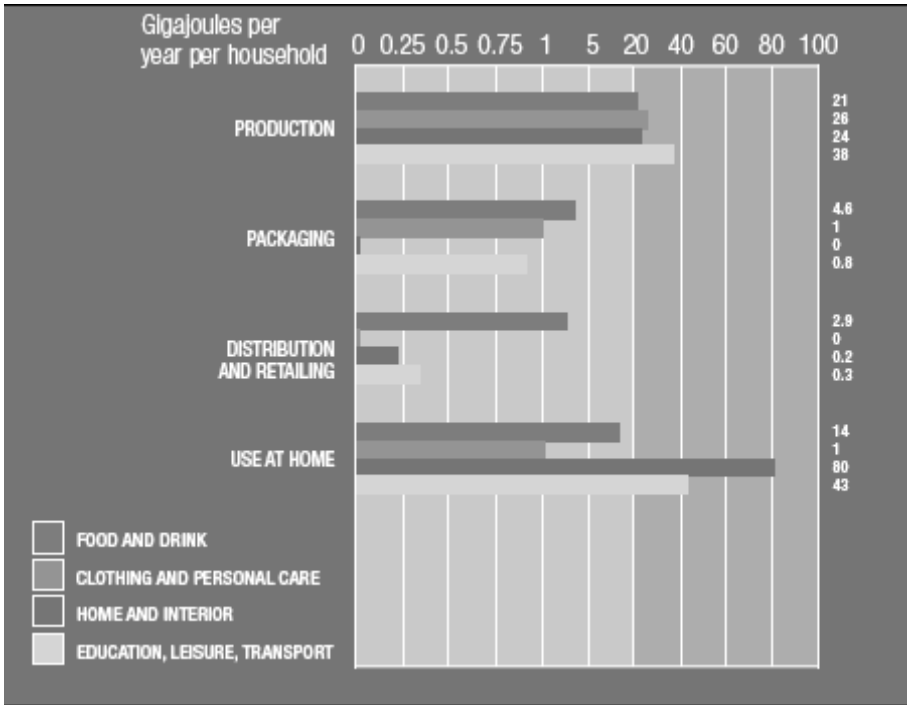

Figure 1. Energy use throughout the supply chain in giga joule per household and year.

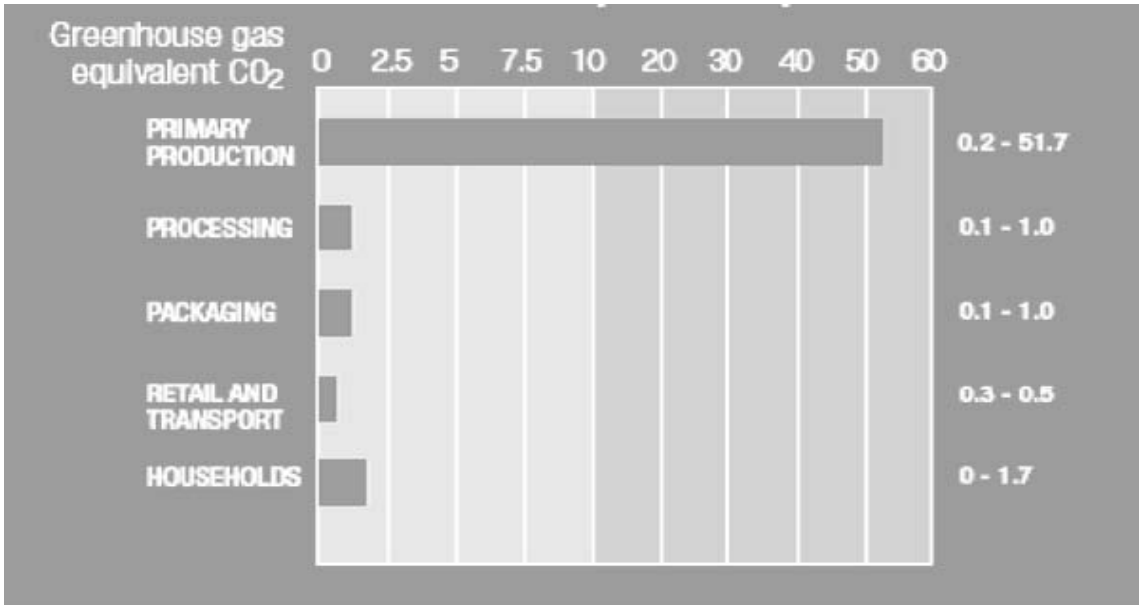

Figure 2. Range of greenhouse gas emission per kilo product in CO2 equivalents.

In the report *Food Matters - On reducing energy use and greenhouse gas emissions from household food consumption* by K.J. Kramer[30] cited in Miljøstyrelsen (2004), the environmental impacts from food products have been expressed in terms of energy use and global warming potential (CO2-equivalents). The report shows that packaging only contributes 4.5 and 5 per cent respectively of the total impact for these parameters, see Figure 3.

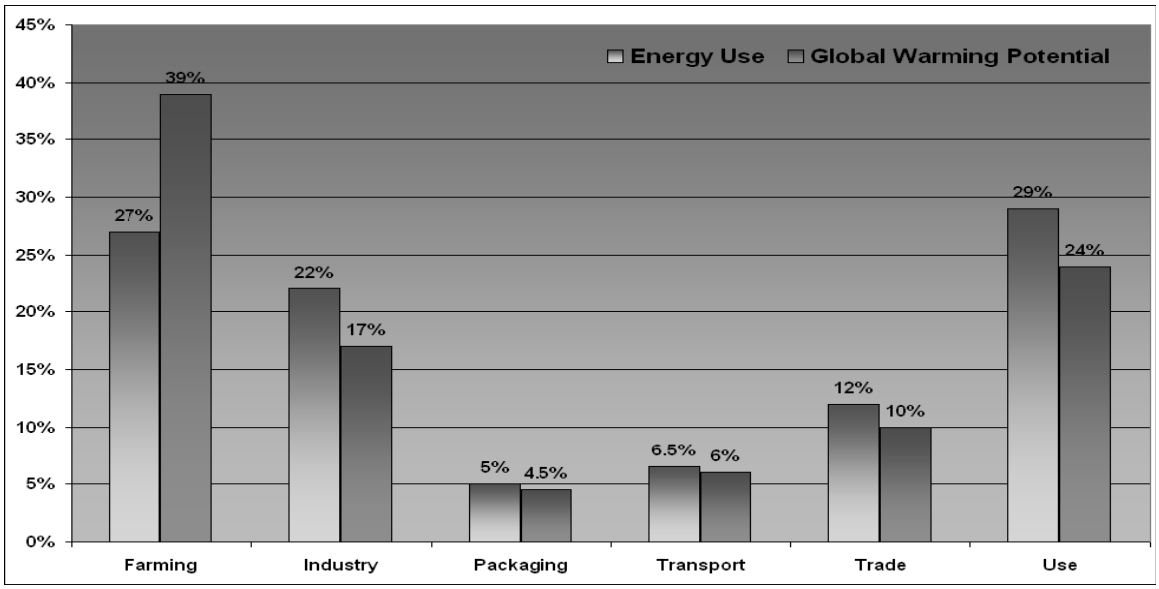

Figure 3. Energy use and global warming potential during different phases for different food products. (Figure by Nolan-ITU based on Miljøstyrelsen, 2004).

4 INDUSTRY ENVIRONMENT REPORTING

The AFGC will release its 2005 Environment Report, its report, in March 2006. It builds substantially on the first report in 2001 and enhances the steps taken by this industry to report on its environmental performance and identify key issues across the entire supply chain. The objectives of the Reports are to track environmental management by industry across the areas of water, energy and greenhouse and waste.

The reports reflect the continual improvements made by member companies in the collection of environmental data and provides detailed indicators of the performance of the 11 sectors that make up our industry. It also shows the resource intensity of processing different food and grocery products. In addition to this the AFGC also collects key performance indicator (KPI) data in alternate years.

The 2005 Environment Report highlights the growing importance of environment reporting in Australia and demonstrates industry's ongoing commitment to improving its environmental management. Since the last report in 2003, the industry has reduced energy use by 14%, water use by 21%, greenhouse emissions by 29% and waste to landfill by 20% per unit of production. Water is of critical importance for the sustainability of the industry and recent reports have noted that the majority of water used in food and grocery products is in the production of the raw materials. The main area of interest to the Productivity Commission is in the area of waste management where companies continue to make significant improvements. Copies of the 2003 and 2005 AFGC Environment Report are available at www.afgc.org.au.

The Reports continue to highlight manufacturing as one stage in the production, consumption and disposal cycle for food and grocery products. To report accurately and meaningfully on the environmental performance of the food and grocery industry, each stage in the cycle, and its impact on the supply chain, must be measured.

