NATIONAL PACKAGING COVENANT INDUSTRY ASSOCIATION

npcia

NPCIA SUBMISSION to the COAG Standing Council on Environment and Water Packaging Impacts Consultation Regulation Impact Statement (PICRIS)

Lodged 30 March 2012

The National Packaging Covenant Industry Association is the peak industry body for packaging, representing the interests of industry signatories to the Australian Packaging Covenant.

Industry members acknowledge the National Waste Policy (avoid, reduce, re-use, recover, recycle, disposal) by adopting a life-cycle approach to sustainable design and use of consumer packaging.

Through collaboration and engagement with the packaging supply chain, NPCIA members develop sustainable packaging that minimises environmental impacts and reduces waste, as well as delivering economic and social benefits to the community, industry and government.

The NPCIA is the Product Stewardship Organisation responsible for management and facilitation of the Australian Packaging Covenant.

supporting sustainable packaging

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CONTENTS

EXECUTIVE SUMMARY

NPCIA supports the Australian Packaging Covenant as the only appropriate regulatory mechanism for packaging product stewardship within Australia.

The Australian Packaging Covenant (APC) was deemed the best approach by Ministers in 2010 to address government objectives. The Packaging Impacts Consultation Regulation Impact Statement (PICRIS) confirms that Ministers made the right decision.

The APC (and former NPC) has been successful in increasing the recycling rates of consumer packaging from 39% in 2003 to 63.1% in 2011 through the achievement of strategic goals.

The APC is addressing the issue of increasing recycling rates.

The APC has reduced the amount of consumer packaging disposed to landfill by 68.7% since 2003**.**

The APC is addressing the issue of the loss of resources and resource efficiency.

The APC has overseen a reduction of litter across Australia as confirmed in the National Litter Index.

The APC is addressing the issue of reducing the number of packaging items in the litter stream.

The APC does not discriminate between material types and has the flexibility to address global trends in the packaging industry.

The PICRIS finds that **Option 2A is the only option that generates a net benefit** for the Australian community and is the only regulatory option that outperforms the current APC.

The PICRIS analysis suggests the **base case and Option 2A are the only models that satisfy the COAG Principles of Best Practice Regulation** and the aims of the National Waste Policy.

NPCIA recommends that Ministers should **disregard options, such as Option 4, that present unjustifiable costs** on the Australian community, increase regulatory complexity and impose unnecessary compliance costs. Container Deposit Schemes (CDS) as proposed in Option 4 address only one type of packaging. They provide limited allowance for resource minimisation in packaging design, limited flexibility to consider the life cycle of a packaged product and limited capability to address global packaging trends. Under a CDS, Australia will be stuck in time, unable to adapt.

The base case and Option 2A are the only models that satisfy both market and non-market based assessment criteria.

OUR DECISION PROCESS

Step 1: Redefine the Problem

COAG Principle 1: Establishing a case for action before addressing a problem

Is there a problem?

Australians are renowned for our high recycling rates and are world leaders in litter management. The APC (and former NPC) has been successful in increasing the recycling rates of all consumer packaging from 39% in 2003 to 63.1% in 2011. The APC has also overseen a reduction of litter across Australia and a substantial reduction in packaging waste to landfill.

The objectives of the National waste Policy are embodied in the flexibility and wide scope of the APC. It is a 21st century approach to minimising the environmental impacts of **all** packaging types.

The base case was the second best performer in the PICRIS (FIGURE 1). Why change?

If a case for regulatory action is established then…

Step 2: Establish Assessment Criteria

COAG Principle 3: Adopt the Option Generating the greatest net benefit for the Community

The Net Present Value (NPV) (FIGURE 1) and Benefit Cost Ratio (BCR) (FIGURE 2) form the primary assessment criteria of the PICRIS Process.

Households Willingness to Pay (WTP) estimates are taken into consideration during a secondary assessment to consider community non-market values (FIGURE 3).

Step 3: Apply key Criteria to the Options presented

Option 2A emerged the only option expected to provide a **net benefit** to the Australian economy over and above the base case and should only be adopted if a case for change is established. **Option 2A** under the *Product Stewardship Act 2011* will have greater **regulatory and a stronger compliance** regime than the current APC.

If additional options are considered, the NPCIA would support Option 1, followed by Option 2B.

Step 4: Eliminate outliers not meeting any Criteria

Option 4A and Option 4B present unjustifiable costs to the Australian community.

Options 4A and 4B are not only costly but

- will **not** achieve the projected recycling outcomes
- will **not** achieve the projected litter outcomes. The National Litter Index (NLI) data shows that when population is taken into account, CDS are less effective at reducing litter than a wider management approach (FIGURE 4)
- **increases regulatory complexity (COAG Principle 5)**
- **will not be relevant and effective over time (COAG Principle 7)**

Step 5: Remaining Options?

NPCIA has only marginal support for Option 2C and Option 3, as more cost-effective options present more certainty and flexibility.

COAG Principle 8: Government action should be effective and proportional to the issue being addressed.

Step 6: Outcome

After analysis of each of the options according to the decision process outlined, the NPCIA has reached the conclusion that:

The base case and Option 2A are the only models that satisfy both market and non-market based assessment criteria.

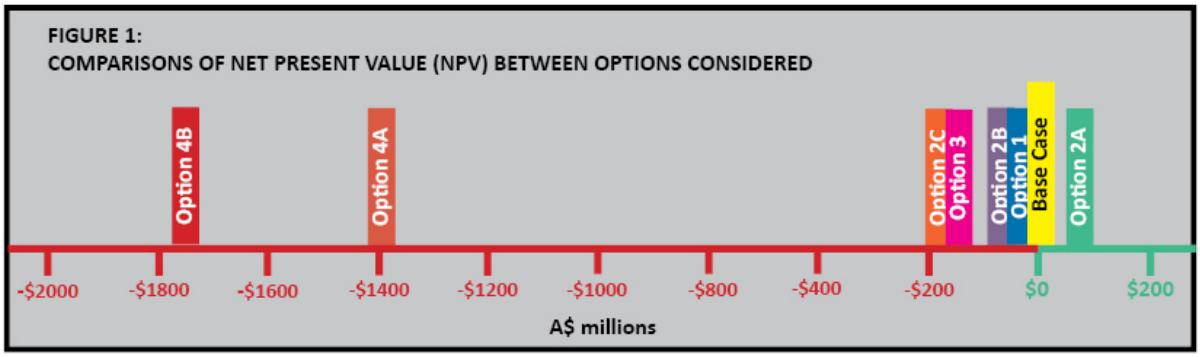


FIGURE 1:
COMPARISONS OF NET PRESENT VALUE (NPV) BETWEEN OPTIONS CONSIDERED
Option 4B
Option 4A
Option 2C
Option 3
Option 2B
Option 1
Base Case
Option 2A
-$2000
-$1800
-$1600
-$1400
-$1200
-$1000
-$800
-$400
-$200
$0
$200
A$ millions

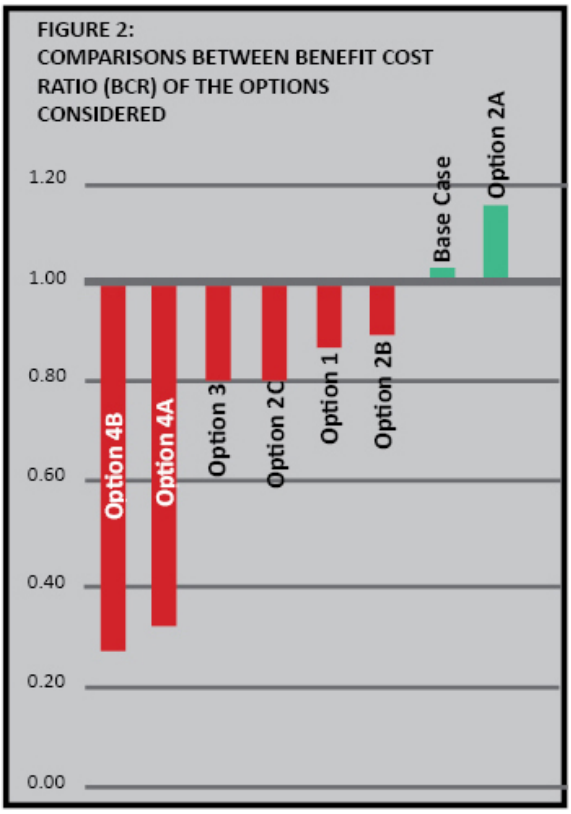


FIGURE 2:
COMPARISONS BETWEEN BENEFIT COST RATIO (BCR) OF THE OPTIONS CONSIDERED
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Option 4B
Option 4A
Option 3
Option 2C
Option 1
Option 2B
Base Case
Option 2A

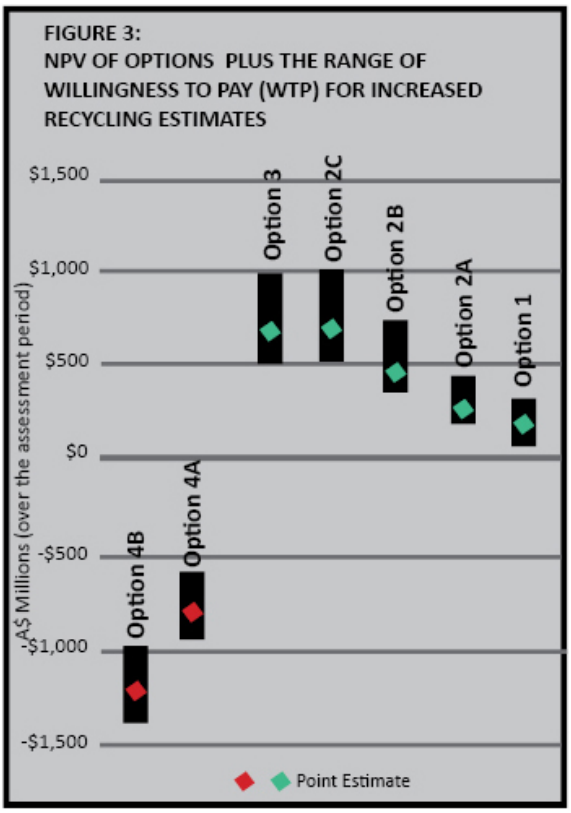


FIGURE 3:
NPV OF OPTIONS PLUS THE RANGE OF WILLINGNESS TO PAY (WTP) FOR INCREASED RECYCLING ESTIMATES
$1,500
$1,000
$500
$0
-$500
-$1,000
-$1,500
-A$ Millions (over the assessment period)
Option 4B
Option 4A
Option 3
Option 2C
Option 2B
Option 2A
Option 1
Point Estimate

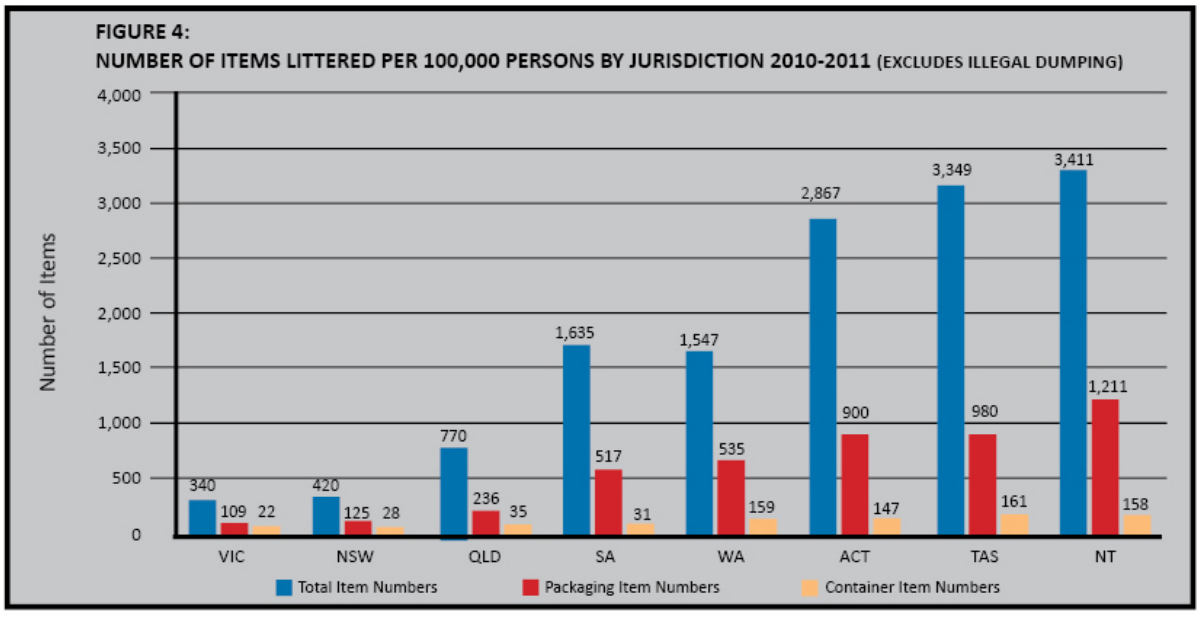


FIGURE 4:
NUMBER OF ITEMS LITTERED PER 100,000 PERSONS BY JURISDICTION 2010-2011 (EXCLUDES ILLEGAL DUMPING)
Number of Items
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
340
109
22
420
125
28
770
236
35
1,635
517
31
1,547
535
159
2,867
900
147
3,349
980
161
3,411
1,211
158
VIC
NSW
QLD
SA
WA
ACT
TAS
NT
Total Item Numbers
Packaging Item Numbers
Container Item Numbers

RECOMMENDATIONS

Recommendation 1: Australia should adopt a resource recovery approach, based on a lifecycle perspective in managing the environmental impacts of packaging. It must address Strategy 3 and the aims of the National Waste Policy, recognising that recycling has a very important role to play in sustainable packaging.

