

Chapter 5

Extended Producer Responsibility

5.1 This chapter considers extended producer responsibility (EPR) as a policy approach to addressing specific waste streams. It considers the principles of EPR, current national product stewardship initiatives and specific materials that may warrant further product stewardship action.

What is Extended Producer Responsibility?

5.2 The Organisation for Economic Co-operation and Development (OECD) defines an EPR as an approach in which a producer's responsibility for a product is extended to the post-consumer stage of the product's life. According to the OECD, an EPR policy is characterised by:

- (1) the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and
- (2) the provision of incentives to producers to take into account environmental considerations when designing their products. While other policy instruments tend to target a single point in the chain, EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.¹

5.3 The Total Environment Centre identifies the key elements of EPR as:

- a financial incentive or support system that encourages maximum collection for recycling and provides a sustainable support base;
- regulation to prevent 'free riders' from undercutting those that have EPR programs;
- targets, transparency and monitoring.²

5.4 EPR initiatives serve as a 'polluter pays' system because a price of pollution is embedded in the supply chain.³ Therefore, they apply a 'cradle to grave principle' to products. Under an EPR, a company must concern itself with what will become of the product at the end of its useful life as well as with making the product and how it functions. In relation to consumer goods, Boomerang Alliance maintains that 'this

1 Organisation for Economic Co-Operation and Development (OECD), *Extended Producer Responsibility*, www.oecd.org/document/19/0,3343,en_2649_34395_35158227_1_1_1_1,00.html (accessed 31 July 2008).

2 Total Environment Centre, *Submission 67*, p. 5.

3 This was also described as an initiative which applies a 'cradle to the grave principle'. Councillor Samantha Dunn, Yarra Ranges Shire Council, *Committee Hansard*, 2 July 2008, pp 37–38.

principle shifts responsibility for recycling and waste disposal from local government to private industry and onto their customers, thereby internalizing the costs of waste management into product prices.⁴ Thus, consumers pay for waste management at the time of purchase rather than as homeowners through local taxes.⁴

5.5 Providing an inbuilt incentive to reduce waste was identified by the Australian Conservation Foundation as a primary feature of EPR schemes:

...a key benefit of EPR programs is that if the producer is required to pay for waste they have an incentive to adopt designs, production processes and packaging that is less wasteful in order to gain a competitive edge in the market place. It is inherently an incentive to be less wasteful.⁵

5.6 The Boomerang Alliance argues that EPRs can be applied across the waste sector:

EPR can be applied to all waste streams as it is based on a preventative approach to waste management rather than dealing with 'post consumer stage' issues. The physical, financial and environmental responsibility of a product's life cycle is therefore passed onto the producer.⁶

5.7 A key advantage of EPRs is that various models offer different features so as to suit the particular waste stream under consideration. EPR and product stewardship (PS) schemes can include take-back schemes, advance disposal fees, deposit refunds, tradable credits, performance targets, and awareness raising.⁷ Ms Jane Castle, Resource Conservation Campaigner, Total Environment Centre, explained:

There are lots of models, and the refundable deposit is one of those models. But there are also up-front levies, which is a system that the tyre industry, for example, is looking at. There are also systems where the levy is not actually transparent to consumers but is added to the initial price of the product. Then the producer responsibility organisation, which is the group of producers undertaking the recovery, will fund their own system to collect and recycle those products. So EPR is an umbrella and there are plenty of tools—and they can be used in combination as well.⁸

4 Boomerang Alliance, *Submission 46*, p. 8.

5 Australian Conservation Foundation, *Submission 71*, p. 2.

6 Boomerang Alliance, *Submission 46*, p. 8.

7 Witnesses tended to use the term 'EPR' rather than product stewardship and for that reason, it will be used throughout the report unless reference is made to specific product stewardship initiatives. The Productivity Commission defines product stewardship (PS) as an approach which recognises shared responsibility for the environmental impacts of a product throughout its full life cycle, including end of life management, and seeks to reduce adverse impacts and internalise unavoidable costs within the product price, through action at the point(s) in the supply chain where this can be most effectively and efficiently achieved. Productivity Commission, *Waste Management*, Report no. 38, 2006, pp xxii, xxxvi & 266.

8 Ms Jane Castle, Resource Conservation Campaigner, Total Environment Centre, *Committee Hansard*, 3 July 2008, pp 52–53.

5.8 The Australian Council of Recyclers, describes the various options in relation to EPR as follows:

Approaches could include the implementation of ‘deposit’ legislation applied to both materials and complex products to facilitate multi-material processing and recovery or an EPR/PS payment at point of sale, with graduated benefit payments made on the sale of recycled commodity, relative to highest resource value and scaled according to the delivery of eco-service benefits.⁹

5.9 The New South Wales Department of Environment and Climate Change highlighted the need for flexibility in EPR design:

The EPR challenge for governments and industry sectors in Australia stems from the fact that there is no single solution or system for managing end of life products and solutions will need to be purpose-designed and tailored to the characteristics of the Australian supply chain for each particular product.¹⁰

5.10 According to the Productivity Commission, the effectiveness of EPR schemes will depend on the extent to which any resulting change in behaviour addresses the market failures:

This [the effectiveness of EPR schemes] will be a function of a range of factors, including the extent of non-participation or free riding; how important the Australian market is to producers; how orphaned and existing products are dealt with; the extent to which a scheme’s administration is centralised; and the ability to target the most appropriate parties.¹¹

5.11 SITA Environmental Solutions call for EPR schemes to be introduced for waste materials which:

- Can be classified as uniquely identifiable;
- Have a known generator who can be identified;
- Can be diverted from landfill cost effectively; and
- Have a higher and better resource value or assist in protecting the environment through pollution avoidance.¹²

5.12 The New South Wales, Victorian and Western Australian Governments have each identified a range of specific waste streams that are considered suitable for management by an EPR scheme.¹³ The New South Wales Government's EPR list, for

9 Australian Council of Recyclers Inc, *Submission 81*, p. 5.

10 Department of Environment and Climate Change, New South Wales Government, *Submission 16*, Attachment B, p. 29.

11 Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 276.

12 SITA Environmental Solutions, *Submission 53*, Attachment A, p. 29.

13 Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 268.

instance, targets 17 products ranging from cigarette butts to treated timber.¹⁴ At the same time, national EPRs have been established, or are being pursued by the Environment Protection and Heritage Council (EPHC), to address key waste issues considered to be of national interest. In the case of New South Wales, of its 17 products, four (lightweight plastic bags, tyres, televisions and computers) have been identified as priorities for national action by the EPHC.¹⁵ Specific examples are detailed later in this chapter.

5.13 Each of the state governments listed above have developed similar, but nonetheless distinct criteria for assessing which waste streams to target.¹⁶ The Productivity Commission noted in its report that the EPR criteria of jurisdictions tended to be unfocused and potentially inconsistent:

For example, the NSW Government lists community concern about a waste as one of its criteria, but such concern may not reflect the waste's actual impact, which is another criterion used by the Government. There is little indication of the weight given to different criteria when such inconsistencies arise, or whether specific criteria take precedence over others.¹⁷

5.14 The need for regulatory consistency across jurisdictions in terms of an EPR approach was highlighted in evidence before the committee given that many such products are traded nationally. As Mr Mike Ritchie, New South Wales President of the Waste Management Association of Australia, noted:

It is important that the Senate look at EPR schemes around things like TVs and computers, and industry would encourage that. Business models have been developed by industry that are ready to go. What we need is the national government to introduce those co-regulatory arrangements... We have this plethora of schemes with no consistency in planning regimes...¹⁸

5.15 One of the key arguments of submitters in support of national EPR initiatives was in relation to the expected coordination and streamlining benefits across all jurisdictions. The Queensland Government Environmental Protection Agency stated the following of nationally driven product stewardship initiatives:

14 Department of Environment and Climate Change, New South Wales Government, *NSW Extended Producer Responsibility Priority Statement 2007, Public Consultation Report*, June 2008, p. 2, www.environment.nsw.gov.au/resources/warr/08322EPRstatement07consRpt.pdf (accessed 14 August 2008).