The AFGC is of the view that environmental reporting plays an important role in furthering cooperation between industry, government and consumers for the benefit of the environment. The biannual Reports enable the AFGC to document examples of good performance, identify areas for improvement and consider key issues affecting the food and grocery sector.

5 WHOLE OF SYSTEM APPROACH TO CONSUMER PACKAGING

Consumer packaging is important, but is only one of a number of the environmental impacts from the production and consumption of food and grocery products. The AFGC supports the adoption of a more systemic approach to environmental management which will enable the prioritisation of the crucial environmental impact issues. This will allow policy makers to identify how to best allocate limited resources to achieve the most efficient and sustainable environmental outcome.

The AFGC seeks a national framework incorporating the industry and environmental elements of government that takes into account the broader issues associated with through chain production and marketing processes and waste streams. The approach would incorporate the collection and consideration of key

resource data along with a full account of the wider environmental impacts. Such an approach would result in a more complete and comprehensive policy development process that embraces the complex task of reducing environmental impact while also considering the economic and social issues.

Consumer packaging in its simplest form can be seen in two ways. One, it prevents waste. Two, it creates waste. Packaging is a means of delivering products to customers in a condition that allows products to pass through the supply chain without being damaged. However, it also becomes waste at the end of its useful life. Focussing on reducing packaging with the sole aim of creating less packaging waste can be counter-productive. If goods are under-packaged, there is a risk they will either be damaged or spoiled before they reach consumers. This leads to waste and puts more pressure on resources.

Packaging needs to fulfil a number of criteria to ensure that a product is delivered to consumers in good condition. This can require a number of complex trade-offs, such as balancing the need to reduce the environmental impact of packaging with the need to ensure it performs well and prevents the waste of products in the supply chain. The specific demands placed on the packaging by end-users are likely to be relatively limited compared with those demanded by production, distribution and storage processes. These demands and trade-offs are rarely evident to consumers.

Changing demographics and lifestyles – including the trends towards smaller households, people living alone, an ageing population and greater convenience – have an impact on the type of products demanded by consumers. Industry has no influence over demographic changes, but must be responsive to them. Industry does however, have an influence on the type and amount of packaging used.

The challenge for food and beverage manufacturers is to design packaging systems to get goods from production to consumption in the most efficient way possible using the minimum amount of resources and generating the least amount of waste[4].

6 THE NATIONAL PACKAGING COVENANT

The Covenant is the voluntary component of a co-regulatory arrangement for managing the environmental impacts of consumer packaging in Australia. It is an agreement based on the principles of shared responsibility through product stewardship, between key stakeholders in the packaging supply chain and all spheres of government – Australian, State, Territory and Local.

The regulatory underpinning is provided by the National Environmental Protection (Used Packaging Materials) Measure (NEPM), designed to deal with free riders and non-signatories and applied at the jurisdictional level.

The Covenant is designed to minimise the environmental impacts arising from the disposal of used packaging, conserve resources through better design and production processes and facilitate the re-use and recycling of used packaging materials.

6.1 INITIAL COVENANT

The initial National Packaging Covenant, while not perfect, was successful in raising awareness of packaging-related issues within industry. It provided a useful framework for packaging management and improved the focus on the entire supply chain. Despite this it was clear that a significant number of stakeholders, especially local governments, were not engaged in the process. It was also clear that the NEPM was an ineffective enforcement tool that would need to be more visible and rigorous in any further Covenant[5].

An independent review of representative Action Plans submitted under the initial Covenant[6] found that more than two thirds (68%) of the Action Plans reviewed made a clear effort to deliver against at least some of the objectives set out in the Covenant. The review also found that around 20% of Action Plans were good or outstanding but in contrast, 29% of Action Plans adopted a relatively basic response of going through the motions of developing a plan but demonstrating little understanding or commitment to the process. Five Action Plans (2.5%) reviewed were considered unacceptable.

The review noted there was clear evidence of heightened awareness and actions initiated to review and improve the environmental performance of packaging systems by companies across the packaging supply chain. This included operational practices as well as packaging. Despite its acknowledged shortcomings, the initial Covenant was a valuable policy development and provided clear evidence of the effectiveness of a co-regulatory model to industry policy. Putting it in a positive light, the findings of the review of Action Plans demonstrate the initial Covenant was a qualified success in that nearly 70% of company signatories to a voluntary process took the process seriously as reflected by their efforts in developing and reporting Action Plans under the initial Covenant[6]. The AFGC notes that the limited data available suggests kerbside recycling grew 49 per cent in four years, from 812,000 t/yr in 1999 to 1,212,000 t/yr in 2003. This represented significant progress, particularly for a system that was recognised as less than perfect, yet more needs to be done.

As part of the process of considering new options a major review of the Covenant was undertaken. The review found that the Covenant was successful in some areas but required improvement. Perhaps the key outcome of the review and revision process has been a clear recognition by all major stakeholders involved in the process of both the complexity and scale of the issues being addressed.

6.2 THE REVISED NATIONAL PACKAGING COVENANT

In light of the reviews of the initial Covenant, the revised National Packaging Covenant (revised Covenant) was re-signed until 2010 with a number of modifications and improvements to build on gains and overcome shortcomings of the initial Covenant. This included clearer performance measures; a national, as opposed to State-based emphasis; more rigorous company Action Plan process; and the development of specific KPIs to help measure performance and drive achievement of the goals and objectives.

The revised Covenant establishes a framework for the effective life-cycle management of consumer packaging and paper products that will be delivered through a collaborative approach between all sectors of the packaging supply chain, consumers, collectors, reprocessors and all spheres of government. **The AFGC supports the approach to wider**

life-cycle management in the Covenant context and of the need to minimise the impact of packaging waste. Furthermore, critical issues across the overall supply chain need to be considered in the debate.

The revised Covenant requires company signatories to develop and report against Action Plans documenting what steps they have taken to minimise the impact of product packaging placed onto the market. It has also established a national policy framework to overcome what has previously been a disjointed and uncoordinated policy development process. It has used industry funding to develop programs and initiatives that will contribute to the establishment of a more cohesive strategy to packaging waste management that encompasses all aspects of the supply chain.

While it is still too early to provide an insight into the progress or performance of the revised Covenant, the AFGC view is that industry signatories are acutely more aware of the challenges and responsibilities they face to ensure improvements are made and data is provided. **The AFGC strongly supports the revised Covenant as the most appropriate policy option.** A strengthened Covenant, despite its additional costs and burden on industry, is clearly preferable to doing nothing at all or to pursuing outdated and inefficient alternatives. The KPIs and revised NEPM, plus the revised Environmental Code of Practice for Packaging should provide a significant improvement to the performance of the Covenant.

6.3 ESTABLISHMENT OF TARGETS AND KPIS

Whilst there has been a considerable increase in recovery under the initial Covenant, the AFGC accepts the need for better recovery and the need for better data in order to demonstrate meaningful progress under the revised Covenant. **The AFGC supports the development of relevant national data collection systems to provide a basis on which measurements can be made.** The provision of data resulting from the relevant KPI's will ensure sound judgments and decisions can be made.

The AFGC believes that the setting of targets (in the Covenant) without adequate data or robust impact is questionable. This view is consistent with the conclusions of an independent review[7] of the revised Covenant's Regulatory Impact Statement (RIS) which confirmed that the revised Covenant and NEPM represent the best available policy option for addressing life-cycle management of used consumer packaging. Importantly, the review also highlighted a range of issues associated with the RIS including in particular the lack of credible data on which to propose to evaluate the revised Covenant and set targets for the revised Covenant. The review can be accessed on the AFGC website afgc.org.au.

Key findings of the review[7] included:

- The so-called 'enhanced' revised Covenant option recommended in the RIS, excluding the element relating to the setting of over-arching targets, and including KPIs constituted a prudent evolutionary approach to tightening industry performance requirements.
- Addressing information gaps and demonstrating performance outcomes should be the highest priority for the revised Covenant. Both the RIS and review agree on this point.
- Lack of appropriate data has severely limited the robustness of the RIS that was undertaken as part of the implementation of the revised Covenant and limits the application of the required cost-benefit analyses. Even though required for policy

change under the RIS process, robust cost-benefit analysis cannot be undertaken due to a lack of reliable data.
- Cost-benefit analyses of alternative approaches would require significantly more robust data than is currently available to meet COAG requirements for the RIS process. It follows that such approaches should not even be considered without the compilation of several years' datasets under the revised Covenant.
- 'Top down' setting of over-arching targets is not appropriate for a range of reasons. Without practical linkages between signatory actions and target achievement, there is no way to assign responsibility for achievement or failure to signatories. Meaningful quantitative monitoring is not possible without these linkages, and failures of the current Covenant would therefore not be addressed.
- The RIS has had to assume environmental outcomes without addressing implementation or practicality of the targets.
- Targets set by regulators in the absence of practical input from individual businesses and their consumers can severely distort market outcomes of policy implementation.