Recommendation 2: The chosen option should be flexible to adapt to global packaging trends in order to stay relevant and effective over time.

Recommendation 3: The NPCIA supports the APC as the only appropriate regulatory mechanism for packaging stewardship in Australia. It should be noted that the new, open-ended APC from July 1 2010 was established to address many of the problems listed in the RIS and had not had sufficient time to show results when the RIS was commissioned.

Recommendation 4: In light of the performance of other options considered, Ministers should examine closely whether there is a problem and if further regulation would be of benefit.

Recommendation 5: Option 2A emerged as the only option expected to provide a net benefit to the Australian economy over and above the base case and therefore should only be adopted if a case for change is established. If *additional* options are considered, the NPCIA would support Option 1 followed by Option 2B.

Recommendation 6: Further clarification is needed regarding the ability of the states and territories to enact legislation that may undermine a co-regulatory arrangement under the Product Stewardship Act.

Recommendation 7: Ministers should disregard options that impose unjustifiable costs on the Australian community, increase regulatory complexity and impose unnecessary compliance costs.

Recommendation 8: Option 4A and Option 4B will not meet the recycling rates and litter reduction projections in the RIS because:

a) current APC will be incompatible with a mandatory national CDS; and
b) state data per capita and an independent study of local councils query the effectiveness of a CDS at reducing litter.

Recommendation 9: Each local government should consider the impacts of a CDS on their existing kerbside systems. An independent study shows there will generally be a negative overall impact for metropolitan local government vs a generally positive overall impact for regional local government.

Recommendation 10: A national CDS would increase the cost of beverages at point of sale and result in job losses to Australia's struggling manufacturing industry.

Recommendation 11: A CDS would disrupt Australia's existing 'culture of recycling' in a centralised kerbside system, which has one of the highest participation rates in the world.

Recommendation 12: Greater certainty is required in Option 2C and Option 3 to justify the large costs. Option 2A and Option 2B present more flexible, cost effective alternatives with the potential to develop over time.

1. THE CONSUMER PACKAGING ENVIRONMENT

"The Australian Government, in collaboration with State and Territory governments, industry and the community, will better manage packaging to improve the use of resources, reduce the environmental impact of packaging design, enhance away from home recycling and reduce litter." National Waste Policy Strategy 3.

Packaging operates in a dynamic and rapidly evolving environment. Government action in this area should have recourse to current and emerging trends in packaging materials. In making the decision the Standing Council of Environment and Water (SCEW) is guided by the Regulatory Impact Statement (RIS) process and is expected to follow the Coalition of Australian Government (COAG) Principles of Best Practice Regulation. The decision must consider the objectives of government action, the aims of the National Waste Policy and Strategy 3.

Consultation Questions:
A. What do you think are the future challenges relating to packaging and packaging waste?
B. What materials do you think will dominate in the future? What are the likely impacts?

Consumer packaging is continually adapting to meet changing demographic, distribution and sustainability requirements. In the food and grocery sector, packaging plays an important role in reducing wastage and delivering products in a way that maintains quality and hygiene. In this sector, demographic trends such as a reduction in household size, increased disposable income and factors such as portion control needs, safety requirements and convenience have emerged. Other demands include high standards of freshness, tamper evidence and labelling requirements (PCA, 2005). This presents challenges for industry in achieving the aims of the National Waste Policy (NWP)(see below) whilst still addressing consumer needs. Convenience features such as unit packages, dispensability, and microwavability usually require additional packaging, which is directly at odds with source reduction efforts (Marsh and Bugusu, 2007). These packages may also employ a number of different materials, which may also be incompatible with existing recycling systems.

Thus there has been an increase in packaging complexity in recent years, which presents challenges to improving the recycling rate. As the Packaging Impacts Consultation Regulation Impact Statement (PICRIS) identifies, traditional heavy, rigid packaging materials are being replaced by lighter, more flexible packaging options such as soft film plastics (PICRIS, p.5), which are rarely recycled.

A number of significant recent innovations and trends within the packaging industry that often inhibit recycling and resource recovery include:

- high barrier plastic structures that, coupled with processing and packaging, extend shelf life (Cullen and Stembridge, 2011);
- microwavable food and packaging forming part of a quick and easy meal for consumers. Pre-cut, pre-proportioned, smaller, ready-to-consume products will become increasingly popular (PCA, 2005);
- use of innovative packaging to reinvent brands in an increasingly competitive marketplace (PCA, 2005). Also may occur via the creation of new-usage applications; and
- implementation of plant based bottles made of biobased PET, led by products such as Coca-Cola's PlantBottle (Plastics Today, 2011).

Packaging is increasingly comprised of layers of different materials which are difficult to separate. Whilst these products are not compatible with our current recycling systems, they may offer increased environmental amenity in other areas of their lifecycle, that is, from raw material extraction and processing through to the end of its useful life. This might include reduced or renewable input materials, prolonging the life of the product it protects or having biodegradable properties.

Such an example is the SMART Pack launched by Nestle Oceania this year for its Nescafe Gold Coffee Brand, to replace the existing 100g glass jars (World Packaging News, 27th February 2012). This new pouch is made from laminated LLDPE, PET and aluminium, with an HDPE and EVA zipper. A life cycle analysis was undertaken by the Centre for Design (CfD) at RMIT University, Melbourne. It was found that the pouch uses 73% less non-renewable energy, 66% less water and emits 75% less CO2 equivalents over its entire life cycle than the glass jar. However, the pouch is not recyclable in current recovery methods. This demonstrates the trade-offs that exist between focusing on the recyclability of a product or addressing the totality of lifecycle impacts.

COAG Principle Six states that regulation must remain relevant and effective over time. Australia's packaging does not operate within a vacuum. It is heavily influenced by global developments in the kind of packaging used and material types. Multinational companies apply global standards to their products across all their markets. The PICRIS should appreciate that the Australian packaging industry is dictated to, to an extent, by global forces and a product stewardship scheme in this field must retain flexibility to effectively manage this.

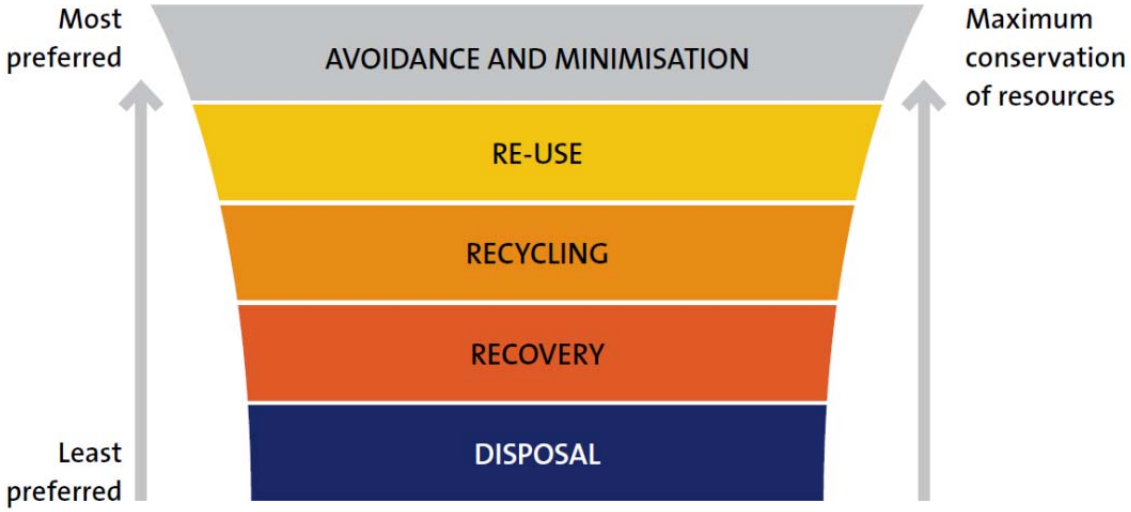
C. Do you think that designing packaging with recyclability in mind is desirable?

US based GreenBlue conducted an assessment of international packaging recovery systems and best practices. The findings stress that there must be a 'harmonisation' of the factors that create the best recovery opportunities - policy, funding, infrastructure, technology, geography, demographics and market forces. It highlights that in addition to achieving recycling efficiency, policy must define responsible strategies for managing the growing portion of packaging waste that is non-recyclable. This report also reiterates international trends, finding that material selection decisions made by the packaging industry are increasingly based on a lifecycle perspective rather than one based purely on recyclability (GreenBlue, 2011).

The byline of the National Waste Policy reads '**Less waste, more resources**.' The policy aims reflect a wider holistic approach through the resource recovery hierarchy. The aims are to:

- avoid the generation of waste, reduce the amount of waste (including hazardous waste) for disposal;
- manage waste as a resource;
- ensure that waste treatment, disposal, recovery and re-use is undertaken in a safe, scientific and environmentally sound manner; and
- contribute to the reduction in greenhouse gas emissions, energy conservation and production, water efficiency and the productivity of the land.

The aims above reflect a 'resource recovery' approach that reflects the principles of the waste hierarchy. This is depicted in the picture below.



Picture 1: Waste hierarchy (EPHC, 2010)

The waste hierarchy places the highest priority on avoiding and minimising packaging waste, followed by reuse, recycling, recovery and finally, disposal. It is essential that the chosen option integrates the waste hierarchy principles and applies them to all consumer packaging materials for maximum recovery of resources.

The first stage of the hierarchy, 'avoidance and minimisation,' is captured by the NWP **Strategy 3** in the management of packaging to 'improve the use of resources (and) reduce the environmental impact of packaging design.' Foremost, to achieve these objectives packaging design must be addressed. **70% of the environmental efficiency of a product is in the design phase.** This phase determines the quantity of material going into its production, the types of material and how it will be disposed of. This is currently considered as part of the Australian Sustainable Packaging Guidelines (SPG). To adequately address the requirements of the NWP the design phase **must** be a consideration.

The picture above shows that recycling only refers to the middle stage of the hierarchy. Recycling outcomes thus are not an entire picture of environmental performance. Strategies to address the recycling rate only will restrict other avenues to reduce packaging waste to landfill. A focus on recycling and litter tonnages as measures of environmental performance misses the other levels of the hierarchy in areas of waste avoidance, recovery for non-recyclables and re-use.

A systems approach with clearly defined objectives that looks broadly at all materials, end of life options and stakeholders is the only way that society can capture the economic and environmental investments in the materials it uses (GreenBlue, 2011). The waste hierarchy approach involving all players within the packaging supply chain is the most effective in managing packaging for the future. This presents us with a need to maintain a flexible product stewardship approach for sustainable packaging that addresses resource minimisation (design), recycling and resource recovery so as not to limit innovation.

D. What are additional existing challenges in other government departments to packaging and packaging waste?

The PICRIS briefly mentions the influence of other government departments in limiting recyclability (PICRIS, p.5). For instance, food contact packaging must meet the requirements of the Australia New Zealand Food Standards Code. Packaging made from recycled material can contain significant portions of mineral oil from printing ink (BfR, 2009). Standard 1.4.3 *Articles and Materials in Contact with Food* outlines maximum limits for the presence of contaminants. This limits the use of recyclate in the manufacture of new packaging and is an example of one of the diverse requirements that packaging materials must address.

Secondly, there are categories of 'fit for purpose' packaging where regulatory requirements determine the packaging design or the materials to be utilised; under these conditions, packaging cannot be recycled and must be collected for disposal (APCC, 2011). This includes hazardous materials or pharmaceuticals. For instance packaging that is required to be tamper evident must meet the Therapeutic Goods Administration (TGAs) Code of Practice for the Tamper Evident Packaging of Therapeutic Goods. These prescriptive 'fit for purpose' requirements can limit the recyclability of these packaging types.

