

Submission to the

**Review of the *Product Stewardship Act 2011*,
including the National Television and Computer
Recycling Scheme Consultation Paper**

29 June 2018

Table of Contents

WHAT IS THE AIEN? _____	1
INTRODUCTION _____	2
RESPONSE TO TOR 1 _____	3
The extent to which the objects of the Act are being met and whether they remain appropriate.	
RESPONSE TO TOR 2 _____	6
The effectiveness of the accreditation of voluntary product stewardship schemes and the Minister's annual product list in supporting product stewardship outcomes.	
RESPONSE TO TOR 3 _____	8
The operation and scope of the National Television and Computer Recycling Scheme.	
RESPONSE TO TOR 4 _____	10
The interaction of the Act with other Commonwealth, state and territory and local government legislation, policy and programs.	

APPENDICES

APPENDIX I _____	11
Product Stewardship Act Review Submission Supplement	

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 *Review of the Product Stewardship act 2011, including the National Television and Computers Recycling Scheme Consultation 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 scheme.

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

Contacts:

Colin Barker
Chairman
Australian Industrial Ecology Network
T: 0412 043 439
E: cbarker@newtecpoly.com.au

Veronica Dullens
Administrative Director
Australian Industrial Ecology Network
T: 0400 449 100
E: info@aien.com.au

Response to TOR 1

The extent to which the objects of the Act are being met and whether they remain appropriate.

- *Are the objects of the Act still relevant and appropriate?*
- *Are there significant gaps in the objects and the product stewardship criteria, e.g. are there possible outcomes of product stewardship schemes that would be desirable but would not fit under the existing legislation?*
- *Are existing product stewardship schemes such as the National Television and Computer Recycling Scheme, and Australian Government accredited voluntary arrangements such as MobileMuster and Fluorocycle effective in addressing the objects?*
- *Is the design of the Product Stewardship Act a significant determining factor, either positive or negative, in the effectiveness of product stewardship, or are other factors more important?*

The consultation paper (Review of the Product Stewardship Act 2011, including the National Television and Computer Recycling Scheme dated March 2018) paraphrases the objects of the scheme as follows:

- *Reducing the impact that products and substances contained in them have on the environment and people.*
- *This should be achieved by encouraging or requiring manufacturers, importers, distributors and other persons to take responsibility for those products throughout their lifecycle, including by taking action that relates to the following:*
 - *avoiding generating waste from products;*
 - *reducing or eliminating waste from products;*
 - *reducing or eliminating hazardous substances in products and in waste from products;*
 - *managing waste from products as a resource; and*
 - *ensuring that products and waste from products are reused, recycled, recovered, treated and disposed of in a safe, scientific and environmentally sound way.*
- *To contribute to Australia meeting its international obligations to reduce impacts products have on the environment.*
- *To contribute to reducing the amount of greenhouse gases emitted, energy used and water consumed in connection with products and waste from products.*

Are the objects of the Act still relevant and appropriate?

The AIEN considers the stated objects of the Act remain relevant and should not in any way be weakened or diluted.

Are there significant gaps in the objects and the product stewardship criteria, e.g. are there possible outcomes of product stewardship schemes that would be desirable but would not fit under the existing legislation?

However, the AIEN believes the objects of the scheme are not able to be fulfilled by the mechanics of the scheme at the present time. The salient issues in relation to this conclusion include:

- A lack of support, guidance, direction or clear obligation to/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 Act is not considered to be adequately driving improvements to product design and packaging design to ensure reuse and recyclability.
- A lack of support, guidance, direction or clear obligation to/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.)
- A lack of support, guidance, direction or clear obligation to/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 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).

The other important pre-requisites for a circular economy (as implied in the objects of the Act) 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 objects of the Act clearly call for support of a 'circular economy' but fully address only the initial steps in returning the used materials as new products, thus maintaining their value in the productive economy.

Rather than extend the reach of the current Act in attempting to 'bridge the gap' in fulfilling the promise of the circular economy, it is recommended the Product Stewardship Act be viewed in its proper perspective as one element (a very important first element) of a broader approach in maximising the reuse and recycling of materials within the Australian economy.