15 Department of Environment and Climate Change, New South Wales Government, *NSW Extended Producer Responsibility Priority Statement 2007, Public Consultation Report*, June 2008, p. 2.

16 These are reproduced in Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 270.

17 Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 270.

18 Mr Mike Ritchie, New South Wales President, Waste Management Association of Australia, *Committee Hansard*, 3 July 2008, p. 18.

This will provide a truly nationally consistent approach, rather than relying on state and territories to implement consistent and complementary legislation within a reasonable period.

The Commonwealth Government has already demonstrated leadership in establishing the Used Oil Product Stewardship Scheme. There may be a number of other end-of-life products that would benefit from a similar Commonwealth approach, particularly where it may be more efficient for the Commonwealth to use its excise powers.¹⁹

5.16 As flagged in chapter 4, the EPHC has adopted a National Waste Framework, which provides a systematic framework for the EPHC to identify and address waste management issues of national importance. The framework, which dates back to 2002,²⁰ sets out a number of standard 'filter criteria' relating to the significance of the problem, the extent of the market, the role of government, the benefits of national action and which level of government has the power and responsibility to act.²¹

5.17 Once waste issues of national importance have been identified, it is up to the EPHC to determine the preferred approach. If a national regulatory approach is being considered, the EPHC's related body, the National Environment Protection Council (NEPC) is responsible for making National Environmental Protection Measures (NEPMs) and assessing and reporting on their implementation. The EPHC has nominated eight 'threshold criteria' for EPR schemes involving co-regulation arrangements. These include clearly-identified costs and benefits, commitment and participation by most firms in the industry, a national approach, and a clear case that regulation is needed to ensure the scheme is effective.²²

5.18 Despite the limited powers of the Commonwealth Government to engage directly in waste management issues, it has played an increasing role in the development of harmonised national approaches for key products.²³ This strategic involvement is primarily focused on the development of consistent national approaches for key product sectors.

5.19 The Department of the Environment, Water, Heritage and the Arts, (Environment Department) suggested that in light of the emergence of national priorities including climate change and water conservation, it is timely to review the

19 Queensland Government Environmental Protection Agency, *Submission 80*, p. 4.

20 Environment Protection and Heritage Council, *Communiqué – National Environment Ministers act on air quality and waste management*, Second meeting of the EPHC, 11 October 2002, www.ephc.gov.au/pdf/EPHC/communique_oct_2002.pdf (accessed 14 August 2008).

21 The EPHC National Waste Framework is reproduced in Department of the Environment, Water, Heritage and the Arts, *Submission 78*, Appendix A.

22 Environment Protection and Heritage Council, *Industry Discussion Paper on Co-regulatory Frameworks for Product Stewardship*, December 2004, p. 10.

23 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 12.

'adequacy and transparency' of the EPHC waste framework for 'setting nationally agreed waste priorities.'²⁴ The committee agrees with this assessment.

Recommendation 13

5.20 The committee recommends that in light of the emergence of national priorities including climate change and water conservation, the Environment Protection and Heritage Council (EPHC) review the adequacy and transparency of the EPHC waste framework.

National Extended Producer Responsibility initiatives

5.21 After a brief discussion of the implementation options for national EPR initiatives, the remainder of this chapter explores the specific detail of the following prominent national EPR schemes:

- Used oil;
- Consumer packaging;
- Beverage containers;
- Newsprint;
- Tyres;
- E-waste; and
- Compact fluorescent lamps.

5.22 National Environment Protection Measures (NEPMs) provide the regulatory underpinning for state, territory and Commonwealth governments to harmonise legislation. Current waste-related NEPMs include the Used Packaging NEPM which underpins the National Packaging Covenant. A draft NEPM on used tyres and a regulatory impact statement have been released for public consultation.²⁵

5.23 The EPHC, through its working groups, is currently considering different strategies to address other product stewardship options for waste it considers to be of national significance. These include televisions, computers, litter reduction and nationally consistent approaches to methane capture from landfill.²⁶ According to the Environment Department:

Products currently on the EPHC waste work program include: newsprint, packaging (including the National Packaging Covenant and container deposit schemes), plastic bags and degradable plastics, electrical and electronic goods (televisions, computers

24 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 13.

25 Environment Protection and Heritage Council, *Tyres NEPM*, www.ephc.gov.au/nepms/product_stewardship/product_stewardship.htm (accessed 14 August 2008).

26 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 2.

and mobile phones) and tyres. In addition, the EPHC is investigating whether there is justification for some form of national recycling scheme for compact fluorescent lamps.²⁷

5.24 NEPMs provide the legislative basis for co-regulatory arrangements. Other types of strategies utilised across jurisdictions to address waste management issues include regulatory schemes (of which used oil is a current national example) and voluntary schemes (including newsprint).²⁸

5.25 Under co-regulatory arrangements, for example, industry is responsible for the establishment of a self-regulatory scheme with Commonwealth, state and territory governments having responsibility to support the scheme with regulation that addresses non-compliers or free-riders under a NEPM.

5.26 The benefits of a national approach to EPRs are highlighted by the EPHC which recognised the benefits that co-regulatory arrangements enable:

It is important for Australia to develop a national approach to product stewardship that ensures measurable environmental improvement within the Australian context while maintaining consistency with approaches and outcomes internationally. Voluntary sector initiatives underpinned by a regulatory safety net to capture non-participants (known as co-regulation) is an approach that is supported by industry in Australia.²⁹

5.27 In terms of prioritising waste streams and meeting community expectations in relation to resource recovery, Ms Mary Harwood, First Assistant Secretary, Department of the Environment, Water, Heritage and the Arts, made the following remarks:

There is strong community interest in recycling and in addressing the various waste streams, in terms of both greater efficiency in production and creating less waste in the first place, as well as handling better the waste that is produced. The initiatives that flow through the EPHC are a reflection of what the ministers see as the priority areas for action...³⁰

5.28 Evidence before the committee highlighted the slow progress that has been made by the EPHC in establishing EPR initiatives for various products identified as waste issues of national significance. Most notable in this regard are the negotiations regarding a product stewardship initiative for televisions and tyres which have taken

27 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 5.

28 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 6.

29 Environment Protection and Heritage Council, *Product Stewardship*, www.ephc.gov.au/nepms/product_stewardship/product_stewardship.htm (accessed 5 August 2008).

30 Ms Mary Harwood, First Assistant Secretary, Department of the Environment, Water, Heritage and the Arts, *Committee Hansard*, 4 July 2008, p. 74.

the best part of a decade.³¹ The committee is concerned that effectively addressing key waste areas requires timely and productive action on the part of the EPHC.

Recommendation 14

5.29 The committee recommends that the Environment Protection and Heritage Council expedite the establishment of Extended Producer Responsibility arrangements for identified products of national significance.

5.30 The committee recognises that whilst expediting EPR arrangements for identified products is necessary, reducing the risk of delays in establishing new arrangements in the future is essential.

