



Environment Protection and Heritage Council

CONSULTATION REGULATORY IMPACT STATEMENT

Used Packaging Materials

21 April 2010

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Glossary of acronyms and terms

Australian Packaging Covenant The third Covenant (commencing 2010)

Brand owner

Brand owner means:

- a person who is the owner or licensee in Australia of a trade mark under which a product is sold or otherwise distributed in Australia, whether the trade mark is registered or not;
- a person who is the franchisee in Australia of a business arrangement which allows an individual, partnership, or company to operate under the name of an already established business;
- in the case of a product which has been imported, the first person to sell that product in Australia;
- in respect of in-store packaging, the supplier of the packaging to the store.

Source: National Environment Protection (Used Packaging Materials) Measure, as varied 2010 (draft), p. 1

COAG

Council of Australian Governments

Covenant

Agreement between governments and organisations in the packaging supply chain to reduce the environmental impacts of packaging. There have been two agreements to date:

- The first Covenant: National Packaging Covenant (1999 – 2005)
- The second Covenant: National Packaging Covenant (2005 – 2010)

The third Covenant (2010 -) is called the 'Australian Packaging Covenant'

Down-gauging

Design strategies that reduce the thickness of material used for packaging

EPHC

Environment Protection and Heritage Council—established by the Council of Australian Governments in 2001 to address broad national policy issues relating to environmental protection, particularly in relation to air, water and waste matters.

Extended producer responsibility (EPR)

Environmental regulations that require firms to take responsibility for the impacts of products and/or packaging at end of life

Free rider	Free rider means a brand owner or organisation that is a participant in the packaging supply chain and is not a signatory to the Covenant, and is not producing equivalent outcomes to those achieved through the Covenant Source: National Environment Protection (Used Packaging Materials) Measure, as varied 2010 (draft), p. 2
Lightweighting	Design strategies that reduce the amount of material used in packaging, e.g. by eliminating components or down-gauging
HDPE	High density polyethylene: the plastics used for milk bottles and other containers (coded number '2')
NEPC	National Environment Protection Council—a statutory body under the NEPC Acts of the Commonwealth, the states and territories. It meets simultaneously with the Environment Protection and Heritage Council (see 'EPHC')
NEPM	National Environment Protection Measure: used in this document to refer to the National Environment Protection (Used Packaging Materials) Measure
PET	Polyethylene terephthalate: the plastics used for drink bottles and other containers (coded number '1')
RIS	Regulatory Impact Statement

Executive summary

The purpose of this Consultation Regulatory Impact Statement (RIS) is to explore options to address the current government policy objective of reducing the environmental impacts of packaging. This policy objective is outlined in the *National Waste Policy: Less waste, more resources* (2009).

Since 1999 the National Environmental Protection (Used Packaging Materials) Measure (the NEPM), in combination with the National Packaging Covenant (the Covenant), have served as the primary national mechanism in Australia to reduce the environmental impacts of packaging. The NEPM and Covenant lapse on 30 June 2010. In line with the Council of Australian Government (COAG) Regulatory Impact Statement Guidelines, an extension of the NEPM requires an assessment of whether:

- the objectives of the Covenant and NEPM could be achieved without restricting competition
- the benefits to the community of restricting competition outweigh the costs and generate the greatest net benefit.

The problem

The overall problem has been established in the National Waste Policy and the associated National Waste Policy Regulatory Impact Statement (RIS). The issues identified include growth in the generation of waste, potential to reduce greenhouse gas emissions and improve the use of resources, community expectations and the opportunity to manage waste as a resource and invest in future long term economic growth. The RIS highlighted the efficiencies gained through a coordinated national approach to waste management relative to separate jurisdictional approaches.

Packaging makes a significant contribution to the problems identified by the National Waste Policy and the associated RIS. In 2006-07 Australia generated 43.8 million tonnes of solid waste (The Allen Consulting Group, 2009, p. 13) and approximately 10 per cent of this was packaging. Strategy 3 of the National Waste Policy specifically addresses packaging. It states '*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.*' (EPHC, 2009, p10)

Government action is needed because the price signal driving a reduction in the contribution of packaging to Australia's waste stream, or to deliver against the objectives of the National Waste Policy is incomplete. In the absence of government intervention the external environmental and social costs associated with packaging are not fully represented in the costs incurred by producers or consumers. There is therefore limited incentive for producers or consumers to influence the quantity and design of packaging or to reduce waste. Information asymmetries also exist for both consumers and producers. There is inadequate information available for producers and consumers to make good decisions about packaging.

Objectives

The objective of government action is efficient and effective arrangements to reduce the environmental impacts of packaging and address community expectations for increased resource recovery, consistent with Strategy 3 of the National Waste Policy.

Options considered in this RIS are:

- *Option 1*: Implementation of the Australian Packaging Covenant without the NEPM which would terminate on 30 June 2010
- *Option 2*: Implementation of the Australian Packaging Covenant, supported by a renewed NEPM which would lapse in June 2015
- *Option 3*: Implementation of the Australian Packaging Covenant supported by a renewed NEPM which would be ongoing, subject to review every 5 years
- *Option 4*: Implementation of the Australian Packaging Covenant supported by a renewed NEPM which would be ongoing and subject to review every five years, at a maximum, with the first review being conducted for the purpose of bringing the APC and the NEPM under the Commonwealth Product Stewardship Framework legislation.

This RIS also considers the NEPM's approach to the application of targets, and thresholds for compliance, for brand owner firms—seeking to ensure they are appropriately set.

Impact analysis

This RIS uses the following evaluation criteria to compare the four policy options:

1. *Participation/action by firms* — to what extent does the option induce action by firms that leads to the government objective being met?
2. *Certainty for investment* — to what extent does the option provide certainty for firms around their obligations, to the extent that firms are considering investments (such as in new technology) which assist them in meeting targets at lower cost?
3. *Impact on competition* — what would be the effects on competition from changes to the current NEPM threshold? For example, lower thresholds may capture more of the market, but could also impose costs on small firms, and for which the benefits from their participation may be small. The compliance target obligation applied may also have a competitive impact.
4. *Compliance costs* — what are the costs to firms associated with participation (including the costs of collective action compared with individual action)? Costs include data collection, data management and reporting, and are balanced against the benefits derived.

Participation

The first criterion (participation and action by firms) is the primary measure of policy effectiveness.

Option 1 would rely on voluntary action by firms, through the Covenant or similar programs, to achieve the objectives of the National Waste Policy. The remaining options all involve a continuation of the NEPM in some form to provide a regulatory underpinning to the Covenant. Two conclusions can be drawn from the analysis in this RIS. They are:

- options with a regulated structure such as a NEPM (Options 2, 3 and 4) are more effective in inducing firm participation and action than a voluntary approach (Option 1)
- there is little evidence to suggest that participation by firms would be significantly different between Option 2, 3 and 4.

Certainty for investment

The degree of certainty for firms around how they should plan future investments is strongest where there is a smaller reliance on voluntary action by firms; and governments provide a commitment to a measure beyond a defined termination date.

On this basis, Option 2 provides more certainty than Option 1. The more permanent regulatory arrangement under Options 3 and 4 are expected to provide a greater degree of certainty for firms around their long term obligations, and their competitive position in the marketplace. Option 3 and 4 are therefore preferred on efficiency grounds, and expected to be the least cost regulatory options for firms. There is little to differentiate between Options 3 and 4.

This Consultation RIS is seeking more information on the relative merits of Options 2, 3 and 4. Do you think that there is a difference between Options 2, 3 and 4 in terms of certainty for business? Is that difference likely to be of concern to business? What impact do you think a termination clause in the NEPM has on business certainty, long term planning and investment? What impact would a move to a more permanent regulatory arrangement have? Would you expect enforcement costs to vary under option 2 compared with options 3 and 4?

Impact on competition

The NEPM is unlikely to restrict competition because it applies equally to all brand owners with more than \$5 million annual turnover. Brand owners who fall below the threshold and do not need to comply have too little market share (less than 1 per cent) to restrict competition.

Compliance costs

Under current arrangements, participation in the Covenant has a range of costs and benefits for firms. The costs, which include funding contributions, the development and implementation of action plans and preparation of annual reports, have been estimated to be around \$12 million per year. Benefits reported by firms include reduced costs under the Australian Packaging Covenant, due to streamlining.

Voluntary action (Option 1) is the least cost option as participants have the option of determining whether participation is cost effective for them or not (i.e. balancing costs and benefits). Therefore, under a voluntary scheme, those firms with poor benefit-cost ratios would not participate. In terms of cost, there is very little difference between Options 2, 3 and 4, as each would require the same reporting and compliance requirements.

Conclusion

The analysis indicates that the benefits of continuing the current co-regulatory (Covenant / NEPM) arrangement, for Options 2, 3 and 4, outweigh the costs.

Option 1 is considered to have the lowest compliance cost but to be the least effective option in delivering government objectives. Option 2 is assessed as effective, but not preferred, because it does not align the NEPM with the life of the Covenant and seems to provide less certainty for long term investment and planning. The assessment identifies Options 3 and 4 as equally preferred options. The analysis found no discernable difference between Options 3 and 4. Both options are assessed as having equivalent levels of

effectiveness and efficiency in meeting governments' objective and, therefore, delivering a net benefit to society.

Given the closeness of Options 3 and 4 the approach taken in this consultation RIS is that both options are recommended to be considered through the consultation stage.

Consultation

This document is a Consultation Regulatory Impact Statement. As such, the Environment Protection and Heritage Council seeks your feedback on the data, information and recommendations within this document.

A copy of the Consultation RIS may be downloaded from the EPHC website (www.ephc.gov.au).

Submissions on this document are welcome. Written submissions should be sent to:

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Submissions will be accepted by email.

The closing date for submissions is 18 May 2010. Late submissions will not be accepted.

All submissions are public documents unless clearly marked 'confidential' and may be made available to other interested parties, subject to Freedom of Information Act provisions.

Chapter 1 Introduction

Since 1999 the National Packaging Covenant (the Covenant), together with the National Environment Protection (Used Packaging Materials) Measure (the NEPM), has been the primary national instrument for the management of the environmental impacts of packaging in Australia. It has made a significant contribution to Australia's objectives in waste management as set out in the National Strategy for Ecologically Sustainable Development (1992). Its objectives are also consistent with the more recent National Waste Policy: Less waste, more resources (2009).

The Covenant is the voluntary component of a co-regulatory product stewardship scheme in which governments, business and industry and non-government organisations work together to reduce the environmental impacts of packaging across the packaging supply chain. The Covenant is supported by the NEPM which provides protection for brand owner Covenant signatories against 'free riders'. The NEPM is made under the National Environment Protection Council Act 1994 and is given effect by individual legislation in each state and territory. Brand owner¹ firms, over the \$5 million threshold, face a choice between being subject to the NEPM or the Covenant, they choose the Covenant because the requirements are less onerous.

The NEPM and the Covenant will terminate on 30 June 2010. In line with the Council of Australian Government (COAG) Regulatory Impact Statement Guidelines, extension of the NEPM requires an assessment of whether:

- the objectives of the Covenant and NEPM could be achieved without restricting competition
- the benefits to the community of restricting competition outweigh the costs and generate the greatest net benefit.

In November 2009, the Environment Protection and Heritage Council gave in principle support to the Covenant being replaced by a strengthened Australian Packaging Covenant from 1 July 2010.

This Regulatory Impact Statement:

- provides a background and context to packaging
- describes the nature and extent of the problem with packaging
- outlines the government objectives for action and options to correct the problem
- reviews the impacts of continuation of the co-regulatory arrangements on competition, and whether the benefits of its application outweigh the costs
- considers the NEPM's approach to the application of targets, and thresholds for compliance, for brand owner firms—seeking to ensure they are appropriately set.

¹ The NEPM only applies to brand owners because these firms have the strongest influence on the design and procurement of packaging. For a definition of brand owner see the Glossary on page 3.

Chapter 2 Background and context

2.1 About packaging

What is packaging?

Packaging is used for the containment, preservation, protection, marketing, distribution and branding of products. For these reasons it has an essential role to play in the supply chain for most products. Packaging also helps to reduce waste by minimising product damage and extending shelf life.

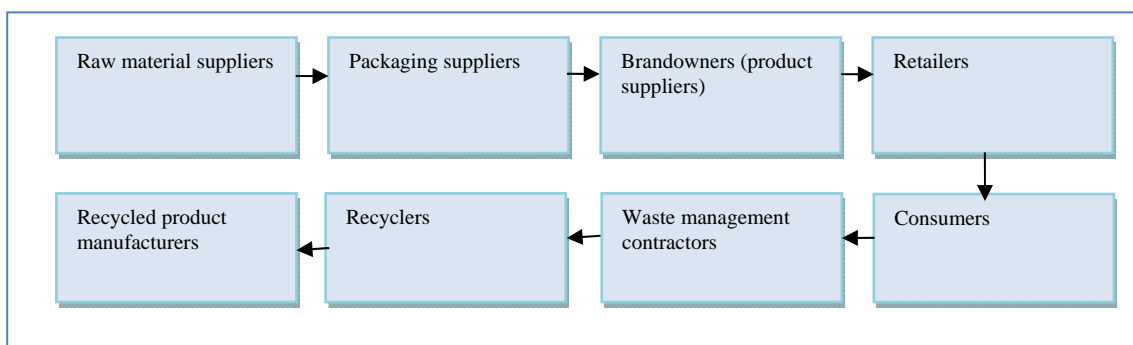
There are usually several layers of packaging that have different functions in the product supply chain. These are generally described as 'primary', 'secondary' and 'tertiary' packaging:

- primary packaging, also called 'consumer' or 'retail' packaging, is used to contain and protect a product until it is consumed
- secondary packaging is used to contain multiple units of a product to facilitate transport and storage
- tertiary packaging, also called transport packaging, is used to secure products for transport and storage.

The packaging supply and recovery chain

A number of different industry sectors are involved in the manufacture, use or recovery of packaging (see Figure 1). A large range of firms use packaging to protect and promote their products including manufacturers of food and beverages, clothing and footwear, electrical and electronic products, furniture, housewares, toys, personal care products and industrial raw materials.

Figure 1: Industry sectors involved in the packaging life cycle

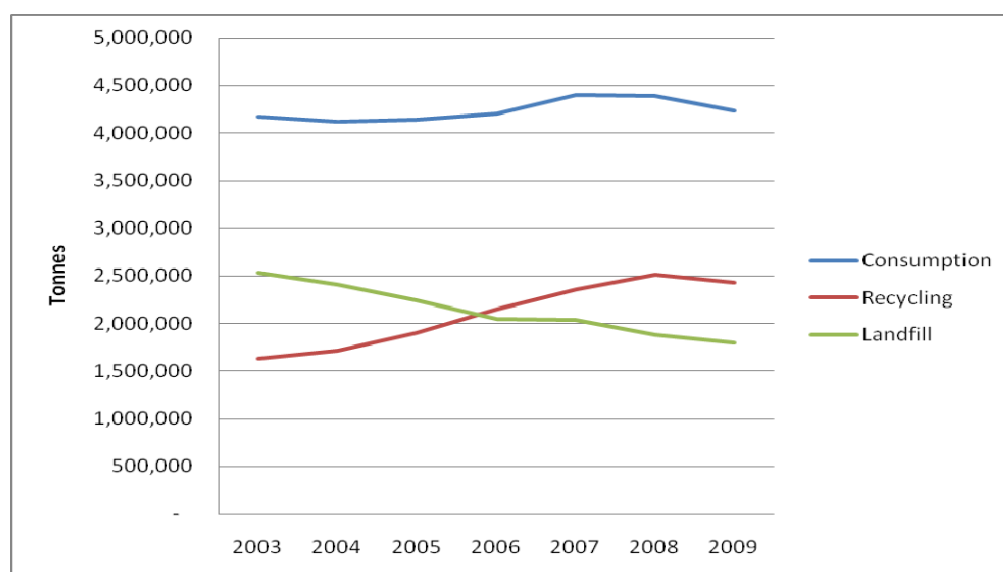


Packaging consumption, recovery and disposal

Figure 2 illustrates trends in Australia's consumption, recovery and disposal of packaging between 2003 and 2009. Australians consume approximately 4.3 million tonnes of packaging per annum. This figure has remained relatively stable in absolute terms, although consumption per head of population actually fell over the period from 208 kg in 2003 to 194 kg in 2009. This can be attributed to ongoing efforts by packaging manufacturers and brandowners to 'lightweight' packaging for commercial and environmental reasons, including the requirements of the Covenant².

Between 2003 and 2009 recycling levels increased by almost 50 per cent, from 1.6 to 2.4 million tonnes. As a result, packaging waste disposed to landfill fell by 30 per cent, from 2.5 to 1.8 million tonnes.

Figure 2: Packaging consumption, recycling and disposal to landfill, Australia, 2003-2009



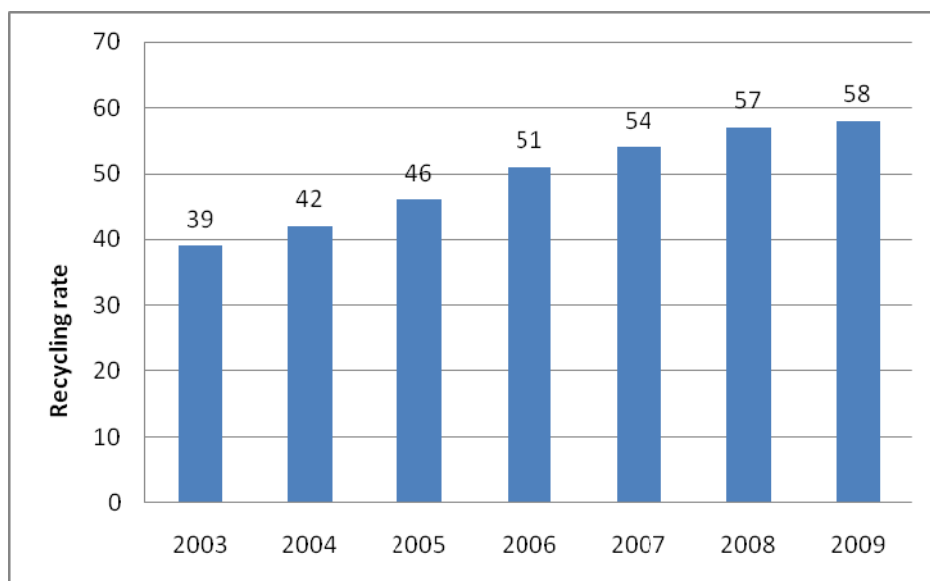
Source: Based on NPCC (2010b)

Figure 2 also indicates that both packaging consumption and recycling fell in 2009. This can be explained, at least in part, by the global financial crisis and reduced demand for commodities, including recycled materials. Between late 2008 and early 2009, commodity prices fell significantly and reduced demand saw some recyclable materials stockpiled or disposed to landfill.