The AFGC accepts that reporting and compliance costs will be higher under the revised Covenant than under the initial Covenant:
- 11 of the 29 overall KPI requirements will require creating initial datasets in addition to on-going reporting.
- Capital, on-going and reporting costs may be underestimated.
- Higher marginal costs will be incurred as recovery rates climb.

In addition, the RIS has projected increased consumption of packaging by blanket application of GDP growth, whereas consumption has been stagnant or increased only slightly for a range of affected material types. These calculations could have a significant impact on baseline estimates and achievement of the over-arching targets.

Collection of accurate, verifiable data on packaging flows must be a priority for the revised Covenant. Industry has shown a willingness to absorb these additional costs of data collection and reporting as long as the Covenant continues to serve as the primary policy vehicle for post-consumer packaging waste management in Australia.

6.4 How Effective is the Co-regulatory Approach?

The co-regulatory approach to waste management under the revised Covenant is the preferred approach from an industry perspective. It provides for an equitable and appropriate system to manage packaging waste in Australia. It represents the most efficient and effective approach for food and beverage packaging waste in that it allows industry the flexibility to manage and improve its performance in the relevant areas. The revised Covenant has an appropriate balance of industry engagement and performance to ensure free riders and underperformers will be minimised. The strengthened reporting requirements and use of KPIs will result in better data and feedback to address impacts of packaging than alternative extended producer responsibility (EPR) approaches.

The Covenant to date has resulted in recycling rates in Australia that are broadly comparable to those of far more costly and onerous Extended Producer Responsibility (EPR) and Product Stewardship schemes in other countries. The Covenant emphasises reduced overall environmental impacts and shared responsibility across the packaging

supply chain, consistent with contemporary policy approaches, whereas strict EPR is focussed specifically on producers and products[8].

The key benefit of the co-regulatory approach is particularly important given the diverse nature of the food, beverage and grocery industry. Shared responsibility provides signatories with the capacity and flexibility to innovate and invest where they can make a difference, without the costly impost of generic and inefficient regulation.

In contrast to the increasing focus on EPR here in Australia, European debate has shifted away from EPR as an end in itself and more toward Integrated Product Policy (IPP). Under this approach a range of instruments are targeted to the various stakeholders (such as producers, consumers and governments) in an attempt to send clear signals about environmental performance to each stakeholder and reduce overall environmental impact. The Covenant is therefore broadly consistent with IPP principles currently being pursued elsewhere[8].

More onerous regulatory options 'alternative arrangements' should only be seriously considered after the completion of a proper and robust cost-benefit analysis and pending the outcome of the mid-term (end-2008) review contained in the revised Covenant. This will require a critical set of data resulting from a number of years experience under the revised Covenant.

The independent review of the RIS for the revised Covenant[7] indicates assumptions were made as to the specific environmental outcomes in order to evaluate particular policy options. The AFGC agrees that implementation steps were not examined to determine the practicality or desirability of achieving the targets. If the revised Covenant is to continue past the expiry date of 2010, these steps will have to be undertaken.

By engaging industry participation in bottom up development of targets and aggregating any 'over-arching targets' from individual targets and actions, all of the practical shortcomings identified with the setting of the current targets are likely to be eliminated. By doing this, Access Economics suggest it is still possible to develop innovative policy in relation to waste management and propose such a process as having a significant advantage[7]. It is likely to result in responsible policy development and implementation. Access Economics claim this would be a welcome change from past experience in the environmental and waste management area.

The AFGC view of co-regulatory approaches is similar to that proposed by Perchard[9] that what is most appropriate is a framework to ensure that company management systems regularly review the environmental impacts of their activities; identify and implement possible improvements; and expose their plans and actions to external review.

Perchard claims the introduction of targets under a scheme such as the Covenant will mean that all stakeholders would focus on the same objective or objectives. Given the diverse range of sectors and companies making up these sectors the real environmental impacts are much broader than just waste minimisation. A transparent and consistent framework which requires industry to formally consider the issues directly relevant to them, and develop the most preferred method of meeting its own KPIs is a much more effective and equitable approach. Not only that, given there is flexibility in the process it would be more likely to yield results and significantly superior to the outdated and inefficient 'command-and-control approach' proposed by some advocates.

The Covenant represents a fixed period during which industry can plan and implement investment strategy. It is critical in securing industry commitment to this co-regulatory agreement. Companies need a stable legal framework if they are to plan ahead, and particularly if they are to commit resources that will only yield fruit in the long term.

Waste is an unavoidable result of a strong and vibrant economy. Notwithstanding this, it is in everyone's interest that waste be minimised. The nature of these reductions should be considered in the overall economic, environmental and social improvement in the product supply chain. It is not as simple as seeing waste reduction as an end to itself and particularly at the expense of the overall environmental impact of the activity.

7 ALTERNATIVE POLICY APPROACHES

Internalising external costs involves identifying environmental costs hitherto unpriced but borne by the community as a whole in the form of pollution or loss of amenity, and building them into the price of the product. This can be done in one of two ways:

- by imposing some kind of tax or levy (preferably having first costed the external environmental impacts in an objective and scientific way), or
- by mandating producers to undertake certain actions at their own expense so that the costs are internalised.

The use of economic instruments for packaging has tended to focus on its waste disposal implications rather than on total environmental impact. Simplifying the problem is convenient – internalising waste disposal costs is far more straightforward than attempting to internalise all pollution costs. However it can provide a slightly distorted view on the premise that waste disposal is only one environmental impact among many and that there might be a trade-off between waste disposal and other parameters such as energy consumption.

EUROPEN, the European Organization for Packaging and the Environment, has juxtaposed an economist's calculations with actual packaging tax levels[10]. Even if wrong by a factor of ten, which is highly unlikely, the evidence of this and other studies (EUROPEN cites six different studies) suggesting that the external costs of packaging are relatively low, certainly lower than either the costs of operating Green Dot and other industry-funded support systems for packaging waste management, or of taxes high enough to change consumer behaviour[9].

7.1 EXTENDED PRODUCER RESPONSIBILITY

The Organisation for Economic Co-operation and Development (OECD) defines EPR as 'an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life-cycle'[11]. The concept of EPR aims to increase recycling rates and to provide incentives for producers to incorporate environmental considerations into the design of their products. While EPR has an emphasis on producers, the broader idea of 'product stewardship' involves sharing responsibility through the life-cycle of products. This includes the environmental impact of the product through to and including its ultimate disposal[12].

The revised Covenant has set an overall packaging recycling rate of 65% to be achieved by 2010. This is in light of the current overall Australian packaging recycling rate of around 50%[13] being comparable to the European packaging recycling rate of 55% overall. Most informed stakeholders agree that the European material recycling rates are subject to some scepticism. Despite this the same stakeholders agree that they are probably the highest recycling rates that can practically be reached[8].

Australia has made significant improvements to packaging recycling. Accordingly, it is becoming more difficult to identify rationale to pursue improvements beyond what can be justified from an overall economic and environmental perspective. Marginal costs of achieving higher recycling rates will continue to increase significantly. There comes a point where improvements can result in an overall dead weight loss as the resulting benefit of an action is less than the overall cost of achieving it. It is inevitable given the current challenges facing manufacturers of fast moving consumer goods in Australia in terms of increases in input costs and pressure on margins from the retail sector, that such additional costs will surely be passed on to consumers.

The AFGC notes the OECD finding that there is no upper limit on costs of EPR, as EPR costs are incurred even if they exceed benefits[14]. The primary objective for EPR and product stewardship schemes is to attain an efficient level of the environmental externality (in this case waste management and landfill) in question, and to do so cost-effectively. Recent reports have found that the conditions required to justify introduction of EPR are not applicable to packaging in Australia. The National Packaging Covenant Industry Association (NPCIA) has reported that attempts to apply EPR to packaging, especially in Europe, have introduced significant social and economic costs, yet environmental results may be viewed as mixed at best. It has become clear that packaging waste does not justify EPR instruments, either from an economic or an environmental perspective[8].

The AFGC agrees with the OECD view that EPR and product stewardship approaches (such as advance disposal fees, ADFs, and advance recycling fees, ARFs) and development of producer responsibility organisations (PROs) are only appropriate for end-of-life management of hazardous or difficult-to-manage products such as certain electronics, oil, tyres and lead acid batteries.

