Submission to the

# SA Turning the Tide on Single-Use Plastic Products *Discussion Paper*

22 February 2019

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## What is the AIEN?

The Australian Industrial Ecology Network (AIEN) is a vibrant network of like-minded individuals, companies and institutions with a common interest in sustainable development through the study and practice of industrial ecology. We advocate the principles and concepts of industrial ecology in policy formation and business practice. The AIEN actively engages with organisations to facilitate improved performance and environmental benefits.

The AIEN is also a forum in which people can discuss ideas, seek advice from one another, connect with resources associated with the practice and study of industrial ecology or simply keep in touch through the network with developments and best practice in their areas of interest.

The AIEN was established as a proprietary limited company in October 2014 to promote and facilitate industrial sustainability through the application of industrial ecology. The company aims to provide a 'window on the world' of industrial ecology by relaying news, canvasing new ideas, producing 'position papers' on topics, such as energy from waste, organising events and alerting people to developments in academia and in practice. In effect, AIEN aspires to become the 'go-to' organisation for all things to do with industrial ecology, including collaboration on the design, planning and implementation of IE projects.

## Introduction

Thank you for the opportunity to provide comment on the *Turning the Tide on Single-Use Plastic Products Discussion Paper*. We congratulate the Government of South Australia on the leadership it has consistently demonstrated in addressing many environmental issues including those related to packaging and resource reuse.

However, much remains to be achieved if Australia is to genuinely move toward the realisation of a circular economy through significantly improved resource utilisation. Key among individual materials to be addressed are the various plastics with "single-use" plastic products deserving of particular focus.

The AIEN published a communique in October 2018 entitled '*Accelerating the Transition to a Circular Economy: A Blueprint for Action on Plastics and Packaging*'. The document specifically addresses the broader question of plastics but its tenets are equally applicable to single use plastics where more sustainable reusable options are not readily available. Some of the commentary within this response to the *Turning the Tide on Single-Use Plastic Products Discussion Paper* reproduces elements of the ideas developed within the October 2018 AIEN communique. However, the AIEN requests the October 2018 communique be read in conjunction with this targeted response in order to ensure maximum clarity surrounds the communication of the positions being articulated.

Below we have provided a summary of our feedback in response to the Discussion Paper. We would be pleased to provide additional information or clarification of any points if required.

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## Responses to questions raised in the discussion paper

### 1. Do you consider single-use plastic products are causing environmental problems?

There is absolutely no doubt regarding the environmental, social and health menace posed by many plastic products, specifically including those that would be rightly also classified as single-use plastic products. The indisputable adverse environmental consequences associated with single-use plastic products include:

- **Littering.** The establishing of a mind-set of items being considered as "disposable". That mind-set needs to be reset to ensure what we purchase maintains a resource value throughout its life cycle. The Government of South Australia has clearly demonstrated a degree of leadership through its establishment and maintenance of its container deposit regime.
- **Marine and terrestrial pollution (other).** It's called waste because it's not wanted where it's located and it has no identifiable positive commercial value. Leakage from the established waste/resource recovery systems and indeed the entire absence of waste/resource recovery systems (mainly in the developing world) are all inevitable outcomes where a resource is considered valueless. We are coming to an increased understanding of the impacts of this on animal life and the entire food chain.
- **The increased GHG and resource footprints associated with the production of virgin plastic materials.** Various LCA analyses have shown the carbon footprint of single-use plastic items reporting to landfill is roughly 20 times the carbon footprint associated with manufacturing those same products using available plastic recycling technologies.

### 2. What do you consider to be the most important problem associated with single-use plastic products that needs to be addressed?

The most acute problem we collectively confront is the pollution being experienced as a consequence of our utilisation of plastics including single-use plastics. Plastics in general and single-use plastics in particular, inevitably result in pollution as a result of:

- Leakage/loss from material/resource management systems; and
- The almost total absence of material/resource management systems in many developing countries where plastics and single-use plastics are utilised.

The fundamental problem is the 'value' of the spent resource is less than the cost associated with collection, separation, shredding, washing, drying, granulation, etc, etc.