Notwithstanding the impacts of the economic downturn, the general trend in packaging recycling rates between 2003 and 2009 has been positive. As illustrated in Figure 3 the recycling rate increased from 39 per cent in 2003 to 58 per cent in 2009 (NPCC, 2010 1b). In 2008, the mid-term review of the Covenant found that Australia was on track to meet the target recycling rate for packaging of 65 per cent by 2010 (Lewis, 2008). As a result of the global economic downturn, however, the recycling rate only increased marginally in 2009 and is unlikely to increase significantly in 2010.

² Sixty-four percent of stakeholders who responded to a survey for the National Packaging Covenant mid-term review said they believed that the Covenant has helped them to reduce the materials, energy and water used to produce packaging (Hyder Consulting, 2008, p. 22).

Figure 3: Packaging recycling rates, Australia, 2003 – 2009 (%)



Source: Based on NPCC (2010b)

The environmental benefits of recycling

The recovery of packaging materials can contribute to reducing greenhouse gas emissions, as well as water and energy use when considered on a life cycle basis. RMIT assessed the environmental benefits associated with recycling of common materials in the waste stream for the then NSW Department of Environment and Climate Change and an excerpt of the results is provided in Table 1.

Table 1: Net benefit of recycling 1 tonne of material

Note: positive values are benefits, negative values are impacts

	Global Warming in tonnes CO ₂ -e	Energy in gigajoules (low heating value)	Water in kilolitres
Aluminium cans	15.85	171.10	181.77
Steel cans	0.40	7.31	-2.29
Cardboard/paper packaging	0.06	9.32	25.41
Glass containers	0.56	6.07	2.30
PET (code '1')	0.95	48.45	-20.38
HDPE (code '2')	0.84	50.35	-3.31
PVC (code '3')	1.38	38.81	64.02
Mixed plastics	1.53	58.24	- 11.37

Source: RMIT University (Carre et al., 2009, p. 16).

For resource recovery to be environmentally beneficial on a whole of life cycle basis the impacts associated with material collection and reprocessing need to be offset by the benefits associated with material recovery, i.e. avoided consumption of virgin materials and avoided landfill impacts.

2.2 International and national context

A range of factors influence Australia's approach to management of the environmental impacts of packaging including global practice, national, state and territory policies, and community expectations.

Global practices

The concept of extended producer responsibility for products and packaging has been a feature of the business landscape internationally for many years. Regulations requiring producers to take responsibility for packaging at end of life were, for example, introduced in the European Union in the 1990s. Since then similar regulations have also been introduced in countries such as Japan and South Korea. Other countries, such as Singapore and New Zealand, have adopted voluntary agreements similar to that of the Covenant, in order to address the environmental impacts of packaging. China has introduced policies that require firms to eliminate unnecessary packaging and design packaging for reuse or recycling.

International efforts to promote, define and measure the sustainability of packaging are also being initiated by individual firms and industry associations. The drivers for this activity include a growing market demand for more sustainable packaging and the need to provide a consistent framework for industry action. Examples of international industry-lead activity are:

- the Sustainable Packaging Coalition (United States) has developed a definition of 'sustainable packaging' and associated metrics to help firms measure and report on progress towards this goal. Members of the Sustainable Packaging Coalition include large brand owners and packaging manufacturers
- Wal-Mart has developed a *Packaging Scorecard* to evaluate the environmental performance of packaging used by its suppliers. The scorecard is operational in North America and China and will be extended to Europe in 2010
- the Consumer Goods Forum, a grouping of the world's largest consumer goods manufacturers and retailers, initiated the *Global Packaging Project* in 2009. The aim of the project is to develop a common way of measuring environmental and sustainability improvements to packaging
- the International Standards Organisation (ISO) has started work on the development of a standard on packaging and the environment, which is expected to be finalised in 2012.

National Waste Policy: Less waste, more resources

In November 2009 Australia's environment ministers agreed on a new national policy on waste and resource management. The National Waste Policy sets the agenda for waste and resource recovery in Australia over the next 10 years. The aims of the National Waste Policy are to:

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

One of the National Waste Policy's six key directions is taking responsibility, through product stewardship, to reduce the environmental, health and safety footprint of manufactured goods during and at end of life. Of particular relevance under this key direction are strategies to:

- '...establish a national framework underpinned by legislation to support voluntary, co-regulatory and regulatory product stewardship and extended producer responsibility schemes to provide for the impacts of a product being responsibly managed during and at end of life.'
- '...better manage packaging to improve the use of resources, reduce the environmental impacts of packaging design, enhance away from home recycling and reduce litter.'

The National Product Stewardship Framework Legislation will be established in consultation with states, territories, industry and the community during 2010. The findings of the National Waste Policy RIS (Allens, 2009, p vii) suggest that the framework is likely to provide a more efficient legislative instrument for protection of brand owner signatories to the Covenant against 'free riders' in the future.

State and territory policies

In Australia the states and territories have primary responsibility for management of waste and litter. They utilise a range of different policy approaches including landfill levies, waste reduction targets, voluntary product stewardship programs and legislation that allows for the introduction of extended producer responsibility schemes for priority materials, to meet their obligations (The Allen Consulting Group, 2009, p. 28).

These mechanisms all have some degree of impact on packaging waste and recycling, though they are not always consistent between jurisdictions. Most target the management of materials at the end of life and have negligible effect on upstream activities (such as design and manufacture). Most also fail to involve packaging manufacturers and retailers. Thus while the Covenant and NEPM are not the sole instrument in Australia targeting packaging, they represent the only initiative with national coverage that involves the entire packaging supply and recovery chain.

Community expectations

The *National Waste Report* (EPHC, 2010) notes that there is interest in the community for recycling to be more readily available in work places and public spaces, and for convenient infrastructure to be established to help the community deal appropriately with waste arising from consumption choices. For example, a Victorian survey (Ipsos Australia, 2005, p. 19) suggests that 92 per cent of people would like to see more recycling bins in parks and shopping areas, while a national survey for Planet Ark (Pollinate Green, 2007, p. 4) found that most employees would like to see more recycling bins for plastic packaging in the workplace (79 per cent) and more paper recycling bins (77 per cent).

The community is also strongly committed to kerbside recycling. In the twelve month period to March 2009, 95 per cent of households had recycled or reused paper, cardboard or newspapers. High levels of participation were also achieved for plastic bottles (94 per cent), glass (93 per cent), aluminium cans (84 per cent) and steel cans (80 per cent) (ABS, 2009, p.16).

There is also support for more action to reduce the environmental impacts of packaging. According to research undertaken for the mid-term review of the Covenant (Woolcott Research, 2008 p. 8-9), 60 per cent of consumers believe that not enough emphasis is placed on reducing the environmental impact of packaging and 40 per cent think that this is because there is too much packaging used.

2.3 Covenant / NEPM objectives and operations

As discussed above, the Covenant and the NEPM have been the primary national measures for management of the environmental impacts of packaging in Australia since 1999. The aim of the Covenant is to improve the total environmental performance and lifecycle management of consumer packaging and paper through:

- better product design
- increased reduction, reuse and recycling of used packaging material
- reduced use of non-renewable resources
- reduced amount of used packaging materials going to landfill
- reduced incidence of packaging being littered (NPCC, 2005, p. 2).

The goal of the NEPM is to ‘...reduce environmental degradation arising from the disposal of used consumer packaging and conserve virgin materials... by supporting and complementing the voluntary strategies in the Covenant...’ (clause 6). The NEPM provides ‘...a statutory basis for ensuring that signatories to the Covenant are not competitively disadvantaged in the market place by fulfilling their obligations under the Covenant’ (clause 9). The NEPM applies only to brand owners who are not signatories to the Covenant or not fulfilling their obligations under the Covenant.

The NEPM requires a non-signatory brand owner to undertake or assure the systematic recovery of consumer paper and consumer packaging in which the brand owner’s products are sold, ‘by reference to the performance targets for that particular material specified in the Covenant’ (Clause 9.5). More details about NEPM enforcement and penalties for non-action are discussed in Chapter 5 (Box 1).

In March 2010 there were 786 Covenant signatories (see Table 2), representing approximately 90 per cent of the packaging produced, and 80 per cent of packaged consumer brands sold in Australia.

Table 2: Covenant signatories by sector, March 2010

Sector	Number
Raw material suppliers	7
Packaging suppliers	58
Brand owners	623
Retailers	49
Waste management firms	14
Community groups	3
Governments	15
Industry associations	16
Other	1
Total	786

Source: NPCC (2010a)

NEPM compliance thresholds

Brand owners are covered by the NEPM if their annual turnover exceeds \$5 million. Firms below this threshold are not required to join the Covenant or to take other steps to comply with the NEPM. This threshold was introduced to ensure that small businesses that do not make a substantial contribution to the waste stream are not subject to unnecessary regulation or cost.

The \$5 million threshold was established following an independent analysis in 2005 which examined the impact on businesses within the \$2-\$5 million annual turnover range. The analysis found that the total quantity of packaging produced by all businesses of this size was likely to be just 2 per cent of the estimated 3.3 million tonnes of packaging consumed in Australia at that time.

Application of the NEPM

Brand owners suspected of being non-signatories are identified through an annual brand owner audit conducted by jurisdictions in accordance with Clause 18 of the NEPM. These firms are initially contacted by the Covenant secretariat to encourage them to join the Covenant. Those that do not respond, or are not willing to join, are referred back to the jurisdictions for potential regulatory action under the NEPM.

Jurisdictional compliance action under the NEPM generally consists of several pieces of written correspondence followed by formal compliance or enforcement action. Initial approaches to brand owners encourage NEPM compliance through participation in the Covenant rather than through the recovery and reporting obligations set out in Clause 9. Jurisdictions then escalate their enforcement activity through their respective statutory tools.

Chapter 3 The nature and extent of the problem

3.1 What is the problem being addressed and how significant is it?

The overall problem being addressed is established by the National Waste Policy and the National Waste Policy Regulatory Impact Statement (RIS). The issues identified by the National Waste Policy include growth in the generation of waste, potential to reduce greenhouse gas emissions and improve the use of resources, community expectations and the opportunity to manage waste as a resource and invest in future long term economic growth. The National Waste Policy RIS highlights the efficiencies gained through a coordinated national approach to waste management relative to separate jurisdictional approaches.

National Waste Policy: Less waste, more resources

The National Waste Policy outlines a range of major interrelated drivers for its renewal of the national approach to waste management established by the National Strategy for Ecologically Sustainable Development³ (1992). These include (EPHC, 2009, p. 3):

‘large scale growth in the generation of waste...’ and ‘a prospective need for additional infrastructure which faces increasing environmental and community constraints and can take time to develop’

The growth in waste is placing demands on management and disposal facilities. While nationally Australia has sufficient landfill sites, some cities and towns are projected to deplete existing capacity within 5 years. (Hyder Consulting 2009, p.15)

‘potential for waste management to reduce greenhouse gas emissions, improve energy and water efficiency, soil health and use of resources’

Almost two thirds of all waste sent to landfill is organic (food waste, biosolids, green waste, textiles, wood, paper and cardboard – including packaging). Organic waste in landfill generates the powerful greenhouse gas methane. The waste sector is projected to continue to contribute around 15 million tonnes of CO₂-e per year. Of this, approximately 11 million tonnes of CO₂-e per year is derived from landfills. Enhanced recovery of organic material presents considerable potential to positively contribute to climate change and sustainability.

Reuse of resources can also conserve virgin and finite resources. In 2009, recycling of packaging in Australia is estimated to have reduced greenhouse emissions (1.9 MT CO₂-e), cumulative energy demand (27.6 GJ), and water (50 million KL)⁴.

³ The 1992 *Strategy for Ecologically Sustainable Development* was endorsed by the Council of Australian Governments and committed Australia to improving the efficiency with which resources are used; reducing the impact on the environment of waste disposal; and improving the management of hazardous wastes, avoiding their generation and addressing clean-up issues.

⁴ Based on the net benefits of recycling (Carre et al., 2009, p. 16) multiplied by the total amount of packaging recycled in 2009 (NPCC, 2010b).

‘changing community expectations and aspirations’

There is community demand for recycling to be more readily available in work places and public spaces, and for convenient infrastructure to be established to help them deal appropriately with waste arising from their consumption choices.

‘the opportunity for managing waste as a resource to improve economic and job outcomes and encourage innovation and the development of technology and infrastructure’

The way waste is managed and the use of waste as a resource can also make a difference to jobs and the economy. A recent survey on the employment impacts of recycling estimated that full time equivalent (FTE) employment per 10,000 tonnes of waste is 9.2 for recycling and 2.8 for landfill. By deploying existing and innovative technologies for better waste avoidance, reprocessing and recycling across different locations, scales, waste streams and materials, business, industry and consumers can save money, water and energy and avoid greenhouse gas emissions and pollution.

National Waste Policy Regulatory Impact Statement

The National Waste Policy RIS considers, amongst other issues, the extent of inefficiency of the regulation of resource recovery and waste management sectors due to a lack of co-ordination and consistency across Australian jurisdictions. It concludes that a national approach to resource recovery and waste policy, as embodied in the National Waste Policy, offers net benefits to the community in several dimensions when compared to separate jurisdictional approaches (The Allen Consulting Group, 2009, p. vii).

Significance of packaging to Australia’s waste stream

Packaging makes a significant contribution to the problems identified by the National Waste Policy and the associated RIS. In 2006-07 Australia generated 43.8 million tonnes of solid waste (The Allen Consulting Group, 2009, p. 13). In the same year Australia consumed 4.4 million tonnes of packaging (including paper/cardboard, glass, plastic, steel cans and aluminium beverage cans) representing approximately 10 per cent of the total solid waste stream. Over half of all packaging (57 per cent) was recycled in 2009 (NPCC, 2010b).

Strategy 3 of the National Waste Policy focuses specifically on addressing the contribution of packaging to waste management in Australia. It states: *‘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.’*

3.2 Why is government action needed to correct the problem?

Government action in relation to packaging is needed because the price signal is not effective in driving a reduction in the contribution of packaging to Australia’s waste stream, or delivering against the objectives of the National Waste Policy. In the absence of government intervention the external environmental and social costs associated with packaging are not fully represented in the costs incurred by either producers or consumers. There is, therefore, limited incentive for producers or consumers to change the quantity and design of packaging or to reduce waste.

From a producer's perspective:

- packaging suppliers do not pay for disposal, nor are there appropriate mechanisms in place to make the cost of disposal transparent
- there is no incentive to reduce use of packaging. Many of the costs associated with packaging are external to individual businesses (externalities which impact on the community more broadly)
- individual businesses can benefit from industry-led action without contributing to it, reducing the incentive to participate in jointly beneficial action
- there is diminished incentive to innovate or develop infrastructure to improve product design and waste management.

From a consumer's perspective:

- individuals are not charged according to the mass, volume or composition of waste
- there is limited control over the amount or nature of packaging.

Government action in relation to packaging is also needed because information asymmetries exist for both consumers and producers. Adequate information is necessary for producers and consumers to make good decisions. There is however, limited information for consumers to understand the additional costs they pay for over allocation of resources, landfill costs, and negative externalities. There is also limited information for producers to recognise the environmental performance of their packaging or the costs associated with disposal.

These problems create a role for government in ensuring the social and environmental costs and benefits of improved manufacture, use and disposal of packaging are factored into private decision making and to ensure effective market and program structures evolve to deliver social, environmental and economic outcomes, such as those outlined in the National Waste Policy, at least cost.

3.3 If regulation is already in place, why is additional action needed?

Since 1999 the NEPM, combined with the Covenant, has served as the primary national mechanism in Australia for management of the environmental impacts of packaging. The NEPM and the Covenant will lapse on 30 June 2010. Action would be required to renew or extend the NEPM and Covenant prior to this date.

Allowing the NEPM and Covenant to lapse would have a range of consequences including:

- termination of the only nationally co-ordinated mechanism for reducing the environmental impacts of packaging across the packaging supply chain
- potential for the proliferation of individual state and territory action on used packaging including associated inefficiencies highlighted by the National Waste Policy RIS
- increased uncertainty for businesses in the packaging sector.

The consequences of uncertainty for businesses in the packaging sector arising from the termination of the NEPM may include:

- loss of industry commitment to the environmentally sound management of packaging developed over the ten years of operation of the Covenant
- a progressive increase in the total amount of packaging disposed to landfill with consequential increase in greenhouse gas emissions and increased use of materials including energy and water
- potential for discouraging more active participation by signatories, particularly in areas requiring investment of resources (e.g. to implement a new design process) or longer term actions, and in compliance monitoring.

The National Product Stewardship Framework Legislation that will be established by the Australian Government under the National Waste Policy is expected to be in place in 2011. Any consideration of transitioning the Covenant under this framework legislation is not expected to commence before 2012. Action is therefore required if a nationally co-ordinated approach to the management of the environmental impacts of packaging is to be maintained.