5.31 The need for greater responsiveness and flexibility on the part of the EPHC in relation to EPR initiatives is heightened given the growing number and range of products identified for EPR initiatives by state and territory governments in their own jurisdictions (see paragraph 5.12). Without a timely and effective national response, national markets can be disrupted by 'unnecessarily inconsistent measures.'³²

5.32 In July 2005, the NEPC initiated the development of a generic NEPM for product stewardship. The concept was to develop a NEPM that was a broad and flexible co-regulatory arrangement which could be used as a tool for dealing with a range of future products. Of the concept, the EPHC noted:

The NEPM was to consist of a generic framework that establishes guidelines and principles to be applied by governments in determining the merits of a co-regulatory approach for a particular sector, and guides the development of product stewardship agreements for particular sectors. The NEPM was also to include schedules relating to sector-specific product stewardship agreements setting out the requirements for non-participants captured under the regulatory safety net for a particular sector.³³

5.33 In June 2007, the NEPC resolved to limit the scope of the proposed product stewardship NEPM to cover only used tyres.³⁴ Of this decision, Ms Mary Harwood of the Environment Department stated:

There has been work on looking at a generic product stewardship NEPM to which you could add products by way of particular schedules with targets et cetera. For the moment, the ministers have decided to hold that work pending development of a robust regime for tyres, essentially because that

31 Department of the Environment and Heritage cited in Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 279.

32 Ms Mary Harwood, First Assistant Secretary, Department of the Environment, Water, Heritage and the Arts, *Committee Hansard*, 4 July 2008, p. 74.

33 Environment Protection and Heritage Council, *NEPMs, Product Stewardship*, www.ephc.gov.au/nepms/product_stewardship/product_stewardship.htm (accessed 29 August 2008).

34 Environment Protection and Heritage Council, *NEPMs, Product Stewardship*, www.ephc.gov.au/nepms/product_stewardship/product_stewardship.htm (accessed 29 August 2008).

work was more advanced and they wanted to see how it developed. The work that is out at the moment for public consultation is a draft NEPM on used tyres and a regulatory impact statement for it.³⁵

5.34 A generic product stewardship NEPM that is adequately flexible to provide for product stewardship initiatives, including a container deposit system, which is applicable to a range of products and sectors should be re-considered. It should enable the addition of products and sectors in a timely and streamlined fashion via regulation in the future. The overall objective being to provide the underpinning legislative basis for EPR initiatives.

5.35 To establish an effective generic product stewardship NEPM may require changes to the *National Environment Protection Act 1994* (the Act). The committee considers that such deliberations should extend to an overall review of the adequacy of the Act. This review would be timely given its proposed national resource efficiency strategy and recommendation to review the EPHC waste framework.

Recommendation 15

5.36 The committee recommends that the Environment Protection and Heritage Council revitalise the product stewardship National Environment Protection Measure to address waste issues of national significance in a timely and coordinated manner.

5.37 In addition, the committee is concerned by the lack of available information on the EPHC's work program and encourages review of the EPHC website in order to ensure that clear and adequate information is provided in a timely manner.

Oil

5.38 Each year, more than 500 million litres of lubricating oil is sold in Australia while approximately 280 to 300 million litres of used oil, a highly concentrated and toxic material, is generated by industry and the community and is available for recycling.³⁶

5.39 In 2000, an estimated 150–165 million litres of used oil was recycled in Australia. Of the remaining 100 million litres of oil not recycled, some found its way into catchments, waterways and soils leading to environmental degradation.³⁷ In 2001, the Australian Government implemented a mandated product stewardship levy scheme for oil under the *Product Stewardship (Oil) Act 2000*. Directed at protecting the environment from inappropriate disposal of used oil, the scheme comprises three components:

35 Ms Mary Harwood, First Assistant Secretary, Department of the Environment, Water, Heritage and the Arts, *Committee Hansard*, 4 July 2008, p. 74.

36 Australian Bureau of Statistics, *Australia's Environment: Issues and Trends, Solid Waste in Australia*, Report no. 4613.0, 2006.

37 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 6.

- a levy collected through Tax and Customs legislation;
- a benefit payment to recyclers to encourage increased collection and recycling of used oil; and
- transitional assistance funding of \$34.5 million provided for strategic initiatives to increase used oil recycling and ensure a sustainable oil recycling industry. This funding commenced in July 2000 and ceased in June 2007.³⁸

5.40 Under the initiative, the levy (which is fixed at 5.449 cents per litre) is paid by oil producers and importers for petroleum-based oils and their synthetic equivalents. The levy is used to provide an incentive for oil recyclers to increase the amount of used oil recycled:

This ensures that some of the costs of used oil recycling are borne by the markets that gain the benefit from the production and use of that oil, rather than from public monies or other markets. In economic terms, it 'internalises the externalities'.³⁹

5.41 Since the program's inception, there has been an increase in used oil recycling by approximately 40 per cent from 150–165 million litres before 2001 to 220 million litres in 2005–06.⁴⁰ The Environment Department considers, however, that despite the gains the program has made, between 60 and 100 million litres of used oil remains unaccounted for.⁴¹ This figure may be considerably higher given that in Queensland alone, up to 100 million litres of oil are unaccounted for each year with only about 30 million litres recycled.⁴²

5.42 The importance of an incentive for industry to recycle waste oil was highlighted by the Western Australian Local Government Association (WALGA). According to its evidence, the initiative has led to a situation in Western Australia where oil recovery had increased, but without any parallel market development and industry responsibility to accompany it, local government was left with stockpiles of used oil and no method of disposal.⁴³

5.43 Whilst such initiatives are directed at shifting the onus to deal with such materials away from local councils and towards consumers and industry, under current

38 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 6.

39 Department of the Environment, Water, Heritage and the Arts, *Product Stewardship Levy (excise)*, www.oilrecycling.gov.au/levy.html (accessed 14 August 2008).

40 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 6.

41 Department of the Environment, Water, Heritage and the Arts, *Product Stewardship for Oil program*, www.oilrecycling.gov.au/program/index.html (accessed 14 August 2008).

42 Queensland Environmental Protection Agency, *Recycle used oil: don't spoil our environment*, Fact Sheet, WasteWise Queensland, August 2006. www.epa.qld.gov.au/publications/p01566aa.pdf/Recycle_used_oil_dont_spoil_our_environment.pdf (accessed 14 August 2008).

43 Western Australian Local Government Association, *Submission 44*, p. 3.

dynamics, WALGA maintain that local governments are left to pay for the recycling of used oil in Western Australia.⁴⁴ Ms Rebecca Brown, Manager, Waste and Recycling, WALGA, stated that the problem was that 'there is a levy on the products but there is no direct responsibility on the person or company producing the product, for its end of life.'⁴⁵

5.44 Ms Brown pointed to DrumMUSTER, the recycling program for used agricultural chemical containers, as a successful EPR scheme where 'industry have actually taken responsibility for running the scheme.'⁴⁶ Mr John Pritchard, Executive Director, Policy and Research, Australian Local Government Association described the program:

DrumMUSTER was a collaboration involving the National Farmers' Federation, which are the primary users of farm chemicals and veterinary products that are used and manufactured by agricultural and chemical producers. The partnership between the National Farmers' Federation, the chemical manufacturers and the Australian Local Government Association was formed. We were able to get ACCC approval for the levying of the 4c per litre of chemicals which funds the scheme. The drumMUSTER management board, in cooperation with councils, established the infrastructure, which consists of depots at the landfill facility run by a council, where farmers are required to return used and properly washed chemical containers, which are left at the depot and subsequently picked up by contractors and put into the recycling system.⁴⁷

5.45 The used oil and DrumMUSTER initiatives demonstrate that when producers take responsibility for their products at end-of-life, they have a strong incentive to 'maximise the ease and affordability of discharging that responsibility.'⁴⁸ As previously discussed in this chapter, evidence before the committee highlighted the importance of incorporating an incentive into EPRs for producers to ensure that their product is recyclable and recycled.