8 CONTAINER DEPOSIT LEGISLATION

An obvious example of EPR is Container Deposit Legislation (CDL). CDL currently operates in eleven of the fifty US states, eight of the ten Canadian provinces and a variety of European countries. CDL was originally intended to protect market share for local bottlers and to reduce beverage container litter back before many recycling and litter management programs were developed[8]. Most US and Canadian CDL programs are 20-30 years old and therefore do not reflect contemporary waste management, recycling and litter management developments.

CDL schemes can be effective in increasing beverage container recovery and decreasing beverage container litter[15,16]. However, consideration of social, economic and environmental impacts shows that CDL has no inherent benefits compared to alternative, comprehensive policy approaches[8].

Alternatives to the current Covenant, such as container deposit legislation, have higher marginal costs due to separate competing systems, divert revenues from recycling programs and fail to consistently achieve higher recovery rates. Recent analysis also shows that a largely voluntary approach under the Covenant has resulted in recycling rates that are broadly comparable or exceed those of CDL recycling rates in other countries.

Prior to the introduction of CDL in Germany, CDL had always been introduced first and then comprehensive waste management and recycling programs could be designed around the CDL programs[15]. This reduced conflicts between CDL and recycling programs and contracts. **Given the advanced development of waste management, recycling and litter management programs in Australia, the introduction of CDL would create an additional system that would undercut recycling programs by creating competing systems and increase the costs of implementing both approaches.**

Most advocates of CDL in Australia highlight the findings of one report in NSW[17], without acknowledging the significant criticism of the report's methodology[18] or considering the findings of a range of reports (for NSW, ACT, Victoria and NT) that provide a more balanced understanding of CDL. We provide the following discussions of relevant CDL programs to assist the Inquiry in understanding the AFGC's concerns about CDL.

8.1 SOUTH AUSTRALIAN CDL

'Traditional' CDL approaches such as South Australia's involve built-in inefficiencies. In SA, at least 18 different sorts by brand, colour and material are required to track container and deposit flows, even though the brands ultimately end up at a handful of end users for recycling[15]. A recent study commissioned by the SA Government found that these inefficiencies alone amount to $4.1 million p.a., or around $35,000 per collection depot p.a.[19].

8.2 BRITISH COLUMBIA CDL PROGRAM

Figure 4 provides an overview of the British Columbia CDL program, one of the CDL models viewed as potentially effective under current Australian conditions if CDL were to be introduced[15]. An industry consortium is responsible for ensuring proper container returns, thus ensuring that industry has reasonable flexibility in running the program. An additional container recycling fee ("CRF") may be charged to help ensure the full costs of recycling each type of container are being recovered.

A critical point to note is that in January 2005, the Consumers' Association of Canada brought a Supreme Court challenge against the CRF, arguing that the CRF causes consumers to bear the full costs of recycling, rather than producers[20]. The suit appears to still be pending.

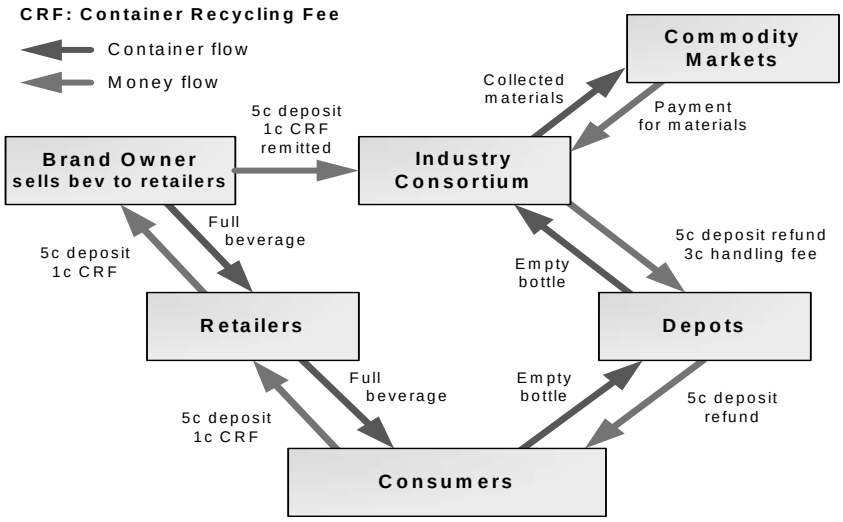

Figure 4. CDL in British Columbia. Source: MS2 2006[8]

Whilst the British Columbia model provides greater industry flexibility than traditional CDL programs, it has not resulted in substantially higher recycling rates than alternative approaches and still represents a separate, competing system.

8.3 CALIFORNIA BEVERAGE CONTAINER RECOVERY PROGRAM

Figure 5 shows container and financial flows for the California Beverage Container Recovery program.

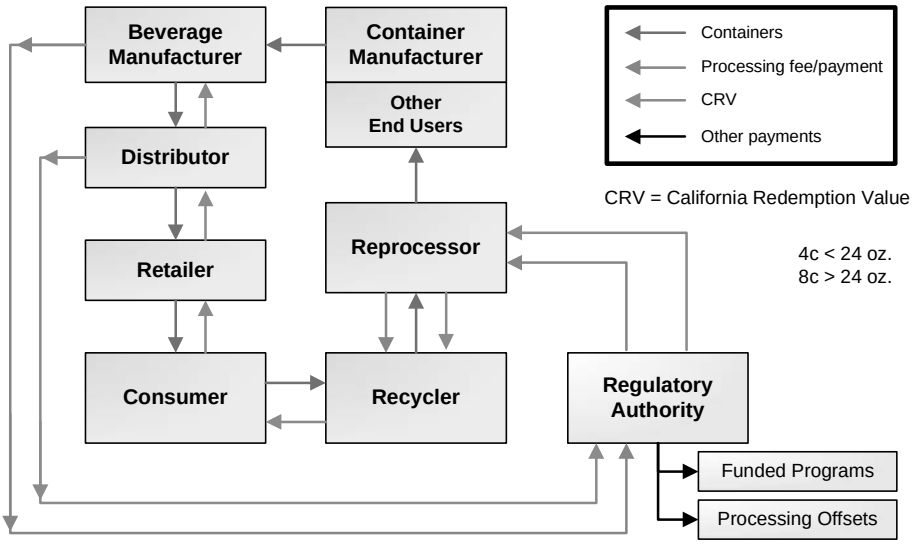

Figure 5. California Container and Financial Flows. Source: MS2 2006[8]

The California government has assumed audit and brand responsibilities assigned to industry in most other CDL programs. As a result, a significant amount of reliable data is available on the California program and the California data is more robust than that from other CDL programs. Administrative costs of the California program are substantial. This can be clearly demonstrated by the resources required to administer the program over one year. In 2004, California conducted 3,616 recycler inspections, 167 compliance audits and 29 investigations related to the program each of which has a significant cost [21].

8.4 COSTS OF ADDITIONAL SYSTEMS

Deposit-refund systems work especially well for products where there is a significant risk of illegal dumping and where the hazardous nature of the product warrants collecting the products through a separate collection system[14]. We note that these conditions do not apply to beverage containers or to broader packaging. A review of the European Packaging Directive[16] (p.130) found that,

> *"There is no evidence that mandatory deposits improve the efficiency of recycling systems – collection arrangements for non-beverage packaging are still needed, and one system is cheaper to run than two."*

Conflicts increase as recycling programs increase their recycling rates and reduce their costs. For example, introduction of CDL in the ACT could at best result in a 10% increase in beverage container recovery, yet increase the marginal cost for recycling from $110 per tonne to $900-$1,900 per tonne[22]. Independent assessments in NSW, ACT, Victoria and NT have found that the costs of implementing CDL on top of comprehensive waste management and recycling programs exceed the benefits [15,17,22,23,24].

A Victorian inquiry[23] found that the introduction of CDL would "increase the overall cost of beverage consumption and beverage container recycling by a substantial amount, ranging from $111 to $157 per household per annum", compared to the current average cost of kerbside recycling services in Victoria of about $28.85 per household per annum. The report was peer reviewed by the UK-based consultancy Perchards. Perchards questioned aspects of the report's methodology, but concluded that an increase in costs of $73 to about $81.50 per household per year was still likely. The peer review also suggested marginal costs of $1,700 per tonne to implement CDL on top of kerbside recycling in Victoria. This finding is comparable to the marginal cost estimated for the ACT of $900 to $1,900 per tonne[22,23].

Various studies have found that introducing CDL in Australia would double or triple the cost per household of kerbside recycling. Therefore, council rates could actually rise if CDL was implemented in top of comprehensive recycling programs. Such concerns led the US state of Florida to repeal a CDL program that was set to take effect in favour of an (ADF) that created market-based incentives for material recovery and market demand for recovered materials[8,15,17,22,23].