If, as suggested in this RIS, the NEPM/Covenant is renewed for a further period of time it is important to ensure it remains current and as effective as possible and provides business with certainty. The Covenant has been extensively reworked following a comprehensive mid-term review in 2008. Renewal of the NEPM requires consideration of two specific issues: targets and the threshold for compliance by brand owner firms. This RIS includes consideration of both these issues. A key consideration of this RIS is the nature of the NEPM, ie whether it is an ongoing instrument or an instrument operating for a fixed period, and subject to a termination clause.

Chapter 4 Objectives of government action, and options to address the problem

Prior to assessing options to address the identified problems, it is important to establish the objective of government action. The problems identified in Chapter 3 of this RIS are problems relating to:

- large scale growth in the generation of waste
- the potential for waste management to reduce greenhouse gas emissions, and improve energy and water efficiency
- changing community expectations and aspirations, and
- the opportunity to manage waste as a resource and invest in future long term economic growth
- the extent of inefficiency of the regulation of resource recovery and waste management sectors due to a lack of co-ordination and consistency across Australian jurisdictions.

Given these problems, the objective of government action is efficient and effective arrangements to reduce the environmental impacts of packaging and address community expectations for increased resource recovery.

Any government action must be consistent with Strategy 3 of the National Waste Policy, to '...improve the use of resources, reduce the environmental impact of packaging design, enhance away from home recycling and reduce litter.

4.1 Options for addressing the problem

As part of the RIS process, it is necessary to describe and consider the different options that can be used to achieve the stated objective. The OBPR and COAG best practice guidelines require that a RIS should test the effectiveness and appropriateness of the most feasible range of alternative options.

This RIS considers four options for achieving the stated objective. These are:

- *Option 1:* Implementation of the Australian Packaging Covenant without the NEPM which would terminate on 30 June 2010
- *Option 2:* Implementation of the Australian Packaging Covenant, supported by a renewed NEPM which would lapse in June 2015
- *Option 3:* Implementation of the Australian Packaging Covenant supported by a renewed NEPM which would be ongoing, subject to review every 5 years
- *Option 4:* Implementation of the Australian Packaging Covenant supported by a renewed NEPM which would be ongoing and subject to review every five years, at a maximum, with the first review being conducted for the purpose of bringing the APC and the NEPM under the Commonwealth Product Stewardship Framework legislation.

These four options have been identified for analysis in the context of the current NEPM/Covenant arrangements which have been the nationally consistent instrument for managing the environmental impacts of packaging since 1999, and therefore constitute business as usual. The options address a range of key considerations: they are consistent with the National Waste Policy, provide national consistency, certainty to business and meet community expectations.

The options also recognise that Commonwealth Product Stewardship Framework Legislation is to be developed in accordance with the National Waste Policy and the EPHC's in principle agreement to replace the National Packaging Covenant with the Australian Packaging Covenant (APC).

Options that involve a more regulatory explicit approach, such as Extended Producer Responsibility legislation, have not been considered. This is primarily because the Commonwealth Product Stewardship Framework Legislation, through which this approach could be delivered, is not yet available.

The current co-regulatory approach has a demonstrated track record of delivering the National Waste Policy objective of better management of packaging to improve the use of resources, reduce the environmental impact of packaging design, enhance away from home recycling and reduce litter. The options considered all involve implementation of the Australian Packaging Covenant.

4.2 Option 1: the Australian Packaging Covenant without the NEPM

The first option is implementation of the Australian Packaging Covenant without the underpinning NEPM which would terminate on 30 June 2010.

This option depicts a scenario where the Australian Packaging Covenant would commence on 1 July 2010, without the underpinning 'free rider' protection for brand owner signatories that has been provided since 1999 by the NEPM. In the absence of the NEPM, brand owners would choose between being signatories, establishing alternative voluntary initiatives to reduce packaging waste, or doing nothing.

4.3 Option 2: the Australian Packaging Covenant with a renewed NEPM terminating in 2015

The second option is implementation of the Australian Packaging Covenant, supported by a renewed NEPM which would lapse in June 2015.

This option depicts a continuation of the Covenant / NEPM arrangements for a third five year period.

The key elements of this scenario are:

- the Australian Packaging Covenant would commence on 1 July 2010
- the NEPM would be renewed for a further 5 years, subject to minor variations as agreed by the National Environment Protection Council in November 2009, and would terminate on 30 June 2015. Extension of the NEPM beyond 2015 would require further regulatory impact assessment
- brand owners with a turnover greater than the NEPM threshold would be required to comply with its terms or become signatories to the Australian Packaging Covenant.

4.4 Option 3: the Australian Packaging Covenant with an ongoing NEPM requiring review

The third option is implementation of the Australian Packaging Covenant supported by a renewed NEPM which would be ongoing, subject to review every 5 years.

This option depicts a scenario similar to Option 2 where the Covenant / NEPM arrangements are continued. The key elements of this scenario are:

- the Australian Packaging Covenant would commence on 1 July 2010
- the NEPM (with minor variations) would be renewed without a termination date but requiring a review of its effectiveness and efficiency every five years in line with review of the APC
- brand owners with a turnover greater than the NEPM threshold would be required to comply with its terms or become signatories to the APC.

4.5 Option 4: the Australian Packaging Covenant with an ongoing NEPM requiring its first review for transition to national product stewardship legislation

The fourth option is implementation of the Australian Packaging Covenant supported by a renewed NEPM, which would be ongoing and subject to review every five years. The first review would include consideration of bringing the APC and the NEPM under the Commonwealth Product Stewardship Framework Legislation.

This option is similar to Option 3 where the Covenant / NEPM arrangements are continued, without a termination date, but subject to review every five years. However it seeks to align the first review of the NEPM to governments' broader waste policy agenda and legislation. The key elements of this scenario are:

- the Australian Packaging Covenant would commence on 1 July 2010
- the NEPM (with minor variations) would be renewed without a termination date but requiring a review of its effectiveness and efficiency every five years in line with review of the APC
- the first review of the NEPM would include consideration of bringing the APC/NEPM arrangement under the Commonwealth Product Stewardship Framework Legislation
- brand owners with a turnover greater than the NEPM threshold would be required to comply with its terms or become signatories to the APC.

Chapter 5 Impact analysis

5.1 Introduction

The purpose of the impact analysis in a Regulation Impact Statement (RIS) is to:

- determine the net impact of the policy or regulatory options being considered by government
- identify the preferred option.

In a RIS, options are assessed against a base case, or status quo option, which is typically represented as a 'no intervention' or 'no action' option (i.e. the situation that would prevail should government choose not to act to address the stated problems).

The options being assessed in this RIS are those described in the previous chapter. They include the option of allowing the National Environment Protection (Used Packaging Material) Measure (the NEPM) — which is the established mechanism for advancing nationally agreed packaging waste and recycling objectives — to lapse, and therefore rely on voluntary action, and options to retain and extend the NEPM, with variations around the key design elements: sunset provisions, participation thresholds and use of targets within the measure.

Australian governments have identified through the National Waste Policy the need to engage upstream stakeholders in the packaging materials waste stream, in efforts to reduce materials consumption and address environmental problems associated with excessive consumption and disposal. As such, this analysis focuses on comparing options for delivering on these objectives. The cost and effectiveness of policy design elements of each option, including those elements that may be improved in a revised NEPM, implemented from 1 July 2010 are key areas explored.

The impact analysis in this chapter provides an analysis of the effectiveness and efficiency of each option in achieving the government objective. The focus of the analysis in this chapter is on the potential impact of changes to the current regulatory settings for packaging, in particular on how the options considered impact on participant firms. It is important to note the overall broader public benefits that are currently achieved through the Covenant. For example, increased recycling rates for packaging, which in turn reduce greenhouse gas emissions and the volume of waste sent to landfill as discussed in Section 2.1.

5.2 Framework for analysis

A framework for analysis provides a structure for the comparison of options in a RIS. It should allow for both qualitative and quantitative comparison of impacts, and 'on-balance' judgements to be made where a mix of quantitative, qualitative and incomplete indicators is presented.

In considering the options being assessed in this RIS, there are two key aspects:

- *effectiveness* in achieving government objectives (primarily represented by the waste reduction aims and strategies in the National Waste Policy)
- *efficiency* of regulatory or policy design in achieving the government objective (reflected in the key design elements of a policy or regulation).

Effectiveness in achieving the government objective

As stated earlier in the analysis of the problem, the National Waste Policy establishes the key government objective around taking responsibility for 'improving the use of resources, reducing the environmental impact of packaging design, enhancing away-from-home recycling and reducing litter'.

The mid term review of the Covenant undertaken in 2008 concluded that significant progress had been made towards achieving governments' objectives for increased recycling and decreased waste to landfill. This has been achieved through a combination of regulatory action by jurisdictions, market forces and Covenant projects. The overall recycling level for post-consumer packaging increased from 40% in 2003 to 56% in 2007. The recycling rate for plastics which were designated as 'non-recyclable' under the Covenant increased from 11% in 2003 to 24% in 2007. There has also been no increase in the amount of packaging disposed to landfill since 2003.

In assessing approaches to achieving this objective, the key indicators are participation of firms and the level of activity that firms put into achieving targets. In other words, which approach best encourages a level of participation and activity by firms to achieve the policy objective for packaging? The key points of difference between options in this analysis, in particular between Option 1 and other options, is the:

- extent to which a coercive regulatory element is used to induce cooperative action
- nature of these obligations over time.

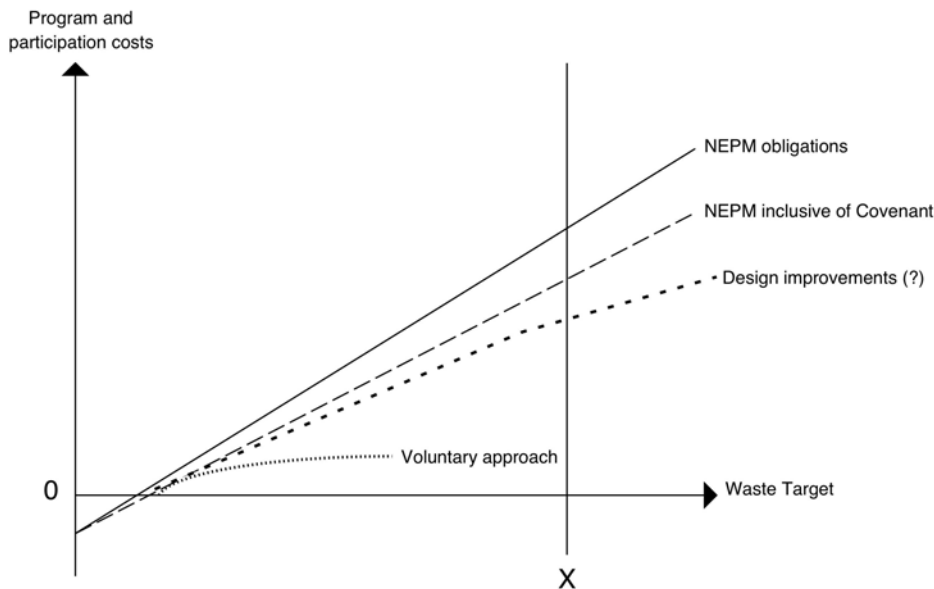
The analysis includes an assessment of the effectiveness of each option in engaging participation and action by firms, which takes into account:

- incentives for firms to act voluntarily to support packaging waste minimisation objectives (such as reputation, cost savings, credibility and marketing benefits)
- scope for collective action to lead to lower cost outcomes than might be expected if individual firms acted alone to satisfy waste reduction requirements
- implications of revised waste targets and mandatory participation thresholds for program coverage and competitiveness of those subject to NEPM obligations (actionable through the Covenant).

An examination of the relative costs of different types of measures suggests that, while a purely voluntary approach has low costs, it is less effective as it is unlikely to meet policy objectives. Prescriptive waste minimisation or packaging performance targets applied at an individual company level would be a more costly way of achieving policy objectives than approaches that offer greater flexibility in terms of targets, timeframes and trade-offs. This is primarily because each firm would be required to meet a target, regardless of relative cost structures across the sector. The experience of full participation within the Covenant rather than the NEPM supports this assumption.

A broad depiction of the potential interaction of costs, targets and NEPM approaches appears in Figure 4.

Figure 4: Waste program design – achieving targets at least cost



These elements are represented in Figure 4 - which depicts different approaches (and costs) associated with delivering on waste policy objectives. Notionally, at least, higher costs would be associated with obligations prescribed at a company level, these are reduced through more flexible arrangements (as offered through the Covenant), and variations in design and delivery offer the potential to reduce costs further.

In general, within a purely voluntary approach, direct private benefits tend to drive efforts and outcomes in this area. The mismatch of private and community valuations and benefits, and the number and diversity of stakeholders in the packaging waste realm, can be expected to see a level of private effort in the waste reduction area that falls below the socially (and environmentally) desirable optimum. It is also unlikely to meet government objectives. As shown in Figure 4, while voluntary measures would be expected to be lowest cost, they also hold the greatest risk of not achieving government (and social) objectives. Voluntary measures may incur lower costs by allowing non-participation by all but those who can derive a clear private benefit from participation.

The impact analysis in this chapter assesses the potential effectiveness of each option, compared with the base case. This considers the extent to which the option is likely to lead to firm participation in measures, such as the Covenant, and what characteristics of the options will influence effectiveness. This analysis will be balanced with an assessment of the efficiency of the options, essentially the cost of achieving the outcomes described in the effectiveness analysis, as discussed in more detail below.

Efficiency — key regulatory and policy design elements

The assessment of the efficiency of options is the second key element of this framework. While effectiveness measures how well a policy or regulation performs in meeting its objective, efficiency considers the costs (inputs) required — a policy or regulation may be highly effective but also impose very high costs on business, the community and/or government. Well designed policies and measures should be focused on reliably achieving their objectives at the lowest cost possible. Of a suite of options that are equally effective in achieving desirable policy outcomes, the least cost option is to be preferred. For the options being assessed in this RIS, the efficiency assessment focuses on the following key design elements.

Life of the measure

The life of a measure refers to its duration, that is, the period for which government has committed to the measure. This can have an important impact on decision making, risk assessment and planning by firms. In particular, where firms are considering investment options, such as new technology or new machinery and equipment, it is important that they have a degree of certainty about the regulatory framework within which they are operating and investing. Higher levels of certainty can encourage companies to make large or long term investments. The corollary of this is that higher levels of uncertainty are commonly associated with a preference among investors for faster pay-offs and smaller financial commitments.

In any setting there will also be some level of uncertainty, but this can be minimised through regulatory design, such as by establishing clearly in regulations, compliance requirements for firms. This makes review processes for legislation and regulations highly transparent. For planning and investment purposes, more certainty is generally preferable to less, particularly when it is coupled with flexibility.

Flexibility

In this analysis, the flexibility of options will be considered in relation to both the extent to which options allow for cost effective participation by firms and how they impact on the competitive balance in the market. Currently, the key element of flexibility within the NEPM is the ability of firms to fulfil their obligations by becoming a participant in the Covenant.

The key role of NEPM is that it provides a regulatory ‘underpinning’ (or credible threat) for the Covenant. The Covenant is not an entirely voluntary scheme — in essence it is an agreed alternative to specific obligations established under the NEPM, falling on brand owners above a certain size threshold. The Covenant provides a lower cost and more flexible alternative than the company level obligations set out in the NEPM. It allows for a pooling of capability across firms by applying a collective target that can be reached through joint and/or negotiated action by industry participants.

Cost burden

The design of a measure will have an important impact on the cost of participation for firms. In considering any new or amended regulation, governments should seek to minimise compliance costs to business (by ensuring that compliance requirements are appropriate and proportionate to the problem being addressed and that they do not impose a significant cost burden on firms).

The current compliance burden under the Covenant was criticised by the Productivity Commission in its 2006 inquiry on waste. The Commission described the reporting requirements as ‘excessive and cumbersome’. These comments have been addressed by the Covenant Council in the design of the proposed Australian Packaging Covenant, where the number of KPIs that signatories need to report against have been reduced from 29 to 6. The Australian Packaging Covenant will also remove the requirement for signatories to report consumption data.

In this analysis, the cost burden of options will be compared, in relation to current costs, potential future costs under the Australian Packaging Covenant, and how each option may involve higher or lower compliance costs for firms.

Specific design issues impacting on cost, effectiveness and competitiveness—targets and thresholds

Two further specific design issues to be considered in the analysis are thresholds for participation in the NEPM, and the nature of targets within the NEPM and Covenant.

Thresholds set by the NEPM impact on the size (and number) of firms that must either sign on to the Covenant or meet individual targets under NEPM (essentially those targets set under the Covenant, but applied at an individual firm level). Firms that are not picked up by the NEPM (and associated Covenant) avoid the costs associated with mandatory participation. These firms represent ‘leakage’ from the measure that could potentially erode the achievement of waste reduction goals. Given that these firms are not subject to packaging obligations, they do not incur the costs of compliance which firms subject to the measure incur (both in terms of administrative costs and costs of action). Given these cost differences, firms operating outside of the measure could potentially grow market share at the expense of firms subject to NEPM requirements.