In part, we can collectively address this issue with bans on various applications for plastics. But realistically, the health security and convenience advantages (eg for maintaining food freshness) will always result in the utilisation of plastics and single-use plastic items.

The utilisation of single-use plastics must be minimised and the design of products must facilitate disassembly and separation/segregation of components. There is much to be achieved/improved upon in addressing these issues. However, lower cost recycling options are inevitably required because collectively, we simply will not forgo the health advantages and convenience of plastics.

To solve the most pressing pollution/litter issue, inevitably value adding recycling options must be developed. If the introduction of consumer deposit legislation teaches us nothing else, pollution and littering will be reduced where the waste plastics are assigned a 'value'.

## Plastic bags

**3. What are your views on extending South Australia's ban on lightweight single-use shopping bags to include thicker plastic bags? What would be the consequences of such action for community, businesses and the environment?**

The answer to 2. above already summarises the AIEN position. A reduction in the rate of pollution/littering can be achieved through reduced consumption of plastic bags (and other single-use plastic items). People may also be able to feel good about taking action but the real question is whether those actions have the desired effect in terms of outcomes and scale.

Banning plastic bags alone will not achieve the outcome required. We must certainly avoid using plastics and single-use plastics where possible. However, to minimise pollution/littering a value must be applied to the plastics after their initial use. Ideally that value will be achieved through the development of products, markets and technologies that 'value add' what is currently and generally without value. See the attached AIEN communique from October 2018 entitled '*Accelerating the Transition to a Circular Economy: A Blueprint for Action on Plastics and Packaging*'.

**4. Should all checkout bags and produce bags (i.e. for grocery items) be made from compostable (Australian Standard 4736-2006) material? What would the impacts be for retailers, consumers and industry? Would there be demand and flow-on benefits in establishing new industry to produce compostable bags here in SA?**

Designing for oblivion is not considered the best option when considering:

- Minimising our environmental footprint in terms of GHG inventories; and
- The desirability of achieving the highest net resource value (HNRV) (see definition in attached AIEN communique from October 2018 entitled '*Accelerating the Transition to a Circular Economy: A Blueprint for Action on Plastics and Packaging*'). Maximising the HNRV minimises the environmental, social and economic impacts of consumption.

If bio degradable plastics are the **only** means of avoiding pollution, they deserve to be supported. However, the AIEN is supportive of the development of products, markets and technologies that 'value add' whereby the inherent value of the plastic's properties is utilised again and again. It is considered such value adding technologies exist and the pursuit of these options should be given preference.

**5. What do you do with biodegradable, degradable or compostable bags once you have finished using them? What do you think about the idea of banning lightweight single-use shopping bags even those made from biodegradable, degradable or compostable substances, as has been proposed in other Australian jurisdictions?**

If bio degradable plastics are the **only** means of avoiding pollution, they deserve to be supported. However, the AIEN is supportive of the development of products, markets and technologies that 'value add' whereby the inherent value of the plastic's properties is utilised again and again. It is considered such value adding technologies exist and the pursuit of these options should be given preference. This prioritisation applies to South Australia as much as it does to any other jurisdiction.

## Straws, coffee cups and other items

**6. Do you think South Australia should introduce measures to address items such as single-use plastic straws and plastic-lined takeaway coffee cups? What other single-use plastic items or single-use products would you like to be considered for possible government intervention?**

The utilisation of single-use plastics must be minimised and the design of products must facilitate disassembly and separation/segregation of components. There is much to be achieved/improved upon in addressing these issues. However, lower cost recycling options are inevitably required because collectively, we simply will not forgo the health advantages and convenience of plastics.

Banning plastic straws and plastic lined coffee cups will not ultimately achieve the outcome required. We must certainly avoid using plastics and single-use plastics where possible. However, to minimise pollution/littering a value must be applied to the plastics after their initial use. Ideally that value will be achieved through the development of products, markets and technologies that 'value add' what is currently and generally without value.

## Excluded items

**7. What are your views on the list of items excluded (see page 30) and do you think there are others that do not require additional action or should be exempt from possible government intervention, and why? Are there exclusions that should be included? Why?**

The best thing the government could do is address the issues where market failure will stop/inhibit the development/emergence of a circular economy. This includes clear, unequivocal education messaging.

