

Submission to the

Transforming Queensland's Recycling and Waste Industry Directions Paper

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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 *Transforming Queensland Recycling and Waste Industry Directions Paper*. We congratulate the Government on this Draft and are 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.

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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Part A - Waste Disposal Levy

The AIEN is broadly supportive of the re-introduction of the Queensland levy in order to:

- Minimise the incentive for trans-jurisdictional waste movements. It is understood there will remain differentials between Queensland and adjoining jurisdictions that could provide undesirable incentives to waste industry players; and
- Provided there is a clear intention to utilise the raised funds to assist in the creation of a 'circular economy'. There will be an inevitable temptation for Government to consider the funds as a useful augmentation for consolidated revenue.

If correctly pitched, the levy will provide incentive to those seeking to be responsible environmental citizens. However, if incorrectly pitched, the level of the levy will provide additional incentive to be involved in waste dumping etc as has been evidenced in some instances in NSW. The AIEN supports a harmonised and considered approach to implementing the levy that builds upon the existing knowledge base.

Part B - Resource Recovery, Recycling and Waste Management Strategy

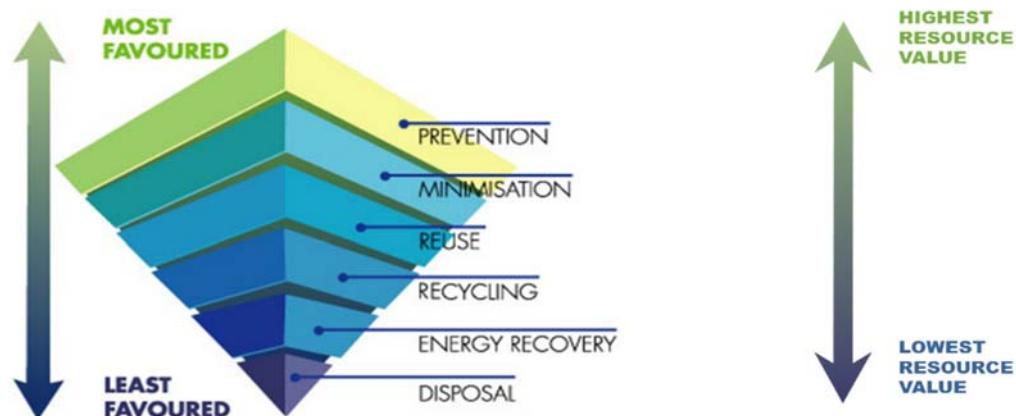
Point 1 – Encouraging/Fostering a Circular Economy Model in Queensland

It is clear in examining the narrative of the Transforming Queensland's Recycling and Waste Industry Directions Paper, those formulating the Queensland position are rightly conscious of promoting an environment to foster development of a circular economy. It has never been more imperative for the Australian jurisdictions to demonstrate leadership in the rebuilding and re-equipping of the recycled product and recycled content markets. It has been proven possible, with much of the metalliferous and paper fibre recovery activity genuinely being recycled into new products.

The AIEN believes there are equally, 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, Queensland (and indeed Australia as a whole) 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 the Queensland Government 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 Queensland’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 AIEN facilitates the very highly regarded Australian Waste to Energy Forum held in Ballarat each February. We would welcome and encourage the Queensland Government to attend and actively participate in the discussions at the next event to be held 19 – 21 February 2019. Full event details are available at www.aien.com.au/wteforum.

Point 2 – What Other Signals May Be Required?

The AIEN believes 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.

The AIEN believes the Queensland approach must incorporate these additional elements in order to successfully move toward a circular economy. An example may be the Queensland Government promoting the development of markets by stipulating minimum recycled content standards within their own procurement policies.

Point 3 – Learn from Shortcomings in Other Jurisdictional Approaches

As stated, existing product stewardship schemes 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).

Almost all other jurisdictions have overlooked the other important pre-requisites for a circular economy including 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.

In other words, support of a 'circular economy' has tended to only address the initial steps in returning the used materials as new products, thus maintaining their value in the productive economy. The AIEN advocates a co-ordinated approach by the Queensland Government to address and possibly mandate requirements regarding:

- Aspects of best practice product and packaging design to minimise resource use, particularly virgin resource use.
- The establishment of best practice resource recovery facilities **IN CONJUNCTION WITH** the establishment of best practice (genuine) recycling plants for the manufacture of new consumer goods from post-consumer resources.
- The establishment and support of markets for consumer goods produced from post-consumer resources. This could include carefully targeted requirements for:
 - Recycled content in certain product types;
 - Purchase/procurement of recycled content in other goods purchased by larger organisations responsible for the stewardship of significant quantities of post-consumer resources.

- Other reuse/recycling market supports by larger organisations responsible for the stewardship of significant quantities of post-consumer resources.

The AIEN believes any attempt to promote circular economy principles will be inadequate if it fails 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.