E. How will the trend for on line shopping affect packaging consumption or choice of packaging material?

Online shopping currently comprises approximately 4.9% of retail purchases, and is largely confined to non-perishable, light-weight consumer goods. There is mixed opinion amongst stakeholders regarding how online shopping will affect packaging consumption in the long term. The needs of the package vary from conventional store based goods. Factors such as storability, convenience for transport and accessibility could surpass other elements such as on-shelf appeal. However under Australian law, an item damaged prior to transport is the responsibility of the manufacturer or retailer. This has been said to lead to increased packaging to ensure that the item is not damaged in transit. Otherwise, it has the potential in some applications to decrease the amount and type of packaging materials used. One example is Amazon's Certified Frustration–Free Packaging, which comes without excess packaging materials and is designed to be opened without the use of a box cutter or knife (Amazon FAQs, 2011). Most conventional packages are not designed to be shipped directly to the consumer. The Frustration Free package is designed to accommodate this, is easy to open, recyclable and able to be shipped in its own package without an additional shipping box. Packaging for online purchases will be a trend industry must adapt to in the future.

Recommendation 1: Australia should adopt a resource recovery approach, based on a lifecycle perspective in managing the environmental impacts of packaging. It must address Strategy 3 and the aims of the National Waste Policy, recognising that recycling has a very important role to play in sustainable packaging.

Recommendation 2: The chosen option should be flexible to adapt to global packaging trends in order to stay relevant and effective over time.

2. ESTABLISHING A CASE FOR ACTION

The NPCIA supports the continuation of the Australian Packaging Covenant (APC) as the primary product stewardship scheme for packaging within Australia.

COAG Principle 1: Establishing a case for action before addressing a problem

It is a matter of contention whether the case for regulatory action been established. An important first step before considering any action is to **examine closely whether there is a problem**, and to make an initial decision on whether any action is required (COAG, 2007). The PICRIS states that the key problems being addressed are that the 'government's stated objectives and community expectations for the recovery and recycling of packaging and management of litter are not being met (PICRIS, p.17).'

The PICRIS reports that problem areas include the (1) variation of performance between the different material types, in that the high consumption and recycling of paper and paperboard mask lower national recycling rates of other materials, and (2) disparity in recycling outcomes for materials which are discarded at home as opposed to away from home (PICRIS, p.18).

The establishment of the new, open-ended APC from July 1 2010 provided greater certainty in the regulatory environment and allowed industry to take on greater responsibility for facilitation and management. The current APC **was deemed the best** approach by the ministers in the Decision RIS for Used Packaging Materials to address government objectives that were not being met. The APC encompasses **both the Base Case and possibly Option 2A considered in the PICRIS**, as the current model was planned for consideration under the *Product Stewardship Act 2011* post review in 2015. It is also important to note that the APC (a strengthened form of the National Packaging Covenant [NPC]) only came into effect when the PICRIS was commissioned. Ministers agreed that the APC delivered an important component of the National Waste Policy and is a 21st Century approach to managing packaging.

The PICRIS shows that the APC as the primary product stewardship scheme for consumer packaging has seen improvement in recycling rates and a reduction in litter. Both the preceding NPC and the APC succeeded in increasing recycling, reducing litter and reducing packaging waste sent to landfill. The APC as the primary product stewardship scheme for consumer packaging has overseen the recycling rate increase to **63.1% in 2011 from 39% in 2003** (APC, 2011) despite variations in global economic conditions (Sheehan, 2011). The Keep Australia Beautiful (KAB) National Litter Index (NLI) also has shown a reduction in both the number and volume of overall items found in the litter stream across Australia. Packaging consumption also showed a decrease during 2010-2011.

Design is one of the three performance goals of the APC, with the target of 70% of signatories throughout the supply chain having documented policies and procedures for evaluating and procuring packaging against the Sustainable Packaging Guidelines (SPG) by 2015. The SPG aims to assist signatories in designing and manufacturing packaging that meets the demands of the markets, consumers and the environment.

Since the commissioning of the PICRIS, achievements and initiatives of the APC have included:

- **733 signatories** as at 13th March 2012, 688 of which are brand owners;
- Launch of the 'PACK LINE' which provides a mechanism for the community to bring forward complaints and receive help and advice about the consumer packaging of APC signatories;
- The Covenant Fund will contribute $4,868,934 towards 23 new projects which have a total project value of $9,765,436. 40% of these projects address away from home recycling. Many of these projects focus on the provision of bin infrastructure to accommodate recycling in public places such as shopping strips, malls, schools, workplaces and sports and entertainment venues. Glass is the focus in seven of these projects, such as initiatives to address recycling in regional and remote areas and are focussed on providing the infrastructure to utilise recyclate in civil infrastructure work. The second material type targeted is plastics;
- Bringing together the state and territory jurisdictions to discuss litter initiatives and the development of a consistent national framework for litter management;
- APC facilitated review of current litter data collection methodologies with various stakeholders including government, industry, community groups and consultants;
- Case studies on the implementation of the Sustainable Packaging Guidelines from signatories, including Fosters, Metcash, Patties, Pelikan Artline, Sarah Lee, Super Cheap Auto Group, Swisse Vitamins and VIP Packaging. (APCC, 2012)

Importantly, the APC does not discriminate between material types and requires that the environmental impact of packaging design be considered.

Australia is a diverse country with equally as diverse needs. A one-size-fits-all approach will not meet the objectives of government action. A focus on only one material type, one recovery method or one part of the packaging supply chain will not be able to capture the material and economic value of the packaging materials used on a daily basis (GreenBlue, 2011).

The co-regulatory APC will best meet **COAG Principle Six** as it possesses the capabilities to address all packaging material types and the flexibility to keep pace with the constantly evolving consumer packaging industry.

Improving Recycling Rates

The PICRIS acknowledges that recycling in Australia is already at high levels, particularly for at home recycling (PICRIS Attach A, p.8). The Cost Benefit Analysis (CBA) confirms that any recycling rate between 80 to 85% would likely be prohibitively costly to recover. This is based on the existing material mix and recovery systems. It states that further gains in increasing recycling will come at increasing cost. In other words, 'linear rates of increases in both the participation and recycling effort cannot be expected.' (PICRIS Attach C, p.1) It will be necessary to make a trade-off between the cost of a given option and the benefits it could achieve. 'For many material types there is not scope for significant increase in recycling.' (PICRIS Attach C, p.22)

The APC is on track to reach a 70% recycling rate for used packaging materials by 2015 (APC Strategic Plan, 2010). Achieving the 2015 target of a 70% recycling rate will require the participation and

collaboration of all within the packaging supply chain. The APC is well placed to meet this target through its strategic overview in the management of consumer packaging.

The problems identified need further clarification for consistency. The PICRIS states that 'continued improvements in recycling rates will rely on local government who provide municipal services.' (PICRIS, p.xi) According to the Local Government Acts in each state and territory, waste collection services for households constitute one of the responsibility areas of local governments. However, this doesn't extend to the business sector. So the problem of 'low or suboptimal rates of recycling … in the commercial, hospitality and institutional sectors (away from home) (PICRIS, p.xi) would not depend on local government according to their current responsibilities. Waste management and resource recovery in these sectors is largely provided by private services, which reinforces the need to work with industry and may provide an opportunity for local government.

Litter Reduction

Internationally Australia is a leader in the field of litter reduction. We continually measure our progress in litter through multiple counts on a local, state wide and national level, and seek to understand the psychological dimensions of littering behaviour. The APC is driven by the four pillars of litter reduction – design, infrastructure, education/awareness and enforcement. The APC is currently working with stakeholders to promote greater national uniformity in litter management and is best placed to continue to do this work in the future. The four pillars must operate together, for instance any industry action in instigating behavioural change must be reinforced by enforcement action. Lack of government resources in this area will compromise the effectiveness of campaigns.

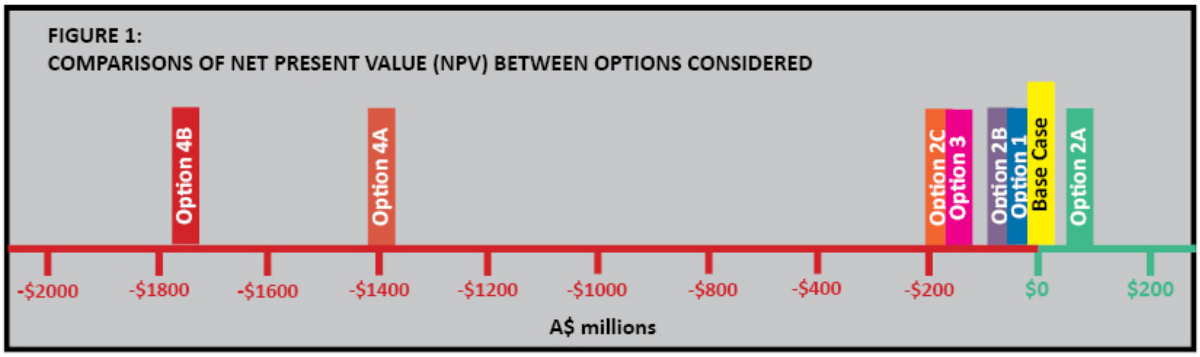
However, the PICRIS states that 'high levels of community concern about litter remain, notwithstanding the improvement in litter rates' (PICRIS, p.18). This statement reflects the inherent conceptualisation difficulties within community measurement of litter. The *Community Preferences for Litter Reduction* report indicates that a single quantitative measure of litter alone is unlikely to capture how individuals attribute significance to litter (Instinct and reason, 2011). It is unknown exactly what quantities of itter is required to be reduced before community expectations are met. There needs to be further clarification as to what level of litter should be the target. 100% total reduction may be unattainable, especially without significant community behavioural change and expense.

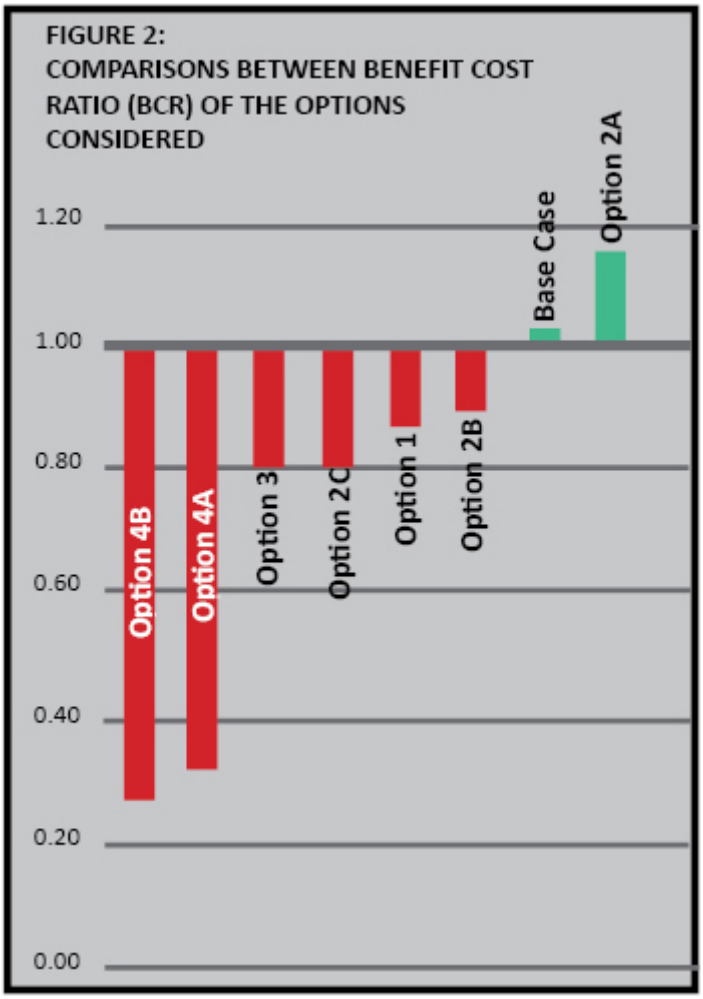
Regulatory Failure

The National Waste Policy, the *Product Stewardship Act* and the APC all point towards a more harmonised national waste policy in Australia. However, there lacks harmonisation between the states in the implementation of the policy (GreenBlue, 2011). Whilst the collaborative approach of the APC was designed to address this problem, it relies on the varying enforcement capabilities of multiple jurisdictions to deter free riders and participate. Subject to further discussion, there is avenue for the APC to be strengthened under the *Product Stewardship Act 2011*.

THE BASE CASE PERFORMANCE QUESTIONS THE NEED FOR CHANGE

The **base case** is the second best performing option considered in the PICRIS. **Figures 1** and **2** show the performance of the **base case** amongst other options. It confirms the co-regulatory model supported by ministers in July 2010 is the most effective model according to these key criteria. **Figure 1** show the comparisons of Net Present Value (NPV) and **Figure 2** compares the Benefit Cost Ratio (BCR) between options considered. The **base case** and **Option 2A** outperform the voluntary and mandatory options presented.





This indicates that the APC co-regulatory approach is the best option for Australia in the management of sustainable packaging. The strongest performer, **Option 2A,** is predicted to result in a positive NPV of $46 million over the assessment period of 25 years, a gain of under $2 million each year.