Since the tightening of import specifications for plastics and paper/fibre by China at the commencement of 2018, the limitations of Australia's approach to the establishment of a circular economy have been exposed. Through our broad collective failure to attend to reuse/recycling technologies, processes, infrastructure, recycled product markets and recycled product market support, our domestic incapacity to manage valuable post-consumer resources (otherwise referred to as 'waste') is now apparent. Australia in recent months has endured near daily analysis regarding the following potential crises:

- The potential for the demise of kerbside recycling (given insufficient domestic markets for separated 'waste stream' components).

- The potential for the demise of municipal recycling facilities (MRFs) (given insufficient domestic markets for separated 'waste stream' components).
- Potential for widespread renegeing on waste contract commitments by service providers (given insufficient domestic markets for their separated 'waste stream' components).
- The potential for longer term failure of container deposit schemes (given insufficient domestic markets for separated 'waste stream' components).

The AIEN requests a co-ordinated approach by the Federal 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.

In short, the Act is not driving progress toward some of its own stated objectives and complementary legislative/regulatory remedies are required to achieve the outcomes espoused.

Also, in some cases allows and encourages the exportation of recyclable material offshore to substandard facilities or landfills.

Response to TOR 2

The effectiveness of the accreditation of voluntary product stewardship schemes and the Minister's annual product list in supporting product stewardship outcomes.

- Has the accreditation of voluntary product stewardship arrangements been beneficial to those arrangements, their participants and stakeholders?*
- What would support the development of greater value in the accreditation process?*
- How can the accreditation process for voluntary product stewardship schemes better support the development of successful product stewardship schemes?*
- How can the development and use of the Minister's annual product list be enhanced?*

What would support the development of greater value in the accreditation process?

It is understood that many organisations covet accreditation and recognition. This is also true of accreditation to product stewardship programs where brand imaging can be an enormously important edge in marketing endeavours. With respect to brands and businesses, there are undoubtedly both genuine socially conscious motivations and motivations more related to image and/or market share at play.

The AIEN believes it is a good thing for businesses and organisations to strive for social and environmental recognition through commitment to genuine social welfare and environmental protection measures.

The important element in the recognition scheme is to give greatest reward and recognition to the entities contributing the most through their positive actions.

The AIEN questions whether it is enough to:

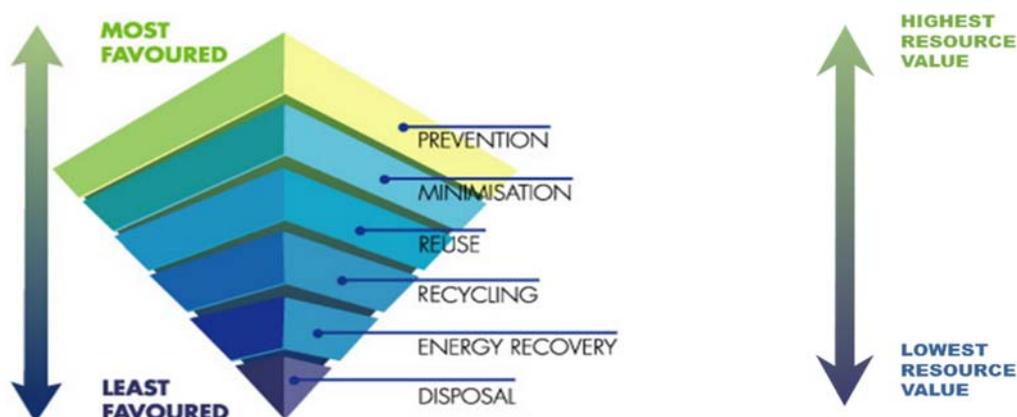
- Sponsor and/or promote product stewardship schemes that can aggregate waste (at least contributing positively to litter reduction) while the materials/resources carefully separated and segregated by others are ultimately destined for landfill due to the underdeveloped nature of local/domestic recycling and resource reuse industries?
- Reward organisations/entities at the aggregation end of the post-consumer goods and packaging spectrum when many of these organisations/entities do little or nothing to genuinely promote recycling and reuse industries through their purchasing/procurement decisions?
- Reward organisations/entities who actively promote and participate in recovery programs for products without first designing their products to enhance the recoverability or recyclability of said products / packaging/

It is clear in examining the objects of the product Stewardship Act, those formulating the Act had a wider circular economy agenda. It has never been more imperative for the Australian Government 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 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 the Australian Government to more fully consider rewarding outcomes at the market/recycled product end of the resource management spectrum. This focus need not be sought through application of the Product Stewardship Act as the sole instrument. However, 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 the Product Stewardship Act being postulated as an element in a larger resource management picture, rather than as a stand-alone instrument.