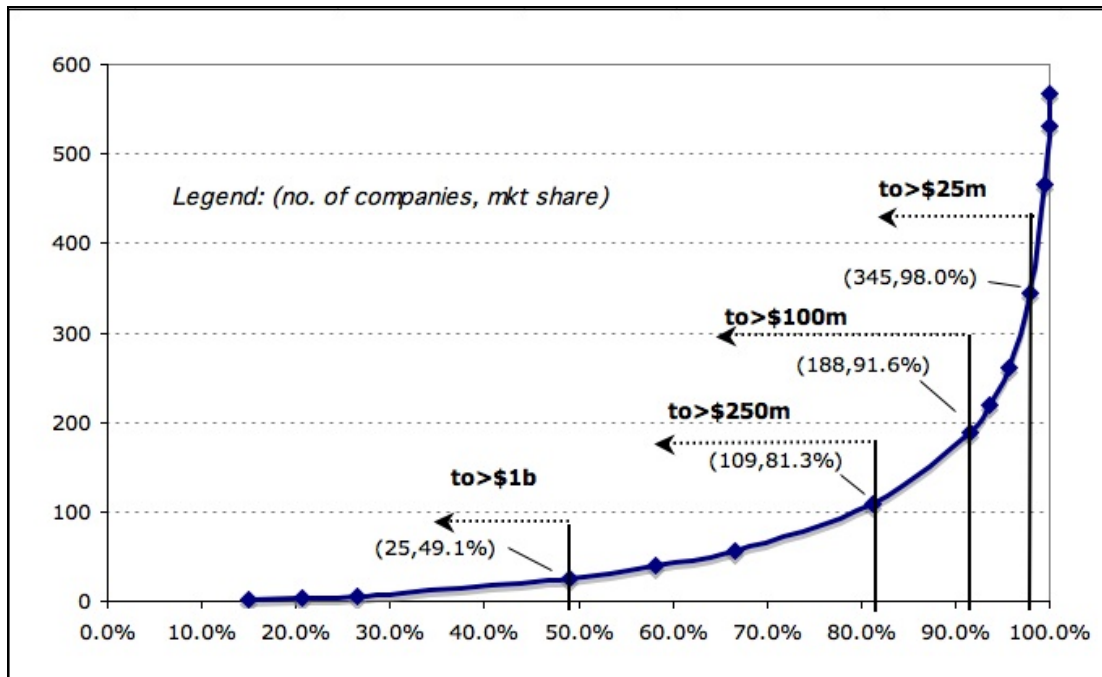
A key element of the NEPM, and its inducement to firms to take action under the Covenant is to protect Covenant participants from so-called ‘free riders’. Clause 5, section (6) of the NEPM (Used Packaging Materials) states that:

(6) As the Covenant includes a voluntary system of industry self regulation, the intent of Council is to ensure that industry signatories do not suffer any competitive disadvantage as a result of fulfilling their commitments under the Covenant.

While the threshold in the NEPM has the potential to impose these imbalances in costs and competition in the market, the extent to which this actually occurs is greatly dependent on the level at which the threshold is set (as a threshold can be set as to only exclude a small proportion of firms, and therefore only have a marginal impact on competition). This analysis will consider the impact of current threshold levels, and the marginal impact of a raising or lowering of the threshold level.

Issues of distribution, packaging shares and compliance costs are relevant to the issue of setting the threshold for NEPM obligations. Figure 5 indicates that of the 567 firms signed up to the Covenant in 2008, the largest 345 firms (61 per cent) represented 98 per cent of the sales (turnover), and to extrapolate, and (probably) a similar share of the packaging material targeted by the NEPM. This 98 per cent ‘capture’ level represents a mandatory participation threshold of \$25 million turnover per annum.

Figure 5: Cumulative contribution of Covenant signatories



Source: National Packaging Covenant Industry Association (NPCIA, 2008)

Type of target used by the measure

Currently, the NEPM applies the targets within the Covenant ‘by reference’. With a proposed change to continuous improvement style targets in the Covenant, the design of any new NEPM should consider whether the approach of referencing back to the Covenant targets remains appropriate and efficient. Prescriptive targets that ‘tighten’ normally imply higher levels of cost to businesses. However, under the influence of innovation and technological change, improved environmental performance (in line with these changes) can often be achieved at minimal additional cost. Continuous improvement targets that reflect these technical opportunities and the circumstances of individual firms are, in general, likely to be less onerous than prescriptive ‘one size fits’ targets applied at an industry or activity level.

5.3 Assessment criteria

The preceding discussion provides a set of key issues that the impact analysis should address in comparing options. These key issues can be incorporated into the analysis using assessment criteria. This approach allows for a range of qualitative and quantitative factors to be considered in an impact analysis, and provides a comparative analysis of each option against these key factors. The aim of the analysis is to provide an ‘on-balance’ assessment of how each option compares against these factors – which represent the key costs and benefits of the options.

Four assessment criteria have been chosen for this analysis, which represent consideration of both the effectiveness and the efficiency of measures. These criteria include considerations that are important for any RIS analysis, as they reflect the potential influence of regulatory change — for instance competition impacts should always form part of an impact analysis for a RIS, as they have important cost and efficiency impacts, in particular for regulated options.

1. Participation/action by firms: to what extent does the option induce action by firms that leads to the government objective being met?
2. Certainty for investment: to what extent does the option provide certainty for firms around their obligations, to the extent that firms are considering investments (such as in new technology) which assist them in meeting targets at lower cost?
3. Impact on competition: how do thresholds for company inclusion impact on the effectiveness and efficiency of the option? For example, lower thresholds capture more of the market, but could also impose costs on small firms, and yield only a modest additional benefit. The compliance target obligation applied may also have a competitive impact via the costs imposed on individual firms.
4. Compliance costs: costs to firms associated with participation, including collective action compared with individual action. Costs include data collection, data management, reporting.

5.4 Assessment of options

The following sections provide an assessment of options under each of the four key assessment criteria.

1. Participation/action by firms

The first key assessment factor is participation/action by firms — how do the options being assessed compare in their effectiveness in influencing participation and action by firms that contribute towards governments' objective (as reflected within the National Waste Policy)?

In considering this question, the following elements are important to understand:

- How effective are current measures in inducing participation and action by firms? This information will assist to determine the relative effectiveness of proposed options.
- What characteristics of the options being assessed will influence participation and action by firms? For instance, the regulatory stringency of a measure, its scope, cost etc.

Effectiveness of current measures: activity levels under NEPM and the Covenant

There are currently 786 signatories to the Covenant (see also section 2.3). Of these, 159 (20 per cent) are voluntary participants — they do not have obligations under the NEPM. Of the voluntary signatories, 31 are brand owners with turnover below the current \$5m per annum turnover threshold. The others are non-brand owners (and therefore are operating outside of the scope of the NEPM, eg. industry associations, government, etc).

The Covenant requires signatories to produce Action Plans for evaluating and improving environmental outcomes, as appropriate, in their production, usage, sale and/or reprocessing and recovery of packaging materials. It also requires signatories to provide an annual report to the Covenant Council by 31 October of each year. This annual report needs to provide information on performance against Covenant undertakings, Action Plan commitments, key performance indicators (KPIs) and baseline data and targets.

The Covenant Requirements include the following.

- Submission of signatory data in accordance with the KPIs set out in Schedule 2 of the Covenant.
- Submission of an action plan that complies with the terms of the Covenant. The action plan must set out how a signatory plans to implement and measure its actions and commitments under the Covenant. Action plans should have a duration of at least three years.
- Submission of an annual report that complies with the terms of the Covenant. The annual report must contain information on KPIs, baseline data, individual performance goals and all other commitments outlined in the Action Plan.
- Submission of a contribution to the Industry Funding Arrangements under the terms of the Covenant.
- Submission of payment for an audit of an Action Plan or Annual Report under Schedule 4 of the Covenant (the Covenant Council may audit signatories to confirm they are meeting their Covenant obligations and/or Action Plans).

Signatories also need to work together to achieve the overarching (collective) targets of the Covenant, and need to coordinate education and promotion programs and facilitate the development of programs that optimise the value for recycled materials (Covenant, section 5). The Covenant includes an overarching target to increase the amount of post consumer packaging recycled from 48 per cent in 2003 to 65 per cent in 2010.⁵

In addition, there is a recycling target of 25 per cent for 'non recyclable' packaging,⁶ which includes plastics coded (4) to (7) and non-recyclable paper and cardboard packaging.

The proposed Australian Packaging Covenant will include an ongoing target of 'continuous improvement' in the recycling rate, more information is in Attachment A. It will also feature updated design guidelines as well as a focus on social sustainability issues. Some other changes include reducing the number of key performance indicators; removing the requirement for signatories to report consumption data and a simplified statement of objectives (full list in Attachment A).

⁵ There are also targets for specific materials, including a) Paper and cardboard: 70-80 per cent, b) Glass: 50-60 per cent, c) Steel: 60-65 per cent. d) Aluminium: 70-75 per cent and e) Plastics: 30-35 per cent.

⁶ In 2005 there were very low recycling rates for plastics coded 4 to 7 and cardboard packaging that included other materials such as waxed boxes and liquid paperboard drink cartons. As these materials were not commonly accepted for recycling they were described as non-recyclable in the Covenant.

Against the back drop of the NEPM and Covenant, recycling rates have increased significantly since 2003, and in some areas (plastic packaging and aluminium beverage cans) the 2010 target had already been met in 2007. The improvement in recycling rates can be attributed to the outcomes of Covenant-funded infrastructure projects (see Attachment 1), ongoing government and industry efforts to increase recycling, and strong export markets for paper, cardboard and mixed plastics (Lewis, 2008, p. 5). Due to the global financial crisis and a fall in prices for recycling materials, the overall target is now not expected to be met in 2010.

Table 3: Estimated recycling rates (%) 2003 to 2007

	2003 (adjusted)	2004	2005	2006	2007	2010 targets
Paper/cardboard	49	53	57	63	65	70-80
Glass packaging	28	28	34	35	46	50-60
Plastic packaging	20	21	22	31	31	30-35
Steel cans	36	42	38	38	38	60-65
Aluminium beverage cans	63	63	71	71	70	70-75
Total	40	42	46	52	56	65

Source: NPC mid term review (Lewis, 2008, p. 5)

Recycling rates for 'non-recyclable' packaging (including plastics 4-7 and waxed cardboard) have increased significantly as well. This is especially true for plastics 4-7, which made up 71 per cent of all non-recyclable packaging sold into the Australian market in 2007 (Lewis, 2008, p. 8).

The amount of packaging to landfill decreased by 24 per cent between 2003 and 2007 (Lewis, 2008, p. 9). This was largely a reflection of increased recycling effort.

It is unclear how much individual signatories contribute to achieving the Covenant targets. However, from the overall results achieved by the Covenant it seems signatories are contributing to reducing packaging waste. Also, because the Action Plans can be audited – randomly and acting on reports to the Covenant Council – signatories are held accountable for the aims they set out in their Action Plans.

How does the NEPM currently work to direct firms to the Covenant?

The NEPM is enforced by the states and territories. Every year the jurisdictions conduct a brand owner audit, which aims to identify non-signatory brand owners. Where a firm is found to be non-compliant it will be encouraged by the Covenant Secretariat to join the Covenant. If the firm does not join it is referred back to the jurisdiction, which may pursue regulatory action under the NEPM.

This approach has been successful in getting firms to sign up to the Covenant and is a strong indicator that the Covenant is the lower cost pathway to delivering on governments' goals in this area.

NEPM activity and effectiveness

The enforcement activities undertaken by jurisdictions during the Covenant Mk II (2005-2010) have resulted in high levels of brand owner participation. At the end of Covenant Mk I (1999-2005) there were approximately 400 brand owner signatories. Of these just 200 re-signed the Covenant Mk II without being prompted by direct jurisdictional NEPM enforcement action.

Jurisdictions reported their NEPM enforcement activity in May 2008 as part of the mid-term review of the Covenant. Of the 300 brand owners that signed the Covenant between mid 2005 and May 2008, 272 did so as a direct result of jurisdictional NEPM enforcement action. At that time a further 110 brand owners were identified as potentially subject to the NEPM. Those brand owners have subsequently either joined the Covenant, demonstrated that they are exempt because they are not brand owners or their annual turnover is below the threshold, or were found to be an existing Covenant signatory under another brand name.

Since mid 2008 a further 170 brand owners have signed the Covenant; resulting in a total of 670 brand owner signatories as at March 2010. It appears that most of these signatories signed as a result of jurisdictional enforcement activity. No prosecutions for non-compliance have occurred to date primarily due to the effectiveness of the NEPM in persuading brand owners to sign the Covenant (or demonstrate an exemption).

What are the penalties for non-action under NEPM?

So far no firms or other entities have incurred penalties for non-action under the NEPM. All brand owners who have received enforcement notices either signed up to the Covenant (thus ensuring compliance with the NEPM) or were able to demonstrate their right to an exemption (eg. because they were not brand owners or fell below the threshold).

The Covenant has well-defined enforcement procedures (Schedule 3 of the Covenant). If a signatory fails to meet a Covenant requirement, for example, submission of an annual report or an action plan, the signatory will first receive a notification letter to remind the signatory that the requirement is due. This is followed by a follow-up letter; then a 'show cause' letter which requires signatories to show 'just cause' as to why they should not be deemed non-compliant with their Covenant obligations. If a sufficient response is not received within 30 days, the Covenant then sends a non-compliance letter to both the signatory and the relevant jurisdiction for that signatory. This may be followed by jurisdictional action by the relevant State or Territory for compliance with its NEPM legislation. An overview of enforcement procedures and outcomes under NEPM are shown in Box 1.

Box 1: Investigation and enforcement under NEPM

The enforcement activities undertaken by jurisdictions during Covenant Mk II have resulted in high levels of brand owner participation in the Covenant.

At the end of Covenant Mk 1 there were approximately 400 brand owner signatories. It is not possible to know how many of these signatories joined the Covenant as a direct result of the NEPM. Of the 400 signatories to Covenant Mk 1, only 200 signed Covenant Mk II in 2005 without direct jurisdictional NEPM enforcement action.

Jurisdictions reported their NEPM enforcement activity in May 2008 as part of the mid term review of the Covenant. Of the 300 brand owners that signed the Covenant between mid 2005 and May 2008, 272 signed as a direct result of enforcement action by jurisdictions. At that time a further 110 brand owners were identified as potentially subject to the NEPM. Those brandowners have either joined the Covenant, demonstrated that they are exempt from the NEPM because their annual turnover is below the threshold, or were found to be an existing Covenant signatory under another brand name.

Since mid 2008 a further 170 brand owners have signed the Covenant. This has resulted in 670 brand owner signatories, out of a total of 786 signatories, as at March 2010. It appears that most of these signatories signed as a direct result of jurisdictional enforcement activity.

Jurisdictions have reached various stages in their enforcement activities with only a minority of brand owners receiving formal enforcement notices. For example, Victoria has issued 17 Pollution Abatement Notices requiring NEPM compliance by non-signatory brand owners. These firms complied by either signing the Covenant or demonstrating an exemption.

It is important to recognise that the effectiveness of the NEPM should be measured by its effect in persuading brand owners to join the Covenant rather than by the number of prosecutions recorded for non compliance. No prosecutions have been recorded because enforcement activity has generally been effective in persuading non-signatories to sign the Covenant (or demonstrate an exemption) thereby avoiding the need for prosecution.

The above discussion provides an indication of the way in which current measures work to induce action by firms. The information highlights the use of the NEPM as a regulatory 'underpinning', or credible threat for firms, all of which choose to participate within the Covenant rather than be subject to the NEPM. Of those firms that have chosen to voluntarily participate in the Covenant, the majority are considered to be 'out of scope' of the measure (that is, not captured under the definitions of the measure), rather than being excluded because of their size (i.e. under the \$5 million threshold).

As indicated in Table 4, NEPM follow up in the past has yielded a mixed group of NEPM liable and NEPM exempt firms.

Table 4: Results of NEPM follow-up and enforcement (2005-08)

Signed NPC	272
Exempt (under \$5m pa turnover)	111
Pending	326
NEPM applies (already)	112
Unknown company	71
Not applicable	91
Total firms investigated	983

Source: NEPM mid-term review (Victorian EPA, 2008)

Characteristics that influence participation and action by firms

Of the options being assessed in this RIS, Option 1 represents a voluntary approach (that is, the sun-setting of the NEPM and allowing firms to choose to participate in the Covenant or conduct their own voluntary action). Options 2, 3 and 4 represent the re-making of a NEPM, though with variations in duration of the measure and the potential for the inclusion of packaging within a product stewardship framework.

A key consideration in assessing these options is the underlying factors that drive voluntary action by firms, and how these compare with the action induced through a regulated approach. The following discussion considers evidence on the benefits to firms of participation in voluntary measures and likely levels of participation. It also discusses how a regulated structure is inherently more effective in inducing participation.

Voluntary drivers: tangible benefits to participating firms

One way to consider the potential level of action in voluntary versus mandatory options is to determine the underlying benefits of participation, and the extent to which these may lead to voluntary action, in the absence of a regulation.

The mid-term review of the Covenant considered the potential for firms to benefit from the Covenant. It reported that:

'It could be argued that on average, implementation produces net benefits. This rests on the well-established finding that resource efficiency gains are often found by businesses who are prompted to look for them. Some participants will find benefits; others will invest only to the extent that they believe there is a gain in doing so. Combined this would result in net benefits' (Hyder 2008,p.69)

Further, the review found that many stakeholders believe that the primary benefit to industry of the Covenant is in achieving environmentally sound management of packaging through a mechanism that is relatively inexpensive (Hyder Consulting, 2008a, p. 69).

Analysis conducted for this RIS assessed annual reports of signatory firms, focusing on what firms reported were the benefits of their participation in the Covenant. Out of 53 annual reports analysed, 38 (76.1 per cent) identified that the Covenant has contributed to increased organisational capacity for improved design and process management of packaging. This was achieved either through increased skills within the organisation to do such work or through an increased understanding of the life-cycle of packaging.

This increased capacity for improved design is evident in changes made to packaging. For example, firms have made changes in packaging materials from non-recyclable to recyclable and from using virgin materials to using recycled materials. Firms have also invested in lightweighting and down-gauging, as well as optimising transport of products, reducing the amount of process waste and increasing operational efficiency.

Large firms implement these changes through formal programs with staff training and/or external resource engagement, while smaller organisations generally rely on supply chain relations.

There are also customer relations benefits to joining the Covenant. Many signatories use the Covenant to communicate the environmental benefits related to packaging. Anchor Foods, a small food company, reports it has been able to include recycling logos on all its packaging to alert consumers to the recyclability of the packaging.