This relatively small gain per annum for the required effort, suggests that appropriate proportional government action may be to maintain the base case and ensure the APC is the sole regulatory mechanism for packaging stewardship within Australia. Therefore there should be due consideration for the continuation of the APC in its current form.

INCORRECT ASSUMPTIONS REGARDING THE APC IN THE COST BENEFIT ANALYSIS

a) Recycling rates have met APC and NPC targets

The CBA incorrectly assumes that in the base case under the APC **"recycling continues to fall slightly below APC targets"** (PICRIS Attach C, p.22) throughout the evaluation period.

This assumption is incorrect because according to set targets, the NPC was successful. The NPCIA believes the APC to be on track to meet a 70% recycling rate by 2015.

The Used Packaging Materials Decision RIS 2010 acknowledged that the NPC exceeded the required percentage increases in post-consumer recycling (Target 1), 'non-recyclable' packaging (Target 2), and no increase in packaging sent to landfill (Target 3). The target rate of 65% by 2010 was not met due to changes in the methodologies for the calculations of these figures, since 2005, when the target was set. The 2003 baseline was revised from 48% recycling rate down to 39%. Target 1 of a 17% increase in the recycling rate was thus exceeded. Targets 2 and 3 were also exceeded. In fact, there was even a decline in the amount of packaging sent to landfill (COAG, 2010).

There was also suggestion that lack of economic analysis into the development of targets denoted they were aspirational rather than achievable (COAG, 2010). Nevertheless the NPC performed above expectations.

This highlights that in a fluctuating economic environment, dependent on global and domestic factors, having reasonable and flexible goals would minimise unnecessary burden.

b) APC projects address all packaging material types, sectors and communities

The CBA makes the incorrect statement that the 'APC does not have any initiatives that specifically target non-beverage containers…It is assumed that the general recycling initiatives of the APC would lead to an improvement in non-beverage container recycling' (PICRIS Attach C, p.23). This statement is incorrect as the APC draws no distinction between beverage and non-beverage containers in project choice. Project choice is focussed on infrastructure developments, expansion of services to new business sectors and new communities.

The APC has funded a number of projects that do not specifically target beverage containers, including:

- Funding equipment for the recovery of **Expanded Polystyrene**. Also includes an education program, training and business development and facilitating local markets;
- A **mixed plastic recycling trial** with Coles Supermarkets to collect plastics currently not included in kerbside recycling programs such as flexibles and plastic bags. They will be reprocessed into bench seats and donated to schools;
- National Commercial and Industrial (C&I) **recycling services to small to medium businesses** (SMEs) with Veolia Environmental Services and Transpacific Industries;
- Cardboard recycling infrastructure at **regional transfer stations** and a mobile baler;
- A number of **public place recycling schemes**, including the installation of commingled recycling bins and education programs.

Importantly APC projects possess the flexibility to undertake wide ranging initiatives that benefit a number of material types or focus on developing recovery capability for a single material.

The APC's success is by the critical mass of industry and government working towards common goal. It has been the result of hard work, focus and collaboration between industry and government. This proven investment should be utilised, not put aside and lost.

Recommendation 3: The NPCIA supports the APC as the only appropriate regulatory mechanism for packaging stewardship in Australia. It should be noted that the new, open-ended APC from July 1 2010 was established to address many of the problems listed in the RIS and had not had sufficient time to show results when the RIS was commissioned.

Recommendation 4: In light of the performance of other options considered, Ministers should examine closely whether there is a problem and if further regulation would be of benefit.

3. ADOPTING OPTIONS GENERATING THE GREATEST NET BENEFIT FOR THE COMMUNITY

If a case for change is established, the NPCIA is prepared to support **Option 2A** pending further clarification of the co-regulatory provisions of the Product Stewardship Act. We are also willing to support proposed **Option 2B**.

COAG Principle 3: Adopting the option that generates the greatest net benefit for the community

The Office of Best Practice Regulation (OBPR) follows on from the above principle stating that 'decisions about whether regulatory action is in the public interest should be identified by an assessment of the effectiveness of the proposed action in meeting the identified objective, and the costs and benefits of the proposed action for the community as a whole' (COAG, 2007, p6). Thus the COAG guidelines favour options with the highest Net Present Value, which acts as a measure for the most effective spend for each dollar spent (COAG, 2007; PICRIS Attach C, p.96).

As stated, **Figures 1** and **2** illustrated the comparative performances of each of the options.

OPTION 2A, ONLY OPTION TO PROVIDE A NET BENEFIT TO THE AUSTRALIAN ECONOMY

The APC transitioned under the co-regulatory provisions of the *Product Stewardship Act 2011* (**Option 2A**) emerged as the only **cost effective option** under consideration in the PICRIS over the base case (PICRIS, p.28). The CBA shows it is the **only option** expected to provide a net benefit to the economy, with a NPV of $46 million, and has the highest BCR, in that for every $1 of costs there are $1.18 of benefits (PICRIS Attach C, p.2).

If the APC was to be the **sole** regulatory mechanism for packaging stewardship in Australia, the NPCIA affirms that **Option 2A** could achieve the benefits as listed in the *Packaging Options Report.* Namely,

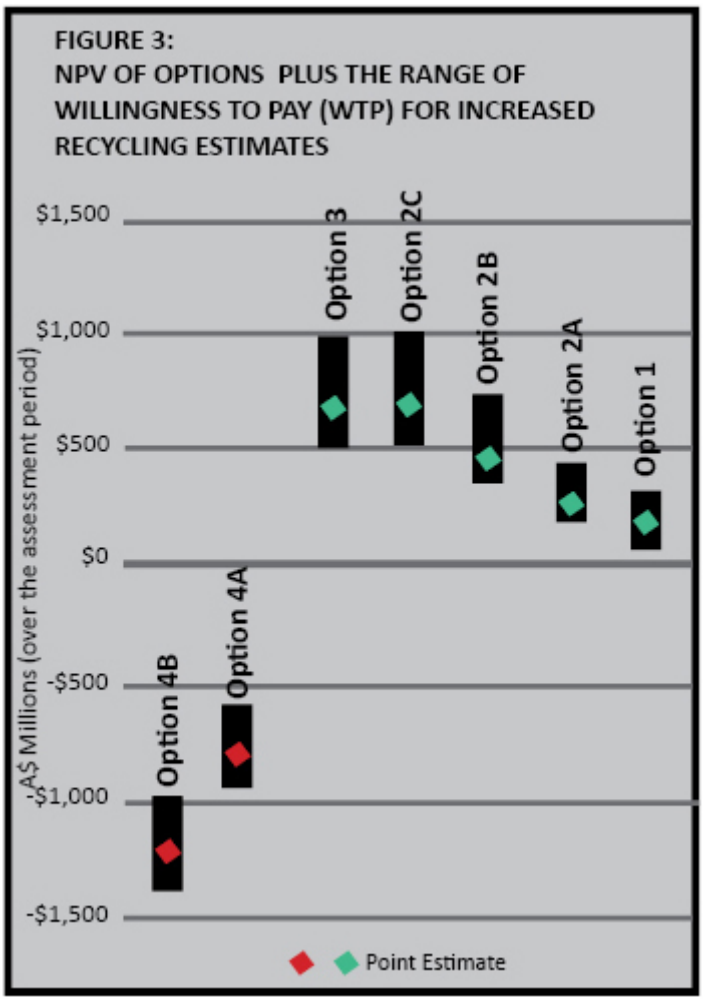
I. **Greater regulatory efficiency** by reducing the current multiple regulatory frameworks to one under administration by the Commonwealth only, as opposed to multiple jurisdictions.
II. **A stronger compliance regime.** The Product Stewardship Act 2011 would strengthen the APC and promote better accountability of liable parties, as it provides for penalties and fines for non-compliance.
III. **Improvement in packaging recycling rates** during the assessment period due to greater regulatory efficiency and stronger compliance (PICRIS Attach B, p.23). This is due to the potential for more set targets under The Act and greater industry/Product Stewardship Organisation (PSO) responsibility.

IMPLICATIONS OF MOVING THE APC UNDER THE PRODUCT STEWARDSHIP ACT

Industry needs assurance that the APC would be the sole regulatory mechanism for packaging stewardship nationally. The Commonwealth has authorised multiple arrangements under the Televisions and Computers Regulation. If regulated targets are set, there must be minimal regulatory interference in other areas that may hamper the ability of meeting them. For instance there is ambiguity in the positioning of the legislation that indicates there is the potential for states to develop regulation within this area that may undermine the effectiveness of a national scheme. Apart from Constitutional provisions and the *Mutual Recognition Act 1992,* there will need to be a Commonwealth policy that will inhibit the states to enact concurrent regulation in this area. These assurances will be necessary for industry to meet regulated targets.

SUPPORT FOR VOLUNTARY OPTION 1

Figures 1 and **2** show that voluntary **Option 1** is the third best performer of the options considered. The CBA shows that it presents a NPV of $-49 million with a BCR of 0.84. Willingness to pay data ranges from a lower point estimate of $234 million to an upper point estimate of $403 million. This range of values added to the NPV results can be seen below in **Figure 3**. These representative non market values indicate that this option is viable. Industry would be willing to support this option as a non-regulatory alternative.



A. Are there any other options that you think would be effective in addressing the problems set out in Chapter 3?

In light of the comparatively good performance of the voluntary option in the CBA, the NPCIA proposes that **Option 1** be further explored by proposing a variation.

i. **Option 1** Voluntary Arrangement administered by Government (as considered in the PICRIS) replaced with
ii. **NPCIA Option 1 Voluntary Arrangement administered by Industry under the voluntary provisions of the PS Act.**

PICRIS Option 1 is described as being governed by a national body made up of representatives from Commonwealth, State, Territory and Local Governments (PICRIS Attachment B, 2011). Input from stakeholders such as industry and environment groups would be encouraged through a number of possible methods. However, Australia already has a workable national model of governance that allows for collaboration between government (Commonwealth, State and Local), industry and other stakeholders (including community and environmental groups) in the Australian Packaging Covenant Council (APCC).

Proposed **NPCIA Option 1** could be an industry run accredited Voluntary Product Stewardship arrangement. However, there would have to be assurances given by the government that (a) the Arrangement would be the sole scheme for packaging product stewardship within Australia and (b) against state regulating in areas that are addressed by the arrangement.

SUPPORT FOR INCREASED INDUSTRY COMMITMENT UNDER OPTION 2B

Option 2B is built upon the foundations of **Option 2A** and expands the APC to focus on key problem areas. It also represents increased commitment by the broader beverage industry in targeting beverage container recycling and packaging litter reduction. This option only has a small cost to the Australian community according to the CBA and represents a viable alternative when the willingness to pay data is taken into account. The range of potential benefit values was shown in **Figure 3** above.

As a result of more targeted programs, this option shows slightly higher recycling projections and less litter than the base case and **Option 2A**. It demonstrates the flexibility of the APC model in being able to incorporate additional industry specific initiatives where problem areas have been identified. The fast pace of change in the global packaging industry necessitates an approach which can target unforeseen issues as they arise and not be restricted to problem areas today.

Recommendation 5: Option 2A emerged the only option expected to provide a net benefit to the Australian economy over and above the base case and therefore should only be adopted if a case for change is established. If additional options are considered, the NPCIA would support Option 1 followed by Option 2B.

Recommendation 6: Further clarification is needed regarding the ability of the states and territories to enact legislation that may undermine a co-regulatory arrangement under the Product Stewardship Act.

4. OPTIONS 4A AND 4B PRESENT UNJUSTIFIABLE COSTS TO THE AUSTRALIAN COMMUNITY

COAG Principle 3: Adopting the option that generates the greatest net benefit for the community

COAG Principle 5: Providing effective guidance to relevant regulators and regulated parties in order to ensure that the policy intent and expected compliance requirements of the regulation are clear

COAG Principle 8: Government action should be effective and proportional to the issue being addressed

To have a successful closed loop material value recovery system, the economics must make sense. Materials need to be recovered and processed in adequate quantities at reasonable costs, there must be viable markets for recycled materials and funding for recycling must be sustainable (Greenblue, 2011).

PICRIS data shows that **Options 4A** and **4B** would impose unreasonable costs on the Australian community. **Figures 1** and **2** showed that comparative to other options considered, **Options 4A** and **4B** have notably poor performance according the NPV and BCR criteria. Adopting either option would be contradicting a number of the COAG Principles of Best Practice Regulation.

Figure 3 shows that even with consideration of the willingness to pay values, this is far below the NPV for both options. The NPCIA sees that the options would not be viable even if the non-market benefits fall around the upper estimate.

The costs are too great to justify an improvement in only one packaging type. Beverage containers constituted approximately 30% of packaging consumption in 2010-2011 (APC, 2012; IndustryEdge and OMG, 2011). These findings are consistent with international criticisms of container deposit schemes. In many areas the economics of operating a CDS within a broader packaging recovery effort have proven to be costly or unclear (GreenBlue, 2011). CDS is as an unviable option for recovering the majority of packaging which does not include beverage containers (GreenBlue, 2011).