5.46 At its June 2007 meeting, the EPHC discussed what it termed the 'acute problem' facing Western Australia in the disposal of used oil:

44 Western Australian Local Government Association, *Submission 44*, p. 3.

45 Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Committee Hansard*, 30 June 2008, p. 53.

46 Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Committee Hansard*, 30 June 2008, p. 53.

47 Mr John Pritchard, Executive Director, Policy and Research, Australian Local Government Association, *Committee Hansard*, 30 June 2008, pp 53–54.

48 Western Australian Local Government Association, *Submission 44*, p. 3.

Previous users of waste oil as burner fuel have converted to using fuel such as natural gas, and waste oil collections have therefore slowed or stopped, resulting in most of the State's storage capacity for used oil being filled.⁴⁹

5.47 Subsequently at its April 2008, the EPHC noted that:

Short-term relief from the over abundance of used oil has been achieved in Western Australia via the export of used oil, blended to make burner fuel. However, this is considered an interim measure and Western Australia may face continuing challenges in managing used oil in the future. Ministers asked [the] Standing Committee to make a submission to the independent review of the Product Stewardship for Oil Program, identifying issues and solutions to the problem of excess used oil and recommending preventive measures to avoid similar occurrences in the future.⁵⁰

5.48 Section 36 of the *Product Stewardship (Oil) Act 2000* (the Act) requires an independent review of the Act four years after its commencement. Focused on the operation of the Act, relevant provisions of customs and excise legislation, and the extent to which the Act's objectives have been achieved, the second independent review is due for completion at the end of 2008. A discussion paper for consultation in this regard is due for release in September 2008.

5.49 The committee notes the successes achieved by the waste oil program in increasing the amount of waste oil being recovered. At the same time, the need for a review of the used oil product stewardship initiative is clear, especially given the stockpiles of oil in Western Australia and conflicting statistics from Queensland. The review provides an opportunity for modifications to the initiative enabling greater producer responsibility.

5.50 The committee encourages the EPHC Standing Committee to identify possible solutions to increase used oil recycling in Western Australia and any modifications required to the product stewardship initiative to enable greater producer responsibility.

Consumer packaging

5.51 Total packaging waste generated in Australia each year is just over 4.2 million tonnes, or around 10 per cent of Australia's waste generation.⁵¹ The National Packaging Covenant (the Covenant) is the voluntary component of a co-regulatory arrangement between industry and governments which is based on the principle of shared responsibility amongst all stakeholders in the packaging supply chain and all

49 Environment Protection and Heritage Council, *Communiqué – Climate Change and Water Top Ministers' Agenda*, 2 June 2007, www.ephc.gov.au/pdf/EPHC/Comm_02_06_07.pdf (accessed 14 August 2008).

50 Environment Protection and Heritage Council, *Communiqué – Ministers Seek Sustainable Solutions*, 17 April 2008, www.ephc.gov.au/pdf/EPHC/Comm_17_04_08.pdf (accessed 14 August 2008).

51 Australian Food and Grocery Council, *Submission 56*, p. 2.

spheres of government.⁵² In operation since 1999 as part of efforts to promote shared responsibility and lifecycle management of packaging and paper, the Covenant has 647 industry and government signatories representing approximately 80 per cent of packaging used in Australia.⁵³

5.52 This industry self-regulating instrument addresses all stages of the packaging chain and is designed to 'minimise the environmental impacts arising from the disposal of used packaging, conserve resources through better design and production processes and facilitate the re-use and recycling of used packaging materials.'⁵⁴ The Covenant seeks to improve the sustainability of packaging and the efficiency of kerbside and away-from-home recycling.

5.53 Signatories to the Covenant are expected to apply its principles in relation to the purchase of raw materials; purchase of packaging goods and paper; disposal of used packaging and paper; and materials recovery and the purchase of recovered materials.⁵⁵ The regulatory underpinning is provided by the Used Packaging Materials National Environmental Protection Measure, designed to deal with free riders and non-signatories and is applied at the jurisdictional level.⁵⁶

5.54 Phase one of the Covenant and its respective NEPM expired in July 2005. A 2004 evaluation and subsequent agreement of all stakeholders to strengthen the model led to changes to the Covenant. Phase two of the Covenant (2005–2010) provides an upgraded version of the Environmental Code of Practice for Packaging which is a statement of general principles for the design of environmentally responsible packaging. The 2004 review established that delivering measurable results, implementing increased compliance and enforcement regimes and providing adequate resources and funding for administration were required if the Covenant model was to continue.⁵⁷ Thus, signatories have committed to three overarching targets relating to waste reduction and increased recycling:

- increasing the amount of post-consumer packaging recycled to 65 per cent by 2010 from its current rate of 48 per cent (2003 baseline data);

52 The National Packaging Covenant Council, *The National Packaging Covenant*, 15 July 2005 to 30 June 2010, p. 1, www.ephc.gov.au/pdf/upm/Covenant_July_05.pdf (accessed 2 June 2008).

53 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 7.

54 The National Packaging Covenant Council, *The National Packaging Covenant*, 15 July 2005 to 30 June 2010, p. 1

55 Department of the Environment and Water Resources, *National Packaging Covenant*, Action Plan July 2006 to June 2008, p. 4, www.environment.gov.au/settlements/publications/waste/covenant/pubs/national-packaging-covenant-action.pdf (accessed 2 June 2008).

56 Environment Protection and Heritage Council, *Used Packaging Materials NEPM*, www.ephc.gov.au/nepms/upm/upm_intro.html (accessed 19 August 2008).

57 National Packaging Covenant Council, *Annual Report*, June 2004, p. 25, www.packagingcovenant.org.au/documents/File/NPC_June_2004_report.pdf (accessed 18 August 2008).

- increasing the recycling of materials that are currently either not recycled or recycled at low rates (due to their design, lack of collection/processing infrastructure or lack of markets), from the existing 10 per cent recycling rate (2003 baseline data) to 25 per cent by 2010;
- ensuring that there is no increase in the amount of packaging disposed of to landfill (against 2003 baseline data).⁵⁸

5.55 To assist the Covenant reach its goals, it has been modified to include key performance indicators and improved compliance procedures and has expanded the recovery schemes to include material generated away from home and in workplaces (commercial, industrial and government premises) as well as in the home.⁵⁹

5.56 Under the Covenant, an independent evaluation will report on progress towards the goals by 31 December 2008. The review is currently underway and its results are expected to be presented by the National Packaging Covenant Council at the next EPHC meeting in November 2008.⁶⁰ If the evaluation demonstrates that progress against targets is not satisfactory, the EPHC and/or participating jurisdictions will give due consideration to the development and implementation of alternative policy options in full consultation with all stakeholders, as a replacement for the Covenant/NEPM model upon its expiry.⁶¹

5.57 In regard to whether the Covenant would reach its 65 per cent recycling target for post-consumer packaging, Mr Tony Mahar, Director, Sustainable Development, Australian Food and Grocery Council stated:

When the covenant was established, the agreed baseline was at 48 per cent and the targets were set at 65 per cent, which leaves a 17 per cent increase over the five years. We would like to think that we would have achieved half of that increase by the end of the covenant...⁶²

5.58 The Covenant was strongly criticised by a number of submitters. Mr Jeff Angel, Director of the Total Environment Centre and community representative on the National Packaging Covenant Council noted:

The covenant is the prime defence of the packaging industry against regulation it does not like. It was born in a political environment; it was not born as an effective strategy on waste recycling for post-consumer

58 The National Packaging Covenant Council, *The National Packaging Covenant*, 15 July 2005 to 30 June 2010, p. 16.

59 The National Packaging Covenant Council, *The National Packaging Covenant*, 15 July 2005 to 30 June 2010, p. 2.

60 Environment Protection and Heritage Council, *Communiqué*, 17 April 2008, p. 3

61 The National Packaging Covenant Council, *The National Packaging Covenant*, 15 July 2005 to 30 June 2010, p. 20.

62 Mr Tony Mahar, Director, Sustainable Development, Australian Food and Grocery Council, *Committee Hansard*, 4 July 2008, p. 24.

