



COVER SHEET FOR SUBMISSIONS

Updating the 2009 National Waste Policy: Less waste, more resources

Overview

Feedback is invited on the discussion paper: *Updating the 2009 National Waste Policy: Less waste, more resources*. Submissions should be provided by 5pm (AEST), Friday 5 October 2018.

Contact details

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Submission instructions

Submissions are due by 5pm (AEST), Friday 5 October 2018. Late submissions may not be considered.

Where possible, submissions should be sent electronically, preferably in Microsoft Word or other text-based formats, to the email address below.

All submissions must include this cover sheet.

Submissions should be sent to:

Email: nationalwastepolicy@environment.gov.au

Post: GPO Box 787, Canberra ACT, 2601

Submission to the

**Updating the 2009 National Waste Policy:
Less waste, more resources**
Discussion Paper

5 October 2018

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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, canvassing 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 discussion paper - *Updating the 2009 National Waste Policy: Less Waste, More Resources*. The AIEN congratulates the Federal Government on this initiative and is fully supportive of the drive for improvement and targets for waste reduction, resource recovery and the diversion of waste from landfill.

The AIEN is committed to the establishment of a full circular economy for the resources currently categorised as 'waste'. The commitment of the AIEN is therefore fully aligned with the objects of the strategy.

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

To this end, the AIEN It is currently preparing a blueprint for prioritised action with respect to facilitating the circular economy and start the circular economy "flywheel" spinning.

This submission is forwarded at a time when the AIEN circular economy blueprint is nearing completion but remains a work in progress. However, this submission contains the relevant priority elements from the draft AIEN blueprint most directly aligned with the imperative for sympathetic government policy and supporting legislative/regulatory frameworks.

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

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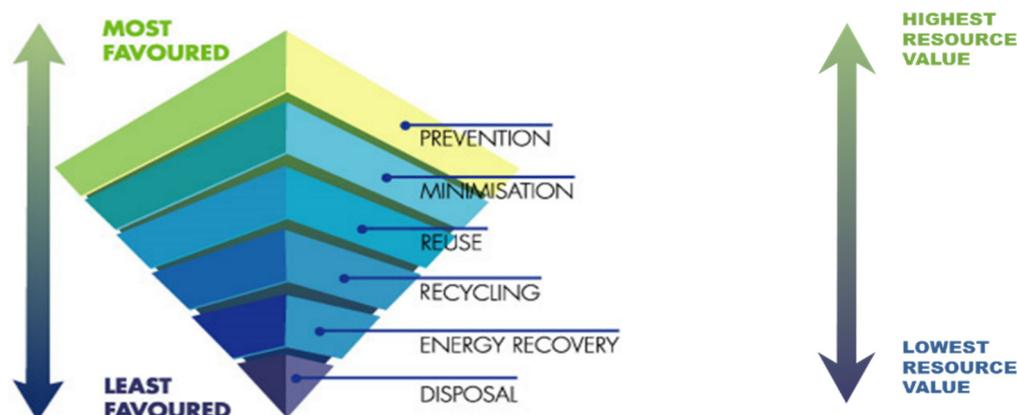
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Preamble - Circular Economy

There are existing opportunities available for the recycling/reuse of mixed plastics, rubber, glass, timber, aggregates, etc 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.



As a community, Australia has afforded insufficient attention to recycled product markets. It is recognised the waste hierarchy and the circular economy must be underpinned by markets to utilise reusable and recycled content.

The AIEN would urge all governments to more fully consider rewarding outcomes at the market/recycled product end of the resource management spectrum. Proper consideration of the complete resource recovery/management system (with emphasis on the critical role of markets for recycled products and content) will require/necessitate a significant coordination between waste policy, employment and industry policy, regional investment policy, etc being postulated as an element in a larger resource management picture.

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 overinvestment in energy technologies is not recommended.

In certain circumstances, including remote geographic location, small and highly diffuse resource quantities, etc, 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.

The ambition of Australia’s renewed approach to recycling and waste should be to foster the creation of a comprehensive resource management system. The AIEN would be supportive of all policies contributing to that outcome.