Options 4A and **4B** fail to meet the requirements of the National Waste Policy, in that both are end of life solutions only that address the 'recycling' element of the waste hierarchy. There is limited allowance for resource minimisation through packaging design, limited consideration of the life cycle of a package (including its contents) and limited capability to address the global increase in non-traditional packaging types. Under a CDS, Australia will be stuck in time, unable to adapt.

Moreover, sensitivity testing as part of the CBA shows that **Options 4A** and **4B** were **not economically viable under any testing scenario** (PICRIS Attach C, p.98). Both options have a negative NPV and BCR of below 1 when the costs are decreased or benefits increased (PICRIS Attach C, p.99).

As **Options 4A** and **4B** do not address the majority of packaging types (non-beverage containers) performance is not projected to be as high as other options that target all packaging (PICRIS, p.52). Both options will still rely heavily on the APC to achieve overall recycling and litter reduction targets. However, as discussed below, the ability of the APC to achieve targets would be significantly diminished under CDS.

A. Are the projected rates for packaging recycling and litter reduction under Option 4 realistic?

Both **Options 4A** and **4B** will not meet the predicted rates of recycling and litter reduction over the assessment period. In the following, the NPCIA will outline that recycling projections should be revised on the basis of the incompatibility of the base case under a CDS and the disruption to an existing kerbside recycling culture. Litter rates in South Australia lag behind other states with a more comprehensive litter management approach. This casts into doubt the litter assumptions for this option in the RIS. The veracity of the Boomerang Alliance's data has been questioned with supporting information in **Appendix II**, so will not be dealt with in this section.

THE BASE CASE IS INCOMPATIBLE WITH OPTIONS 4A AND 4B

The CBA does not adequately take into account the uncertainties in the performance of the base case operating in combination **Options 4A** and **4B**. Whilst it does state that under **Options 4A** and **4B** there is a risk of a decline in membership to the APC (PICRIS Attach C, p.22), it does not quantify what impact this will have on the ability of the underlying base case to succeed in initiatives. The NPCIA finds using the base case as underlying performance assumptions for **Options 4A** and **4B** to be problematic: as the base case scenario is not applicable with such a major change in packaging recovery operations within Australia. The APC's role will be significantly reduced under CDS.

The food and beverage industry currently comprises 36% of APC signatories. They provide $1.4 million worth of funding to the APC per annum. If the beverage industry were forced to pay for the establishment and ongoing operational costs of a CDS, it would be unlikely this sector would be willing to participate in the APC. This would result in a large decrease in funding.

Both these options will rely on the APC to address flexible packaging and non-beverage containers, so it was assumed that recycling and litter reduction outcomes would be in line with the base case (PICRIS Attach C, p.26). The impact of a reduced role for the APC would compromise the recycling and litter outcomes for non-beverage containers under these options. It is unlikely that the recycling and litter projections will be met.

Furthermore the presence of a national CDS co-existing with the APC under multiple jurisdictions does not solve the identified PICRIS problem of regulatory failure. Businesses dealing in both beverage and non-beverage packaging will be subject to both the *Product Stewardship Act 2011* and the National Environmental Protection Measures (NEPM). Any conflict between the two laws that falls within the Commonwealth jurisdiction would see the *Product Stewardship Act 2011* prevailing (s109 Australian Constitution). This may weaken the existing power of the NEPM which is enacted under state legislation. Furthermore it is unknown what influence the *Mutual Recognition Act 1992* would have. Though the effect of this has not yet been examined, it indicates increased complexity of regulation. This contradicts the COAG commitment to maximise the efficiency of regulation and avoid unnecessary compliance costs.

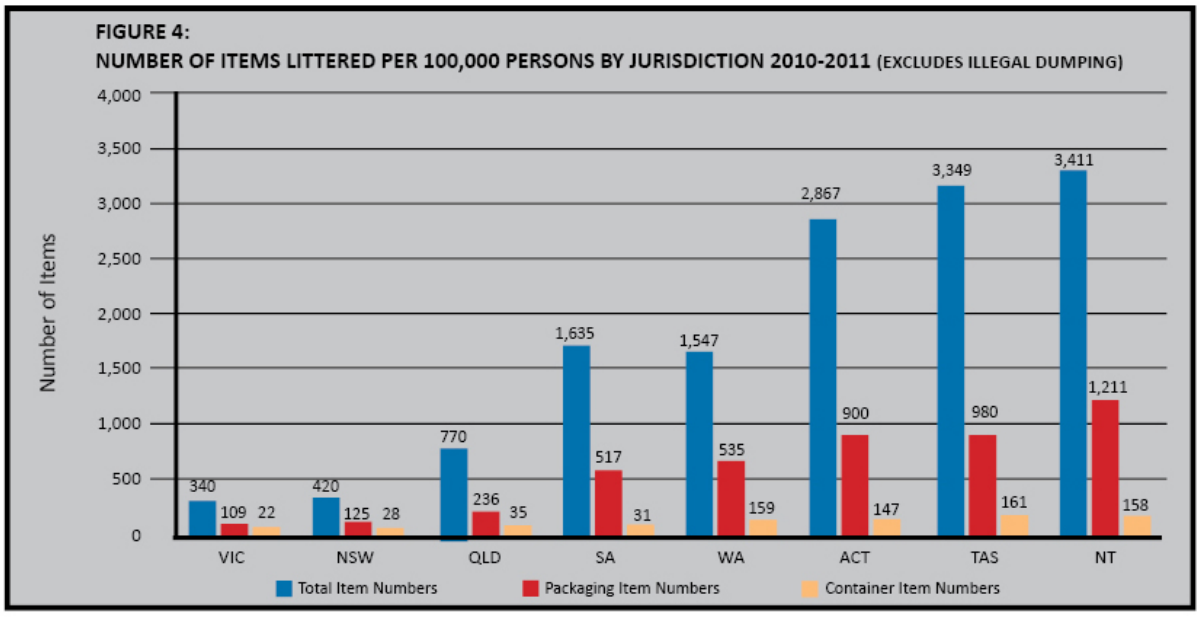
There is also an error in the calculation of avoided regulatory costs in the CBA. Whilst this amount is not substantial, it indicates that the effect of mandatory CDS on the APC has not been fully considered. The CBA assumes that **Options 2** and **4** have equal regulatory avoided costs from the base case of $35 million. This is on the basis that a national scheme would eliminate multiple government administration costs in the order of $3 million per annum. This is problematic in the case of **Option 4**, as it is planned for the existing state enforced APC to co-exist under a national CDS scheme. The avoided regulatory cost savings would be confined to the scope of the mandatory legislation only – beverage containers. For the remaining majority of packaging types, they would still be regulated under the multiple jurisdictions model.

South Australian Scheme shows variations in beverage container recycling performance

SA recycling rates for Liquid Paper Board cartons (LPB) and high density polyethylene (HDPE) remain at a low rate of 58.1% (SA EPA, 2011). This is lagging behind the rest of Australia (IndustryEdge and Equilibrium OMG, 2011). The beverage container recycling rate has been primarily driven by glass, aluminium and PET. This indicates that CDS has less capacity to deal with materials that are not traditionally 'easy to recycle.'

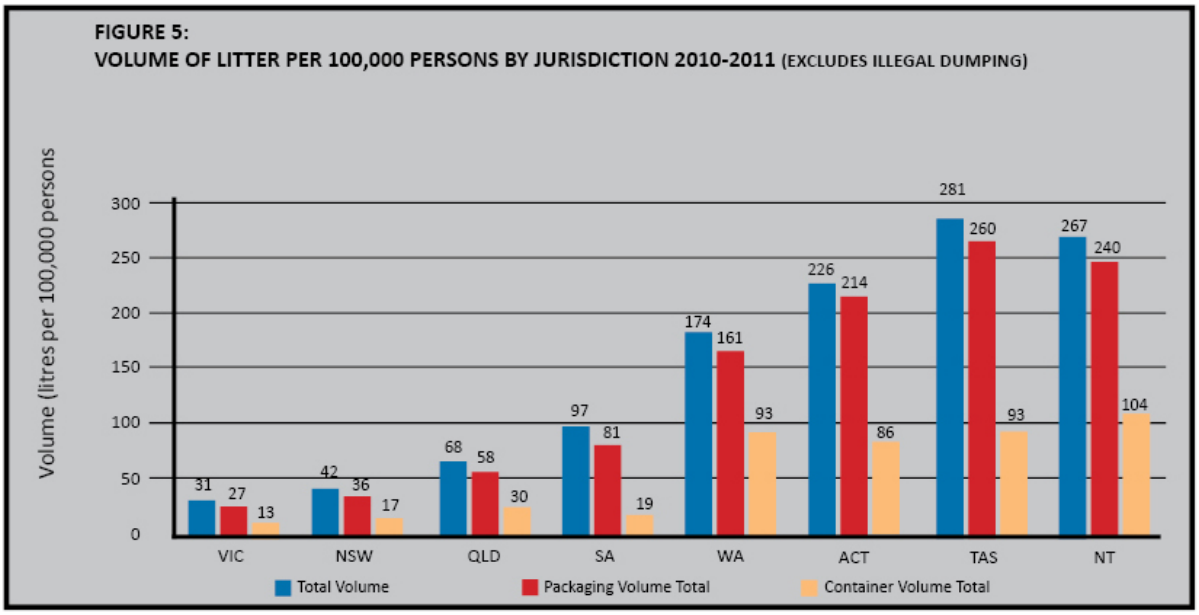
NATIONAL DATA SHOWS LITTER MANAGEMENT APPROACH IS MORE EFFECTIVE THAN CDS

The PICRIS assumes that CDS Schemes under **Option 4** would achieve higher litter reduction through targeted beverage container recovery. The NPCIA questions this. Firstly, there may not be as great a reduction in non-beverage container litter if the APC is unable to perform under a CDS. Secondly, analysis on existing national litter data shows that a CDS scheme (as shown by SA) does not necessarily correlate with lower litter rates. This is evident when the KAB NLI data is adjusted for population. This is a more accurate basis for comparison as it is the people within a state that litter, to make no adjustment would be to disadvantage states with higher populations. **Figures 4** and **5** show this based on KAB NLI 2010-2011 data.



When population is taken into account, NSW, VIC and QLD have lower total item litter and packaging item numbers than SA. Interestingly, NSW and VIC also have lower levels of container item numbers than SA.

This is also substantiated by litter volumes. **Figure 5** shows the performance of the states and territories adjusted for population. Consistent with the above, SA exhibits higher rates of littering by total volume and packaging volume compared with the NSW, VIC and QLD. VIC and NSW show lower volumes of beverage container litter than SA.



Rates of litter reduction in SA lag behind the larger states on the east coast. NSW, VIC and QLD follow the four 'pillars' of litter management which includes litter education strategies, design initiatives, infrastructure and enforcement programs. This indicates that states that follow this approach and with recourse with up to date management and behavioural research perform better than those without. Again, beverage containers comprise only a portion of the packaging items littered. Options which allow for more encompassing strategies will perform better than those focusing on collection for just one packaging type.

NEW STUDY CASTS DOUBT ON AVOIDED LITTER CLEAN UP PROJECTIONS

A study conducted by Equilibrium OMG looked at the impact of the introduction of a CDS for local councils with an established kerbside collection system. The study also looked at the litter outcomes under the introduction of a CDS. Information was gathered from interviews with 28 local governments across all states and territories that currently do not already have a CDS[1]. The scope of the study covered small and large metropolitan, regional and rural local governments. It was also informed by stakeholders from state government agencies, groupings of Councils and the collection and recycling industries.

[1] SA was deliberately not interviewed as the study sought to examine the impacts of the **introduction** of a CDS on **existing** kerbside schemes. SA's kerbside was brought in after CDS had been implemented.

The majority of respondents interviewed did not believe that a CDS would lead to an immediate decrease in the costs associated with litter control, as the percentage of containers in the litter stream is relatively small compared to total litter (Equilibrium OMG, 2012). Savings may come from a reduced number of reported incidents over the medium to long term. These findings call into question the high CBA predictions of $114 million avoided litter clean up costs for **Option 4** over the analysis period. Further, the report highlights practical considerations of litter clean up. For instance there are variations between councils in terms of the amount reported and what was actually spent on litter reduction, as councils allocate their time differently. Litter clean-up activities may continue irrespective of whether containers were taken out of the system or not.

B. What is the likely impact of the Options 4A and 4B on kerbside collection systems?

EACH LOCAL GOVERNMENT SHOULD CONSIDER THE IMPACT OF INTRODUCING A CDS ON THEIR OWN KERBSIDE COLLECTION SERVICES

The NPCIA encourages local government to investigate the impacts of a CDS on their kerbside collection services as it will not have the same effect across Australia.