packaging. It has sector-whole and material-specific targets, which are currently well below their levels. There are claims of big improvements that will come from new projects that the packaging covenant is currently contributing to. But in fact those claims are pure speculation based on figures supplied by the grant applicants. The projects have not been completed, in the main, nor has any sustainable collection infrastructure been put in place to continue any claim recovery from a single project. They are single, one-off exercises and the projected recovery figures are simply the optimistic claims of the applicants for the grants.⁶³

5.59 In a similar vein, Mr David West, National Campaign Director of the Boomerang Alliance explained that the Covenant has not shown any improvement in recycling rates:

We have had a National Packaging Covenant in place to manage packaging for some eight years, with some \$20 million of federal and state government revenues being invested in that, that does not show any improvement in recycling rates, any measurable actions in litter or any measurable action on the priority of dealing with the away-from-home sector.⁶⁴

5.60 Although it appears, based on Mr Mahar's evidence, that the Covenant is likely to fall well short of one of its key overarching targets, the committee is of the view that the EPHC should fully consider the information presented by the National Packaging Covenant Council in November 2008 before deciding on what further action or new policy options are required.

Beverage containers

5.61 Although there is some uncertainty about the precise figure, beverage containers account for around 10 per cent of municipal waste generation.⁶⁵ The committee received considerable evidence both in support of and against container deposit legislation (CDL) as an extended producer responsibility initiative. The committee recognises that it is an issue in which industry stakeholders on both sides of the argument have invested considerable time and energy over many years.

5.62 The committee notes EPHC investigations in relation to a national container deposit scheme are currently underway. The committee recognises that CDL has the potential to increase drink container recycling and also acknowledges the potential for a national CDL to:

63 Mr Jeff Angel, Director, Total Environment Centre, *Committee Hansard*, 3 July 2008, pp 49–50.

64 Mr David West, National Campaign Director, Boomerang Alliance, *Committee Hansard*, 2 July 2008, p. 2.

65 Mr Matthew Warnken, Managing Director, Crucible Carbon, *Committee Hansard*, 3 July 2008, p. 66.

- utilise reusable containers;
- include all forms of containers;
- provide infrastructure that can be utilised for the collection of other material under similar product stewardship arrangements;
- serve as a system that will complement rather than compete with kerbside recycling;
- provide environmental and social benefits including GHGE abatement, water, energy and raw material savings, and employment;
- encourage a cultural shift from littering to recycling behaviour evidenced in South Australia in relation to away-from-home recyclable waste;
- enjoy considerable public support and community engagement; and
- improve the corporate image of beverage companies.

5.63 The committee encourages the EPHC to fully explore these opportunities as well as the cost impacts and all the options available to it in relation to a national container deposit system.

South Australia container deposit legislation

5.64 South Australian container deposit legislation (CDL) was introduced in 1977 and extended in 2003 beyond beer and soft drink containers to include non-carbonated (non-alcoholic) soft drinks; fruit juice and flavoured milk containers under one litre; and alcoholic beverages in containers up to three litres.⁶⁶ With the extension of the scheme, the overall recycling rate has dropped from 84 per cent to 70 per cent. However, the recycling rate varies across commodities as the rate for newly introduced materials such as liquid paperboard (used for flavoured milk cartons) is about 42 per cent compared to 80 per cent for glass beer bottles which were part of the original scheme.⁶⁷

5.65 Equating to 33 cents per container in today's monetary value, the 5 cent redeemable deposit introduced in 1977 provided a strong economic incentive to recycle.⁶⁸ In the intervening years, the relative value of the 5 cent deposit has decreased as the purchase price for beverage containers has increased. As a means of increasing its incentive value and to encourage more recycling, South Australia has

66 WCS Market Intelligence & WME Environment Business Media, *The Blue Book – Australian Waste Industry*, 2008, p. 29.

67 Mr Peter Dolan, Director, Science and Sustainability, South Australian Environment Protection Authority, *Committee Hansard*, 30 June 2008, p. 14.

68 Mr Neville Rawlings, President, Recyclers of South Australia Inc, *Committee Hansard*, 30 June 2008, p. 42.

announced an increase of the deposit amount to 10 cents to be introduced from 1 September 2008.⁶⁹

5.66 In terms of the operation of the system, beverage manufacturers pay a 5 cent deposit and an agreed handling fee (usually 3 cents per item) to a collection coordinator. These funds are retained by the collection coordinator until the container is returned to a recycling depot for recycling. The depot sorts the containers and sends them to the relevant collection coordinator. The collection coordinator pays the recycling depot back the 5 cent deposit and handling fee and the containers are then sold to recyclers.⁷⁰

5.67 There are 110 privately operated drop-off centres for CDL materials and other recyclables in South Australia enabling convenience and accessibility.⁷¹ These centres account for about 66 per cent by weight of all commodities returned through recycling centres and kerbside recycling combined in South Australia.⁷² This amounts to over 420 million containers each year of which 168 million are aluminium cans and 140 million glass bottles.⁷³

5.68 Evidence before the committee suggested that the South Australian CDL is effective as a financial incentive-based recycling scheme given the return rates which are set to improve with a higher deposit.⁷⁴ Evidence also highlighted the effectiveness of the scheme in reducing litter and capturing waste generated away-from-home. Mr Ian Kiernan, Chairman of Clean Up Australia noted:

We know that South Australia has enjoyed a recycling rate for cans and bottles of up to 85 per cent, while the rate in other states is less than half of this. The incentive works there. South Australia is the only state where beverage containers are not among the five most commonly collected types of rubbish on Clean Up Australia Day.⁷⁵

5.69 A number of witnesses including the Boomerang Alliance and its affiliates, and the Australians for Refunds on Cans and Bottles highlighted the environmental

69 Mike Rann, Premier of South Australia, *Empty drink containers now worth more*, 31 August 2008, www.ministers.sa.gov.au/news.php?id=3619 (accessed 2 September 2008), Environment Protection Authority (South Australia), *Container deposit refunds*, www.epa.sa.gov.au/cdl.html (accessed 2 September 2008).

70 Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 239.

71 Government of South Australia, *Submission 83*, pp 8–9.

72 Government of South Australia, *Submission 83*, p. 17.

73 Government of South Australia, *Submission 83*, p. 8.

74 Mr Dan Ryan, Chief Executive Officer, Scouts South Australia, *Committee Hansard*, 30 June 2008, p. 7; Mr Peter Dolan, Director, Science and Sustainability, South Australian Environment Protection Authority, *Committee Hansard*, 30 June 2008, p. 22.

75 Mr Ian Kiernan, Chairman, Clean Up Australia, *Committee Hansard*, 3 July 2008, p. 62.

benefits of the CDL in terms of substantial greenhouse gas, water and energy saving.⁷⁶ Moreover, the Boomerang Alliance noted:

In addition, CDL provides materials for remanufacturing that offset the need for virgin materials. CDL in South Australia contributes in the order of \$720,000 or 40% towards the total value of replacement of virgin materials each year. In addition to this figure, energy savings from utilising recycled material rather than processing virgin materials are estimated to be up to 95%,⁷⁷ resulting in not only cost savings but reduced greenhouse gas emissions.