A number of firms report increased sales due to their participation in the Covenant. For example, Creative Gourmet reports an increase in sales after they changed their packaging for frozen berries from 300g to 500g packs – thus improving the product to packaging ratio. The bigger packs provided a more acceptable on-shelf presentation for retailers.

Others report benefits from improved supplier relations. This results from firms having to work together with packaging suppliers to ensure compliance with the Covenant. Packaging suppliers have trialled improved packaging on the urging of Covenant signatories – a demand that may not have existed without the Covenant.

Firms have reported benefits outside the area of packaging per se. For example, some firms report participating and volunteering in local community programs as a result of signing up to the Covenant. Target stores switched from free plastic bags to charging a small fee for reusable and compostable bags in 2008-09, and donated profit from these sales to the Allannah and Madeline Foundation. These types of initiatives can have both a social benefit and a positive impact on corporate reputation.

In summary, the available evidence on potential benefits from participation in the Covenant highlight a set of predominantly qualitative or intangible benefits to firms, such as through reputation, promotion of packaging issues within firms, and promotion of packaging issues across the supply chain. The nature of the Covenant — with its focus on collective action rather than individual firm responsibility — means that these broader benefits are appropriate to acknowledge, though it remains uncertain how strong the participation, and action by signatories would be without the NEPM in place (i.e. if signing on to the Covenant were entirely voluntary for firms).

In the absence of an observable example on which to base this assessment, such as an equivalent measure in the market which is voluntary, some conclusions can be drawn about the potential response of firms under a voluntary scheme. Firstly, there is evidence supporting the conclusion that participation in the Covenant imposes costs on firms (both in terms of administrative costs and costs of action). If firms were able to voluntarily participate in the Covenant, it is reasonable to assume that each firm would make this determination based on their own assessment of the balance of costs and benefit of participation. Importantly, these costs and benefits will be those to the firm itself, rather than broader social costs and benefits. Firms are unlikely to be aware of the broader social benefits, and certainly would have difficulty estimating their size and incorporating them into their decision making.

On this basis, only firms with a net benefit of participation will sign on voluntarily. It is, therefore, likely that a voluntary measure will tend to induce a lower level of participation than a regulated measure, given the presence of broader social benefits of participation which are not captured within firm-level decision making. To the extent that full benefits of NEPM (and Covenant) activities cannot be captured by private participants, there will always be a tendency for voluntary approaches to under-provide goods and services generating strong social and environmental benefits.

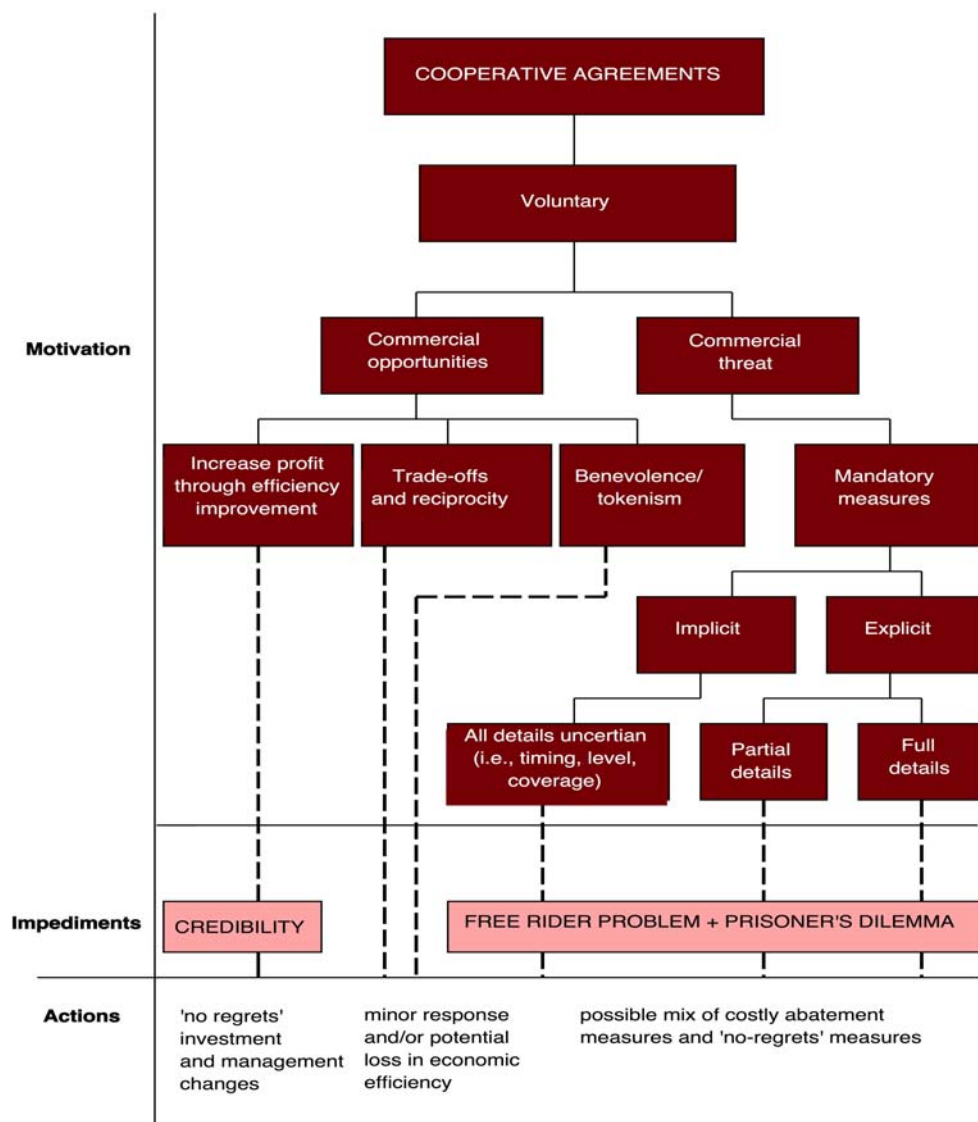
While acknowledging these efficiency benefits of voluntary measure, the OECD also acknowledged that voluntary approaches can result in weak drivers for change in cases where there are no sanctions for unmet commitments — in such cases program managers can find themselves ‘pushing on a string’. ‘Free riding’ and loss of motivation can also be a significant problem with collective voluntary approaches — essentially these measures have low *effectiveness* in achieving the desired outcomes.

Further, the Intergovernmental Panel on Climate Change (IPCC, Working Group 3, 2007) found that:

...voluntary agreements between industry and governments are politically attractive, raise awareness among stakeholders, and have played a role in the evolution of many national policies. The majority of agreements have not achieved significant emissions reductions beyond business as usual.

Figure 6 provides another perspective in considering the effectiveness of voluntary measures, in particular those factors that influence the level motivation for firms. As shown in the figure, firm motivation can be influenced by both commercial opportunities and threats. The regulatory underpinning of a credible threat, such as a NEPM fits within this structure of potential drivers of firm participation in measures.

Figure 6: Factors affecting business participation in cooperative agreements



Source: Bureau of Industry Economics (BIE) 1996 Energy Efficiency and Greenhouse Gas Abatement, Report 96/5, Canberra.

The OECD has identified several characteristics that boost the effectiveness of voluntary programs. These include:

- developing a baseline for comparing actions
- quantifying targets
- designing rigorous (preferably third party) monitoring mechanisms
- providing mechanisms to promote industry leaders
- putting in place sanctions in case of non-compliance.

The OECD also reported that voluntary agreements 'are likely to generate significant 'soft effects' in terms of dissemination of information and awareness raising' (OECD, 1999). Further, when used in combination with command-and-control policies (or a sanction or credible threat) they can enhance technology diffusion.

In summary, it is unlikely that a measure without free rider regulation such as Option 1 would drive sufficient participation to meet policy objectives (see Box 1).

Options 2-4: Comparative effectiveness of regulated (NEPM) options

Options with a regulated structure such as a NEPM are inherently more effective in inducing firm participation and action than a voluntary approach where some net cost to participants is involved. Although there can be offsetting benefits to participation in the Covenant, these are not universal, nor always fully anticipated by firms. While it is unclear how many firms would remain as active participants under the Covenant if the regulatory elements of the NEPM lapsed, it is likely that some reduction in numbers would eventuate, with the possibility of a substantial reduction. For example, signatory numbers fell by about half during the transition from the first Covenant to the second Covenant.

There is little evidence to suggest that participation by firms would be significantly different between Options 2, 3 and 4. However, the actual level of activity and investment could be expected to be lower under Option 2, where the termination date for the NEPM in 2015 would impact on firms' planning horizons for investment (as discussed in more detail in the next section).

Between Options 3 and 4, the key consideration will be whether a transition to a National Product Stewardship framework would improve the effectiveness of the measure in the longer term. At this stage, without the details of this proposal this assessment is difficult to make, though the analysis under the National Waste Policy would suggest that there are benefits associated with a unified national approach to these measures. While NEPM is national in nature, it is nevertheless requires multiple sets of legislation at the State level.

2. Certainty for investment by firms

The second assessment factor to consider is certainty for investment — specifically, certainty for firms within those sectors that are directly influenced by government regulation or policies for packaging. These firms are currently operating under the NEPM, which is due to sunset, as is the NPC (to be re-made as the Australian Packaging Covenant). For these firms, decisions on investment in new technologies, new products and/or new processes to meet requirements under the NEPM and the Covenant are greatly influenced by their expectations about governments' commitment to these measures, i.e. that governments will continue to require firms to act to achieve these objectives. Therefore, the degree to which firms have confidence in governments' regulatory settings and decision making — or the degree of 'regulatory uncertainty' confronting firms — is an important factor in considering the potential costs of a measure, and its efficiency.

The costs associated with regulatory uncertainty are essentially a loss of efficiency for firms. As noted in the literature, the efficiency of regulatory structures diminishes when market participants are uncertain about processes, responsibilities and obligations:

A primary aim of regulation is to create an environment in which investment can take place ... regulatory systems where a high degree of discretion is vested with the regulatory agency may actually work against this aim – investors fear arbitrary decisions that could expropriate value and consequently they either do not invest or require a higher rate of return than would otherwise be the case to compensate for this risk. (Alexander 2008, p.1)

Further, these uncertainties have the potential to influence future investment decisions, in particular in capital intensive sectors, where investment decisions can often require larger up-front levels of investment in long lived assets (such as purchasing of large equipment items).

For the options being assessed in this RIS, certainty for investment will be influenced by the following two factors:

- *the duration of the measure*, specifically whether firms can expect that governments will set requirements for a fixed period or whether the measure has a date by which it must be renewed or re-made. For instance, sun-setting regulations must be re-made or revised by the sunset date in order to continue — while many sun-setting regulations are remade, the process required does introduce uncertainty for firms (both the risk that regulations may not be re-made, or that, presented with the opportunity to re-make the regulations, government make revision to regulations)
- *the nature of the measure*, in terms of how certain firms can be about the compliance and enforcement of a measure, and therefore, that they will not be at a competitive disadvantage if they invest in complying with the measure.

On this basis, the options within this RIS have the following differentiating characteristics:

1. Mandatory versus voluntary — Option 1 is a voluntary measure, with firms encouraged, but not required to participate in the measure (which would essentially be a Covenant without the obligations for participation under a NEPM). Under a voluntary scheme low certainty exists because firms will not know the future commitment of competitors to the Covenant, assuming that the Covenant would continue on as a voluntary, collective measure.

2. Termination date — Options 2, 3 and 4 each propose re-making the NEPM, though with variations to its longevity and its linkage to a potential future product stewardship scheme:
- *Option 2* proposes a re-making of the NEPM, with a termination date of 2015 (at which time government would have the option of replacing the measure with a similar scheme, not replacing it or introducing a new style or type of regulation, as is deemed to be necessary)
 - *Option 3* proposes a remaking of the NEPM with no termination date, but with a requirement for the measure to be reviewed every five years (with presumably an option for government to make changes to the measure on the basis of review recommendations)
 - *Option 4* proposes a remaking of the NEPM without a termination date, but including a requirement to review every five years, with the first major review being for consideration of transitioning the Covenant to the new Product Stewardship Framework legislation (once introduced).

An 'on-balance' assessment of these options against this criteria suggests that the degree of certainty for firms around how they should plan future investments is strongest where:

- there is a smaller reliance on voluntary action by firms, as voluntary measures involve an on-going risk to the competitive position of firms who decide to invest longer term than their competitors. Competitors at any time could opt out of the voluntary measure, firms would need to be mindful of the potential competitive impacts of their investment in the instance where their direct competitors sought a lower cost pathway
- governments provide a commitment to a measure beyond a defined termination date. While there will always be a sovereign risk for firms of changes in government policy, placing a set termination date for a measure has a larger impact on firm investment in the period directly preceding the termination date, as it would be reasonable for firms to put on hold all investment decisions in this period until future policy is announced by government.

Non-terminating provisions for the NEPM have the advantage of greater consistency with proposed continuous improvement targets (which invite a longer term perspective) and the prospect that government concern for packaging waste reductions are also likely to be a long term feature of the environmental policy landscape.

The terminating provision may negatively impact planning and investment. Should the NEPM terminate in 2015, it could limit the planning horizon for current signatories to 5 years. A company captured by the NEPM in 2014 can face an even shorter planning horizon, and therefore significant uncertainty in contemplating its optimal compliance strategy, and potential investments with an economic life beyond 1 year.

The uncertainty created by the transition from the first to the second Covenant in 2005 resulted in a significant drop in signatory numbers (see Box 2) and an increase in NEPM enforcement costs for governments.

On this basis, Option 2 provides more certainty than Option 1. The more permanent regulatory arrangement under Options 3 and 4 are expected to provide a greater degree of certainty for firms around their long term obligations, and their competitive position in the marketplace. Option 3 and 4 are therefore preferred on efficiency grounds, and expected to be the least cost regulatory options for firms. There is little to differentiate between Options 3 and 4.

Options 3 and 4 are also more likely to support a longer term planning horizon and facilitate more efficient investment because they extend the menu of options beyond those offering only a short term pay-off. Between Options 3 and 4 there is, on balance, little to differentiate them. The key difference is the inclusion of the Covenant under National Product Stewardship Framework Legislation, which at this stage is not sufficiently advanced to be able to determine how this would impact on certainty for firms operating under the Covenant. This may become more evident in future years when the development of this legislation is more advanced.

This Consultation RIS is seeking more information on the relative merits of Options 2, 3 and 4. Do you think that there is a difference between Options 2, 3 and 4 in terms of certainty for business? Is that difference likely to be of concern to business? What impact do you think a termination clause in the NEPM has on business certainty, long term planning and investment? What impact would a move to a more permanent regulatory arrangement have? Would you expect enforcement costs to vary under Option 2 compared with Options 3 and 4?

3. Impact on competition

In regulatory impact analysis, competition impacts should be considered, in particular any way in which a regulatory (or non-regulatory) proposal has an impact on competition within a market (such as through barriers to entry, which may be financial barriers or regulated restrictions on entry). In the context of this RIS, the key aspects of the NEPM and Covenant that may have an impact on competition are the design of thresholds within the NEPM measure, which essentially determine which firms are subject to the measure, and therefore which firms are required to comply or join the Covenant.

From a design perspective, it is important to select a threshold where the compliance and program cost savings to these 'small' producers are not outweighed by the additional costs falling on other firms obliged to deliver on NEPM goals (or the wider community which accepts NEPM waste outcomes). To the extent that there is a disparity of obligations, and associated costs, market competitiveness issues can arise.

The NEPM mid-term review (completed in October 2008) provides a useful guide to the size distribution of firms subject to the NEPM, and those that fall outside it. According to data provided to the review by the National Packaging Covenant Industry Association (NPCIA, 2008), the size distribution of the 567 firms who had signed the Covenant at that time are shown in the following table, an additional 42 firms of unknown size were in the process of joining.

Table 5: Covenant signatory firms (at Oct 2008)

Company size (\$ turnover pa)	No. of firms	mid-point value (\$m)	estimated turnover (\$m)	% total
>\$10b	2	10000 ^a	20000 ^a	15.0% ^a
\$5-10b	1	7500	7500	5.6%
\$3b-5b	2	4000	8000	6.0%
\$1b-3b	20	1500	30000	22.5%
\$0.75b-1b	14	875	12250	9.2%
\$500m-750m	18	625	11250	8.4%
\$250m-500m	52	375	19500	14.6%
\$100m-250m	79	175	13825	10.4%
\$75m-100m	32	87.5	2800	2.1%
\$50m-75m	41	62.5	2562.5	1.9%
\$25m-50m	84	37.5	3150	2.4%
\$10m-25m	120	17.5	2100	1.6%
\$5m-10m	66	7.5	495	0.4%
< \$5m	36	2.5	90	0.1%

^a a lower bound estimate has been used for these 'over \$10 billion pa turnover' firms. This is a conservative approach to estimating the market share (and dominance) of Covenant signatories.

Source: NPCIA (2008)

The distribution can be used to estimate actual revenues for these firms (based on midpoint estimates), and relative shares of firms contributing to the Covenant. These revenue estimates and associated shares (as at 2008) are also shown in Table 5. They are derived from an estimate of the 'representative' or average turnover of a company in a particular turnover band (assumed to be the midpoint value in the band), and the number of firms in each turnover band.

The analysis suggests that about 15 per cent of total turnover generated by company signatories to the Covenant is attributable to 2 major firms (ie. Coles and Woolworths) each of which have an annual turnover in excess of \$10 billion per year. By contrast, the 66 firms in the \$5-10 million annual turnover range are responsible for about a 0.4 per cent share of turnover within the Covenant. Using annual turnover is a guide to the volume of sales of materials and packaging; these shares provide a broad indication of the relative importance of each group as a contributor to the used packaging stream. They are also a partial indicator of issues of market dominance.

Having a threshold to participation naturally exempts some firms. The current threshold of \$5m turnover excludes many small firms, but these appear to represent less than 1 per cent of the market based on turnover.