See the attached AIEN communique from October 2018 entitled '*Accelerating the Transition to a Circular Economy: A Blueprint for Action on Plastics and Packaging*'. The communique highlights the most beneficial points for government intervention in moving toward a circular economy. The communique particularly focusses on those intervention points with specific reference to issues surrounding plastics and plastic packaging.

## Labelling

**8. Do you think that labelling describing how to recycle or dispose of a product, or parts of the product is helpful to consumers? For which products would better product labelling enable better disposal?**

Consumers require information that is clear, concise and unambiguous. The systems and messages conveyed must be as consistent as is possible to ensure the messages do not become mixed-up and corrupted over time due to population mobility overlaying differences between the various jurisdictions. The AIEN calls on all Governments to get uniform systems and labelling working on a national basis.

With regard to information about product recycled content, Recommendation #2 within *Key Area 4 – End markets and Procurement* within the attached AIEN communique recommends: *"The Australian Government introduces a mandatory labelling scheme for recycled content in packaging."*

This requirement for increased information is equally applicable to the education of consumers regarding how and where to recycle various purchased products and packaging items.

However, as emphasised within the communique, we must work at all of the key areas in the closing the Circular Economy and should not continue to place the onus on consumers to comply with rules and protocols for separation, segregation and aggregation alone. Implementing such practices is of little benefit if appropriate attention is not paid to:

- Product and packaging design (Key Area 1 in attached communique);
- Collection and segregation (Key Area 2 in attached communique);
- Reprocessing with emphasis on local capacity (Key Area 3 in attached communique); and
- End markets and procurement (Key Area 4 in attached communique).

The AIEN urges both Government and Industry to give appropriate emphasis to all of these key areas.

## Business, retailers, manufacturers and importers

**9. If you are a South Australian based manufacturer or importer of any of the single-use plastic products mentioned in this discussion paper, what are your views on this topic? Do you have access to alternatives? Are there cost impacts that need to be considered as part of this discussion?**

NA

**10. If you are a retailer or business that sells, offers or provides single-use plastic products mentioned in this discussion paper, what are your views on this topic?**

NA

## Community

**11. As a consumer of single-use plastic products mentioned in this discussion paper, what are your concerns? What would you like to see done to address the problem(s) or concern(s)?**

The unequivocal messages of the AIEN are summarised in the attached October 2018 communique.

**12. Do you think government intervention is required in relation to single-use plastic products or other single-use items? If so, what type and in what timeframe?**

The unequivocal messages of the AIEN with respect to appropriate areas for government intervention, are also summarised in the attached October 2018 communique.

**13. Do you think that restricting the sale or supply of some single-use plastic or other single-use products for which there are more sustainable alternatives available is a good idea?**

Absolutely. We should always actively support more sustainable alternatives.

The AIEN seeks to look beyond incremental improvements in sustainability such as restrictions and bans on narrow ranges of products each contributing only slightly to the much wider problem. (The AIEN invites Government and Industry to adopt a similar position.)

Rather, the AIEN is focussed on the most sustainable end position for plastics and all other components of the 'waste' stream. The most sustainable end point is defined as approaching (to the maximum extent possible) a true circular economy in the management of all resources. All goods and/or services being reused/recycled to the maximum extent and in turn being able to be reused and recycled to the maximum extent possible.

The concept of striving to maintain the highest net resource value (HNRV) encompasses this. (see attached AIEN communique from October 2018 entitled '*Accelerating the Transition to a Circular Economy: A Blueprint for Action on Plastics and Packaging*', *page 3*.)

# ACCELERATING THE TRANSITION TO A CIRCULAR ECONOMY:

## A BLUEPRINT FOR ACTION ON PLASTICS AND PACKAGING

October 2018

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## Disclaimer

# Contents

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# Introduction

The AIEN is committed to the establishment of a full circular economy for the resources currently categorised as 'waste'.