5.70 The CDL scheme has made a positive contribution as a fund-raising mechanism for charities and community groups including Scouts South Australia.⁷⁸ Finally, the scheme has contributed to a culture of intolerance to litter and awareness of waste. These social and awareness-raising benefits, which are often overlooked were described by Mr John Phillips OAM, Executive Director of Keep South Australia Beautiful Environmental Solutions:

Some of the economic benefits flow back into the community through the Scouts, the footy club, the netball club or whatever it is. That is their annual fundraising method. Businesses do the same. They collect their 5c deposits in the kitchen and then they have their staff Christmas party based on how much is raised during the year. So I think it is part of the culture, but there are a lot of economic benefits and social benefits that flow. It is the mechanism that allows us to be engaged with the community about other things. The average person really does not know how to wrap their mind around emissions trading or global warning. They just do not understand it. But simply by talking about litter, purchasing habits and recycling, you can engage with them on some of those complex issues in a simple way. We see that with our education centres and our school programs, whether they are about water, energy, waste or biodiversity. You can use it as a tool. I think the community need to have that sort of simplicity when it comes to understanding how they need to respond to something that is becoming more urgent every day but that they do not know how to touch.⁷⁹

Drink Container Recycling Bill 2008

5.71 The committee heard evidence both in support of and against national CDL. Such evidence focused primarily on the percentage of the waste stream that would be captured, the possible impacts on kerbside recycling, its expected financial,

76 Boomerang Alliance, *Submission 46*, p. 4; Australians for Refunds on Cans and Bottles, *Submission 6*, p. 1.

77 Boomerang Alliance, *Submission 46*, p. 30.

78 Mr Dan Ryan, Chief Executive Officer, Scouts South Australia, *Committee Hansard*, 30 June 2008, p. 2.

79 Mr John Phillips OAM, Executive Director, Keep South Australia Beautiful Environmental Solutions, *Committee Hansard*, 30 June 2008, p. 36.

environmental and social ramifications, potential models, and the effectiveness of CDL as a recycling strategy.

5.72 In particular the committee acknowledges the evidence on the potential financial impact that may flow from the introduction of national CDL. Opinions were divided on whether such a move would be an overall cost burden or benefit.⁸⁰ The overall financial impact is likely to be dependent on the particular model in question. However, even if there were to be a financial cost to the scheme, which would likely to be passed onto consumers, the committee acknowledges evidence that consumers were not opposed to paying an additional impost if it meant waste would be recycled.⁸¹ The committee would expect that the minimisation of financial impacts on businesses and consumers, would be taken into account as part of EPHC and government deliberations on the introduction of a national CDS.

5.73 Evidence for and against national CDL was not, however, rigorously applied to the Drink Container Recycling Bill 2008. The committee is not satisfied, therefore, that all the likely effects of the bill are well understood.

5.74 However, the committee was convinced by the evidence before it of the benefits of a national container deposit system *per se*. The success of the South Australian scheme provides a tried and tested model that could be the basis of a national scheme. In light of the expected environmental, social and economic benefits (highlighted in paragraph 5.62) and demonstrated public support, the committee offers in-principle support for the establishment of a national container deposit system.

5.75 The committee is aware of the number of studies that have been conducted over the past decade on CDL in specific jurisdictions. Given the volumes of information on CDL and the need for an overarching and comprehensive review of CDL literature in Australia, the EPHC review is timely.

5.76 Evidence throughout this inquiry has focused on the need for greater coordination and less duplication in waste management. The committee does not intend to duplicate the work of the EPHC review. However, the committee strongly recommends the EPHC consider a national container deposit system as part of its ongoing deliberations.

Recommendation 16

5.77 The committee recommends the Environment Protection and Heritage Council work towards a national container deposit system. As part of its review

80 See for example Dr Steward White, *Independent Review of Container Deposit Legislation in New South Wales, Final Report - Volume I*, Institute of Sustainable Futures, University of Technology Sydney, prepared for Hon Bob Debus MP, Minister for the Environment, November 2001, p. i; Australian Food and Grocery Council, *Supplementary Information*, tabled 4 July 2008, p. 5; and Boomerang Alliance, *Submission 46*, Attachment A, p. 21.

81 Boomerang Alliance, *Submission 46*, p. 30

the committee recommends that the Environment Protection and Heritage Council consider the South Australian model and the Drink Container Recycling Bill 2008.

Newsprint

5.78 The National Environmental Sustainability Plan (Newspapers) or the Newsprint EPR is a national, voluntary industry–government agreement. Whilst both industry and government are involved, individual firms can choose not to participate.⁸² The incentive around which the scheme is focused and which is central to its success is the fact that using 40 per cent recycled fibre produces a superior quality paper compared to virgin material.

5.79 In 1990, newspaper and magazine publishers committed to using recycled newsprint in their manufacturing processes under a national agreement. The original goal was to reduce newspaper waste going to landfill. However, significant upstream benefits have also been achieved. According to the Environment Department, the use of recycled newsprint by publishers led to an increase in newsprint recycling from 37 per cent in 1991 to 74.5 per cent in 2004 thereby reducing the amount of paper waste going to landfill by 500 000 tonnes in 2004 alone. In 2006, the recycling rate reached 75.4 per cent. Whilst yet to be confirmed, according to the Environment Department, the recycling rate for 2007 is expected to have risen above 76 per cent.⁸³

5.80 The newsprint scheme works as a voluntary scheme because of the clear benefits in terms of the better quality paper produced from recycled fibres. There are also significant energy saving from using recycled compared to virgin materials. The Environment Department explained:

The smoother printing surface obtained by the addition of recycled fibres and clay (from recycled magazines) achieved a superior printing surface with less show-through (increased opacity). Thickness was reduced, as well giving a better, more easily stacked product. Paper roll yields were improved and waste was reduced by about 7 per cent with flow-on environmental benefits in handling and road transport. A further significant benefit of recycling old newspapers into newsprint is the reduction in energy used. Mechanical pulping of wood is an energy intensive process. It takes one-sixth the energy to make pulp from old newspapers rather than from wood.⁸⁴

5.81 The committee acknowledges the success of this voluntary scheme but also notes that other voluntary schemes without such co-benefits have not been nearly as successful.

82 Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 263.

83 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 7.

84 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 7.

5.82 One such example is MobileMuster which was initiated in 1999. Under the program, consumers and retailers can dispose of mobile phones free of charge through a network of over 1000 mobile phone retail outlets, government agencies and businesses. Funded by a sales levy on participating manufacturers (which comprised 90 per cent of the market), the program has recovered and recycled over 330 tonnes of mobile phones.⁸⁵ However, the Total Environment Centre notes that the recycling rate is less than three per cent:

To date, over 30 million mobile phones have been sold in Australia, and 8 million more are being sold each year. Yet less than 3% are recycled. With an average life-span of 18 months, this means that millions of mobile phones are making their way to landfills across Australia, putting the environment and community at risk.⁸⁶

5.83 The Total Environment Centre maintains that the initiative fails for reasons including the fact that less than 20 per cent of mobile phone retailers participate in the scheme and of those that do, performance varies. Overall, the scheme is not cost-effective:

This low recovery rate achieves minimal environmental benefits, and does not promote development of better collection and recycling infrastructure. If mobile phones were recovered by the millions, demand would be created for new and improved recycling facilities. This would in turn reduce the recycling cost per phone, making recycling more cost effective.⁸⁷

5.84 The contrasting levels of success of the Newsprint and MobileMuster voluntary initiatives demonstrate the importance of an incentive for producers to take responsibility for their products at the end of their life.

Tyres

5.85 An estimated 170 000 tonnes of waste tyres are generated in Australia each year. This is equal to around 18 million passenger tyres.⁸⁸ Of this, an estimated 57 per cent of waste tyres end up in landfill and 13 per cent are disposed of inappropriately, primarily through illegal dumping. According to the EPHC:

85 Productivity Commission, *Waste Management*, Report no. 38, 2006, p. 235.

86 Total Environment Centre, *Busted! The 'Mobile Muster' Myth Exposed*, Mobile Phone Recycling Survey, July 2007, p. 2, www.tec.org.au/index.php?option=com_content&task=view&id=581&Itemid=270 (accessed 15 August 2008).