Based on Australian Competition and Consumer Commission (ACCC) practice, it would appear that the market share (and market power) of excluded firms is likely to be too small for the threshold to have a significant detrimental effect on competition. With mergers, the ACCC maintains a notification threshold of post merger market share of 20 per cent. This means the ACCC should be notified of all mergers in which the market share of the merged entity is likely to be more than 20 per cent, so the ACCC can investigate the merger to assess potential anti-competitive effects (ACCC Merger guidelines, November 2008). This message is amplified by consideration of the materiality of compliance costs associated with the participation under the Covenant.

The NEPM complies with the OBPR competition assessment checklist, as outlined below.

Table 6: OBPR competition assessment checklist

Would the regulatory proposal restrict or reduce the number and range of businesses?	No. The NEPM only applies to brand owners with annual turnover above a certain threshold. Those with annual turnover above the threshold all face the same restrictions. The cost of complying with the NEPM is unlikely to be large for brand owners - as long as the flexibility of the Covenant cooperative approach is available as a 'safety valve'.
Would the regulatory proposal restrict or reduce the ability of businesses to compete?	No. The NEPM does not place any restrictions on the ability of businesses to compete; it only requires brand owners to reduce the amount of packaging going to land fill. Brand owners who fall below the threshold and do not need to comply have too little market share to restrict competition.
Would the regulatory proposal alter businesses' incentive to compete vigorously?	No. Brand owners' incentive to compete vigorously remains the same because all brand owners with annual turnover above the threshold have to comply with the same requirements under the NEPM and the Covenant.

Source: OBPR (2007, p. 30)

On the basis of the above discussion, it is reasonable to assume that the NEPM options considered in this RIS (Options 2, 3 and 4) do not represent a significant change in competitive conditions, compared with current practice (the base case). Under a voluntary measure, competition conditions would be altered as firms would be in a position to freely determine whether they wished to participate in a voluntary scheme or not.

4. Compliance costs

The fourth criterion assessed in this analysis is compliance costs for firms. As noted above, compliance costs are an important consideration in regulatory assessment because of their influence in the overall effectiveness and efficiency of regulatory proposals. Regulatory options which impose significant cost burden on firms, such as through administrative requirements or forcing changes in business operations, should be identified in regulatory impact analysis, and assessment done on how these can be minimised (in proportion with the potential benefits of a regulatory proposal).

In discussing the compliance costs in this section it is also important to consider both the broader public benefits and the benefits to firms derived from participation in the Covenant. As discussed earlier, it is difficult to fully quantify the benefits of the Covenant in financial terms. Likewise, the incidence of those benefits (i.e. who receives the benefit) will vary between direct benefits derived by participating firms (and consumers where savings are passed on in the form of lower prices) and the indirect broader benefits gained by society from the Covenant's contribution to achieving overarching government policy (covered earlier in discussions of the effectiveness of current measures).

Under current arrangements, firms incur costs of compliance with the NEPM, through their participation in the Covenant — as all firms captured under the NEPM have opted to sign on to the Covenant, it is assumed that the Covenant represents the lower cost alternative for firms (that is, signing on to the Covenant is lower cost than complying with the NEPM itself, where an individual target is set for firms).

Recent analysis of the costs of compliance with the Covenant considered costs of compliance with administrative requirements within the Covenant, as well as what are termed 'indirect' costs to business of acting to increase recycling rates under the Covenant targets. These estimates reflect the cost of compliance with the NPC in 2006, though going forward under an APC structure compliance costs are likely to be lower (as this new structure has fewer reporting requirements, as noted earlier in this chapter).

Direct costs of the Covenant

In relation to administrative or 'direct' costs, analysis for the mid-term review of the Covenant provides a breakdown of the annual compliance costs for business who are signatories to the Covenant, as shown in Table 7. The annual contribution costs are payments made by participating firms to support implementation of the Covenant (payment rates are scheduled according to business category and size).

Table 7: Estimated annual direct costs to business signatories of Covenant participation, 2006

	Small (turnover up to \$5m/yr)	Medium (turnover between \$5m and \$1b/yr)	Large (turnover >\$1 b/yr)
Annual contribution (weighted average)	\$677	\$3,102	\$64,680
Action plan development (prepared every 3 years)	\$3,000	\$5,000	\$10,000
Annual reporting	\$3,000	\$10,000	\$20,000
Average cost for one business	\$6680	\$18,100	\$94,680
Number of businesses	37	505	25
Total annual direct cost to business signatories			\$11,750,000

Note: figures have been rounded

Source: Hyder Consulting (2008a, p. 68)

Costs to signatory firms comprise the largest proportion of total costs of the Covenant (approximately 63 per cent), though government and industry associations also incur costs of managing and participating in the Covenant, as shown in Table 8. These include the annual financial contributions that signatories make towards the cost of running the Covenant, including the cost of recycling infrastructure projects.

These annual contribution costs also support a range of projects funded by the Covenant to drive increases in the rate of recycling of packaging. These projects include infrastructure development, research and design. To date the Covenant has committed \$22 million in project funding and leveraged an additional \$57 million in private funding. Covenant-funded projects are expected to divert an additional 440,000 tonnes of recyclable material from landfill by 2010 and to contribute to the achievement of higher recycling rates (Covec, 2008, p. 31).

Table 8: Estimated annual direct costs of the NPC

Sector	Total annual cost	Typical activities
Business signatories	\$11 750 000	Participation by approx 600 signatories, including funding contributions, annual reporting and action plan development
Industry associations	\$504 000	Participation such as action plan development and implementation, annual reporting, meetings, etc
State and federal governments	\$5 940 000	Contribution to Secretariat and project funding, staff resources and compliance costs (states estimate annual compliance costs to be \$640 000)
Local governments	\$390 000	Covenant data reporting
Environment groups	\$15 360	Participation by active groups
Total	\$18 600,000	

Note: figures have been rounded

Source: Hyder Consulting (Hyder Consulting, 2008a, p. 66)

'Indirect' costs of the Covenant

The mid-term review of the NPC also attempted to identify and estimate what it classed as 'indirect costs' of the NPC. These costs were defined as costs related to the increase in recycling rates driven by the NPC. The review did not directly estimate these costs, noting that, even in cases where costs of increased recycling rates could be estimated, it is unclear to what extent these costs are attributable to the NPC, as opposed to other government policies, or market pressures to increase recycling rates.

Kerbside recycling was also included as an indirect cost in the Consultation RIS for the second Covenant (Nolan-ITU, 2005), but the contextual report for the mid-term review in 2008 found that, when commodity prices are high, there could be a net benefit of up to \$13.6 million per year (Hyder Consulting, 2008a, p. 74).

Direct and indirect benefits of the Covenant

As discussed in Attachment B, individual firms have reported deriving direct savings or increases in revenue from undertaking activities as a result of participation in the Covenant. These included reduced costs of production and supply due to changes in packaging (such as reduced material use in packaging) and savings on waste disposal costs. For example, Anchor Foods reported a 20 per cent increase in their product to packaging ratio – reducing the number of waste skips required each week and the cost of removal of recyclables (see Attachment B). There may also be resultant savings to consumers in terms of lower prices for products and reduced waste management.

In the context of indirect costs, there are also broader benefits from the Covenant as one of a set of strategies for achieving governments' objectives. This includes reduction of waste to landfill as direct result of Covenant funded projects, as discussed above. The balance of costs and benefits to the community is however influenced by commodity prices.

The degree to which the options assessed in this impact assessment would derive benefits is also likely to relate to participation rates. As previously discussed, higher rates of participation are likely under Options 2, 3 and 4.

Comparison of compliance costs across options

The estimates of compliance costs provided above provide an indication of total costs to firms participating in the Covenant. In relation to the assessment of options in this RIS, the key consideration is to what extent the options being assessed have any impact on compliance costs, compared with the base case, and how the options compare to each other in terms of their relative impact on compliance costs.

It is important to note that this assessment should focus on *marginal* changes to compliance costs, given that the Covenant is already in place (as opposed to a measure of total compliance costs with the Covenant, as conducted for the mid-term review). In this context, the following conclusions can be made.

- Option 1 (Voluntary measures) will involve *reduced* compliance costs compared with the base case, and a lower marginal cost compared with the other options. This conclusion is based on the ability of signatory firms, under a voluntary scheme, to determine whether participation is cost effective for them or not (i.e. balancing costs and benefits). Therefore, under a voluntary scheme, those firms with poor benefit-cost ratios would not participate, reducing the overall cost burden compared with the base case.
- Options 2, 3 and 4 will each have similar cost structures, and levels of compliance costs for firms, as each will maintain the current structure of setting a legislated requirement in a NEPM, which will draw participants to the Covenant (as the lower cost alternative to compliance under the NEPM). There are no discernable differences between the options to conclude that compliance costs would differ in a measurable way between them. While Option 2 is likely to provide a lower level of certainty for firms, this primarily influences business investment behaviour — firms would still be required to continue on with their administrative requirements under the Covenant even if there were uncertainty around the future of the NEPM.

5.5 Summary of assessment

The analysis under each of the assessment criteria provides an indication of the relative strengths and weakness of the options, and the extent to which one option can be identified as being most effective in addressing the identified problem (and, therefore, the most effective in meeting the stated government objective).

Table 9 provides a summary of the assessment under each option. This table highlights the similarity of the three NEPM options (Options 2, 3 and 4), which do not have many discernable differences across some criteria (due to their similarities).

Table 9: Relative effectiveness of options in meeting government objectives

(best performing options shaded blue)

Criterion	Option 1	Option 2	Option 3	Option 4
<i>Participation</i>	Least effective	Second highest effectiveness	Highest effectiveness (equivalent to Option 4)	Highest effectiveness (equivalent to Option 3)
<i>Certainty</i>	Least effective	Second highest effectiveness (given 2015 termination date for NEPM)	Highest effectiveness (equivalent to Options 2 and 4)	Highest effectiveness (equivalent to Options 2 and 3)
<i>Competition</i>	Lowest level of restriction on competition (Voluntary measure)	Equivalent to Options 3 and 4	Equivalent to Options 2 and 4	Equivalent to Options 2 and 3
<i>Cost burden</i>	Lowest cost	Equivalent to Options 3 and 4	Equivalent to Options 2 and 4	Equivalent to Options 2 and 3

The value of this analysis is that it provides a framework with which to determine which option is *most effective* in achieving the government objective (which has been identified as the objective through which benefits to society will be achieved).

On this basis, it is clear that, Option 1 performs well against the efficiency criteria or compliance costs and impact on competition) but is the *least effective* option of the four assessed, as it provides the lowest level of firm response (participation) and weak certainty for firms. Importantly, there is significant doubt around the capacity of this option to deliver on the government objective and, while low cost (in terms of compliance costs and impact on competition in the market) this option is unlikely to generate outcomes that achieve significant and sustained unpriced social and environmental benefits.

These conclusions are consistent with the earlier discussion on comparative strengths and weaknesses of voluntary measures, as compared with regulated measures that mandate action by firms. Essentially, a voluntary measure will incur lowest cost, and have the smallest impact on the market in a competitive sense, but these outcomes are achieved *because* it has only a small impact in terms of changing behaviour. In some cases voluntary measures can be effective — such as where there are sufficient private benefits over time to encourage participation, or where there are strong collective benefits within a well organised industry which encourage industry-wide participation. These conditions do not currently apply within the packaging sector.

Of the NEPM-based regulated options, there are marginal differences in the design of the measures, which have been assessed to determine whether they lead to one particular design of a future NEPM which would be most cost-effective.

As shown in the assessment in Table 9, Option 2 is assessed as being equivalent to Options 3 and 4 in relation to compliance costs and competition impacts, but has a lower effectiveness in relation to participation and the level of certainty that it provides for investment for firms. This assessment is due to the inclusion of a termination date of 2015 for the NEPM. Under these conditions, it is expected that firms will have a diminished incentive to commit to medium or long term investment that relate to their NEPM obligations (i.e. their participation in the Covenant) until government informs them of the future regulatory structure (beyond 2015). Where firms decide to hold off on investment, there is likely to be flow-on impact on the effectiveness of the Covenant itself. Action under the Covenant will potentially be weaker as firms are less likely to be seeking out ways in which they can contribute to the Covenant target. For these reasons, Option 2 is assessed as being the weakest of the three NEPM options, primarily on effectiveness grounds.

Of the two remaining options, Options 3 and 4 are assessed as having equivalent levels of effectiveness and efficiency across the four assessment criteria used in this RIS, and are considered to provide an equal degree of effectiveness in meeting the government objective (and, therefore, delivering a net benefit to society). The key difference between these options is the value of a transition of the Covenant under the proposed Product Stewardship Framework Legislation. Further assessment on these specific issues would be needed in future regulatory impact assessments of moving the Covenant to a product stewardship approach.

Chapter 6 Consultation

This chapter of the RIS outlines the consultation process for the design and development of the Australian Packaging Covenant (APC) and the minor variation to the NEPM.

6.1 Consultation process for the Australian Packaging Covenant and outcomes of the mid-term review

Development of the Australian Packaging Covenant involved extensive stakeholder consultation, commencing with the mid term review of the Covenant in 2008. The review steering committee comprised representation from the government, industry and community sectors. The review covered different aspects of the Covenant's performance, including recycling data, signatory action plans and annual reports, Covenant projects and participation, the implementation of the NEPM and the economic operating environment. On-line surveys open to all stakeholders, and detailed interviews with representative stakeholders sought signatory, stakeholder and community views.

Following the mid-term review, the EPHC requested the development of a new Covenant. A Covenant Council working group has undertaken this task, with industry and community working group members responsible for consulting within their organisations and representing their views. This extended stakeholder consultation throughout the development of the Australian Packaging Covenant has ensured that all stakeholder views were considered and any concerns addressed in the final agreement. The support being offered for the Australian Packaging Covenant by industry representatives and community groups is indicative of the effectiveness of the consultation process.

The draft Australian Packaging Covenant was posted to the Covenant website on 4 December 2009 and all signatories and stakeholders were contacted and invited to provide feedback/comment. Most feedback and queries to date has related to the Sustainable Packaging Guidelines and there have been no specific comments on the APC itself. The Secretariat has regularly advised signatories of the need to resign and develop new actions plan under the APC. Strong support from industry representatives to the Covenant Council is indicative of broader signatories and stakeholder support for the APC and the shift in focus to design for sustainability.

Outcomes of the mid-term review

Recommendations from the mid-term review⁷ informed the development of the Australian Packaging Covenant. The majority of signatories and other stakeholders indicated they wanted a continuation of the Covenant beyond 2010, subject to improvements to its effectiveness, efficiency and transparency. These concerns have been specifically addressed in the Australian Packaging Covenant (see Attachment A). Key stakeholders also indicated that, while there are costs associated with participation in the Covenant, these are not significant enough to cause material disadvantage to firms and the benefits of participation are directly related to the effort and money invested in the process.

⁷ The reports that make up the mid-term review are available on the Covenant website at www.packagingcovenant.org.au/ADMIN/page.php?name=midtermreview.

An overwhelming majority of stakeholders contributing to the development of the mid-term review indicated that a continuation of the current co-regulatory arrangement (the Covenant and the NEPM) is their preferred packaging model beyond 2010. This view was consistent across industry sectors and states. (Hyder Consulting, 2008, p. 27)

Of the total survey sample, only a quarter of signatories indicated that they would have signed the Covenant if there had not been a supporting regulation (the NEPM) in place. (Hyder Consulting, 2008, p. 28)

6.2 Consultation process for the National Environment Protection Measure

In November 2009, NEPC agreed to initiate a minor variation process for the NEPM. The proposed variation is designed to allow for either:

- an extension of the current NEPM for 12 months, OR
- to remove the termination clause in the current NEPM and replace it with a regular review process, effectively aligning the duration of the NEPM with that of the Covenant. There are also some minor amendments proposed that reflect changes in Covenant processes and programs.

The NEPM variation process is currently underway. Notices in relation to the proposed minor variation appeared in newspapers in all jurisdictions on 27 and 31 March 2010. The notices refer readers to the EPHC website for access to the relevant documents and instructions on how to make a submission. The deadline for written submissions on the proposed changes to the NEPM is 27 April 2010. Government and NPC networks are being used to advise stakeholders of the availability of the documents and the opportunity to comment. It is anticipated that NEPC Standing Committee will consider the outcomes of the minor variation process at its meeting on 21 May 2010, prior to consideration by Council.

6.3 Consultation questions

This document is a consultation regulatory impact statement. The Environment Protection and Heritage Council seeks your feedback on the data, information and recommendations contained herein. The following questions are provided to help frame responses.

1. If you are a Covenant signatory, why did you join?
2. If you are a Covenant signatory, would you have signed up for the Covenant if the NEPM did not exist?
3. If you are a Covenant signatory, would you maintain membership of the Covenant if it were no longer underpinned by the NEPM?
4. Do you think that the majority of other signatories would maintain membership of the Covenant if it were no longer underpinned by the NEPM?
5. Which option for reform would you prefer and why? Are there additional options that should be considered, and why?
6. Do you think that there is a difference between Options 2, 3 and 4 in terms of certainty for business?
7. What impact do you think a termination clause in the NEPM has on business certainty, long term planning and investment?
8. Is that difference in certainty likely to be of concern to business?
9. What impact would a move to a more permanent regulatory arrangement have?
10. Would you expect enforcement costs to vary under Option 2 compared with Options 3 and 4?
11. Do you think the Covenant and NEPM encourages businesses to reduce the amount of packaging that ends up in the waste stream? Please provide supporting evidence where possible.
12. Do you think the Covenant and NEPM encourages businesses to supply recyclable packaging material? Please provide supporting evidence where possible.
13. Do you think the Covenant and NEPM has reduced the amount of packaging material that ends up as litter? Please provide supporting evidence where possible.
14. Have you made any changes to your packaging or operations as a result of your participation in the Covenant? Please provide details and some examples. Was the net financial impact of this change positive, negative or neutral?
15. Do you think the Covenant and NEPM provides an efficient and/or cost-effective method for preventing or reducing waste and litter?
16. Is the threshold for coverage under the NEPM appropriate? Please provide reasons. If you consider the current threshold to be inappropriate, at what level should it be set?
17. Do you think the Covenant / NEPM affects a business's ability to compete in the packaging market? If so, why?
18. Do you think there is a significant free-rider issue (define), and why?
19. Do you agree or disagree with the compliance costs estimates and other impact analysis, and why?