The objectives of a holistic circular economy approach to resource management must include:

- Clear obligations upon manufacturers, importers, distributors and other persons in relation to the mechanism by which ‘waste’ is to be avoided or eliminated from the utilisation of their products. A greater emphasis on product and packaging design is required. The current product stewardship regime is not considered to be adequately driving improvements to product design and packaging design to ensure reuse and recyclability.
- Clear obligations upon manufacturers, importers, distributors and other persons in relation to the mechanism by which ‘waste’ is to be harnessed as a resource for reuse and or recycling. (These are higher order resource utilisation options than either treatment or disposal.)
- Clear obligations upon manufacturers, importers, distributors and other persons in relation to the mechanism by which ‘waste’ impacts on the environment are to be minimised or how the overall greenhouse inventory (product creation, use, recycling, treatment, disposal, etc) of products is to be minimised.

Existing policies and resource management frameworks have primarily focussed upon raising awareness and placing obligations upon 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).

However, the other important pre-requisites for a circular economy include identification and/or establishment of processes and infrastructure to enable the materials/components to be reused and/or recycled and the establishment and support for consumer markets for the reused and/or recycled materials/components.

A holistic Australian approach must incorporate these additional elements in order to successfully move toward a circular economy.

Initiatives promoting circular economy principles will be inadequate, and ultimately fail, where they collectively fail to:

- Sponsor and/or promote resource utilisation facilities and technologies. Product stewardship schemes that can aggregate waste (at least contributing positively to litter reduction) while the materials/resources carefully separated and segregated by others are ultimately destined for landfill due to the underdeveloped nature of local/domestic recycling and resource reuse industries is still considered failure.
- Reward organisations/entities genuinely promoting recycling and reuse industries through their purchasing/procurement decisions.

Principle 1 - Avoid Waste

For comment: A national target to reduce total waste generated in Australia per capita by 10 per cent by 2030

Questions for comment:

- 1.1 Do you agree with the proposed target?
- 1.2 Is there a different target that should be included?
 - should we freeze waste generation at current levels, indexed against population growth?
 - should there be a target to reduce waste to landfill instead of a generation target?
 - should targets be set separately for municipal solid waste, commercial and industrial waste, and construction and demolition waste?
- 1.3 Do you agree with strategies 1, 2, and 3 and related proposed milestones? If you suggest others, please explain why.
- 1.4 What other action is required to meet the target?

- 1.1 The AIEN is broadly supportive of a national target to reduce the total waste generated per capita.
- 1.2 More urgent action is required. In short, the proposed target is too modest, and the timeframe suggested is too great. Strong government signals are essential if the current waste and resource recovery issues are to be satisfactorily addressed. The specific areas where strong government signals are required include:
 - Stringent packaging design criteria that minimises/eliminates the utilisation of excess packaging and unrecyclable packaging materials. Packaging must be strictly fit-for-purpose only in terms of its primary product safety and product efficacy functions;
 - 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% 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. However, mandated initiatives related to minimisation of packaging quantities, types, etc can be implemented in much shorter timeframes.
- 1.3 The AIEN fully supports strategies 1, 2 and 3 as presented. The timing and milestones associated with strategies 2 and 3 are considered reasonable. The milestone/target of halving food waste in Australia by 2030 is also supported by the AIEN.

Principle 2 – Improve Resource Recovery

For comment: A national target of an 80 per cent average recovery rate from all resource recovery streams, following the waste hierarchy, by 2030

Questions for comment:

- 2.1 Do you agree with the proposed target?
- 2.2 Is there a different target that should be included?
 - should targets only refer to recycling?
 - should there be separate targets for municipal solid waste, commercial and industrial waste and construction and demolition waste?
- 2.3 Do you agree with strategies 4, 5, 6 and 7, and related proposed milestones? If you suggest others, please explain why.
- 2.4 What other action is required to meet the target?
- 2.5 Who should be responsible for implementation?

- 2.1 The AIEN is fully supportive of a national target to achieve a mean recovery rate of 80% 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% 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% recovery target, the governments must be cognisant that genuine and fundamental change is required. This genuine and fundamental change will involve 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 where new processing technologies, new products and new markets are developed. Existing industry incumbents have a clear role, but they are **not** best placed to develop new processing technologies, new products and new markets.