European experience supports these findings. Perchards *et al*[16] (p.x) note that CDL programs in Nordic countries are

> *"stable and relatively uncontroversial. However, they started operating before there were recovery organisations for non-beverage packaging. Grafting beverage containers legislation onto a mature recycling system for all packaging appears to be much less successful."*

In addition, one study of environmental- and cost-efficiency analysis found that implementing CDL where Green Dot systems already exist would generate additional greenhouse gas impacts equivalent to an extra 500,000 to 700,000 cars, each travelling 10,200 km per annum[25].

Germany introduced CDL on top of their comprehensive waste management and recycling program as an arbitrary punishment for the German beverage industry. This cost the industry around $490 million in 2003 and led to a net loss of 9,530 jobs. A recent study of the program has found that the program "has in fact had a considerable negative effect on the environment" by increasing the environmental impact of production plants and transport, increased litter, reduced choices for consumers and come at a considerable cost[8,10].

Consumers are also finding considerable difficulty in redeeming their CDL deposits in Germany. As a result, drinks are more expensive and deposits are much higher than those charged in other CDL programs (which were implemented before comprehensive recycling). Rather than pay the high deposit and return the containers, Germans are buying the cheaper refillable bottles, then not returning them. The refillable bottles are also increasingly being littered. The deposit has therefore triggered a shift away from lightweight non-refillable packaging to heavier refillable packaging. This shift, along with lower return rates for refillables, has resulted in an overall increase in the tonnage of packaging waste from drinks while actually increasing the environmental impact of packaging[10].

8.4.1 Bias Against Regional and Rural Australia

Introduction of CDL could introduce additional bias between urban and rural areas. An investigation for NSW found that whilst some viable CDL depot systems could be established in metropolitan areas, CDL in rural areas would require $123 million in establishment costs alone to create 500 depots, however only 30-60 of the depots would be commercially viable on their own[15]. The AFGC is strongly opposed to such policy approaches that penalise regional consumers or reduce regional competitiveness. CDL should be opposed on the basis of poor use of resources in the case of regional economies and the costly approach to such systems that do not have adequate facilities.

Modelling is not currently available to determine the extent to which regional and rural areas in other parts of Australia such as WA, NT or North Queensland would be impacted under introduction of CDL, although such impacts are likely to be significant.

8.4.2 Jobs

CDL can threaten, rather than create, jobs. Australian studies have shown that CDL does not lead to net job creation, as jobs at CDL collection depots and processing facilities would come at the expense of investment in other, more efficient uses such as kerbside recycling[15,26]. Meanwhile, the introduction of CDL in Germany led to a net loss of 9,530 jobs in 2004[10].

8.4.3 Diversion of Recycling Revenues

The potential exists for significant diversion of revenues from recycling programs under CDL if consumers are motivated to return the containers. For example, materials covered under CDL contribute 54% of the volume, yet 77% of the financial value of kerbside recycling in Tasmania[27]. In Northern Queensland, CDL materials contribute 33% of the volume, yet 59% of the financial value of kerbside recycling[28]. Economic viability of such programs could be threatened to the extent that consumers redeem containers through CDL collection depots rather than through kerbside.

California data (Figure 6) shows that where CDL and kerbside occur together, there may be a significant shift in materials, with easy to collect or higher value items returned through CDL and others left in kerbside recycling.

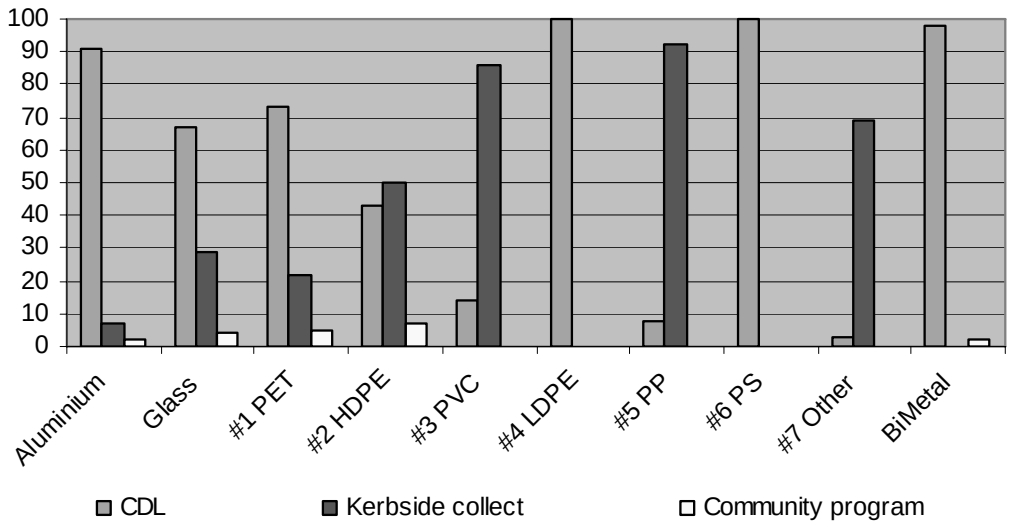

Figure 6. California Material Recovery Pathways 2004 – CRV. Source MS2 2006[8] **.**

In California, with CDL and kerbside together, virtually all the materials with value (especially glass, aluminium, steel[1] and PET) get diverted to CDL. The kerbside programs are left primarily with PVC, PP, other plastics and of course paper. Again, modelling is not currently available to determine these impacts on a national basis if CDL were to be introduced, although such impacts are likely to be significant.

8.5 RECOVERY RATES UNDER CDL

CDL does not result in high overall recycling rates than alternative approaches. Two detailed studies have found no connection between presence of CDL and levels of waste diversion in the US and Europe[15,16]. Perchards *et al*[16] further found that

> *"It is clear that deposit systems for non-refillable beverage containers are not necessary to meet the recovery and recycling targets in the Directive. Member States without deposit systems*

[1] Steel cans are referred to as bimetal containers in California.

have met the Directive's 2001 targets, and in some countries were already meeting the material specific targets set for 2008." (p.132) and "overall recycling rates in Member States with deposit systems are not higher than those of comparable EU countries where there are no special arrangements for beverage containers". (p.x)

Recent analysis also shows that Australia's largely voluntary approach under the Covenant has resulted in recycling rates that are comparable or exceed those of California's CDL recycling rates for all materials except glass in 2003[8]. Australia's material recycling rates tend to increase over time, whereas CDL recycling rates tend to decrease. For example, apart from an initial increase with program introduction and a slight resurgence since January 2004 due to program expansion and an associated education campaign, California's container recycling rates have declined over time (Figure 7).

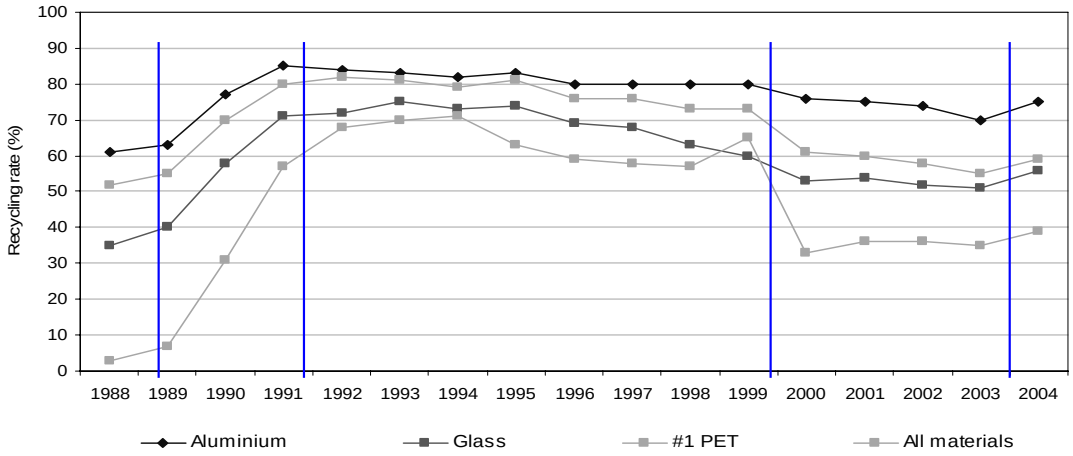

Figure 7. California Decline in Recycling Rates 1991 to 2003. Source: MS2 2006[8]

Another comparison of recycling rates shows the ACT's 72% beverage container recovery rate is equal to recovery rates of the (then) 10 US CDL states and also equal to British Columbia's. The ACT's rate also clearly exceeds California's container recovery rate. Recyclers of South Australia reported 1997 CDL recovery rates as being in the 74-83% range, although there's not the same robustness in reporting that we see in California and British Columbia, so the ACT's recovery is in the same ballpark as South Australia's. While the ACT's recovery rate has increased over time, one trend that's especially evident is a decline in CDL recovery rates over time, as shown for California as well as other US CDL states. South Australia's recovery rates for glass and aluminium also declined from 1991 to 1997. These trends happen because over time CDL deposits lose their value, new containers enter the market more quickly than the system can adapt and there is reduced education emphasis and reinforcement over time [22,29].