The AIEN has a diverse membership numbering in excess of 200 individuals and businesses. Among its membership there are many fine resource recovery examples/case studies demonstrating the circular economy and its principles. The membership, however, remains fully aware that the current examples are merely case studies and that much effort will be required to achieve the revolution in materials management requisite to usher in circular economy as the resource management norm.

To this end, the AIEN has prepared this blueprint for prioritised action with respect to facilitating circular economy and start the circular economy 'flywheel' spinning.

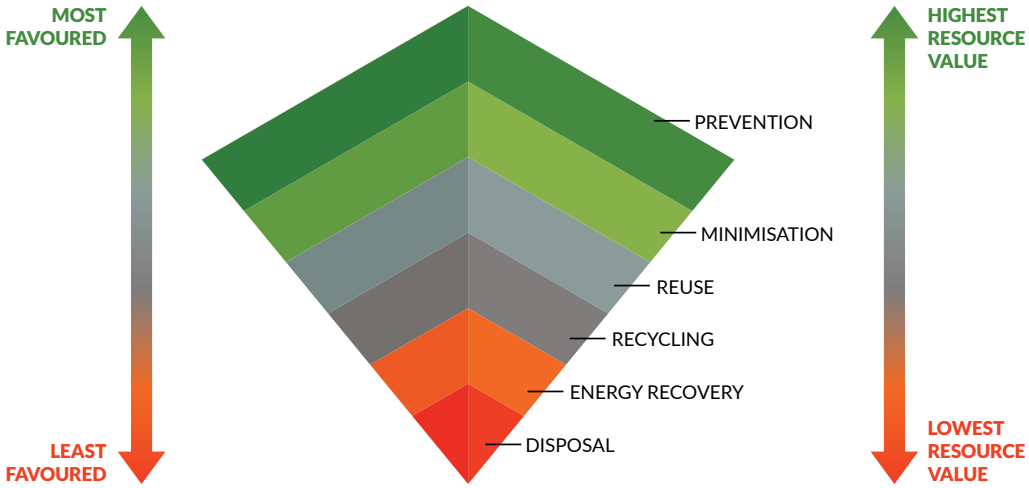
# Preamble - Circular Economy

The AIEN believes there are opportunities available for the recycling/reuse of mixed plastics, rubber, glass, timber, aggregates, as valuable resources in higher value add product markets. Further, the AIEN endorses the concept of Highest Net Resource Value (HNRV) as worthy of detailed consideration and promotion. It is a concept enshrined within the waste hierarchy, but with a more tangible and measurable output.

HNRV reflects an approach that seeks to achieve or retain the highest possible resource value from the materials under consideration, 'net' of the cost and effort to achieve such an outcome.

The waste hierarchy is normally presented only in the context of environmental/social good. The AIEN has re-imagined the waste hierarchy as representing the notional value applied to a given 'resource'.

At the low-end, disposal to landfill implies the generator places a negative value on the resource. At the high end, the generator places full commercial value upon the resource through avoidance and/or minimisation.




Any failure to properly consider the importance of the waste hierarchy and HNRV principles may result in losses in the longer term through stranded investment. When resource availability becomes a constraint, resources will always flow to those who can afford to pay the most for them. This is why over-investment in energy technologies is not recommended.

In certain circumstances, including remote geographic location, and small and highly diffuse resource quantities, there may be valid arguments that energy recovery represents the HNRV achievable for resources otherwise considered as wastes. However, it would be lazy in the extreme to settle for lower resource values simply for ease and expedience. Energy from waste should only be considered where:

- HNRV alternatives have been fully saturated with the resources they require. This means energy recovery activities are restricted to 'residual' resources not required by the higher value adding processes; or
- Where very unusual circumstances are such that energy recovery is the only feasible process for the recovery of economic value from resources that would otherwise be wasted in landfill.

# Blueprint for action

Existing policies and resource management frameworks have primarily focussed on raising awareness and placing obligations on manufacturers, importers, distributors and other persons in the following important areas:

- Separation and segregation of materials/components so as to avoid contamination;
- Aggregation of post-consumer materials/components; and
- Initial treatment of the post-consumer materials/components (in some cases).