87 Total Environment Centre, *Busted! The 'Mobile Muster' Myth Exposed*, Mobile Phone Recycling Survey, July 2007, p. 2.

88 Environment Protection and Heritage Council, *A National Approach to Waste Tyres: Policy Discussion Paper*, www.ephc.gov.au/ephc/waste_tyres.html (accessed 15 August 2008).

Apart from the associated environmental, health and amenity issues, these practices are a lost opportunity as various re-use, recycling and waste-to-energy options exist for tyres.⁸⁹

5.86 Most tyres are left by motorists with the tyre dealers or retailers who replace them. However, used tyres are expensive to collect due to their weight, bulk and geographical spread.⁹⁰ The availability of relatively low cost landfill disposal for used tyres is a disincentive to recycle them.⁹¹ The estimated cost of cleaning up tyres that have been illegal disposed is \$4 million a year and \$35 million over ten years.⁹² This excludes the clean-up cost of Australia's large illegal stockpiles of used tyres which are likely to double the overall clean-up costs from \$35 million to \$70 million over ten years.⁹³

5.87 Negotiations on a national EPR began in 1999 between the tyre industry and government. In April 2008, the EPHC released a consultation package detailing a proposed co-regulatory product stewardship initiative for used tyres. Ms Rosalind Hall, Director Frameworks and Product Stewardship, New South Wales Department of Environment and Climate Change, explains:

Industry has developed a voluntary approach to managing used tyres. It has proposed a target of 90 per cent recovery, or less than 10 per cent going to landfill, within about 10 years. It will be done via a proposed levy on tyres at the point of purchase—or up a bit higher in the chain but essentially that. Basically, it will be using market pool process such that people who are recycling or using recycled tyres will get a subsidy on the cost. So it is a market pool, if you like, and it will be there to subsidise the bona fide use of tyres. There will be different subsidies according to the level and the type of beneficial reuse of the tyres. So that is out for consultation.⁹⁴

5.88 The Boomerang Alliance raised a number of concerns in relation to the package including regulatory contingency embedded in the NEPM to guarantee the environmental outcomes by way of the targets proposed. The Boomerang Alliance also noted that there is no commitment to a permanent and sustainable tyre recycling market given that the scheme is to operate for ten years. Moreover, the manner in

89 Environment Protection and Heritage Council, *A National Approach to Waste Tyres: Policy Discussion Paper*.

90 Australian Bureau of Statistics, *Australia's Environment: Issues and Trends: Solid waste in Australia*. 2006.

91 URS, *Market Failure in End-of-life Tyre Disposal, Final Report*, Prepared for Department of Environment and Heritage, 8 September 2006, p. 36.

92 URS, *Market Failure in End-of-life Tyre Disposal, Final Report*, Prepared for Department of Environment and Heritage, 8 September 2006, pp 43–44.

93 URS, *Market Failure in End-of-life Tyre Disposal, Final Report*, Prepared for Department of Environment and Heritage, 8 September 2006, p. 45.

94 Ms Rosalind Hall, Director Frameworks and Product Stewardship, Department of Environment and Climate Change, New South Wales Government, *Committee Hansard*, 3 July 2008, p. 15.

which stockpiles of illegally dumped or landfilled tyres are to be handled is not addressed.⁹⁵ In terms of the benefit payment, the Boomerang Alliance highlights:

As the Scheme is currently proposed, there is no explanation of the rationale behind the benefit payment. A rationale based on highest resource value and environmental benefit should be proposed, with reference to reuse being the highest form of recovery, followed by recycling and, lastly, waste to energy. Such a rationale should be backed up by data and opened for consultation. To properly reflect the accepted waste hierarchy, reuse should be added to the definitions and the description of recycling should not exclude retread tyres.⁹⁶

5.89 The Productivity Commission took the position that focus should be given to directly addressing the externalities associated with illegal dumping and stockpiles rather than the goal of recycling 90 per cent of all tyres. The committee takes the view that there should be a balance established between ensuring a high recycling rate and addressing the stockpiles and illegal dumping practices.

5.90 Given that the used tyre EPR has been negotiated for nearly a decade, the committee is pleased that the consultation package is now under active consideration. The committee encourages the EPHC and the tyre industry to work collaboratively in order to bring this long-planned project to fruition.

E-waste

5.91 The potential for nationally-driven EPR initiatives to enable a coordinated response to key waste issues was repeatedly reinforced during the course of the inquiry. It was particularly evident in relation to e-waste⁹⁷ (or electronic and electrical materials that have reached the end of their life) which is discussed below.

5.92 E-waste is considered one of the fastest growing and most complex waste categories in Australia.⁹⁸ As Ms Mary Harwood, First Assistant Secretary, Environment Quality Division of the Environment Department noted:

E-waste is probably the largest emerging issue...in terms of the relative change in volume, the challenges of dealing with it, and the challenges of looking at what the actual impacts are and how they might be addressed.⁹⁹

95 Boomerang Alliance, *Submission 46*, p. 15.

96 Boomerang Alliance, *Submission 46*, pp 15–16.

97 See for example Mr Vaughan Levitzke, Chief Executive, Zero Waste South Australia, *Committee Hansard*, 30 June 2008, pp 18–19.

98 E-waste comprises obsolete electronic and electrical products including computers, televisions, VCRs, stereos, phones, automobile and manufacturing components, and small electrical appliances.

99 Ms Mary Harwood, First Assistant Secretary, Environment Quality Division, Department of the Environment, Water, Heritage and the Arts, *Committee Hansard*, 4 July 2008, p. 68.

5.93 According to the Australian Bureau of Statistics, each year, Australians buy more than 2.4 million personal computers and 1 million televisions. With more purchases of electronic products, the stockpile of used, obsolete electronic products continues to grow.¹⁰⁰ In 2006, an estimated 1.6 million computers were disposed of in landfill and another 1.8 million were held in storage in addition to an already 5.3 million kept in garages and other storage areas.¹⁰¹

5.94 All electronic and electrical goods have a limited life span. On average, computers last for four years, mobile phones between 18 months and two years, and media players between two and three years.¹⁰² Given such factors and the current growth in electronic goods, Australia is expected to have an e-waste stockpile of over 350 million items by 2015.¹⁰³

5.95 According to Mr Jeff Angel, Director of the Total Environment Centre, without a national e-waste strategy, existing initiatives that are 'basically one-off voluntary schemes' will continue to operate. Mr Angel noted that such schemes have yet to develop a sustainable strategy or establish adequate support mechanism for the collection of e-waste.¹⁰⁴ The MobileMuster initiative discussed above is a prime example.

5.96 The need for adequate infrastructure to enable the effective recovery of target materials was a concern raised in evidence in relation to many EPR initiatives. One possible solution identified by Mr David West, National Campaign Director for Boomerang Alliance, was the establishment of collection centres that would serve as drop-off points for a range of materials including, but not restricted to, e-waste.¹⁰⁵

5.97 The New South Wales Department of Environment and Climate Change noted that challenges in establishing an EPR arrangement for computers include addressing the large number of players in the sector, and its fragmentation, which makes coordination of a voluntary approach problematic.¹⁰⁶ One of the benefits of co-regulatory EPR arrangements is the regulatory safety net which picks up 'free riders'.

100 Australian Bureau of Statistics, *Year Book Australia 2008, Waste and Recycling Practices of Households*, Report no. 1301.0, 2008.