8.6 MATERIAL EFFICIENCY

Historically, beer and soft drink programs relied on the use of refillable glass bottles. Such bottles were quite thick and resource intensive in order to withstand multiple distribution, consumption and return cycles. It made sense for fillers to try to get the bottles back due to their inherent value, as container recycling programs were virtually non-existent at that time. Container lightweighting, one-way distribution and the advent of comprehensive

recycling programs have led to the elimination of refillable beer and soft drink containers in the US and Australia, and to a steady decline refillable containers in Europe. In 1988, the Australian soft drink industry used an average of 453 grams of packaging in the manufacture and distribution of each litre of soft drink. By 1997, the amount of packaging required had been reduced to 150 grams per litre, an average reduction of 67 percent. The weight of the average glass 'stubby' has been reduced by 25 percent over the past 15 years.

As beverage containers have become lighter and less material intensive, they have also become more recyclable given the substantial development and implementation of recycling programs, especially kerbside recycling. As recycling has become widespread, consumers lost interest in returning their containers to get their deposit back and low demand for refillable containers has led to their demise in Australia and the US. **It therefore makes sense to use more resource efficient, 'one-way' beverage containers and implement approaches such as the Covenant to recover a broad range of material types and reduce litter in a comprehensive manner.**

8.7 DISTORTIVE EFFECTS

An extensive review of European packaging legislation provides further evidence of the significant distortive effects of CDL and other poorly developed packaging legislation[16].

- Singling out beverage containers is discriminatory.
- Extensive conflicts in trade and implementation occur between CDL and other producer responsibility efforts.
- Germany's 1991 recycling targets led to recovered materials flooding European markets and protectionist responses from other Member States.
- Competitive distortions from imposing a deposit on non-refillable containers of some beverages but not on others.
- CDL fails to keep pace with new product lines and packaging innovation, which leads to inequities.
- CDL systems are more susceptible to fraud than other recovery approaches.
- EU packaging taxes tend to discriminate against beverage containers (or are biased in favour of refillables) and serve mainly as a revenue source, rather than driving environmental improvements. Such taxes also have a significant distortive effect on retail pricing.
- CDL marking requirements are more onerous for cans than for PET and glass and more onerous for fillers and importers than the requirements of producer responsibility organisations.
- CDL only impacts on beverage container litter, not other litter.
- Litter is best addressed comprehensively (including awareness and education), rather than singling out certain packaging types such as beverage containers, and litter should not be addressed through packaging waste legislation.

Initial evidence, including various studies specific to Australian jurisdictions, indicate that these concerns would also be applicable to the further introduction of CDL in Australia, especially if CDL were to be introduced in some jurisdictions and not in others.

9 LITTER

The following sections relate specifically to questions raised in the issues paper completed by the Commission. The questions provide a good basis to address litter issues. Responses are provided on an issues basis rather than answers to specific questions and are drawn from a variety of litter references with some significant areas of overlap. Please refer to the litter references contained at the end of this submission.

9.1 LITTER DEFINITIONAL ISSUES

Before addressing costs of litter, it is important to address litter itself and the causes of litter. Currently there is not a clear and simple definition of "litter" utilised by all regulatory bodies, industry and not-for-profit organisations, therefore addressing the matter of the main costs becomes equally complex. The least complex definition of litter is,

> "discarded items not placed in waste infrastructure provided and left unattended in the environment".

or in terms of the definition that is agreed by federal and state governments and industry involved in the National Packaging Covenant[30] (p.6),

> "packaging or paper that when removed from a product is intentionally or unintentionally discarded".

While the definitions are constantly debated, regulatory bodies and local governments grapple with the added issues of illegal dumping, bill posting, charity bin litter, fishing litter and inappropriate waste collection and disposal practices that result in litter blowing from uncovered trucks or compactors and tip sites. Additionally bird species such as the Australian White Ibis also contribute to the nation's litter problem.

9.2 INDUSTRY INITIATIVES ON LITTER

The AFGC established a Litter Working Group and Litter Policy to help address litter management issues. The litter policy reflects the organisation's commitment, and that of its member companies, to sharing the responsibilities for the management of litter as part of its promotion of sustainable development principles for food and grocery products. Among AFGC member companies, some have significant exposure to the litter issue and for others the issue has less relevance. The level of exposure varies significantly across the membership.

Litter management initiatives are likely to be more effective if they have the support of government and industry stakeholders across the entire supply chain and are based on research of best practice interventions following the model of the National Packaging Covenant. This is largely due to the common interest in promoting behavioural change on the part of consumers and containing the costs associated with anti-littering intervention.

The policy approach of AFGC derives from the following realities of litter and its management:

- improved litter management relies on long term changes to consumer behaviour;

- management options need to be based on a complete assessment of the environmental risk posed by littered items and the varying product stewardship responsibilities of companies; and
- any approaches to litter management must recognise the responsibility/role of government in public place management and recycling issues.

The AFGC encourages the development of proactive and appropriate litter reduction and management initiatives and the participation of relevant member companies in them consistent with their commitment to product stewardship. The AFGC supports the significant amount of work that has been undertaken by the Beverage Industry Environment Council (BIEC) on litter and its prevention and management. The AFGC looks forward to continued cooperation with BIEC and its members for a mutual benefit on litter.

9.3 LITTER COSTS AND RELEVANCE

During the past three years robust research and accompanying pilot trials of a new bin placement system (BInS) was undertaken by BIEC. This was undertaken in conjunction with social research on various issues relating to litter levels, desirable behaviours and other related factors. To date BIEC has contributed over $68 million to waste and litter reduction research and programs[31].

The BinS system has been proven to significantly reduce the cost of litter management in those participating local governments by reducing the number of bins that through incorrect placement are emptied at an individual cost (per lift) and are often less than half full.

Based upon the litter definitions above, calculating the combined cost of litter collection activities designed to remove it from the environment, provides the answer sought. Examples of these activities and the cost data sources are:

- Street sweeping (local government costs nationally);
- Roadside litter clean-ups (local government and State Roads & Traffic Authorities nationally);
- Clean-up of open spaces such as parks, gardens and malls (local government, State & Federal Parks Authorities and commercial property managers nationally);
- Beach clean-up e.g., beach raking using tractors and towed raking devices (local government, State & Federal Parks Authorities);
- Clean-ups of waterways i.e. rivers, harbours, channels, drains, reservoirs, seas (local government, State & Federal Waterways and Marine Authorities);
- Building site and industrial premises clean-up (private ownership/industry).

These costs are in turn affected by external factors such as weather (namely wind) and wildlife. For example, the White Ibis population has escalated particularly in metropolitan cities due to the provision of reliable food sources such as putrescible waste at tip sites and the provision of bins in various non-domestic areas for the purpose of collecting litter and waste. According to the Bankstown Local Government Area in NSW, home to one of the largest Ibis populations, "the long curved beak of the Australian White Ibis is ideal for probing in open public garbage bins" and Ibis-proof closed top bins are required in public places to minimise the litter caused by these birds[32].

Factors such as those above lead to apparently overestimated litter costs, as they are not differentiated effectively by local governments. For example, preliminary estimates of a pending report provided by Sustainability Victoria show that:

- Local government litter expenditure costs in Victoria, including illegal dumping, bin maintenance, street sweeping and litter prevention may be as high as $89 million per annum. This data is based on a detailed survey of 22 councils costs undertaken through the Cost/Benefit Analysis and then extrapolated to all councils.
- Litter prevention and maintenance is around 1.2% of local government total operating expenditure.
- The available evidence suggests the proportion of litter prevention to litter maintenance is around 2.6-3.3% of litter expenditure (not including council staff costs).
- Internally funded litter prevention on a per capita basis for metropolitan, provincial and rural councils is 0.86, 0.24 and 0.21 cents respectively. Most of this funding is provided externally through government agencies (such as Sustainability Victoria) and other sources including the Butt Littering Trust and BIEC.

Various attempts have been made to calculate the cost of littering nationally, however a detailed analysis has not yet been completed. To gain an accurate result for a data gathering exercise of this magnitude would require a significant financial investment, time allocation and organisation combined with auditing and validation to ensure accurate quantitative and qualitative data was supplied. To ensure full compliance and disclosure, a regulatory framework would be required, thus incurring the added cost of compliance and monitoring.