The other important pre-requisites for a circular economy, however, include:

- Design of plastics and packaging to reduce waste and enable recycling at end of life;
- Processes and infrastructure to enable materials or components to be reused and/or recycled; and
- Establishment and support for consumer markets for the reused and/or recycled materials/components.

The AIEN believes a holistic Australian approach must incorporate these additional elements in order to successfully move toward a circular economy. The proposed actions and targets outlined in the Discussion Paper: *Updating the 2009 National Waste Policy*[1] are a commendable start, but they need to go much further.

Following the waste hierarchy, the National Waste Policy (NWP) discussion paper proposes a national target of an 80 per cent average recovery rate from all resource recovery streams by 2030.

AIEN's recommendations are outlined on the following pages, with a focus on four key areas: design, collection and segregation, reprocessing and end markets.

[1] http://www.environment.gov.au/protection/national-waste-policy/consultation-on-updating-national-waste-policy

## KEY AREA 1:

# Product and packaging design

The design stage provides the greatest opportunity to reduce waste at source and to ensure that products and packaging are designed for a circular materials flow.

### Progress being achieved

The NWP discussion paper proposes a national target to reduce the total waste generated per capita by 10 per cent by 2030. This is supported by a target to phase out problematic and unnecessary plastics by that same time.

The Australian Packaging Covenant Organisation (APCO) is working with its 1,100 members to improve packaging design through:

- Mandatory use of the Sustainable Packaging Guidelines (SPG) for all new and updated packaging;
- Development of the PREP design tool to assist manufacturers to design for recycling[1]; and
- Members being required to report annually on their progress in reducing and recycling packaging.

### Areas for improvement

The AIEN believes more urgent action is required and the proposed waste reduction target is too modest, with the time frame suggested being too great. If the current waste and resource recovery issues are to be satisfactorily addressed, strong government signals are essential in the following areas:

- Stringent packaging design criteria that minimise use of packaging materials;
- Product design criteria that create an environment where repair and reuse become the predominant end of life options; and
- Education programs for manufacturers and consumers to ensure behaviours are strongly aligned with waste minimisation/avoidance initiatives.

In the absence of clear evidence suggesting economic harm and/or major disruption associated with compliance issues, the AIEN would advocate for more stringent targets than suggested. A 10 per cent reduction in per capita waste by 2030 is considered insufficient. Waste minimisation initiatives related to product design may take time to work through the economy. Mandated initiatives related to minimisation of packaging quantities, types, and there similar can, however, be implemented in much shorter time frames.

Presently, there are problematic plastics being used that cannot be reliably removed from plastic waste streams using current infrastructure. The presence of these contaminating plastic items consistently results in the diversion to landfill of large quantities of otherwise recyclable material. Examples of these contaminants include PVC (present in a small proportion of beverage containers) and coloured PET. Even in small quantities, these contaminants destroy the value and markets for large volumes of otherwise recyclable plastics.

In line with international trends and actions (for example, Japan, South Korea, France and California), the AIEN calls upon the Australian jurisdictions to move rapidly toward banning PVC, coloured PET in drink containers and other plastic materials that adversely impact on current domestic recycling systems.

Consumers (households) also have a role in reducing their consumption of plastic shopping bags, straws and non-recyclable packaging. Governments could encourage this through a carefully targeted education program, supported by local councils and brand owners.

Finally, packaging suppliers and brand owners are disconnected from collection, segregation and reprocessing systems for their products at end of life. The new PREP design tool is helping companies to design for recovery, but more direct communication between packaging developers and recyclers would also assist.

[1] https://prep.org.au/main/content/home

## RECOMMENDED ACTIONS

1. The Australian Government and State and Territory Governments establish a more ambitious waste reduction target higher than 10 per cent by 2030
2. The Australian Government works with other jurisdictions, APCO and other industry stakeholders, to clearly identify 'problematic and unnecessary' plastics packaging for a potential ban under the Product Stewardship Act. At a minimum these should include:
    a. Single use plastic shopping bags;
    b. PVC bottles and containers;
    c. Coloured PET bottles and containers;
    d. Polystyrene packaging; and
    e. Plastic straws.
3. In recognition that government bans take some time to implement, APCO strengthen the Sustainable Packaging Guidelines to include a voluntary ban on problematic and unnecessary plastics including those mentioned above.
4. The Australian Government works with other jurisdictions, APCO and other industry stakeholders to develop an education program for households to encourage them to reduce their consumption of packaging.
5. AIEN works with APCO and key industry associations including Australian Council of Recycling (ACOR), National Waste and Recycling Industry Council (NWRIC) and Waste Management Association of Australia (WMAA) to develop closer links and communication channels between packaging developers and recyclers.