There will generally be a negative overall impact for metropolitan local governments in the short medium or long term[2]. This is because they currently receive some value for the materials in their kerbside recycling bin and a CDS would have a net negative impact on that value (Equilibrium OMG, 2012). The range of the rebate/value loss from a CDS for metropolitan local governments is between -$2100 to -$8300 per 1000 households per year.

There will generally be a net positive impact for regional and rural local governments in the short, medium and long term as there will be a net positive improvement in the value of the materials in their recycling bins. The range of benefit will be between $2700 to $3000 per 1000 households annually.

All local government respondents reported there would be a change to their existing kerbside system as there would be a range of operational, commercial and management issues to be considered (Equilibrium OMG, 2012). The variations in individual systems and contract arrangements means the impacts will ultimately vary between local governments.

The *Packaging Options Paper* claims that under **Option 4A** 'the removal of a significant quantity of glass from kerbside recycling would reduce contamination' (PICRIS Attach B, p.32). The CBA avoids adding a premium for paper/cardboard under a CDS on the basis that there was insufficient evidence to suggest that reduced contamination would increase its value. The study by Equilibrium OMG indicates this caution was justified, reporting there are mixed views amongst local government whether a CDS would lead to lower contamination rates, with roughly a 50:50 split of opinion.

These findings have implications across a range of projections in the CBA. Foremost, it calls into question the estimated $2.8 billion forecasted benefit to local councils. Secondly, higher rates of contamination than initially modelled may result in lower market prices for the redeemed recyclate.

[2] Short term (1 to 2 years inclusive), medium (3 to 7 years inclusive) or long term (greater than 7 years)

C. What is the likely impact of a CDS on costs to households and businesses?

The PICRIS identified that a national CDS would likely increase the price of beverages at the point of sale. ACIL Tasman forecasted the potential price impact resulting from a national CDS and the consequent effect on total consumer demands. One scenario modelled was similar to **Option 4A** and 4B; 10c deposit per container, plus a 4c handling fee (14c per container plus GST)[3]. Under this scenario grocery products will generally experience the largest percentage change in retail prices, with the exception of juices. Within grocery, the prices of small carbonated soft drinks (less than or equal to 750mL) will change by approximately 17% and bottled water by approximately 21% (ACIL TASMAN, 2011).

It is projected that a total of 5 164 direct and indirect jobs could be lost by 2013-2014 from Australian industries related to beverage manufacturing under a CDS. Of this, it is projected that 962 direct jobs will be lost from the Australian beverage industry alone (ACIL TASMAN, 2011).

D. Does Options 4A and 4B provide opportunities for increasing the recycling levels of other materials? If so, to what extent?

Proponents of CDS claim that it would create a 'culture of recycling' that would spillover into other packaging materials. Australia already has a culture of recycling in place, expressed by kerbside participation rates of over 90% in homes across Australia including South Australia (PICRIS Attach A, p19).[4] Research recently conducted by Sustainability Victoria found that most Melbournians were in the habit of recycling at home and almost all took advantage of weekly or fortnightly kerbside recycling collections offered by local councils. 99% of the people surveyed agreed it was either "very convenient" or "fairly convenient" to recycle under current arrangements (Sustainability Victoria, 2011). Implementing a new operation may disrupt the existing 'culture of recycling' which has amongst the highest participation rates in the world. The CBA warns, 'A CDS moves from a well understood and utilised, centralised kerbside recycling system offering substantial coverage to a decentralised system requiring significant behavioural change.' (PICRIS Attachment C, p.3) ABARES adds caution and recommends further investigation into 'moving consumers from a well-subscribed kerbside recycling regime to a CDL based system.'(ABARES, 2011)

CBA **Table 74**, showing 'Deposit and non-deposit items returned to recycling centres in SA' from 1997 is not comparable. Firstly, it provides outdated data prior to the creation of the APC. Secondly SA is unique to the rest of Australia, as CDS was introduced before kerbside systems, unlike in other states. To quote ABARES with respect to predicting how consumer behaviour will change, 'the South Australian experience with a CDL scheme may not be fully indicative of what might happen at a national scale.' (ABARES, 2011)

[3] **Option 4A** is $0.10 per container deposit plus a fee of 3.6c per container according to BA modelling. Option 4B is $0.10 per container with 4-5c handling fee paid to collection facilities.

[4] **Table 74** also does not make the distinction between 'At home' or 'away from home' packaging, so it is unknown how much was merely being diverted from kerbside or deposited away from home.

Recommendation 7: Ministers should disregard options that impose unjustifiable costs on the Australian community, increase regulatory complexity and impose unnecessary compliance costs

Recommendation 8: Options 4A and 4B will not meet the recycling rates and litter reduction projections in the RIS because:

a) current APC will be incompatible with a mandatory national CDS; and

b) state data per capita and an independent study of local councils query the effectiveness of a CDS at reducing litter

Recommendation 9: Each local government should consider the impacts of a CDS on their existing kerbside systems. An independent study shows there will generally be a negative overall impact for metropolitan local government vs a generally positive overall impact for regional local government.

Recommendation 10: A national CDS would increase the cost of beverages at point of sale and result in job losses to Australia's struggling manufacturing industry.

Recommendation 11: A CDS would disrupt Australia's existing 'culture of recycling' in a centralised kerbside system, which has one of the highest participation rates in the world.

5. MARGINAL SUPPORT FOR REMAINING OPTIONS 2C AND 3

COAG Principle 8: Government action should be effective and proportional to the issue being addressed

Option 2C presents an expensive alternative of industry product stewardship. **Table 1** below shows the recycling rates and projected tonnes of litter for 2035 between the various **Option 2** alternatives.

Table 1: To show net benefits/costs against option outcomes

Recycling rates (%)	2025	2035	**NPV (millions)/BCR**
Option 2A	79.4%	80.6%	$46/1.18
Option 2B	81.9%	81.9%	-$51/0.91
Option 2C	83.2%	86.4%	-$198/0.80
Litter (tonnes)			
Option 2A		31 000	
Option 2B		29 000	
Option 2C		22 000	

Option 2C reflects that any significant increases from Australia's existing high recycling rates will come at great cost. The NPV for this option is $-198 million with a BCR of 0.80. The large costs of this option ($353 million) would be borne by the packaging industry and likely passed on to the consumer by higher prices.

There needs to be greater consideration of what rates of recycling and litter reductions compromise a realistic target. **Option 2C** places an unreasonable burden of responsibility and cost on the packaging industry. **Option 2A** and **2B** have the capability to have similar initiatives to this option, but with more equitable cost sharing amongst the various stakeholders. Allocation of costs to one sector is not a sustainable or effective long term strategy.

Option 3 constitutes a mandatory Advance Disposal Fee (ADF) on packaging. The CBA shows that it is a costly option, with a NPV of -$195 million and a BCR of 0.80. Though the willingness to pay data indicates non market values may account for the market based deficit, there is ambiguity as to how it will be carried out. The PICRIS states that while there is relative certainty of costs under this option, it is 'less certain that the projected outcomes for **Option 3** can be achieved.' (PICRIS, p.51) For the large costs involved, there needs to be a certainty that this option could deliver.

An ADF as proposed for **Option 3** could restrict innovation within the packaging industry and ultimately lead to higher costs being passed on to the consumer. Charging a weight based fee of packaging materials ignores the product protected, which compromises the majority of resources used. An ADF is inflexible in that it lacks capacity to consider the lifecycle of individual products and may be expensive to administer when demographic, distribution and sustainability changes are taken into account. In ensuring that regulation remains relevant and effective over time**,** Australia will be best placed to retain flexibility to adapt to innovations within the industry in sustainable packaging.

A less restrictive ADF is involved in **Option 2**. The APC under the *Product Stewardship Act* would require a product stewardship scheme for packaging. In the PICRIS glossary it defines a 'Product Stewardship Scheme' as 'industry establishing an organisation to operate the scheme and charging membership fees (similar to an **ADF arrangement**)…' By this definition, **Option 2A** would encompass an ADF in a more cost effective manner than **Option 3**. A new scheme would be costly and unnecessary.

Recommendation 12: Greater certainty is required in Options 2C and 3 to justify the large costs. Options 2A and 2B present more flexible, cost effective alternatives with the potential to develop over time.

6. SUMMATION OF DECISION ANALYSIS APPROACH

A decision analysis approach frames complex issues efficiently, explores relationships among key elements and provides a systematic way of arriving at conclusions (Ley-Borras, 2005). The RIS process is part of a decision analysis approach for policy makers. The NPCIA decision process was as follows:

Step 1: Redefine the Problem

COAG Principle 1: Establishing a case for action before addressing a problem

Is there a problem?

Australians are renowned for our high recycling rates and are world leaders in litter management. The APC (and former NPC) has been successful in increasing the recycling rates of all consumer packaging from 39% in 2003 to 63.1% in 2011. The APC has also overseen a reduction of litter across Australia and a reduction in packaging waste to landfill.

The objectives of the National Waste Policy are embodied in the flexibility and wide scope of the APC. It is a 21st Century approach to minimising the environmental impacts of **all** packaging types.

The base case was the second best performer in the PICRIS (**Figure 1**). Why change?

If a case for regulatory action is established then…

Step 2: Establish Assessment Criteria

COAG Principle 3: Adopt the Option Generating the greatest net benefit for the Community

The Net Present Value (NPV) (**Figure 1**) and Benefit Cost Ratio (BCR) (**Figure 2**) form the primary assessment criteria of the PICRIS Process.

Households Willingness to Pay (WTP) estimates are taken into consideration during a secondary assessment to consider community non-market values (**Figure 3**).

Step 3: Apply key Criteria to the Options Presented

Option 2A is the only option showing a **net benefit** to the Australian community. **Option 2A** under the *Product Stewardship Act 2011* can have a greater **regulatory and a stronger compliance** regime than the current APC.

If additional options are considered, the NPCIA would support Option 1, followed by Option 2B.

Step 4: Eliminate outliers not meeting any criteria

Option 4A and Option 4B present unjustifiable costs to the Australian community

Options 4A and 4B are not only costly **but**

- will **not** achieve the projected recycling outcomes.

- will **not** achieve the projected litter outcomes. The National Litter Index (NLI) data shows that when population is taken into account, CDS are less effective at reducing litter than a wider management approach (**Figure 4**)

Increases regulatory complexity (COAG Principle 5)
Will not be relevant and effective over time (COAG Principle 7)

Step 5: Remaining Options?

- There should be only marginal support for Option 2C and Option 3 as more cost effective options present more certainty and flexibility.

COAG Principle 8: Government action should be effective and proportional to the issue being addressed.

Step 6: Outcome

The base case and Option 2A are the only models that satisfy both market and non-market based assessment criteria.

Twelve recommendations resulted from this decision analysis approach and are listed in the following section.

7. RECOMMENDATIONS

Recommendation 1: Australia should adopt a resource recovery approach, based on a lifecycle perspective in managing the environmental impacts of packaging. It must address Strategy 3 and the aims of the National Waste Policy, recognising that recycling has a very important role to play in sustainable packaging.

Recommendation 2: The chosen option should be flexible to adapt to global packaging trends in order to stay relevant and effective over time.

Recommendation 3: The NPCIA supports the APC as the only appropriate regulatory mechanism for packaging stewardship in Australia. It should be noted that the new, open-ended APC from July 1 2010 was established to address many of the problems listed in the RIS and had not had sufficient time to show results when the RIS was commissioned.

Recommendation 4: In light of the performance of other options considered, Ministers should examine closely whether there is a problem and if further regulation would be of benefit.

Recommendation 5: Option 2A emerged the only option expected to provide a net benefit to the Australian economy over and above the base case and therefore should only be adopted if a case for change is established. If *additional* options are considered, the NPCIA would support Option 1 followed by Option 2B.

Recommendation 6: Further clarification is needed regarding the ability of the states and territories to enact legislation that may undermine a co-regulatory arrangement under the Product Stewardship Act.

Recommendation 7: Ministers should disregard options that impose unjustifiable costs on the Australian community, increase regulatory complexity and impose unnecessary compliance costs

Recommendation 8: Options 4A and 4B will not meet the recycling rates and litter reduction projections in the RIS because:

a. current APC will be incompatible with a mandatory national CDS; and
b. state data per capita and an independent study of local councils query the effectiveness of a CDS at reducing litter.

Recommendation 9: Each local government should consider the impacts of a CDS on their existing kerbside systems. An independent study shows there will generally be a negative overall impact for metropolitan local government vs a generally positive overall impact for regional local government.

Recommendation 10: A national CDS would increase the cost of beverages at point of sale and result in job losses to Australia's struggling manufacturing industry.

Recommendation 11: A CDS would disrupt Australia's existing 'culture of recycling' in a centralised kerbside system, which has one of the highest participation rates in the world.

Recommendation 12: Greater certainty is required in Options 2C and 3 to justify the large costs. Options 2A and 2B present more flexible, cost effective alternatives with the potential to develop over time.