Chapter 7 Implementation and review

7.1 Implementation

The NEPM and the Covenant will both expire on 30 June 2010. Action to implement the preferred options would entail extending the NEPM and the Covenant beyond this date.

The NEPM

Consistent with the proposals outlined in the public consultation documents, two variations to the NEPM have been prepared and are available on the EPHC web site. The second variation would implement the preferred options discussed in this RIS, i.e. continuation of the NEPM without a termination date but with a requirement to review the NEPM every five years. It also includes a number of other minor changes to ensure consistency between the NEPM and the Australian Packaging Covenant.

The NEPM will need to be in place by 30 June 2010. In order to achieve this deadline, EPHC will have to approve the NEPM and the Australian Packaging Covenant before this date.

State and territory regulations

Under the preferred options Queensland, South Australia and the ACT will need to amend the regulatory instrument that enacts the NEPM. The changes required to each instrument will vary. No action is required by NSW, Victoria, Tasmania or WA. The Northern Territory is not a signatory to the Covenant.

NEPM enforcement

Under the preferred options state and territory governments will continue to enforce the NEPM by regulating brand owners that choose not to join the Covenant, or who join but do not fulfil their Covenant obligations. Changes to the APC will make this process more efficient and effective. The Australian Packaging Covenant Council ('Covenant Council') will assume greater responsibility for compliance, including identifying brand owners through periodic surveys of packaging that enters the waste stream, making the initial contact with firms to invite them to become signatories, monitoring the performance of signatories, and following up with firms not meeting requirements.

If these procedures are not successful, non-signatory and non-compliant brand owners will be referred to state and territory governments for action in each jurisdiction. Therefore, jurisdictions will only be required to take action under the NEPM as a 'last resort'.

The Covenant

If the Australian Packaging Covenant is approved by EPHC prior to 30 June 2010 it will commence on 1 July 2010. As soon as it is approved the Covenant Council will advise all current signatories that they will be expected to re-sign the Covenant and to submit a new action plan within 3 months. Signatories will be provided with information on revised action plan and reporting requirements.

The Covenant Council will also commence work on implementing its strategic plan. Current signatories will be required to report as usual in October 2010 for final year of the National Packaging Covenant.

7.2 Review

Review of the NEPM

The draft NEPM states that the measure 'will be subject to review every five years as part of any comprehensive evaluation of the Covenant'. The criteria for evaluation are specified in the NEPC Implementation Reporting Protocol.

Under Option 3 the first major review would occur by 2015. Under Option 4, the first review will consider the transition of the Covenant to the new product stewardship legislation. This legislation is expected to be introduced into the Australian Parliament in late 2010. The first products to be considered under the framework will be televisions and computers. Packaging could be considered in 2012-13.

Review of the Covenant

The Covenant will be evaluated every five years as part of the Covenant Council's strategic planning process. To assist this process, the Covenant Council will annually collect data on each of the Covenant's key performance indicators. Where necessary, the Covenant Council will seek to develop and improve methodologies for collecting and analysing performance data.

Chapter 8 Conclusion

This chapter summarises the key findings and conclusions of the consultation regulatory impact statement.

Packaging waste is a significant issue identified in the National Waste Policy. Since 1999 co-regulatory arrangements, the Covenant and NEPM, have been the primary national mechanism for managing the environmental impacts of packaging. These arrangements lapse on 30 June 2010.

In relation to packaging, the price signals which flow to both producers and consumers are incomplete, and therefore not effective in driving the better management of packaging to improve the use of resources, reduce the environmental impacts of packaging design, enhance away from home recycling and reduce litter.

This consultation Regulatory Impact Statement identifies four options for managing packaging waste, and assesses each as to its efficiency and effectiveness in addressing governments' objectives and their associated costs. A range of qualitative and quantitative factors have been considered in the impact analysis to provide an 'on-balance' assessment of the comparative strengths and weakness of each option.

Option 1 represents a voluntary approach without underpinning free rider regulation. Firms could join the Covenant, conduct their own voluntary action or do nothing. Options 2, 3 and 4 represent the continuation of the Covenant with free rider regulation through the NEPM. These options provide variations in the duration of the measure and include the potential for the transition of packaging regulation under the Commonwealth Product Stewardship Framework Legislation once it is implemented.

The analysis indicates that the benefits of continuing the current co-regulatory (Covenant / NEPM) arrangement, for Options 2, 3 and 4, outweigh the costs. Option 1 is considered the lowest cost but least effective option in delivering on governments' objective. Further, the assessment identifies Options 3 and 4 as equally preferred options. The analysis found no discernable difference between Options 3 and 4. Both options are assessed as having equivalent levels of effectiveness and efficiency in meeting governments' objective and, therefore, delivering a net benefit to society.

Given the closeness of Options 3 and 4 the approach taken in this consultation RIS is that both options are recommended, to be considered through the consultation stage.

The table on the next page summarises the assessment of each option.

Table 9: Relative effectiveness of options in meeting government objectives

Criterion	Option 1	Option 2	Option 3	Option 4
<i>Participation</i>	Least effective	Second highest effectiveness	Highest effectiveness (equivalent to Option 4)	Highest effectiveness (equivalent to Option 3)
<i>Certainty</i>	Least effective	Second highest effectiveness (given 2015 termination date for NEPM)	Highest effectiveness (equivalent to Options 2 and 4)	Highest effectiveness (equivalent to Options 2 and 3)
<i>Competition</i>	Lowest level of restriction on competition (Voluntary measure)	Equivalent to Options 3 and 4	Equivalent to Options 2 and 4	Equivalent to Options 2 and 3
<i>Cost burden</i>	Lowest cost	Equivalent to Options 3 and 4	Equivalent to Options 2 and 4	Equivalent to Options 2 and 3

Consultation Information

A copy of the Consultation RIS may be downloaded from the EPHC website (www.ephc.gov.au).

Submissions on this document are welcome. Written submissions should be sent to:

Ms Susan Whitehead
Project Officer
NEPC Service Corporation
Level 5, 81 Flinders Street
Adelaide SA 5000

Email: swhitehead@ephc.gov.au
Telephone: (08) 8419 1206.

Submissions will be accepted by email.

The closing date for submissions is 18 May 2010. Late submissions will not be accepted.

All submissions are public documents unless clearly marked 'confidential' and may be made available to other interested parties, subject to Freedom of Information Act provisions.

Attachments

Attachment A: Extra information on the National Packaging Covenant and the Australian Packaging Covenant

History of the Covenant

The Australian Packaging Covenant, which is expected to be introduced in the second half of 2010, will be the third agreement between the packaging supply chain and governments. The essential elements of the Covenant have remained unchanged since it was first signed in 1999, but there have been minor changes in emphasis (see Table 10). When the first Covenant was negotiated in the mid-1990s the costs of kerbside recycling were escalating and commodity prices were falling. There were concerns within government, particularly at a local level, about the financial viability of recycling and the need for increased support from industry. As a result, the priority was to establish a collaborative and shared responsibility framework for recycling. Financial support was provided by firms in the packaging supply chain, matched by state governments, to improve the kerbside collection infrastructure and develop new markets for collected materials.

The second Covenant (2005-2010) built on these achievements and the collaborative relationships that had been established between stakeholders. More emphasis was placed on reducing the life cycle environmental impacts of packaging, for example by reducing material or energy consumption through better design, rather than the impacts at end of life. Financial contributions from industry and government signatories have continued to be invested in recycling infrastructure, but with a shift in focus from kerbside collection to 'away from home' recycling. This reflects the high recovery rates that are already being achieved for most forms of rigid packaging consumed at home. Recycling targets were also introduced for 'recyclable' and 'non-recyclable'⁸ packaging materials (see Table 10).

A mid-term review of the Covenant was undertaken in 2008 (see Box 2). This concluded that significant progress had been made towards the achievement of the Covenant's overarching targets through a combination of regulatory action by jurisdictions, market forces and Covenant projects. The overall recycling level for post-consumer packaging (Target 1) increased from 40 per cent in 2003 to 56 per cent in 2007 and the review found that the 65 per cent target for 2010 was likely to be met. The recycling rate for plastics which were designated as 'non-recyclable' under the Covenant (Target 2) increased from 11 per cent in 2003 to 24 per cent in 2007, and the 25 per cent target for these materials is also considered likely to be met by 2010. There has been no increase in the amount of packaging disposed to landfill (Target 3).

⁸ Non-recyclable materials were defined as materials that were not recycled or recycled at very low rates at the time the Covenant was negotiated (2004-2005). They include plastics coded 4 – 7 (LDPE, PP, PS and 'other') and non-recyclable paper and cardboard packaging.

The review also concluded that the extent to which the Covenant has been responsible for outcomes such as improvements in packaging efficiency and increased levels of recycling, which have also been influenced by commercial, political and economic factors, is difficult to establish. However, progress to date appears to have been driven, at least in part, by the cooperative efforts of signatories to improve the recyclability and recycled content of packaging and to improve collection and reprocessing systems for post-consumer packaging. The review noted that Covenant-funded projects are expected to make a significant contribution to the amount of recyclable material which will be diverted from landfill by 2010.

A survey of stakeholders undertaken for the mid term review found that most stakeholders would like to see a continuation of the Covenant beyond 2010, with some important modifications to improve its effectiveness, efficiency and transparency. These concerns have been specifically addressed in the design of the third Covenant.

Box 2: The mid-term review of the Covenant

The second Covenant (2005 – 2010) included the requirement for a comprehensive, independent evaluation of progress against the Covenant's overarching targets by the end of 2008.

The mid-term review was undertaken by independent consultants as a number of separate components:

- A summary document (Lewis, 2008)
- An evaluation of Covenant action plans and annual reports by RMIT University (Verghese et al., 2008)
- A review of Covenant-funded projects by Covec (2008)
- An evaluation of stakeholder views by Hyder Consulting (2008b)
- A contextual review by Hyder Consulting (Hyder Consulting, 2008a)
- A survey of community views by Woolcott Research (2008)
- A report on enforcement of the NEPM by jurisdictions by the Victorian EPA (Victorian EPA, 2008)
- Analysis of Covenant signatories by the Covenant Council (NPCC, 2008).

The review was presented to Environment Ministers on November 7, 2008. As a result of the review Ministers requested the Covenant Council prepare a framework for an extended Covenant beyond June 2010.

Table 10: History of the Covenant, 1999 - 2010

Covenant	Time period	Objective	Priorities	Targets
Covenant Mk I (National Packaging Covenant)	September 1999-June 2005	<p>To establish a framework based on the principle of shared responsibility for the effective lifecycle management of packaging and paper products...</p> <p>To establish a collaborative approach to ensure that the management of packaging...and the implementation of collection systems including kerbside recycling schemes, produces real and sustainable environmental benefits in a cost effective manner</p> <p>To establish a forum for regular consultation and discussion of issues and problems affecting the recovery, utilisation and disposal of used packaging and paper, including costs</p>	<p>Kerbside recycling infrastructure</p> <p>End markets for 'non-recyclable' materials (mainly plastics coded '4' to '7')</p>	No targets
Covenant Mk II (National Packaging Covenant)	July 2005 – June 2010	<p>To improve the total environmental performance and lifecycle management of consumer packaging and paper by pursuing the following ...performance goals:</p> <p>Packaging optimised to integrate considerations of resource efficiency, maximum resource re-utilisation, product protection...</p> <p>Efficient resource recovery systems for consumer packaging and paper.</p> <p>Consumers able to make informed decisions about consumption, use and disposal of packaging of products.</p> <p>Supply chain members and other signatories to demonstrate how their actions contribute to goals (1) to (3) above.</p> <p>All signatories demonstrate continuous improvement in their management of packaging...</p>	<p>'Away from home' recycling infrastructure</p> <p>End markets for 'non-recyclable' materials and glass</p> <p>Design for the environment</p>	<p>A recycling rate for post consumer packaging of 65% by 2010</p> <p>A recycling rate for 'non-recyclable' packaging of 25% by 2010</p> <p>No new packaging to landfill</p>
Covenant Mk III (Australian Packaging Covenant)	July 2010 – ongoing	<p>To minimise the overall environmental impacts of packaging by pursuing these performance goals:</p> <p>Design: optimise packaging to use resources efficiently and reduce environmental impact without compromising product quality and safety.</p> <p>Recycling: efficiently collect and recycle packaging.</p> <p>Product stewardship: demonstrate commitment by all signatories.</p>	<p>'Away from home' recycling infrastructure</p> <p>Litter: infrastructure, enforcement, education</p> <p>Design for sustainability</p>	<p>100% of signatories in the supply chain implementing the Sustainable Packaging Guidelines by 2010</p> <p>Continuous improvement in the recycling rate</p> <p>100% of signatories with formal processes in place to work with others to improve packaging design and recycling, by 2010</p> <p>Continuous reduction in the number of packaging items in litter</p>

The Australian Packaging Covenant

The Australian Packaging Covenant (commencing 2010) will continue to focus on the collection and recycling of packaging consumed away from home, i.e. in public places and workplaces. Targets have been retained but now reflect the increasing focus of the Covenant on packaging design and product stewardship as well as recovery at end-of-life. An ongoing target of 'continuous improvement' in the recycling rate will be supported by more specific targets in the Covenant Council's strategic plan⁹. This addresses concerns raised by the Productivity Commission (Productivity Commission, 2009)¹⁰ about the need to reduce the compliance burden for business.

The design guidelines have been revised to reflect international developments, including the need to address social sustainability issues¹¹. The Covenant will also place a higher priority on litter in response to a request by Ministers.

A number of other changes have been made to the Covenant to reduce the administrative burden on signatories, particularly small to medium sized firms. These include:

- a simplified statement of objective
- simplified and a reduced number of goals
- a reduction from 29 to 8 key performance indicators
- removing the requirement for signatories to report consumption data as this data was not robust and not an effective measure of progress against the goals
- streamlined action plans and reporting requirements for signatories.

These changes address concerns raised by the Productivity Commission and some industry associations that the Covenant's current reporting requirements impose an unnecessary burdens on firms (Productivity Commission, 2009, pp. 168-9).

More effective participation in the Covenant by industry signatories will be promoted through a range of capacity-building activities (particularly in design for sustainability) and the introduction of an auditing program. These initiatives are being introduced in response to recommendations from the mid term review, which identified problems with compliance. All signatories are required to submit an action plan that outlines what they intend to do to contribute to the Covenant's objective and goals and to report annually on progress. In particular, they must implement the Sustainable Packaging Guidelines for design and procurement of packaging; implement policies to buy products from recycled materials; establish collection and recycling programs for packaging materials generated on-site; and take action, where appropriate, to reduce litter. Covenant signatories, with the exception of local government associations and community groups, also agree to make an annual contribution to the Covenant Fund¹².

⁹ There is no longer a target for 'non-recyclable materials' because most rigid plastics (including those coded 4 - 7) are now included in kerbside collection systems.

¹⁰ Targets were described as aspirational and potentially unachievable, noting the lack of economic analysis which went into their development. The difficulty of setting appropriate targets has been acknowledged in the drafting of the Australian Packaging Covenant. The Australian Packaging Covenant has continuous improvement or 100 per cent signatory participation as its target. If required, specific targets can be set with the agreement of EPHC as part of the Covenant five year strategic plan, or annual business plans.

¹¹ For example it is recognised that 'openability' is becoming an increasingly important issue due to the ageing population and the high proportion of consumers with disabilities such as arthritis. The name of the guidelines has changed, from the Environmental Code of Practice for Packaging (ECoPP) to the Sustainable Packaging Guidelines.

¹² The fund is used for capacity-building activities to assist signatories meet their Covenant obligations; projects to increase recovery and recycling of used packaging and to reduce litter, and Covenant administration.

Covenant participation

Covenant signatories include organisations at every stage of the supply and *recovery chain*. In March 2010 there were 787 signatories (see Table 11), representing approximately 90 per cent of the packaging produced in Australia and 80 per cent of packaged consumer brands sold in Australia. The combined annual turnover of industry signatories was approximately \$164 billion.

Overall participation in the Covenant has increased and spread across a wider range of organisations. In October 2000 the Covenant had 131 signatories, of which 93 were businesses (that is, not community groups, government or industry associations). In June 2006 there were 416 signatories of whom 374 were businesses. In March 2010 there were 787 signatories, of whom 752 were businesses (including 624 brand owners)¹³.