# KEY AREA 2:
# Collection and segregation

## Progress being achieved

Household packaging is collected for recycling through two primary systems:

- Drop-off points for packaging covered by container refund systems (all jurisdictions except Victoria and Tasmania already have or plan to introduce a scheme); and
- Co-mingled collections: mixed recyclables (rigid plastics, cardboard packaging, paper, aluminium cans, steel cans) are placed in the yellow-top lid for kerbside collection.

This provides a convenient system for consumers.

Co-mingled collections are sent to a Materials Recovery Facility (MRF) where they are sorted into different material streams depending on available end markets.

Other systems include:

- Drop-off services funded by brand owners and other stakeholders, for example, REDcycle for soft plastics, Paintback for paint containers;
- Commercial services that collect packaging from retailers, manufacturers and other sources.

## Areas for improvement

The main challenge at present is the level of segregation at MRFs. Import restrictions imposed by China, followed by several other Asian countries, have limited export markets, particularly for mixed paper and mixed plastics grades, and reduced prices (in some cases converting a positive value to a negative one).

MRFs are currently paid a gate fee to sort recyclables and send the segregated, baled materials to re-processors. Once fixed in a contract, the gate fee does not provide an incentive for the operator to invest in equipment or labour to positively sort any more materials for recycling, without a market value that can cover the additional cost.

A contributing factor to poor segregation and high costs at MRFs is the high level of contamination received by many operators. This includes non-targeted packaging like soft plastics, as well as general waste such as textiles.

Consumers need more education to help them 'recycle right'.

### RECOMMENDED ACTIONS

1. Local councils change MRF contracts to incentivise increased segregation of materials to increase the market value of collected packaging, for example, through more investment or slower throughput.
2. MRF operators, with the support of state government funding programs, invest in technologies to improve segregation and the quality of sorted materials.
3. The Australian Government works with other jurisdictions, APCO and other industry stakeholders to develop an education program for households to help them 'recycle right'. That is, source-separate correctly at home.

# KEY AREA 3:
# Reprocessing

## Progress being achieved

There are many companies in Australia that reprocess packaging into intermediate products like plastic pellets, or finished products like paper, plastic kerbing and furniture. AIEN members demonstrate many resource recovery examples/case studies espousing the circular economy and its principles.

## Areas for improvement

The AIEN is fully supportive of a national target to achieve a mean recovery rate of 80 per cent from all resource recovery streams, following the waste hierarchy, by 2030. The AIEN would add the following points to consider in relation to the proposed target:

- The 80 per cent average recovery rate must be a real measure of (otherwise) waste resources being utilised back in the productive economy. The diversion must be verifiable, and the utilisation of the resources at the various levels in the hierarchy must be reported. This will allow follow-up targets in aiming for higher value resource utilisation into the future. It would not be acceptable to the AIEN if the compliant recovery rate was based around high levels of energy recovery without further vision to move to higher levels in the waste hierarchy.
- In seeking to achieve the 80 per cent recovery target, governments must be cognisant that genuine and fundamental change is required, involving new entrants to the recycling/ resource reuse markets, new technologies and new marketing/commercial strategies. Simply funding or supporting new infrastructure for large industry incumbents will only result in improved transport, separation and segregation of the resource streams. The circular economy will only be realised when new processing technologies, new products and new markets are developed. Existing industry incumbents have a clear role but they are generally not best placed to develop new processing technologies, new products and new markets.
- The circular economy can only work once the resource management sector transitions from a supply push market (with rewards driven by gate fees), to a demand driven market with supply chain participants rewarded in accordance with the value they add. The circular economy is predicated on interrelated markets fully functioning as markets. The concept of a gate fee in resource recovery markets is ultimately as distorting to free trade/ markets as government subsidies or tariffs in other commodity markets. If the circular economy is ever to become a reality, the policy must accommodate this transition.