Proper utilisation of accreditation/recognition could be a useful tool in providing signals to markets regarding the resource management outcomes we collectively seek.

Response to TOR 3

The operation and scope of the National Television and Computer Recycling Scheme.

- *Are periodic updates to the scaling factors an adequate way of dealing with the export of products for reuse, or should further consideration be given to direct reporting of export for reuse?*
- *Are periodic updates to product codes and conversion factors an adequate way of ensuring the scheme remains accurate and fair for to liable parties, or should consideration be given to other approaches to allocating liability?*
- *Is intervention needed to ensure equitable distribution of collection services around Australia? If so, what should be done?*
- *Should co regulatory arrangements be required to report on the amount material sent for energy recovery?*
- *Should the amount of material able to be sent for energy recovery be increased beyond the current, implied limit of 10 per cent?*
- *Should the scheme be expanded to include other products? If so, what criteria should be used to determine what the products should to be included, and what factors would need to be considered in expanding the scheme?*
- *Are there improvements you would like to see to the scheme s administration, monitoring and compliance processes? If so, what are the highest priorities?*
- *Would you support legislative changes to enable administration of the scheme to be underpinned by cost recovery?*

Are periodic updates to the scaling factors an adequate way of dealing with the export of products for reuse, or should further consideration be given to direct reporting of export for reuse?

The AIEN believes that export for reuse should be a last resort treatment for recyclable material and the scheme should be tightened to restrict the activity and promote local recycling and reuse of that materials.

Should co regulatory arrangements be required to report on the amount material sent for energy recovery?

Yes, without question. The AIEN would strongly advocate for energy recovery to be limited to “residual” material only in accordance with HNRV principles.

Should the amount of material able to be sent for energy recovery be increased beyond the current, implied limit of 10 per cent?

The AIEN response in relation to TOR 2 and consideration of achieving the HNRV for all resources using waste hierarchy principles provides guidance in answering the question regarding increasing the implied 10% limit.

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 (highest net resource value) 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:

- Higher net resource value 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.

Should the scheme be expanded to include other products? If so, what criteria should be used to determine what products should be included and what factors would need to be considered in expanding the scheme?

The AIEN believes product stewardship leading to HNRV resource recovery systems should ultimately be applicable to all products.

The ambition of the product stewardship schemes and the Product Stewardship Act should be to play their roles in the creation of a comprehensive resource management system. The AIEN would be supportive of expansion of schemes (including product stewardship schemes) that can contribute to that vision.

Response to TOR 4

The interaction of the Act with other Commonwealth, state and territory and local government legislation, policy and programs.

- *Has the interaction between the Product Stewardship Act (including the National Television and Computer Recycling Scheme, accredited voluntary product stewardship arrangements and work on products listed on the Minister's product stewardship list) and state, territory and local government legislation, policy and programs been effective?*
- *How can interaction between the Product Stewardship Act and state, territory and local government legislation, policy and programs be enhanced?*
- *To what extent can, or should, product stewardship schemes support broader government objectives, and assist in adapting to changes in market conditions?*

How can interaction between the Product Stewardship Act and state, territory and local government legislation, policy and programs be enhanced?

For any PS act to be effective, all states and territories must actively enforce the act and ensure that state and local policy is in line with the national act.

Appendix 1

***Product Stewardship Act 2011* Review Submission Supplement**

To summarise and contextualise the broader potential of this
Product Stewardship Act review

Australian Industrial Ecology Network Pty Ltd

PO Box 5523, West Chatswood NSW 1515 ♦ ABN 44 601 455 743

t 1300 446 303 ♦ f 02 8624 4779 ♦ info@aien.com.au ♦ www.aien.com.au

Preamble

The main submission from the Australian Industrial Ecology Network (AIEN) to the review of Product Stewardship (PS) legislation has addressed each topic in the same order as it was presented for comment in the term of reference (TOR). This supplement is focused to explore both the broader waste management context, within which the Product Stewardship Act operates with particular emphasis on the collated benefits that can be achieved, mostly as a more detailed response to the question: - “How can the Product Stewardship Scheme support broader Government objectives?”

