

Response to the  
**Recycling and resource recovery  
infrastructure:  
Evidence base report**

October 2019

13 December 2019

# Introduction

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The Australian Industrial Ecology Network (AIEN) offers the following responses to the specific questions raised within Section 7.1.1 on page 31 of the Evidence Based Report dated October 2019.

The AIEN recently responded to the Victorian Government's invitation to make a submission in response to the Circular Economy Issues Paper in August 2019. That response is included as an attachment and the answers to the specific questions below are entirely consistent with the August 2019 response and indeed its submissions to all Australian jurisdictions seeking to adequately respond to the current resource management crisis.

## Attachments:

- AIEN Response to *A Circular Economy for Victoria: Creating more value and less waste* Issues Paper (2 August 2019)
- AIEN Submission to the *Victorian Parliamentary Inquiry into Recycling and Waste Management* (10 May 2019)

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## Have we identified the right outcomes for Victoria to aim for?

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The AIEN considers the outcomes presented at the heart of Figure 3 (pp 13) are among the right outcomes to aim for. Specifically, the AIEN supports:

- Landfill capacity being taken up slowly (if at all in a perfect circular economy model).
- Development and implementation of an effective, efficient, planned, protected, timely and safe **resource recovery** infrastructure network. The utilisation of the words ‘waste infrastructure network’ is considered to immediately place limits about the ultimate ambition which must include transitioning to a circular economy as an ideal.
- High rates of recycling, resource recovery and diversion from landfill. The AIEN contends that high rates of recycling and resource recovery must inevitably lead to high rates of landfill diversion?

The AIEN would request the language around the desired outcomes be reviewed. The desired outcomes must be aspirational and somehow reflect the longer-term goals. Although becoming somewhat laboured, perhaps the phrase “circular economy” could be used as it is consistent with the longer-term objectives. Phrases such as ‘high rates of landfill diversion’ are not considered sufficiently aspirational to be at the focus as desired ultimate outcomes.

## Have we identified the most effective potential actions for government to take?

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The AIEN considers the potential actions proposed by the government to be among those likely to be most effective. However, a dissection of the proposed actions by type is revealing.

### Section 5.1 Sector wide improvements

Policy development, development of standards for resource management, public education and a levy impact review are all offered among the actions. Each of these is considered important but to what end. The AIEN contends these issues must be managed to achieve the manufacture of products from recyclates. The starting point must be the products if recovered resources are ever to achieve real economic value. The objective must be to identify the means to ensure the recovered resources achieve genuine economic value in a ‘market pull’ situation. Once a path to that outcome is achieved, the market value will drive the requisite standards, the necessary public education messages and levy impacts will become increasingly irrelevant.

As an example, policy development, standards development, education regarding purity and the levy impacts on glass are highly relevant to the production of a sand substitute. The reason being the inherent product value is around \$15 per tonne and the ‘market pull’ is not there given the low economic value. Consider the relative importance of those same issues where product values of hundreds and thousands of dollars are potentially achieved. The inherent value of the end-product will drive all of those outcomes. There are some potentially great market opportunities for value adding glass and creating value for recycled cullet. It must all start with consideration of the end markets to be sought.

### Section 5.2 Support for reprocessing

Drive to reduce contamination (through education? or improved infrastructure?), *investment support for markets*, introduction of CDS, government guidance on infrastructure types and disincentivising use of virgin materials are offered among the actions.

The investment support for market development is considered very positive and is the most welcomed of the actions. Disincentivising use of virgin materials may also be useful but there are specific dangers. For example, disincentivising the use of virgin sands could well unwittingly move markets to devalue glass that could be utilised for higher resource values. See the discussion on Highest Net Resource Value (HNRV) within the attached paper entitled “AIEN Submission to the *Victorian Parliamentary Inquiry into Recycling and Waste Management – May 2019*”. The section entitled “*The Waste Hierarchy Fully Considered*” is recommended as a reference to the concept of HNRV and its critical importance in transitioning from a ‘supply push’ resource markets to a ‘market pull’ resource markets.

### Section 5.3 Better enable use of products containing recycled materials

The actions under this heading could be genuinely beneficial. However, the first example is likely to involve down-cycling of materials into roads. Presumably this involves ash, plastics and glass. These materials should only be considered for road building where that option represents the HNRV realisable for the resource. This down-cycling (or the potential for it) should not be considered the primary objective.

The next action is a revision to procurement guidelines. The National Waste Policy (NWP) already includes targets of 30% recycled content by 2030. Victoria has signed up to this target along with other jurisdictions. Given Government spending within Victoria (\$91.03 B in 2018) represents over 21% of the entire State’s Gross Regional Product (\$430.50 B in 2018) according to the Economic Development Australia website, there must be significant money and impetus already? In terms of market development, commanding that amount of purchasing power should allow for the mandating of certain goods to be procured only from recycled content. To do less is to abdicate one position of leadership the Victorian Government could easily occupy. There are many examples of SMEs in the resource recovery sector taking surplus resources from corporate Australia on the proviso they purchase, or cause to be purchased an equivalent tonnage of their products made from the recycled content. It is exactly this type of market support that will grow a Circular Economy.