The question that then arises is, "will knowing the cost provide a solution?" The answer is no. Similarly knowing the scale/quantity of litter will not provide a solution. Despite campaigns and various interventions, there will always be a small percentage of the community that are recalcitrant (reported as approximately 6%) and will deliberately litter even when penalty enforcement is applied. According to LBS studies, positive reinforcement of good disposal behaviour has been proven to be more effective than campaigns focused on enforcement and penalties. On this matter, cost is largely irrelevant and is used as an emotive tool by those using it to influence public and political opinions. However, where litter costs can be effectively determined and allocated, industries should bear physical and financial responsibility commensurate with the environmental impacts of their products.

9.4 TYPES OF LITTER AND ITS MANAGEMENT

Examples of litter that are most costly or problematic to deal with include:

- Plastic bags and micro litter such as cigarette butts, confectionary wrappers, public transport system tickets, ATM receipts, bottle caps, etc. Why? These items are easily obscured in some environments and are readily transported by wind and water, readily accumulate in restricted ways and are easily digested or distributed by animals and marine life. In addition, cigarette butts have ecotoxicity impacts.
- Larger litter items converted to micro litter through slashing and mowing roadside grass, parks, reserves, etc. Why? Refer to the previous point.
- Solid and liquid, food and drink litter including chewing gum. Why? It's difficult to remove from surfaces, attracts vermin and generates bacterial contagions.

- Hygiene and medical litter such as disposable nappies, wound dressings/bandaids, syringes, etc. Why? These items generate bacterial contagions, attract vermin, carry disease and present injury and other health and safety risks.

The issue of marine litter further complicates these problematic litter items. Offshore marine debris is the major contributor to beach litter, with ships often the primary source of the litter. Level of public usage is a relatively minor contributor. As with other litter types, knowledge of the amount of marine litter is quite limited[33].

Clearly, no one policy approach can address all these problem litter items, and policy approaches that single out one container, material or product type are likely to prove expensive means that fail to achieve their objectives. Removing one product or container type will not do anything to reduce costs. Costs do not change for example if you pick up 92 pieces of litter as opposed to 100 pieces of litter - litter management cost are dictated by regulation, legislation, cleanliness and odour. Comprehensive national approaches are necessary to target littering behaviour, provide appropriate infrastructure support and educate consumers.

9.5 APPROACHES TO MINMISE THE IMPACT OF LITTER

In a modern, mobile and transient society, it is impractical to assume that all wastes generated in any environment will be carried by the person generating it to their domestic, workplace or remote waste infrastructure system. Enforcement is not only ineffective but its impact is limited by the cost and availability of resources. There is no best practice established in Australia, however the Victorian Litter Action Alliance and the Victorian Environment Protection Authority have established a number of programs targeting a joint enforcement and public education campaign through local government that have been evaluated. They report that less than 25% of local councils in Victoria utilised a program of enforcement and education. And despite the success of the kits, only 30% reported that the program saved them money.

The best example of an effective public education campaign acknowledged internationally is the "Do the Right Thing" campaign of the 1970s and 1980s, which resulted in a 70% reduction in littering over a twelve year period. Its successor "Don't Waste Australia - Do the Right Thing" relaunched in November 2003 by the Prime Minister the Honourable John Howard MP has been used in all communication mediums in Tasmania for over twelve months and the result has been a positive reduction in litter levels according to the LBS.

Various other state based campaigns together with local government projects and strategies also often suffer from lack of funding to raise public awareness and an unwillingness to embark on a shared national approach.

Organised annual cleanup campaigns rely primarily upon volunteers or council staff conducting cleanup activities. Whilst these programs provide some litter management, unfortunately they tend to reinforce the apathy and lethargy amongst the broad community who then assume a once a year effort is sufficiently addressing the problem.

A major body of research is available on the effectiveness of various strategies and campaigns, however Australia requires nationally consistent systems, penalties and

communications to achieve a degree of success. The solution lies in addressing the causes of the littering activity - not the cost, not the scale and without a total ban on packaging materials, not the types of littered items. Australian and European experience shows that litter is best addressed comprehensively, rather than singling out certain packaging types such as beverage containers, and litter should not be addressed through packaging waste legislation[15,16]. **The solution is to facilitate desirable behaviours through appropriate infrastructure provision and the deployment of behavioural change education and systems advice nationally**.

GENERAL AND CDL REFERENCES

Copies of references are available from AFGC upon request.

[1] Australian Food and Grocery Council (2003), *Environment Report 2003*, Canberra.

[2] Nicol, R and Sage C, (Eds), "*Evaluation of the Environmental Performance of the Australian Dairy Processing Industry using Life Cycle Assessment*," Centre for Water and Waste Technology, University of New South Wales, and Centre for Food Technology, Queensland Department of Primary Industries.

[3] Hajkowicz SA and Young MD (Eds), 2002, "*Value of Returns to Land and Water and Costs of Degradation*," A Consultancy Report to the National Land and Water Resources Audit, CSIRO Land and Water, Canberra.

[4] Monkhouse C, Bowyer C & Farmer A (2004), *Packaging for Sustainability: Packaging in the Context of the Product, Supply Chain and Consumer Needs*, Institute for European Environment Policy, Report for the Industry Council for Packaging and the Environment.

[5] Nolan-ITU (2004), *Evaluation of the Covenant volume 1 executive summary and main report*, report for the National Packaging Covenant Council, Melbourne.

[6] National Packaging Covenant Industry Association (2004), *Action plan review: Public report*, Sydney.

[7] ACCESS Economics (2005), *Prudent evolution: review of the Regulation Impact Statement for the revised National Packaging Covenant*, report for the National Packaging Covenant Industry Association, Canberra.

[8] Martin Stewardship & Management Strategies (MS2 2006), *Strengthening packaging product stewardship in Australia*, report for the National Packaging Covenant Industry Association, Sydney.

[9] Perchard, D (2005), *Peer review of the Boomerang Alliance report, National Packaging Covenant – Say no to the Waste Club*.

[10] EUROPEN (n.d.), *Mandatory deposits on non-refillable beverage containers in Germany: The economic, environmental and social effects*, available at http://www.europen.be/issues/casestudy.pdf, accessed July 2005, confirmed January 2006.

[11] Organization for Economic and Cooperative Development (2001), *Extended producer responsibility: A guidance manual for governments*, Paris.

[12] Environment Canada (n.d.), *Extended producer responsibility & stewardship: Glossary of terms*, available at http://www.ec.gc.ca/epr/en/glossary.cfm, sourced January 2006.

[13] Martin Stewardship & Management Strategies Pty Ltd and New Resource Solutions (2005), *National Packaging Covenant gap analysis: Final report*, report for the National Packaging Covenant Industry Association, Sydney.

[14] Organization for Economic and Cooperative Development (2005), *Analytical framework for evaluating the costs and benefits of extended producer responsibility programmes*, Paris.

[15] Centre for Environmental Solutions (C4ES 2000), *Impacts of container deposit legislation on New South Wales recycling and litter management programs*, report for the Beverage Industry Environment Council, Sydney.

[16] Perchards, FFact Management Consultants and SAGIS Ltd (Perchards *et al* 2005), Study on the progress of the implementation and impact of Directive 94/62/EC on the functioning of the internal market: Final report, volume 1 – main report, available at http://europa.eu.int/comm/enterprise/environment/reports_studies/studies/report_packaging_direct.pdf, accessed July 2005.

[17] Institute for Sustainable Futures (ISF 2001), *Independent review of container deposit legislation in New South Wales*, Sydney.

[18] ACCESS Economics (ACCESS 2002), *Critical assessment of Independent Review of Container Deposit Legislation in New South Wales*, report for the Beverage Industry Environment Council on behalf of the Packaging Industry Sector, Canberra.

[19] Hudson Howells (2005), *Collection industry arrangements for used beverage containers under container deposit legislation*, report for the Environment Protection Authority (SA), available at http://www.epa.sa.gov.au/pdfs/cdl_collection.pdf, accessed January 2006.

[20] Consumers' Association of Canada (2005), *Consumers' association demands BC government take action to stop collection of illegal recycling fee*, available at http://www.consumer.ca/1680, accessed December 2005.

[21] Department of Conservation (2005), *California's beverage container recycling & litter reduction program fact sheet*, available at http://www.consrv.ca.gov/DOR/gpi/ FactSheet905B.pdf, accessed December 2005.

[22] C4ES (2002), *Impacts of implementing container deposit legislation in the ACT*, report for ACT NoWaste, Sydney.