101 Australian Bureau of Statistics, *Australia's Environment: Issues and Trends, Media Alert – Environment snapshot: recycling up, but e-waste a looming issue*, Report no. 4613.0, 10 November 2006.

102 Total Environment Centre, *Submission 67*, p. 4.

103 This figure includes DVDs, digital cameras, games consoles, media players, camcorders, DVD players, mobile phones, multifunctional devices, televisions, scanners, printers and computers. Total Environment Centre, *Submission 67*, p. 4.

104 Mr Jeff Angel, Director, Total Environment Centre, *Committee Hansard*, 3 July 2008, p. 50.

105 Mr David West, National Campaign Director, Boomerang Alliance, *Committee Hansard*, 2 July 2008, p. 4.

106 Department of Environment and Climate Change, New South Wales Government, *Submission 16*, Attachment B, p. 29.

Orphan brands or unbranded products (otherwise called 'white boxes') are a major problem in relation to computers and other electronic goods. In the computer industry, orphan brand computers are often supplied by small businesses that enter and exit the industry rapidly, providing for difficulties in relation to compliance.¹⁰⁷ Mr Ian Kiernan, Chairman of Clean Up Australia summed up the issue of orphan brands in relation to computers:

The major proportion of that e-waste is finishing in landfill. If you go to the more responsible brands—say, IBM or Dell—with a laptop, they will take it, give you something for it and sell you the new one, whereas the orphan brands will probably only last a quarter of the time, and you are stranded with the problem of disposing of it. It is extremely expensive to collect and dismantle. A laptop is probably \$70.¹⁰⁸

5.98 Sustainability Victoria's current 'Byteback' scheme is one example of a computer EPR.¹⁰⁹ Under the initiative which began in June 2005, the public and small businesses can return up to ten items of unwanted computer equipment free of charge to approved sites. The equipment is broken down into components including plastics and metals for recycling. Whilst the Victorian Government provides base funding for the scheme, industry partners are expected to cover the cost of recycling their branded equipment.¹¹⁰ The scheme is expected to run until the end of 2008 with lessons learnt assisting industry to prepare for a national approach to computer recycling.¹¹¹

5.99 Fuji Xerox maintain that a regulatory underpinning to the computer EPR scheme would enable the inclusion of otherwise 'free riders' (who comprise 25 per cent of the industry) into the scheme:

We believe there is currently real potential to move this agenda into an accelerated timetable for a solution. We need to see more than 75% of the industry sitting at the table and willing to pay their way. Then we need to see firm resolve by government to provide an underpinning regulatory framework that ensures that those that do no volunteer to do the right thing bear an equivalent cost (of recycling end of life product) to those that do.¹¹²

107 Productivity Commission, *Waste Management*, Report no. 39, 2006, p. 276.

108 Mr Ian Kiernan, Chairman, Clean Up Australia, *Committee Hansard*, 3 July 2008, p. 74.

109 Sustainability Victoria is running Byteback in partnership with the Australian Information Industry Association (AIIA) and founding partners Apple, Canon, Dell, Epson, Fujitsu, Fuji-Xerox, HP, IBM, Lenovo, and Lexmark. Byteback, *What is Byteback*, 2008, www.bytebackaustralia.com.au/ (accessed 5 August 2008).

110 Byteback, *What is Byteback?*, 2008.

111 Byteback, *FAQ*, 2008.

112 Fuji Xerox, *Submission 91*, p. 1.

Resource depletion

5.100 Computer monitors and old television picture tubes contain an average of two kilograms of lead and require special handling at the end of their lives. In addition to lead, electronic goods can contain chromium, cadmium, mercury, beryllium, nickel, zinc and brominated flame retardants. These toxic materials can pose serious environmental problems when not disposed of or recycled properly.¹¹³

5.101 According to the Total Environment Centre, electrical and electronic appliances contain a number of rare and non-renewable resources, some of which are reaching their extraction peak. These resources are listed in Table 5.1.

Table 5.1—Rare and non-renewable resources in electrical and electronic appliances

Resource	Estimated Extraction Peak
Gallium (solar cells)	Already running out
Terbium (fluorescent bulbs)	Four years left
Hafnium (computer chips)	Nine years left
Indium (LCD screens and computer chips)	Ten years left
Silver	Ten years left
Antimony (flare retardants)	Fifteen years left

Total Environment Centre, *Submission 67*, p. 3, citing University of Augsburg in Germany and US Geological Survey.

5.102 The committee encourages the timely consideration and application of an EPR scheme in relation to e-waste given the rapid growth of the problem and the use of rare and non-renewable resources. Moreover, the ongoing transition away from cathode ray tube televisions and computer monitors suggests the need for timely action in relation to televisions. In evidence before the committee, Mr Mike Ritchie, National General Manager of SITA Environmental Solutions, stated that such a transition from televisions to the new digital network is going to mean 'an enormous pulse in TVs coming through the waste stream, which we need to deal with.'¹¹⁴

113 Australian Bureau of Statistics, *Australia's Environment: Issues and Trends, Solid waste in Australia*, 2006.

114 Mr Mike Ritchie, National General Manager, Marketing and Communications, SITA Environmental Solutions, *Committee Hansard*, 3 July 2008, p. 31.

Recommendation 17

5.103 The committee recommends that the Environment Protection and Heritage Council finalise and/or develop Extended Producer Responsibility initiatives for the various forms of e-waste as a matter of priority.

Compact fluorescent lamps

5.104 Compact fluorescent lamps (CFLs) were raised during the inquiry as a product appropriate for an EPR initiative. The mandatory replacement of incandescent light bulbs with CFLs is an initiative which has substantial benefits from a greenhouse point of view but, raises problems from a waste perspective because CFLs contain mercury. The key issue therefore is ensuring that CFLs are recovered and do not contaminate compost or end up in landfill.¹¹⁵

5.105 The Municipal Waste Advisory Council (MWAC) of WALGA raised the possibility of an EPR for CFLs:

MWAC indicated that it considers that best management of CFL's would be achieved through a product stewardship arrangement incorporating industry responsibility for establishing and maintaining adequate CFL bulb collection and reprocessing infrastructure. Further, that the stewardship should include an industry commitment for an ongoing national public education campaign to raise community understanding of why and how to dispose of CFL bulbs correctly.¹¹⁶

5.106 The committee encourages the EPHC to consider an EPR initiative to address CFLs. The advice offered by the Environment Department states:

CFLs can generally be disposed of in regular garbage bins - where the garbage goes to landfill. You should check with your local authority, who manages garbage collection, as to their advice on disposal of CFLs as different local authorities may have different arrangements. For example, some garbage is sent to waste processors and this may change the arrangements for disposal. Should you choose to dispose of your CFLs this way then it's best to wrap them in newspaper to prevent them from breaking.¹¹⁷

5.107 The committee notes that the EPHC is considering options associated with the end-of-life management of CFLs including the extent of the environmental threat posed by landfill disposal.¹¹⁸ Given the fact that the number of CFLs entering the

115 Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Committee Hansard*, 30 June 2008, p. 55.

116 Western Australian Local Government Association, *Submission 44*, p. 2.

117 Department of the Environment, Water, Heritage and the Arts, *Phase-out of inefficient incandescent light bulbs*, www.environment.gov.au/settlements/energyefficiency/lighting.html (accessed 15 August 2008).

118 Department of the Environment, Water, Heritage and the Arts, *Submission 78*, p. 5.

waste stream is set to increase substantially with the phasing out of incandescent light bulbs, the committee encourages the EPHC to consider a national EPR for CFLs as a matter of priority.

Recommendation 18

5.108 The committee recommends that the Environment Protection and Heritage Council consider an Extended Producer Responsibility initiative for compact fluorescent lamps as a matter of priority.

Senator Anne McEwen

Chair