1. Synopsis of arrangements

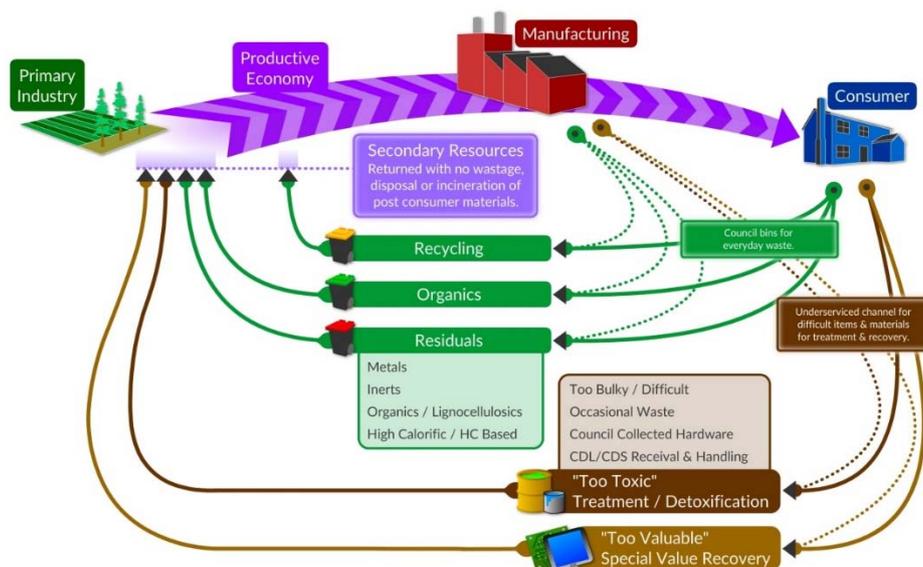
The comments in the next section about operating issues refer to the following current PS arrangements:

- The PS Act has defined objects that address specific artefacts (products and materials) listed in nominated sectors of the economy.
- Under the Act, businesses operating in these sectors are required to execute a business plan that satisfies their regulatory obligations.
- Each plan incorporates a system of linked processes, which provide for receipt, collection, aggregation, sorting and processing of post-consumer products and materials.
- Approximately 20 such schemes currently operate nation-wide (June 2018) (Table 2.1)

2. Placing Product Stewardship Initiatives in Context

NB: Herein we refer to Products (and Services) referring to all such materials that the community can purchase or acquire without a special permit or licence [i.e. the entire MSW and (>2 tonne loads) of C&I NOT restricted chemicals, explosive, armaments etc.]

Fig.1 provides a (summarised) aspirational view of a functioning Circular Economy, included to inform the following responses and suggestions.



- The solid flow lines reflect post-consumer product and material discards and material recovery flows.
- The dotted lines summarise C&I discard and material recovery flows.

In the pursuit of the objective to ultimately recover the “maximum resource value at the least cost/unit or item”, the optimised participation of the community to discard all spent or end of life products and materials into clearly identified resource recovery channels as is practical, is essential.

Fig.1 promotes a more general waste management approach whereby only three such readily available discard options are made available: -

i. First Stream Materials

Yellow bin – traditional dry recyclable, sorted and MRFs to produce the higher quality recyclates, most of which will eventually be “shandied” with virgin resources in the manufacture of the new plastic, paper/card, glass, metal products and items.
(NB: Whilst this recovery channel is well established, there is room for greater emphasis on recyclate quality and product range and to include additional input materials.)

ii. Second Stream Materials

Red bin – “residual” MSW, destined for existing, planned and future “non-disposal to landfill or incineration” options that do/will receive and process these materials to generate “secondary material” streams, which, themselves will support the manufacture of secondary products.

iii. Third Stream Materials

Every other spent or no longer wanted product material, as approximated in Table 2.1, currently have only two possible/available discard options (a) to be placed in the Yellow or Red bins, which will both negatively affect the quality of any possible secondary product made from the recovered materials, whilst failing to properly process these materials which resent as “too toxic”, “too valuable” or “too bulky” if so processed, or be discarded at anyone of a myriad of alternative discard options as Table 2.1, all of which involve “drop off” or “bring back”.