In summary, the AIEN believes any action in achieving 80 per cent resource recovery rates (or greater) must be predicated on the development of a genuine domestically based circular economy. It must not be based on, among others, interjurisdictional transport arrangements, interjurisdictional waste levy distortions, international disposal masquerading as commodity trading, long-term reliance on energy from waste strategies.

The prerequisites include:

- Introduction of new entrants into the recycling/ resource reuse markets, new technologies and new marketing/commercial strategies; and
- Transition to demand pull commodity markets for the reuse of preloved goods, recycled content within new goods and goods made exclusively from recycled content.

### RECOMMENDED ACTIONS

1. State and Territory Governments provide financial support for R&D, investments in new equipment, and market development activities, particularly those that will increase recycling of plastics or glass.
2. State and Territory Governments reduce approval times for new or expanded recycling facilities.

## KEY AREA 4:

# End markets and procurement

### Progress being achieved

Many organisations are purchasing products made from recycled materials, including recycled packaging. For example, many councils are working with manufacturers to trial innovative products such as asphalt made with soft plastics and glass.

Some multinational brand owners have targets for minimum levels of recycled content in plastics packaging. Additionally, large organisations are starting to work with recyclers to identify products that can be made from their own waste and then purchased by the organisation.

Further to the 2030 proposed target in the NWP discussion paper, an industry-led target was also announced, with 30 per cent average recycled content across all packaging[1].

Other proposed actions and targets in the NWP discussion paper include:

- All Australian governments to adopt sustainable procurement policies or guidance with measurable targets for use of recycled content by 2020;
- 30 per cent average recycled content in goods and products purchased by governments, by total volume, by 2025;
- National standards and specifications for high priority recycled materials or applications in place by 2020;
- Standardised national product labelling indicating the percentage of recycled content in packaging by 2020;
- Australian businesses adopt sustainable procurement policies or guidance with measurable targets for use of recycled content by 2025; and
- 30 per cent average recycled content in goods and products purchased by businesses, by total volume, by 2030.

### Areas for improvement

The AIEN questions whether an 80 per cent average resource recovery rate is consistent with a 30 per cent average recycled/reused/repurposed content across all goods and infrastructure procurement. If a genuine domestic circular economy is to be realised, there must be a degree of correlation between average resource recovery and average recycled/reused/repurposed content in procured goods and infrastructure across the economy. Without these resource recovery and resource utilisation targets being consistent, excess/surplus materials will inevitably arise, market distortions will result and unwanted consequences will almost inevitably occur. It is anticipated more ambitious resource utilisation targets are required to achieve this consistency. Detailed analysis of material flows (waste generated and products purchased) should be undertaken at a sectoral level to determine the most appropriate overall target as well as targets for individual product categories.

More work needs to be done by all stakeholders to increase demand for products made with recycled materials. The actions and targets in the NWP discussion paper, if approved, need to be closely monitored and enforced to ensure that they are met. All large organisations in the public and private sector need to look for opportunities to buy products with recycled materials. A model that is starting to work well is for organisations to work closely with recyclers on 'closed loop collaborations' that enable them to buy products containing their own waste streams.

Household consumers can also support end markets by purchasing products with recycled content. A national labelling scheme for packaging, as proposed in the NWP discussion paper, will assist but it needs to be mandatory.

1 http://www.environment.gov.au/minister/price/media-releases/mr20180926.html

## RECOMMENDED ACTIONS

1. The Australian Government and State and Territory Governments establish a more ambitious recycled content target than 30 per cent by 2030.
2. The Australian Government introduces a mandatory labelling scheme for recycled content in packaging.
3. The Australian Government closely monitors and reports progress towards the targets in the NWP.
4. Organisations in the packaging value chain, including packaging suppliers, brand owners and retailers, work with recyclers to identify and purchase recycled products that meet their procurement needs.
5. State and Territory Government organisations and local councils work with recyclers to target recycled materials in procurement, particularly for civil construction.

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