[23] EPA Victoria (2003), *Container deposit legislation – financial impacts*. Prepared by Nolan-ITU, Melbourne.

[24] Vemuri, SR (2002), *Sustainability of Recycling in the Northern Territory*. Darwin.

[25] BIO Intelligence Service (BIO 2005), *Environmental- and cost-efficiency of household packaging waste collection systems: Impact of a deposit system on an existing multimaterial kerbside selective collection system*, report for Apeal, Paris.

[26] Phillip Hudson Consulting Pty Ltd in association with Cole Solicitors (2000), *Container deposit legislation: Public report on the review of the economic and environmental impacts of the beverage provisions of the Environment Protection Act 1993 (Container Deposit Legislation) in South Australia*, report for Environment Protection Agency, Adelaide.

[27] Martin, R (2005a), *CDL in a contemporary context – Implications for Tasmania*, presented to the Joint Standing Committee Environment, Resources and Development, Hobart on 21 April, 2005.

[28] Martin, R (2005b), *CDL in a contemporary context – Implications for LAWMAC Region*, presented to LAWMAC Conference 2005, Cannonvale on 28 July, 2005.

[29] National Recycling Coalition (NRC 2005), *Increasing beverage container recycling: An update on the National Recycling Coalition's work with the Beverage Packaging Environment Council (BPEC)*, available at http://www.nrc-recycle.org/partnerships/bpec/update110205.htm, accessed December 2005.

[30] Kramer K.J. *Food Matters - On reducing energy use and greenhouse gas emissions from household food consumption,* Groningen University, Holland, cited in Miljøstyrelsen (2004),

Litter References

[30] National Packaging Covenant Council (2005), *The National Packaging Covenant: A commitment to the sustainable manufacture, use and recovery of packaging – 15 July 2005 to 30 June 2010*, available at http://www.deh.gov.au/settlements/publications/waste/covenant/covenant.html #download, accessed December 2005.

[31] Beverage Industry Environment Council (BIEC 2004), *National Packaging Covenant national action plan year 4 report 2003-2004*, available at http://www.packcoun.com.au/ActionPlans/Assoc/ap_BIEC_Y4R_Y5P.pdf, accessed January 2006.

[32] Bankstown Local Government Area (Bankstown 2004), *Management plan for Australian White Ibis in the Bankstown Local Government Area*, available at http://www.bankstowncity.nsw.gov.au/env/index.cfm#ibis, accessed January 2006.

[33] Taffs, K.H. and Cullen, M.C. (2005), *The distribution and abundance of beach debris on isolated beaches of Northern New South Wales, Australia*, Australasian Journal of Environmental Management, volume 12, number 4, December 2005, pp.244-250.

BIEC (2005), *Littering behaviour studies VII: National benchmark 2004*, Sydney.

Centre for Environmental Solutions (C4ES 2000), *Impacts of container deposit legislation on New South Wales recycling and litter management programs*, report for the Beverage Industry Environment Council, Sydney.

Nolan-ITU (2005), *Understanding litter*, report for the Australian Food & Grocery Council, Sydney.

Perchards, FFact Management Consultants and SAGIS Ltd (Perchards et al 2005), Study on the progress of the implementation and impact of Directive 94/62/EC on the functioning of the internal market: Final report, volume 1 – main report, available at http://europa.eu.int/comm/enterprise/environment/reports_studies/studies/report_packaging_direct.pdf, accessed July 2005.

Victorian Litter Action Alliance (2004), *Litter prevention & capacity building survey 2002-2004*, East Melbourne.

APPENDIX A - AFGC MEMBERS AS AT 15 FEBRUARY 2006

AAB Holdings Pty Ltd
Arnott's Biscuits Ltd
  Snack Foods Ltd
  The Kettle Chip Company Pty Ltd
Asia-Pacific Blending Corporation Pty Ltd
Australia Meat Holdings Pty Ltd
Australian Pacific Paper Products
Beak & Johnston Pty Ltd
Berri Limited
BOC Gases Australia Ltd
Boots Healthcare Australia Pty Ltd
Bronte Industries Pty Ltd
Bulla Dairy Foods
Bundaberg Sugar Ltd
Cadbury Schweppes Asia Pacific
Cantarella Bros Pty Ltd
Cerebos (Australia) Ltd
Christie Tea Pty Ltd
Clorox Australia Pty Ltd
Coca-Cola Amatil (Aust) Ltd
  SPC Ardmona Operations Ltd
Colgate-Palmolive Pty Ltd
Coopers Brewery Ltd
Dairy Farmers Group
Danisco Australia Pty Ltd
Devro Pty Ltd
DSM Food Specialties Australia Pty Ltd
DSM Nutritional Products
Fibrisol Services Australia Pty Ltd
Firmenich Ltd
Fonterra Brands (Australia) Pty Ltd
Foster's Group Limited
General Mills Australia Pty Ltd
George Weston Foods Ltd
  AB Food and Beverages Australia
  AB Mauri
  Cereform/Serrol
  GWF Baking Division
  GWF Meat & Dairy Division
  George Weston Technologies
  Jasol
  Weston Cereal Industries
Gillette Australia Pty Ltd
GlaxoSmithKline Consumer Healthcare
Golden Circle Ltd
Goodman Fielder Pty Ltd
  Meadow Lea Australia
  Quality Bakers Australia Pty Ltd
Green's Foods Ltd
H J Heinz Company Australia Ltd
Hans Continental Smallgoods Pty Ltd
Harvest FreshCuts Pty Ltd
Heimann Foodmaker Group
Hoyt Food Manufacturing Industries Pty Ltd
J Boag and Son Brewing Ltd
Johnson & Johnson Pacific Pty Ltd
Kellogg (Australia) Pty Ltd
  Day Dawn Pty Ltd
Kerry Ingredients Australia Pty Ltd
Kimberly-Clark Australia Pty Ltd
Kraft Foods Asia Pacific
Lion Nathan Limited
Madura Tea Estates
Manildra Harwood Sugars
MasterFoods Australia New Zealand
  Food
  Petcare
  Snackfood
McCain Foods (Aust) Pty Ltd
McCormick Foods Australia Pty Ltd
Merino Pty Ltd
Merisant Manufacturing Australia Pty Ltd
National Foods Ltd
Nerada Tea Pty Ltd
Nestlé Australia Ltd
  Nestlé Foods & Beverages
  Nestlé Confectionery
  Nestlé Ice Cream
  Nestlé Chilled Dairy
  Nestlé Nutrition
  Foodservice & Industrial Division
Novartis Consumer Health Australasia Pty Ltd
Nutricia Australia Pty Ltd
Nutrinova (Australasia) Pty Ltd
Ocean Spray International, Inc
Parmalat Australia Ltd
Patties Foods Pty Ltd
Peanut Company of Australia Ltd
Pfizer Consumer Healthcare
Prepared Foods Australia
Procter & Gamble Australia Pty Ltd
PZ Cussons Australia Pty Ltd
Quality Ingredients Ltd
  Prima Herbs and Spices
Reckitt Benckiser (Australia) Pty Ltd
Ridley Corporation Ltd
  Cheetham Salt Limited
Sanitarium Health Food Company
  Longa Life Vegetarian Products Pty Ltd
Sara Lee Australia
  Douwe Egberts
  Sara Lee Bakery
SCA Hygiene Australasia
Schwarzkopf and Henkel
Sensient Technologies
Simplot Australia Pty Ltd
Specialty Cereals Pty Ltd
  Spicemasters of Australia Pty Ltd
Spicemasters of Australia Pty Ltd
Stuart Alexander & Co Pty Limited
Sugar Australia Pty Ltd
SunRice
Symrise Pty Ltd
Tetley Australia Pty Ltd
The Smith's Snackfood Company
Uncle Tobys Pty Ltd
Unilever Australasia
Waters Trading Pty Ltd
Wyeth Australia Pty Ltd
Yakult Australia Pty Ltd

Associate members

Accenture
Amcor Fibre Packaging
CAS
CHEP Asia-Pacific
CoreProcess (Australia) Pty Ltd
Dairy Australia
Exel (Australia) Logistics Pty Ltd
Focus Information Logistics Pty Ltd
Food Liaison Pty Ltd
Foodbank Australia Limited
IBM Business Consulting Services innovations & solutions
KPMG
Legal Finesse
Linfox Australia Pty Ltd
Meat and Livestock Australia Ltd
Minter Ellison Lawyers
Monsanto Australia Ltd
OTS Search
PricewaterhouseCoopers
Promax Applications Group Pty Ltd
Sue Akeroyd & Associates
Swire Cold Storage
Touchstone Consulting Australia Pty Ltd
Wiley & Co Pty Ltd

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