Neither of these options represents a sustainable position in relation to the achievement of “maximum resource recovery at the lowest practical cost/unit or item.

In summary, we describe these as “too toxic” “too valuable”, or “too bulky” as to be properly managed by any other method, and these same materials feature significantly in the list of both current or potential Product Stewardship Act materials and so this AIEN review/response into the Product Stewardship Act makes the point that not only could existing schemes be operated much more efficiently if they shared much of the essential systems and infrastructure they current use, but that in so doing, an even wider range of “third stream” materials could be received for a genuinely HNRV outcome as an inherent collateral benefit.

Table 2.1 – Description of “Third Stream” Products and Materials

A non-exhaustive list of products best suited to post consumer discard/aggregation/beneficiation and reprocessing (aka “too toxic” “too valuable”) via nationally available, commonly branded “drop off” centres or facilities	
<ul style="list-style-type: none"> a) WEEE b) Paints and coatings c) H.H.W.'s d) Refrigerants e) Batteries f) Lighting and flouro's g) White goods h) Brown goods i) Clothing and textiles j) Ag. Chemical containers k) Treated timbers l) Carpets 	<ul style="list-style-type: none"> m) Mattresses n) CDL/CDS containers o) Charity furniture/clothing/bric-a-brac p) Unused medicines and pharmaceuticals q) Tyres r) Oils s) Printer cartridges t) Appliances u) Garden chemical and implements v) Specialty plastics (e.g. PVC) w) Building materials x) Motor parts/scrap
<p>All these materials have in common that: -</p> <ol style="list-style-type: none"> 1. They can and do present in existing C&I (<2 tonne/loads) and post-consumer waste flows 2. If processed with Red, Yellow (or Green) lidded bin waste flows: - <ol style="list-style-type: none"> i. Their inherent value or toxicity will not be optimally addressed or realised; ii. They will severely devalue any secondary resource that could otherwise be manufactured from these generic flows; and iii. The objects of the Product Stewardship Act will not be realised. 	
<p>These materials currently present as: -</p> <ul style="list-style-type: none"> a) <i>The existing and potential Product Stewardship recognised products (Appendix A)</i> b) <i>Council hard waste collections and drop offs</i> c) <i>SMEs/Trades (>2 tonne loads) ratepayers</i> d) <i>Charity operations/community bins etc.</i> e) <i>CDC/CDS</i> f) <i>Voluntary industry “bring back” and/or “drop off for refund” schemes.</i> 	

3. Operating Issues in Practice

The following points are made in relation to PS operations in practice and problems associated with those operations.

- As a result of each producer operating its own business plan, independently of all the others, there is plethora of different PS systems, which in some respects excessively duplicate operating resources such as transport, sorting and down-stream processing.
- The plethora of independent schemes offers a variety of options for consumers to dispose of artefacts, such as ‘bring back’ or ‘drop off’ sites. As a direct consequence, consumers experience inconvenience in, or uncertainty about, discarding artefacts.
- In circumstances of consumer uncertainty etc. there is significant risk of products or materials being discarded inappropriately in municipal waste disposal systems, such as red, yellow and green topped kerbside collection bins.

- Disposal as municipal solid waste (MSW) has two deleterious effects on resource recovery. Processing MSW is significantly sub-optimal with regard to recovering PS artefacts at their highest current net value, which is the overarching purpose of PS arrangements. Artefacts discarded with MSW may contaminate that waste stream to the extent that components, such as organic material, cannot be recovered beneficially
- The points about consumer disposal of artefacts are particularly relevant in the context of extending the range of artefacts, as suggested in the AIEN submission.

4. Suggestions to Improve Product Stewardship Systems

The following suggestions relate to ways in which the PS Act could alleviate the operating issues mentioned above.

- Encourage collaboration between the various schemes to optimise operational resources, such as transport, so as to optimise the economic efficiency of resource recovery.
- Promote the establishment of a national network of commonly branded 'points of first receipt'. That is, the bring-back, drop-off, and similar facilities, which can be accessed in a convenient location and that will enable consumers to discard any "third stream" products or materials appropriately.
- Promote the style, general type of location and identification of 'points of first receipt' to be uniform nationally so that consumers are accustomed to disposing of such "third stream" products or materials.