Questions or comments relating to this NPCIA submission should be directed to

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9. APPENDICES

I. OTHER MATTERS

II. INTEGRITY OF AUSTRALIAN PACKAGING COVENANT DATA AND METHODOLOGY

III. NPCIA COMMENTARY: A FIRST LOOK AT THE PACKAGING IMPACTS CONSULTATION REGULATION IMPACT STATEMENT (FOR MEMBER REFERENCE)

APPENDIX I - OTHER MATTERS

A. Definition of recycling to be consistent with the TVS and computers

The APC as a co-regulatory arrangement under The Act should remain consistent with the existing *Product Stewardship (Televisions and Computers) Regulations* where applicable. One key area it is necessary to maintain consistency is in the definition of '**recycle.'** The *Regulations* define it as 'in relation to a product, means **initial** processing of the product for the purpose of recovering usable materials, and includes disassembly or shredding of the product.' This is broader than the current definition of recycling under the APC and the NEPM which 'for a product, means to recover the product **and** use it as a raw material to produce another product.'

The ACCC states that self-declared claims of recyclability could potentially be **dangerous** if the facilities to recycle it are not available in Australia (ACCC, 2011). If the definition of 'recycle' or 'recycling' was broadened to only require **initial** processing, not the entirety of processing from recovery to manufacture, it would provide greater confidence in recyclability claims. The initial processing could be carried out in Australia and then exported for recycling elsewhere.

The current APC definition of 'recycle' should be amended to match this if brought under The Act.

B. Addressing the "Recovery" level of the Resource Hierarchy

Effective recovery for used packaging materials preserves the embodied value and environmental safety of materials throughout their life cycle (Greenblue, 2011). Energy from waste is discussed in the NWP, though is not provided for in the waste legislations in all states and territories. GreenBlue makes the following observation, "With waste to energy not available as a disposal option, with the global trend of lightweighting through the use of flexible pouches, landfills were observed to be the sole disposal option for an increasing amount of non-recyclable packaging in Australia" (GreenBlue, 2011). Skipping the recovery step on the hierarchy results in a loss of resources that had energy potential. New waste to energy (WTE) plants in this area demonstrate the energy savings available. In November 2011 VISY opened a $50 million WTE plant that will produce 30MW of thermal energy and 3MW of electrical power annually (WME, December 2011/January 2012). This will be used to fuel Visys existing paper mill on site, reducing the mills reliance on natural gas by 50% and reliance on grid electricity by 10%. This is expected to divert 100 000t of waste from landfill each year.

APPENDIX II – INTEGRITY OF AUSTRALIAN PACKAGING COVENANT DATA AND METHODOLOGY

National Packaging Covenant Industry Association **Appendix II NPCIA Submission to the Packaging Impacts Consultation RIS**

20 March 2012

Integrity of Australian Packing Covenant Data and Methodology

The APC recycling data was recently brought into question by the Boomerang Alliance in their media release of 13 February 2012 titled *"Black hole in Australia's recycling of packaging*".

BACKGROUND

The APC commissions annual collection of data to assess the recycling of all consumer packaging in Australia. The APC does not distinguish between the packaging uses such as beverage containers, non-beverage and other packaging, but assesses all consumer packaging by material type. The APC's recycling data and performance is publicly available on the APC website.

The Australian Packaging Covenant (formerly the National Packaging Covenant) commissions independent consultants to collect data for the recycling rate for all consumer packaging – paper and cardboard, glass, plastics, steel and aluminium. The data collection is conducted in accordance with a comprehensive and robust methodology and reporting process that were agreed by the then National Packaging Covenant Council in May 2009.

The APCC process adopts an evidence-based approach and takes into account an assessment of the "level of confidence" of the data (Pitcher Partners - Independent report September 2008). The APCC methodology includes material recovered and processed, takes into account imports and exports of consumer packaging materials and specifically does not include used packaging material that has been stockpiled in the given year.

Boomerang Alliance Claims

BA has made an unsubstantiated claim in their media statement of 13 February 2012 that the Australian Packaging Covenant (APC) data "shows a black hole in reports".....and "estimates over 320,000 tonnes of used beverage container packaging is missing"… BA has not referenced any APC data in their data tables in arriving at their claim that the APC recycling data is overstating the packaging recycling rate, however the PICRIS relies on the APC recycling data of 2010.

Boomerang Alliance provided a copy of their **Briefing Note February 2012** titled *"ASSUMPTIONS MADE ON CURRENT PACKAGING CONSUMPTION RECOVERY & DISPOSAL"*.

BA Adjusting consumption (Table 1)

Boomerang Alliance (BA) claim there has been acknowledged a problem with the APC data as identified in the Mid-term Review of the NPC. This was recognised by the NPC Data Working Group and largely rectified as stated in the NPC Mid-term Review Executive Summary Report to the NPC Council, where on page 36 – "Annual consumption and recycling data has been revised by the Covenant Council and independently audited by Pitcher Partners. This exercise included the updating of the 2003 baseline data and the collation of data for 2004 to 2007 using an improved methodology. This now provides a consistent data set for the entire period under review."

Note, BA made a submission to the Mid-term review titled "Report 1: Recycling Performance and Data Integrity" October 2008. BA's conclusions included:

1. Packaging consumption is significantly understated particularly in terms of plastics, glass and overall consumption,
2. There are significant volumes of packaging materials that have been excluded from the NPCC calculations of packaging consumption where there is virtually no recycling activity (composites, liquid paperboard).

Boomerang Alliance Briefing Note Table 1: Adjustment 2011 Consumption tonnes

Packaging material	BA Notes to Adjustment	Comment
Paper/cardboard	**Added** PSF LPB to bev. container as RIS seems to disregard this consumption **Added** LPB to overall consumption	**The methodology double counts LPB and incorrectly combines 2010 data with 2011 data.** Double counting as PICRIS (APC) Consumption and Recycling data includes cartonboard. Incorrectly combining data sets as BA data has added 2011 data to 2010 data. RIS data is based on 2010 APC data. PSF data is 2011 data. Note: The APC data calculates apparent consumption for paper grades that are only used for packaging, plus estimated imports less estimated exports.

Glass	Used PSF consumption for bev. containers as it is more specific in its analysis **Added** PSF increase to overall consumption	**The methodology double counts and incorrectly combines different data sets** Double counting - Bev. container data already included in RIS data (APC data) Incorrectly combining data sets as PSF data is 2011 and RIS data is 2010
Plastics	Used PSF number as it is more specific in its analysis No adjustment to overall plastic consumption – insufficient info to draw any conclusion (as beverage containers a minority of total consumption)	**The data methodology incorrectly combines different data sets** PSF bev. container data is 2011 (surveyed) RIS data is 2010 (calculated using assumptions)
Steel cans	Used RIS data – though analysis of split between bev. containers & other packaging seems arbitrary	**The data methodology incorrectly combines different data sets** BA data sets are claimed to be 2011 RIS data is 2010 RIS data is based on APC total consumption and then an estimated proportion used for bev. containers

Aluminium	Used PSF number as it is more specific in its analysis NB RIS analysis seems to indicate there is no other aluminium packaging consumed. However PSF identifies at least 8,166 tonnes of aluminium in aerosol cans alone	**The methodology double counts aerosol container consumption** PSF data 2011 separates aluminium bev. containers from aerosol containers. RIS uses APC data which separates bev. containers from aerosol containers. BA have added aerosol containers to the total aluminium container consumption (total consumption data includes bev. containers and aerosols)
Composite Bev Containers	Added cordials based on BDA/WCS 2010 as RIS seems to disregard this consumption	Insufficient information to comment

BA did not provide any notes on the adjustments made to their Table 2: Adjusted 2011 Recycling tonnes.

BA added a note which seems to confirm that there is no robust approach to their data methodology and it introduces further uncertainty regarding the varsity of BA data.

*"An alternative analysis using the PSF beverage container plastic (129,753t) and aluminium (36,600t) recycling numbers changes plastic beverage container recycling to 48% and aluminium to 64%; and overall beverage container recycling to 41%. The overall packaging rate is adjusted to 60%." ***

Comparison table of the two BA Recycling calculations and PSF and APC data.

Packaging material	BA published recycling rates (Bev. containers)	BA Alternative analysis recycling rates (Bev. containers)**	PSF 2011 Data (Bev containers)	APC 2010 Data (PICRIS 2010 Data)
Plastic	34.80%	48%	49%	
Aluminium	55.32%	64%	64%	
Overall Bev containers	37.83%	41%	52%	
Overall packaging	NA	60%		62.5%

BA provides an example in their 13 February 2012 media statement:
"An example of the APC data problem is glass. Its 2010 report shows 991,000t of all glass while the PSF industry data shows 961,454 of beverage containers – but beverage containers are 80% of all glass packaging. So where's the other 200,000 tonnes missing from the APC data?"

How might BA arrive at 200,000T of glass missing?

1. If 961,454T (PSF Beverage Container 2011 data) of beverage container consumption is 80% of total consumption, then the implied BA total consumption must be 1,201,817 tonnes.
2. If there was 1,201,817 tonnes of glass consumed as calculated by BA, and the APC has claimed total consumption in 2010 of 991,000 (PICRIS 2010 Data) tonnes, the difference is 210,817 tonnes - (over 200,000 tonnes "missing"!)

Let's rework BA calculations using 2011 data from APC and PSF and using the 88% (PICRIS uses 79%, however the primary source is the Hyder Quantification Survey 2008 which references the ratio at 88%) (Note that Industry currently estimates that proportion to be 90% as more non-beverage packaging has moved to alternative packaging materials) glass beverage container proportion:

1. If 961,454T (PSF Beverage Container 2011 data) of beverage container consumption is 88% of total consumption, then total consumption is estimated to be 1,092,561 tonnes.
2. The APC total glass packaging consumption for 2011 was 1,053,808 tonnes.
3. A difference of 38,753 (3.6%) tonnes between the actual and calculated total consumption of glass.

   Note the APC glass consumption data was compiled by a different consultancy to that used by PSF.
   If, using current industry estimates of 90% glass beverage packaging, then using the PSF Beverage Containers 2011 data yields total glass beverage packaging consumption for 2011 of 1,068,282 tonnes (a difference of only 14,474 tonnes or 1.4% when compared to the APC total glass packaging consumption figure for 2011).

Data Comparisons

TOTAL PACKAGING CONSUMPTION

	BA	**APC Data 2010**	**PICRIS 2010 Data**		**Secretariat Analysis**	**APC Data 2011**
Packaging material	**Adjusted Packaging Consumption**	**Total Consumption**	**Total Consumption**	**BA less PICRIS Consumption**		**Total Consumption**
Paper/ cardboard	2,711,321	2,680,000	2,680,000	31,321	**Double counting & different years of analysis** -BA have added the 2011 PSF consumption number (31,321) to the 2010 PICRIS (APC) consumption data	2,602,000
Glass	1,166,454	991,000	991,000	175,454	**Double counting & different years of analysis** -BA have added the difference of the 2011 PSF Bev Container consumption number and the PICRIS 2010 Bev Container consumption to the to the 2010 PICRIS (APC) consumption data	1,053,808
Plastics	565,285	565,285	565,000	285	PICRIS rounding	532,251
Steel cans	136,249	136,249	136,000	249	PICRIS rounding	127,601
Aluminium	57,195	51,600	51,600	5,595	**Different years of analysis** and BA claim to have added and adjusted the 8,166T of aerosols – however BA seem to have used the 2011 PSF data (57,196T)	57,196
Composite Containers						
TOTAL	**4,693,701**	**4,424,134**	**4,423,600**	**212,904**	BA addition is 4,636,904T (and is 57,197T overstated)	**4,372,856**

TOTAL PACKAGING RECYCLING

	BA	APC Data 2010	PICRIS 2010 Data		Secretariat Analysis	APC Data 2011
Packaging material	**Total Recycling**	**Total Recycling**	**Total Recycling**	**BA less PICRIS**		**Total Recycling**
Paper/ cardboard		2,024,000	2,024,000			1,960,000
Glass		466,200	466,000			519,600
Plastics		196,925	197,000			199,812
Steel cans		41,223	41,000			43,583
Aluminium		35,002	35,000			36,600
Composite Bev Containers						
TOTAL		2,763,350	2,763,000			**2,759,595**

BEVERAGE CONTAINER CONSUMPTION

	BA	PSF 2011 Data	PICRIS 2010 Data		Secretariat Analysis	
Packaging material	**Adjusted Beverage Container Consumption**	**Beverage Container Consumption**	**Beverage Container Consumption**	**BA less PICRIS Beverage Consumption**		
Paper/ cardboard	31,321	31,321	26,800	4,521	PICRIS based on a 1% of total based on a PICRIS estimate – Table 49	
Glass	961,454	961,454	785,900	175,554	PSF figure is 2011 Data. PICRIS based on 79% estimate of total 2010 data.	
Plastics	267,216	263,799	169,600	97,616		
Steel cans	68,000	0	68,100	-100	PICRIS based on PICRIS estimate – Table 49 (source Table 6.1, p195, BDA Study 2010 states 1,038 of steel used for fruit juices)	
Aluminium	57,195	57,196	51,600	5,596	PICRIS based on 2010 APC data. PSF data is 2011	
Composite Bev Containers	11,479	0	0	11,479	Table 6.1, p195, BDA Study 2010 classified as “Other”	
TOTAL	1,396,666	1,313,770	1,102,000	**294,666**		

BEVERAGE CONTAINER RECYCLING

	BA	PSF 2011 Data	PICRIS 2010 Data		Secretariat Analysis	
Packaging material	**Adjusted Beverage Packaging Recycling**	**Beverage Packaging Recycling**	**Beverage Packaging Recycling**	**BA less PICRIS Consumption**		
Paper/ cardboard	12,680	18,575	20,234	-7,554	PICRIS number based on PICRIS estimate – Table 50	
Glass	362,000	438,660	361,000	1,000	PICRIS Table 50 based on estimated recycling rate of 45.9%	
Plastics	93,000	129,753	93,000	0		
Steel cans	27,000	0	27,000	0	Table 6.3, p196, BDA Study states 183T	
Aluminium	31,640	36,600	35,000	-3,360	Aluminium aerosol recycling 3,660T and not included in PSF 2011 data	
Composite Bev Containers	2,058	0	0	2,058	Table 6.3, p196, BDA Study 2010 classified as “Other”	
TOTAL	528,378	683,588	536,234	**-7,856**		
Beverage Container RECYCLING	**37.83%**	**52.03%**	**48.66%**			

END.