### Section 5.4 Clarity for the WtE sector

The actions listed include review of policy settings, review of landfill levy policy settings and provision of guidance regarding preferred infrastructure types. Once again, these issues are considered important but WtE should only be considered where it genuinely represents HNRV. Market development and infrastructure for the manufacture of the higher value add products must come first.

### Section 5.5 High levels of organics recovery

The listed actions include improved separation/segregation systems, *investment in improved organics processing infrastructure*, guidance regarding water availability, further development of eco-labelling protocols and improved standards for use of composts, digestates, etc as fertilizers/soil ameliorants. The improved compost/digestate utilisation standards are a very necessary first step prior to significant investment in the investment in improved processing infrastructure provided the proposed products represent HNRV for the organics resource.

## Summary

The point being made is in relation to assessing the proposed government actions. Only those in blue involve some consideration/development of HNRV recycled product markets and the manufacturing infrastructure necessary to meet those HNRV markets once developed. In answering this question, it is fair to say the *Recycling and Resource Recovery Infrastructure Report – October 2019* does reference market development among the proposed actions. However, the AIEN seeks increased emphasis upon the identification and development of HNRV recycled product markets and the manufacturing infrastructure necessary to meet those HNRV markets.

As demonstrated, only 2 of the 19 proposed government actions directly address these critically important areas necessary for the transitioning to a circular economy. Section 6.3 properly discusses the importance of government action. With only 2 of 19 proposed actions directly addressing HNRV product markets and HNRV market development, the AIEN would encourage Infrastructure Victoria to reflect on whether sufficient emphasis has been afforded to the issues by way of action.

The AIEN would be most interested to examine whether the ratio of actions directed to development/implementation of product markets vs the total number of government actions/initiatives within the relatively successful Wales, South Korea, Germany, the United Kingdom and Netherlands jurisdictions, exceeds 10%.

## Which, if any, of the initiatives implemented in Wales would you like to see applied in Victoria?

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It's primarily about market development.

Success in that endeavour will create resource value for recyclates and the markets will then be in a position to respond positively. The recovered resources markets are failing because there is insufficient value created. I am not aware of any equivalent failures in markets where demand pull is creating value in excess of the cost involved in creating the product.

The AIEN would be pleased to work with the Victorian Government in identifying the correct mix of actions to drive quality resource separation/segregation, consumer behaviours, etc consistent with product market creation and product manufacturing infrastructure.

The AIEN specifically incorporates the less understood concept of Industrial Ecology in its name. The reason for this revolves around the importance of demand at every point in a healthy functioning eco-system. Where any element of an eco-system fails, demand dries up and the eco-system will fail. Resource management must also be viewed in a similar manner.

The AIEN would support any Welsh initiatives (or any other jurisdictions initiatives) that will serve to stimulate demand and afford resource value at every point around the circular economy.

## What do you think of the market design opportunities proposed to improve waste sector outcomes and efficiency?

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The AIEN encourages the Victorian Government to give additional emphasis to the issues raised in Section 6.4.2 in order to maximise the state-wide outcomes. The issues are raised but the suite of actions listed in Section 5 does not demonstrate sufficient emphasis is being afforded to development/implementation of product markets.

The *Recycling and Resource Recovery Infrastructure Report – October 2019* correctly notes that even the best international resource management jurisdictions face challenges in the development/implementation of product markets from recycle materials and/or components. The AIEN contends the challenges must not cause us to default to easier options such as reviews, policy settings, etc. Rather, these important individual tasks must be consistent with a master plan to create and sustain value added product markets for products made from recyclates.

## Where do you think government should focus their efforts to increase recycling and resource recovery? (for example, through setting targets, promoting consistency or funding local councils?)

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See all of the above. The AIEN would encourage the maximum allowable endeavour to commence with the identification /development of end -product markets followed by commitment to the identification of the technologies and infrastructure required to sustainably service those markets.

## Which materials or infrastructure types present the most opportunity in your region?

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The materials and infrastructure types must in aggregate deal with as much of the resource/waste stream as is possible without excessive duplication of function or excessive reliance on transport requirements prior to value being added. Government policy will be important at this point to ensure the infrastructure for the manufacture of recycled content goods is logical and regionalised to the maximum extent.

## What is a legislative barrier or enabler that you have encountered when trying to use recycled materials?

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The barriers are often not legislative. More often the aversion/resistance to considering products with recycled content is based upon perception, aesthetics, expedience (it easier if someone else takes all the product development cost risks), inappropriate application of standards, etc.

Government leadership in recycled product procurement decisions would involve challenging all of these issues internally. Investment in manufacturing infrastructure would be almost instantaneously if Government were to:

- Identify the purchases it makes that are both imported and produced using exclusively virgin materials;
- Broadcast those opportunities along with target quality requirements/specifications and price points to be achieved in order for recycled equivalent products to achieve preferred status; and
- Commit to long term off take agreements with manufacturers who achieve the quality and price point requirements.

