



**Review of the Product Stewardship Act 2011,
 including the National Television and Computer Recycling Scheme
 Coversheet for Submissions**

Overview

The Department is actively seeking input from industry, governments, and the general public to ensure the ongoing effectiveness of the Product Stewardship Act 2011 (the Act) and that it's delivering the best outcomes for business and the environment.

The Act is required to be reviewed five years after commencement, and this is the first review. The Department of the Environment and Energy will undertake the review and may also engage external service providers to provide input or advice on specific matters.

During the review, the Department is collating views from a number of inputs, including consulting publicly to develop findings and recommendations.

A paper has been developed to guide the consultation process and provide information to stakeholders who would like to give input.

- **Review of the Product Stewardship Act 2011, including the National Television and Computer Recycling Scheme—consultation paper**

Stakeholders can also interact with the review by attending a public consultation forum. These meetings will be held in capital cities around Australia from April.

Your contact details

Name of organisation (where applicable)	Australia and New Zealand Recycling Platform Limited
Name of author	Warren Overton and Carla Vasconi
Contact person (If not the author)	Warren Overton
Phone number	03 9020 2222
Email	warren.overton@anzrp.com.au
Address	Level 5, 455 Bourke Street Melbourne VIC 3000
Website (optional)	www.anzrp.com.au

Submission Guide

How to provide your comments



Your views and submissions on the matters outlined in the consultation paper are welcome and will be used to inform the report to the Minister. You are encouraged to provide comments on any stage of the consultation process.

You are invited to consider:

- Whether the matters listed in the consultation paper should be considered in the review
- Based on the Terms of Reference outlined in the paper, what matters you would like to see addressed in the review
- Which matters are of highest priority
- How priority matters might best be addressed.

These questions are suggested for guidance only and are not intended to limit the matters raised in your submission.

Submission instructions

Submissions are due by 5:00pm AEST, 29 June 2018. Any submissions received after this date will be considered at the Government's discretion.

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

All submissions should include this cover sheet.

Submissions can be forwarded to:

wastepolicy@environment.gov.au

Alternatively, submissions may be posted to the address below to arrive by the due date:

Attn: The Director
Environment Standards Division
Stewardship and Waste Section
Department of the Environment and Energy

GPO Box 787
Canberra ACT 2601
Australia

For further information, please call 02 6274 1618.



Confidentiality and privacy

The Department will treat all submissions as public documents, unless the author requests the submission be treated as confidential.

Public submissions will be published in full on the Department's website. The Department will publish the name of the individual or, name of the organisation (if applicable) and state or territory with your submission.

A request may be made under the *Freedom of Information Act 1982* (Commonwealth) for a submission marked 'confidential' to be made available. Such requests will be determined in accordance with provisions under that Act.

The Department will deal with personal information contained in, or provided in relation to, submissions in accordance with this cover sheet and its Privacy Policy (www.environment.gov.au/privacy-policy). Personal information is collected for the purposes of identifying authors of submissions. It may be used and disclosed within the Department and to other persons for the purposes of carrying out the review, and otherwise as required or permitted by law.

Do you want this submission to be treated as confidential? Yes No

29 June 2018

Deepthi Worthing
Acting Director
Environment Stewards Division, Stewardship and Waste Section
Department of the Environment and Energy
wastepolicy@environment.gov.au

Dear Deepthi,

The Australia and New Zealand Recycling Platform Limited (ANZRP) is an approved Co-regulatory Arrangement under the *Product Stewardship Act 2011* (the Act). It is a not-for-profit organisation funded by over 50 Liable Parties (Members) in order to meet their liabilities under the National Television and Computer Recycling Scheme (NTCRS). Our Members include global technology companies, many of whom are leaders in corporate responsibility and have established global external producer responsibility schemes.

A number of ANZRP's Members were part of the industry group that drove the implementation of product stewardship legislation in Australia. ANZRP represents, on behalf of its Members, approximately 45% of the Scheme Target and has recycled in excess of 135,000 tonnes of e-waste in its own right. ANZRP's Members demand and uphold strong principles in and around product stewardship, together with a commitment to meeting standards for delivering sound environmental outcomes.

The Act and NTCRS are important policies in Australia and ANZRP supports their continuation and enhancement given the significant environmental and socio-economic benefits the NTCRS has delivered, including:

- Provides free drop-off and recycling services to the public and SMEs at over 1000 metropolitan, regional, rural and remote locations.
- Recycled and therefore diverted from landfill approximately 282,255 tonnes of e-waste resulting in avoiding 341,246 tCO₂e emissions since 2012.
- Resulted in investment in new technologies, increased employment and significantly improved work health safety (WHS) and environmental management practices by Scheme recyclers leading to a more efficient and vibrant e-waste recycling industry.