APPENDIX III – NPCIA COMMENTARY: A FIRST LOOK AT THE PACKAGING IMPACTS CONSULTATION REGULATION IMPACT STATEMENT (FOR MEMBER REFERENCE)

Appendix III NPCIA Submission to the Packaging Impacts Consultation RIS

NATIONAL PACKAGING COVENANT INDUSTRY ASSOCIATION

npcia

NPCIA COMMENTARY: **21 DECEMBER 2011**

A first look at the Packaging Impacts Consultation Regulation Impact Statement

Executive Summary

The Packaging Impacts Consultation Regulation Impact Statement (RIS) was released on 7 December 2011. It considers seven national options that have the potential to increase packaging resource recovery rates and decrease packaging litter. **Option 2A**, which is the Australian Packaging Covenant (APC) transitioned under the *Product Stewardship Act 2011,* emerges as the only cost effective option under consideration, with a positive net present value and benefit-cost ratio greater than 1. **Option 2A** presents a stronger form of the current APC whilst maintaining a flexible and collaborative approach to reducing the environmental impacts of packaging.

1. Introduction

On the 5th of July 2010 the ministers at the then Environment Protection and Heritage Council (EPHC) agreed to develop a Packaging Impacts Consultation Regulation Impact Statement (RIS), to explore a number of national options that have the potential to increase packaging resource recovery rates and decrease packaging litter.[1] The scope of the RIS covered all consumer packaging made of any material, including sales and distribution packaging arising as waste both at home and away from home.

Seven options were chosen and assessed against the base case across a 25 year evaluation period, from 2011 to 2035. The base case reflects the current arrangements in place to manage packaging waste and other recyclable materials, including but not limited to: kerbside recycling in all states and territories, the Australian Packaging Covenant (APC), container deposit scheme (CDS) in South Australia and the Northern Territory, existing recycling and litter reduction measures across jurisdictions and voluntary arrangements such as the Packaging Stewardship Forum (PSF).[2]

The APC as the primary product stewardship scheme for consumer packaging has overseen the recycling rate increase to 63.1% in 2011 from 39% in 2003.[3] As the base case, this increase is assumed to continue. RIS *Attachment A: Problem Statement for Packaging* acknowledges that recycling in Australia is already at high levels, particularly for at home recycling.[4] This means that further gains in increasing recycling will come at increasing cost. In other words, linear rates of increases in both the participation and recycling effort cannot be expected.[5] It will be necessary to

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[1] Coalition of Australian Governments Standing Council on Environment and Water (SCEW), 2011. *Packaging Impacts Consultation Regulation Impact Statement (RIS),* accessed 8th December 2011 from http://www.ephc.gov.au/product_stewardship/packaging_impacts, p 1

[2] Pricewaterhouse Coopers (PwC) and Wright Corporate Strategy (WCS), 2011. *RIS Attachment B: Packaging Options Report,* p 11

[3] Australian Packaging Covenant (APC), 24th November 2011. STATEMENT – 2011 RECYCLING DATA. Accessed 16th December 2011 from http://www.packagingcovenant.org.au.

[4] PwC and WCS, 2011. *RIS Attachment A: Problem statement for packaging,* p 8

[5] PwC and WCS, 2011. *Attachment C: Cost benefit analysis report* (CBA), p 1

make a trade-off between the cost of a given option and the benefits it could achieve.[6] **Option 2A** presents a stronger form of the APC whilst maintaining a flexible and collaborative approach to reducing the environmental impacts of packaging.

2. Option 2A: The only cost effective national approach

The APC transitioned under the co-regulatory provisions of the *Product Stewardship Act 2011* (**Option 2A**)[7] emerged as the only **cost effective option** under consideration in the RIS. The *Attachment C: Cost Benefit Analysis* (CBA) shows it is the **only option** with a positive net present value (NPV) and benefit-cost ratio (BCR) greater than 1.[8] This suggests that of all the options considered, its benefits are greater than its costs, and is projected to contribute $46 million to the Australian economy over the evaluation period. Refer to **Table 1** below.

Table 1: CBA Results based on market-based values (and landfill externalities)[9]

	Option 1	Option 2 (a)	Option 2 (b)	Option 2 (c)	Option 3	Option 4 (a)	Option 4 (b)
Costs (millions)	$311	$258	$554	$984	$981	$2,125	$2,471
Benefits (millions)	$262	$304	$503	$786	$786	$710	$710
NPV (millions)	-$49	$46	-$51	-$198	-$195	-$1,414	-$1,761
BCR (number)	0.84	1.18	0.91	0.80	0.80	0.33	0.29
2035 recycling (tonnes)	4,222,000	4,200,000	4,264,000	4,497,000	4,497,000	4,313,000	4,313,000
2035 litter (tonnes)	30,000	31,000	29,000	22,000	22,000	28,000	28,000
2035 landfill (tonnes)	956,000	977,000	915,000	689,000	689,000	867,000	867,000

The *Packaging Options Report* anticipates that **Option 2A** could achieve[10]

I. **Greater regulatory efficiency.** Under the current APC, each state and territory government implements the National Environmental Protection Measure (NEPM). This results in multiple regulatory frameworks for businesses operating across jurisdictions. The APC under the *Product Stewardship Act* 2011 (hereafter The Act) would be administered by the Commonwealth only, creating greater regulatory efficiency. The RIS states that "Government regulatory costs in the implementation of this option would potentially be offset by the avoided costs of regulation by states and territories under current arrangements."[11]

II. **A stronger compliance regime.** The Act would strengthen the APC and promote better accountability of liable parties, as it provides for penalties and fines for non-compliance.

III. **Improvement in packaging recycling rates** in line with current APC targets to 2015. For the remainder of the assessment period it is expected that this option will **surpass the**

[6] PwC and WCS, *CBA*, p 1
[7] SCEW, *RIS,* p 28
[8] PwC and WCS, *CBA,* p 2
[9] SCEW, *RIS*, p xiii
[10] PwC and WCS, 2011. *RIS Attachment B: Packaging Options Report*, p 22.
[11] SCEW, *RIS*, p 48

performance of the base case due to greater regulatory efficiency and stronger compliance.[12] This is due to the potential for more set targets under The Act and greater industry/Product Stewardship Organisation (PSO) responsibility.

Option 2A could achieve **higher national packaging recycling** rates than the base case, due to the setting of regulated recycling targets under The Act. Recycling projections in the CBA show that a 75.4% recycling rate (3.59 million tonnes) could be achieved by 2020, compared with the base case at 72.5%. By 2035 **Option 2A** shows a recycling rate at 80.6%, compared with the base case at 79%.[13]

Option 2A is also projected to show a greater **reduction in litter** over the evaluation period compared to the base case. Under this option, the assumed outcome is that the litter rate reduces to 10% by 2020[14] and 15% for the period 2025 to 2035.[15] The base case was projected to reduce litter by 10% for the period 2025 to 2035.[16]

3. Container deposit scheme (CDS) options considered

A mandatory CDS with two sub-options form RIS **Options 4A** and **4B**. **Option 4A** is a model proposed by the Boomerang Alliance covering a range of beverage containers (up to and including three litres), redeemable for a $0.10 deposit. Collection is organised via a hub-and-spoke redemption/collection model with 1900 collection points and operated through a mandatory product stewardship scheme. A not-for-profit body consolidates deposits at the point of sale and collects revenue from the sale of redeemed recyclate.[17] Unredeemed deposits and recyclate sales returns would first be used to offset handling fees, and the remaining funds then allocated to other recycling improvement programs.

CDS **Option 4B** is based on schemes operating nationally and internationally, including the South Australian model and British Columbia's Encorp Pacific CDS. This option encompasses beverage containers (up to and including three litres) with collection occurring at a total of 1900 collection points. This includes urban and regional consolidation depots, store front depots, reverse vending machines and rural and remote collection centres. The deposit per beverage container would be $0.10 and increased in $0.10 increments over time to keep pace with inflation. This is proposed to be operated by an industry run PSO. Liable parties would be manufacturers and importers of beverages under the scheme.[18]

CDS **Options 4A** and **4B** are reported as having the lowest BCRs of all options, indicating they represent the largest net cost to the economy.[19] Refer to **Table 1**. Reducing infrastructure costs by 30% as part of the CBA sensitivity analysis reports that the "NPV of **Option 4A** significantly improved when infrastructure costs are reduced, however it remained economically unviable with a BCR of 0.94. **Option 4B** has a significantly negative NPV when costs are reduced and also remains economically unviable."[20] Overall, the CBA noted that "both CDS **Options 4A** and **4B** are not estimated to be viable under any sensitivity testing scenario." [21]

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[12] PwC and WCS, *Packaging Options Report*, p 23
[13] PwC and WCS, 2011. *CBA,* p 22
[14] Of total packaging available to be littered.
[15] PwC and WCS, *CBA,* p 31
[16] PwC and WCS, *CBA,* p 30
[17] PwC and WCS, *Packaging Options Report,* p 33
[18] SCEW, *RIS*, p 31 - 32
[19] SCEW, *RIS,* p xii
[20] PwC and WCS, *CBA,* p 105
[21] PwC and WCS, *CBA*, p 98

4. Other options considered

Options 2B and **2C** are other co-regulatory approaches considered that also involve the APC being transitioned under The Act. They represent increased levels of industry action and funding.[22] **Option 2B** is a suite of industry driven initiatives based on the National Bin Network proposal led by companies in the beverage manufacturing and packaging sector. It includes an enhanced focus on away from home beverage container recycling and packaging litter reduction. It deals with all packaging materials, with targeted initiatives on beverage containers and with glass market development.[23] **Option 2C** involves substantially increased industry action to achieve more ambitious targets. It looks at all packaging, and focuses on recycling and litter where there are key problem areas.[24]

Option 3 would involve the government placing a mandatory Advance Disposal Fee (ADF) on all packaging materials. The ADF would be designed as a weight based fee per tonne of packaging materials, and dependent on aspects such as material type, cost of recycling the material or the cost of end of life disposal. The revenues collected would be used to fund recycling and litter reduction initiatives similar to those proposed in **Option 2C.**[25]

Option 1 is a non-regulatory alternative led by a national body made up of representatives from Commonwealth, state, territory and local governments. It involves the development of a national packaging waste strategy, coordinating jurisdictional actions to increase recovery and recycling of packaging waste and reduce litter.[26]

The RIS interprets the information in **Table 1** as showing that "**Option 1** and **Option 2B** involve relatively low costs and benefits and result in small net costs to the economy, whereas **Option 2C** and **Option 3** involve higher costs and benefits and result in larger net costs to the economy."[27]

5. Further Information

The full text of the RIS can be downloaded from the EPHC website. The Standing Council on Environment and Water (SCEW, formerly EPHC) is seeking stakeholder and public submissions to the RIS. Closing date for submissions is the 30th of March 2012. Public forums will be held in all capital cities and the regional centres of Bunbury, Albury and Townsville during February and March 2012. For more information on the workshops or how to make a submission, please refer to **http://www.ephc.gov.au/product_stewardship/packaging_impacts**

The NPCIA will develop a submission in consultation with its members during the coming months.

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[22] SCEW, *RIS,* p 26.
[23] SCEW, *RIS,* p 28
[24] SCEW, *RIS,* p 29
[25] SCEW, *RIS,* p 30
[26] SCEW, *RIS,* p 25 - 26
[27] SCEW, *RIS,* p xii