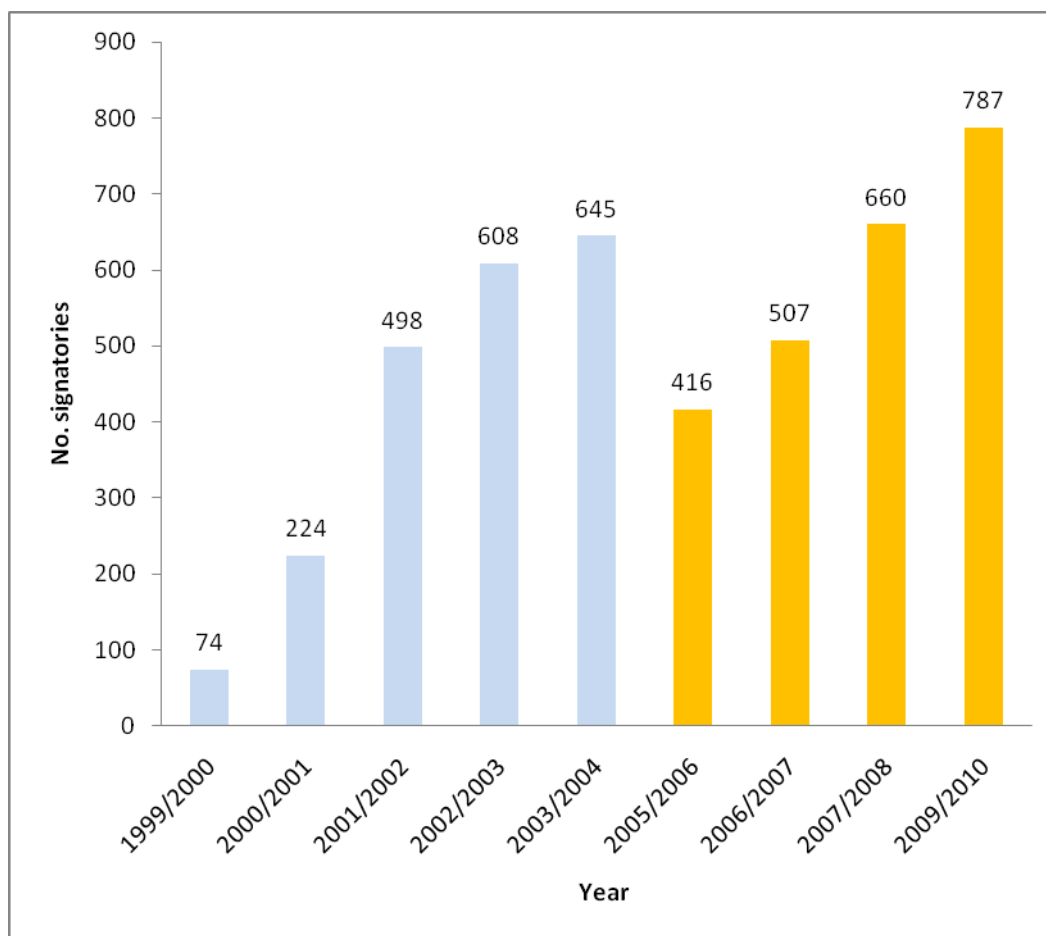
Table 11: Covenant signatories by sector, March 2010 (NPCC, 2010a)

Sector	Number
Raw material suppliers	7
Packaging suppliers	58
Brand owners	624
Retailers	49
Waste management firms	14
Community groups	3
Governments	15
Industry associations	16
Other	1
Total	787

The number of Covenant signatories has increased from 74 in the first year of the first Covenant (1999-2000) to 787 in the final year of the second Covenant (2009-10) (Figure 7).

¹³ Source National Packaging Covenant Council Annual Reports and web site

Figure 7: Covenant signatories, 1999-2000 to 2009-2010¹⁴



Covenant Participation

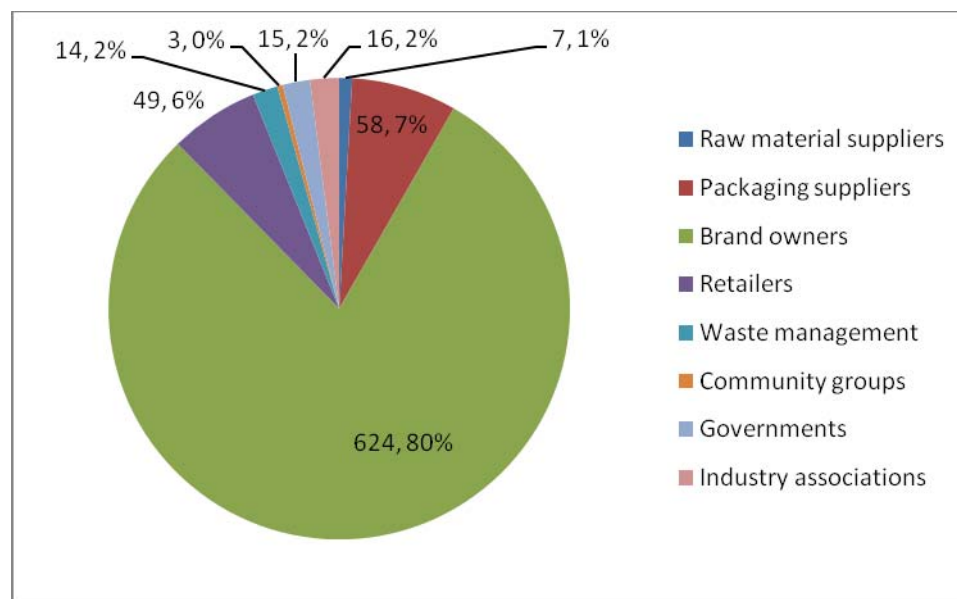
Signatories frequently report that participation in the Covenant drives benefits as the fundamental requirements to measure packaging use, publicly commit to improved life cycle actions and report progress raises opportunities for improvement.

Overall participation in the Covenant has increased and spread across a wider range of organisations. In October 2000 the Covenant had 131 signatories, of which 93 were businesses (that is, not community groups, government or industry associations). In June 2006 there were 416 signatories, of whom 374 were businesses, and in March 2010 there were 787 signatories, of whom 751 were businesses including 623 brand owners (see Figure 7)¹⁵.

¹⁴ Data for 1999-2000 to 2008-2009 is from Covenant Council Annual Reports and numbers are for June of the financial year. The only exception is for 2009-2010: this is based on unpublished data from the National Packaging Covenant (30 March 2010).

¹⁵ As above.

Figure 8: Covenant signatories, March 2010

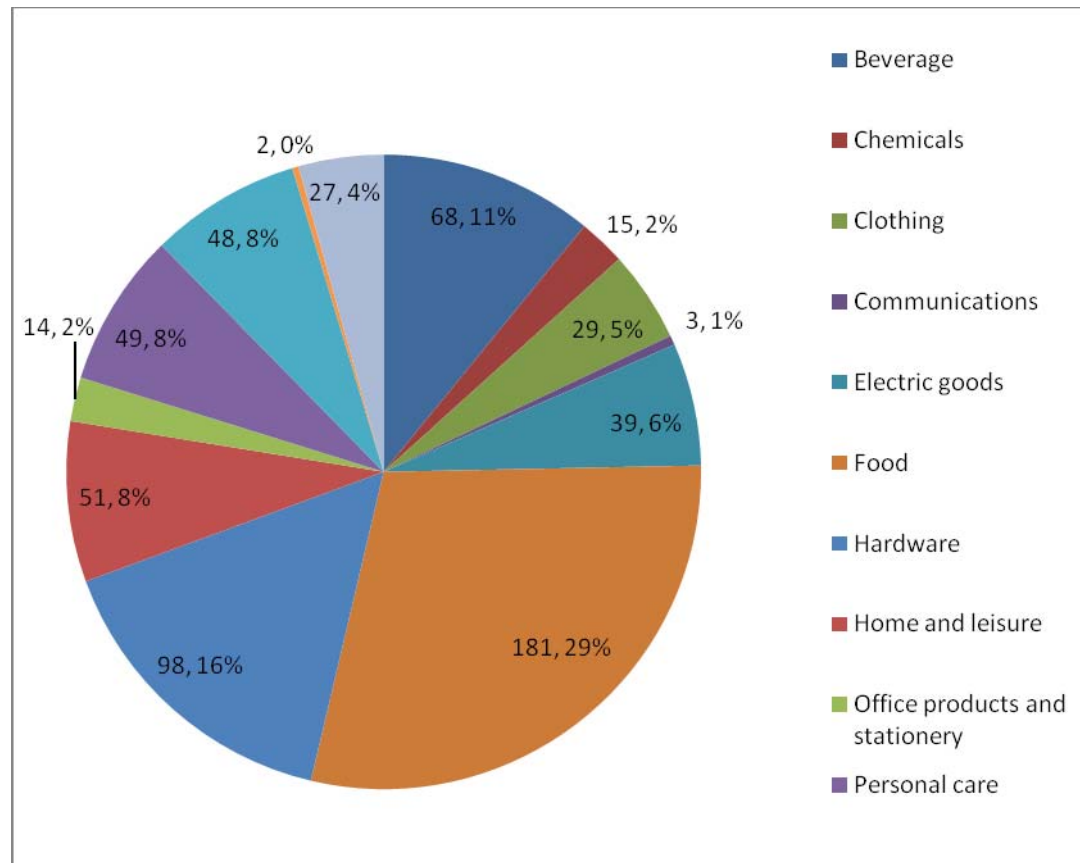


Number of signatories	
Raw material suppliers	7
Packaging suppliers	58
Brand owners	624
Retailers	49
Waste management	14
Community groups	3
Governments	15
Industry associations	16
Other	1
Total	787

Source: Based on NPCC (2010a)

There is a wide range of businesses participating in the Covenant in 2010. While brand owner participants in the first Covenant (1999 – 2005) were predominantly beverage and food businesses, there has been increasing participation from clothing, electric goods, hardware, home and leisure, personal care and pharmaceuticals brand owners since 2005. The current spread of brand owner signatories is shown in Figure 9.

Figure 9: Covenant brand owners by business type, March 2010



Brand owner sector	
Beverage	68
Chemicals	15
Clothing	29
Communications	3
Electric goods	39
Food	181
Hardware	98
Home and leisure	51
Office products and stationery	14
Personal care	49
Pharmaceutical	48
Plastics	2
Other	27
Total	624

Source: NPCC (2010a)

Attachment B: Case studies of Covenant costs and benefits

Owens-Illinois (O-I)

O-I is a global glass packaging manufacturer that has developed and released the Lean and Green™ wine bottle which has significant lifecycle benefits over alternative packaging. O-I attributes the development partly to the Covenant but overall to “the need for sustainable innovation in the Australian wine industry”. The company reports that its involvement in the Covenant raised awareness of the complex nature of packaging decisions through the packaging and product supply chains which assisted in the Lean and Green™ development.

As stated on its website:

“Demands from local and export markets for more sustainable manufacturing and continual innovation need solutions. O-I believes leaning and greening our products helps partner customers and the Australian wine industry to provide answers. The Lean and Green™ range of lightweight wine bottles will:

- Maintain the premium image of the Australian wine industry;
- Help protect the industry against bottling moving away from its source;
- Protect, control and secure your brand; and
- Continue supporting Australian wine and related industries.

This process not only delivers lighter containers, but also provides significant energy and water efficiencies per bottle. So choosing leaner and greener wine bottles means improved environmental outcomes for your business and your customers - without compromising the premium look and feel of your products.”

As documented in its Covenant report for 2008-2009, the Lean and Green™ has delivered the following:

- 18 to 28 per cent reduction in bottle weight
- almost 20,000 tonnes of glass saved
- 20per cent reduction in energy use per bottle
- greenhouse gas savings of 11,130 tonnes CO₂-e per annum
- 12per cent reduction in water use per bottle
- increased shipping efficiency of 6.25per cent.

O-I reports that the development and equipment required a \$6.5 million investment in 2009 but that it was part of a \$240 million investment in its Adelaide facility since 2000.

At the launch of the Lean and Green™ range in 2009 O-I Asia Pacific President Greg Ridder said that the benefits of the development went beyond life cycle improvement of packaging and highlight how packaging plays a role in the sustainability of whole industries. He said the premium image and environmental benefits of the Lean and Green™ range will help the Australian wine industry meet environmental demands of European markets and secure local benefits that would otherwise be lost to bulk wine export and bottling overseas.

The company reports that it deliberately focussed on product re-design that would maintain the same functionality and premium look as it is of the view that environmental improvements that make wine packaging look lower quality will result in consumers not buying the product, and therefore are not sustainable. O-I claims that despite the significant changes in this bottle, consumers cannot tell the difference.

While not commenting on O-I specifically, The Hon Tony Burke MP, Commonwealth Minister for Agriculture, Fisheries and Forestry commented on the wider impacts of packaging when he made the following observation on 2 March 2010 at the Australian Bureau of Agricultural and Resource Economics Outlook Conference.

“Wine bottles are now about 20per cent lighter than they used to be – making a massive difference on freight charges and associated costs in overseas exports. The new light-weight bottles are also stronger, therefore reducing shrinkage. All of that is incredibly powerful and the benefits float all the way back to the grape growers. At a time where we had such a massive oversupply of wine grapes, every efficiency anywhere along the value chain needs to be found.”

Wesfarmers

Wesfarmers Ltd is Australia’s largest diversified company employing 207,000 people and with revenue exceeding \$50 billion. The company is engaged in the Covenant through its businesses Coles, Bunnings, Officeworks, Target, K Mart, Industrial and Safety and Australian Vinyls.

Wesfarmers Sustainability Manager Cameron Schuster estimates compiling the group report takes two people a total of three days full time work each year, but that is possible only because of the on-going data collection and reporting across the Wesfarmers business divisions. Mr Schuster says the ultimate benefit of the Covenant is in knowledge and communications.

“On-balance the Covenant is a good step forward”, he said. “Just the fact that you’re measuring your packaging and have an action plan to manage it means you’re going to get better.”

In the company’s 2009 Covenant report Wesfarmers Ltd Managing Director Richard Goyder wrote of that Covenant that “...applying the practices and disciplines that have been developed in the business, Wesfarmers will make a positive difference to the environment and the communities in which we operate, which in turn sustains our business.”

Anchor Foods

Anchor Foods is a Western Australian based producer of flour, vinegar, herbs and spices, cordial and baking goods employing 120 people and with a turnover of \$40 in 2009. Anchor Foods reports that data collection and establishing a baseline on packaging use has been difficult and time consuming but now completed it has been integrated into the company IT system and other information gathering, ease of extraction and data integrity has improved.

The company attributes reductions in production waste, cost savings and sales increases to the Covenant.

A three year program implementing new packing equipment has reduced wastage and increased efficiency in their operations and also enabled product changes. The product changes have increased the product to packaging ratio about 20per cent and enabled light weight recyclable paper to replace heavier plastic packaging.

A negative trend Anchor Foods reports is that the demand from retailers for shipping cartons to contain fewer single packaged units and be shelf-ready means the company is using more outer packaging per product for many of its consumer lines.

Belkin International

Belkin International is a technology company providing products to computer and consumer electronics users. It is an importer of packaged goods and has used the Covenant to facilitate supplier relations to improve the lifecycle management of its packaging.

The company reports that best opportunities for packaging improvements arise during re-branding and new product design.

In 2009 the company reported its overall product to packaging ratio was 1.98:1 compared with 1.60:1 in 2008. The company reduced packaging waste to landfill from 47.5 tonnes in 2008 to 24.9 tonnes in 2009 and reduced total packaging from 130 tonnes to 127.2 tonnes in the same period.

Belkin reports that the Covenant has assisted its Australian operations to engage with its United States parent company in the product development and design phase, leading to better understanding of how packaging is used and can be changed. Belkin has adopted its parent company's sustainable packaging guidelines and incorporated it into Covenant action plan and reporting.

Attachment C: Prices and trends for recyclables in Australia (April 2010)

Used packaging materials are globally traded commodities. Prices are set by supply and demand linked to the virgin prices for the same materials, further influenced by a wide range of external factors (everything from freight availability to natural disasters such as the 2010 Chile earthquake to large cultural events such as Ramadan and the Lunar / Chinese New Year).

Since 1999-2000 prices in Australia for used paper, cardboard, plastics and metals have been strongly influenced by demand from South –East Asia, and China in particular (used glass packaging has not been so influenced, it is the least volatile and generally lowest price commodity and has traditionally had very limited international trading opportunities).

From 2000 demand from South-East Asia, and again China in particular, drove volumes of materials recovered in Australia to grow faster than domestic recycling and reprocessing capacity. In used paper and cardboard between 2000 and 2009 total volumes of packaging and non-packaging recovery grew from about 1.5 to 2.67 million tonnes, domestic recycling capacity increased from 980,000 to 1.3 million tonnes and exports from 350,000 to 1.2 million tonnes.

In mid to late 2008 Australian prices for recycled materials dropped between 55per cent and 75per cent (different rates for different materials)as the global financial crisis precipitated contraction of manufacturing, domestically and in South-East Asia.

Industry reports are that mixed paper and old corrugated containers (cardboard) fell from \$115 to \$135 per tonne in early 2008 to \$33 to \$38 per tonne in late 2008 and early 2009. Prices have generally rebounded quickly and started increasing steadily from mid 2009. Published reports are that used paper prices for de-inking grade old newsprint in Australia have moved from \$178 per tonne in March 2008, to \$90 per tonne in March 2009 and \$208 per tonne in March 2010.¹⁶

Industry reports for mixed paper and old corrugated cartons are that prices have moved from \$115 to \$135 per tonne in March 2008, to \$45 to \$55 in March 2009 and \$100 to \$120 in March 2010. Industry reports for mixed plastics and PET indicate a similar trend but have not returned to pre crash levels as some paper and cardboard grades have. Prices for used mixed plastics in mid 2008 were \$525 to \$565 per tonne, in early 2009 were \$200 to \$235 per tonne and in early 2010 were \$295 to \$310 per tonne. Prices for used PET in mid 2008 were \$790 to \$880 per tonne, in early 2009 were \$480 to \$510 per tonne and in early 2010 were \$425 to \$460 per tonne.

International reports are similar. In the United Kingdom used cardboard moved from £19 (\$AU40.30) per tonne of material in November 2008 to £59 (\$AU122.54) per tonne in May 2009, compared to the 2004-2008 average price of £53 (\$126.14) per tonne. PET plastic moved from £75 (\$AU159.08) per tonne in November 2008 to £195 (\$AU405.02) per tonne in May 2009, compared to the 2004-2008 average of £156 (\$AU371.28) per tonne.¹⁷

¹⁶ Pulp & Paper Edge Intelligence Report, Industry Edge, March 2009, March 2010.

¹⁷ Financial Times, 15 May 2009, “Waste outshines gold as prices surge”. Currency conversion using Oanda International data, oanda.com (November 2008 £1=\$AU2.121, May 2009 £1=\$AU2.077, 2004-2008 average £1=\$AU2.38)

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