Principle 3 – Increase use of recycled material and build demand and markets for recycled products

For comment: A national target of 30 per cent average recycled content across all goods and infrastructure procurement by 2030

Questions for comment:

- 3.1 Do you agree with the proposed target?
- 3.2 Is there a different target that should be included?
- 3.3 Do you agree with strategies 8 and 9 and related proposed milestones? If you suggest others, please explain why.
- 3.4 What other action is required to meet the target?
- 3.5 Who should be responsible for implementation?

- 3.1 Based upon the answer to Question 2.1 above, the AIEN questions whether an 80% average resource recovery rate is consistent with a 30% 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. 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. On this basis, the AIEN does not agree with the proposed 30% target.
- 3.2 Without consistency between these resource recovery and resource utilisation targets, excess/surplus materials will inevitably arise, market distortions will result, and unwanted consequences will almost inevitably occur.
- 3.3 The AIEN fully supports the thrust and intent of strategies 8 and 9 as presented. The timing and milestones associated with the strategies are not considered satisfactory where resource recovery and resource utilisation targets lack internal consistency.
- 3.4 See above answers under Principle 3.
- 3.5 See response to Question 2.5 under Principle 2.

Principle 4 – Better manage material flows to benefit human health, the environment and the economy

For comment: national targets to:

(a) phase out problematic and unnecessary plastics by 2030

(b) halve the volume of organic waste sent to landfill by 2030

Questions for comment:

- 4.1 Do you agree with the proposed targets?
- 4.2 Is there a different target that should be included?
- 4.3 Do you agree with strategies 10, 11 and 12, and related proposed milestones? If you suggest others, please explain why.
- 4.4 What other action is required to meet the targets?
- 4.5 Who should be responsible for implementation?

- 4.1 The AIEN is broadly supportive of national targets to phase out problematic and unnecessary plastics and to halve the volume of organic waste sent to landfill.
- 4.2 More urgent action is required. The proposed targets are too modest, and the timeframes suggested are too great. Strong government signals are essential if the current waste and resource recovery issues are to be satisfactorily addressed. Within the context of Principle 4 the specific areas where strong government signals are required include:
 - There are problematic plastics currently being used that cannot be reliably removed from plastic waste streams with current infrastructure. The presence of these contaminating plastic items is consistently resulting in the diversion to landfill of massive quantities of otherwise recyclable plastics. Examples of contaminating plastics are 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/actions (e.g. Japan, South Korea, France and California) the AIEN calls upon the Australian jurisdictions to move rapidly toward the banning of PVC, coloured PET in drink containers and other plastic materials that adversely impact upon current domestic recycling systems.
 - Given the potential for rapid advent of wider retail fruit and vegetable size acceptance criteria, anaerobic digestion systems, sophisticated high value composting systems, food exchanges, etc, the AIEN would advocate consideration of stronger/quicker organic reduction targets in relation to landfill.
- 4.3 The AIEN fully supports strategies 10, 11 and 12 as presented. The timing and milestones associated with the strategies are considered reasonable in some instances. Specific areas where more ambitious targets are recommended are included in the answer to Question 4.2 above.
- 4.4 See above answers under Principle 4.
- 4.5 Governments must take responsibility for setting the environment for the natural self-interest of market actors/players to be channelled into positive directions and activities.

Principle 5 – Improve information to support innovation, guide investment and enable informed consumer decisions

For comment: A national target for fit-for-purpose and timely data to be available for individuals, businesses, and governments to make informed decisions

Questions for comment:

- 5.1 Do you agree with the proposed target?
- 5.2 Is there a different target that should be included?
- 5.3 Do you agree with strategies 13 and 14 and related proposed milestones? If you suggest others, please explain why.
- 5.4 What other action is required to meet the target?
- 5.5 Who should be responsible for implementation?

- 5.1 The AIEN is supportive of a national target to provide fit-for-purpose and timely data for individuals, businesses, and governments in order for them to make informed decisions.
- 5.2 See above.
- 5.3 The AIEN fully supports the thrust and intent of strategies 13 and 14 as presented. The timing and milestones associated with the strategies are also considered satisfactory.
- 5.4 None offered in this submission.
- 5.5 Governments must take responsibility for setting the environment for the natural self-interest of market actors/players to be channelled into positive directions and activities. This specifically includes the basic information required in order for the desired/requisite behaviours to be demonstrated within the economy. Where government takes specific actions in directing markets that would otherwise fail, additional government responsibility is warranted and must be considered as a natural element of the market intervention.