ANZRP welcomes the review of the Act and the NTCRS and has responded to each of the terms of reference (TOR) of the Consultation Paper in our attached submission.

Sincerely,



Warren Overton
CEO

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?

The objects of the Act are still relevant and appropriate, but other product stewardship outcomes should also be addressed given community attitudes, industry initiatives and international trends:

- Circular economy:** there are numerous examples of international governments, industries and companies actively moving towards a circular economy – where products, components and materials are kept at their highest utility and value for optimal durationⁱ. Including the circular economy in the Act is in line with recommendation 1 of the Senate Inquiry to the waste and recycling industry (Senate Inquiry) as well as the commitment made by the Meeting of Environmental Ministers on 27 April 2018 to update the National Waste Policy to include circular economy principlesⁱⁱ.
- Developing local recycling infrastructure and end markets for recycle:** the ABC’s War on Waste series and media coverage of the China National Sword Policy have resulted in the community demanding that Australia recycles its own waste instead of exporting it to offshore recyclers. As such, the Act needs to encourage the use of recycled materials in products in line with recommendation 8 of the Senate Inquiryⁱⁱⁱ.
- Designing for reuse and recycling:** there are many product manufacturers, both in Australia and overseas, who are designing products and implementing take-back systems to ensure their products can be reused or recycled as efficiently as possible. The Act should focus on improving design in line with recommendation 14 of the Senate Inquiry^{iv}.

Are existing product stewardship schemes such as the NTCRS, and Australian Government accredited voluntary arrangements such as MobileMuster and Flurocycle effective in addressing the objects?

The below table details whether the NTCRS addresses the objects of the Act.

Table 1: Objects of the Act in relation to the NTCRS

Object of the Act	Applicability to NTCRS
Reducing the impact that products and substances contained in them have on the environment and people.	Not specifically covered by the NTCRS. However, the NTCRS diverts e-waste from landfill. This in turn avoids hazardous substances contained in e-waste from contaminating landfills and causing human health impacts.

Object of the Act	Applicability to NTCRS
Avoiding waste generation from products.	Not specifically covered by the NTCRS. The NTCRS focuses on recycling e-waste that has already been generated and diverting it from landfill.
Reducing or eliminating waste from products to be disposed of.	Not specifically covered by the NTCRS. The NTCRS focuses on recycling e-waste that has already been disposed of and diverting it from landfill. However, many Liable Parties are light weighting or converging e-products which will reduce e-waste generation when they reach their end of life.
Reducing or eliminating hazardous substances in products and their waste.	Not covered by the NTCRS. However, many Liable Parties are redesigning e-products with reduced hazardous substances (e.g. moving from CRT to flat panel televisions and monitors has reduced the generation of leaded glass waste) and are compliant with the European Union (EU) Restriction of Hazardous Substances Directive (RoHS). Due to the majority of NTCRS-covered products being manufactured offshore, Australia benefits from legislative requirements of other jurisdictions such as the EU, UK, Canada and USA.
Managing waste from products as a resource.	Covered under the NTCRS via the Material Recovery Target. However, downstream material tracking should be more transparent to confirm percentage of materials recovered (refer to TOR 3). Several Liable Parties are also actively increasing the level of recycled content in e-products. However, an issue is that the NTCRS is a co-regulatory model, so the different Co-regulatory Arrangements compete for Liable Parties, available e-waste and access to collection points. This has led to price competition, inhibited collaboration to achieve collection and transport efficiency, driven the recycling price down to a negative value for some e-products and lower levels of compliance in some instances.
Ensuring that products and waste are reused, recycled, recovered, treated and disposed of in a safe, scientific and environmentally sound way.	Ensuring that e-waste is recycled, recovered, treated and disposed of in a safe, scientific and environmentally sound way is covered under the NTCRS. However, ensuring the same for 'recycled' e-waste (i.e. disassembled or shredded e-waste ¹) handled by downstream processors, especially those located offshore, is not adequately addressed by the NTCRS as AS/NZS 5377:2013 certification audits of recyclers do not adequately cover downstream material traceability to final disposition and evidence to confirm Co-regulatory

¹ r.1.03 of the *Product Stewardship (Televisions and Computers) Regulations 2011* defines 'recycle' in relation to a television or computer product as the initial processing of the product for the purpose of recovering useable materials, and includes disassembly or shredding of the product.

Object of the Act	Applicability to NTCRS
	<p>Arrangements' material recovery percentages are not checked (refer to TOR 3).</p> <p>In addition, reuse is not covered by the NTCRS. Reuse (including repair, refurbishing and remanufacture) should be included in the NTCRS given its environmental and social benefits (refer to TOR 3).</p>
<p>Contribute to Australia meeting its international obligations to reduce impacts products have on the environment.</p>	<p>A key Federal Government commitment are the UN Sustainable Development Goals, in particular, goal 12.5 "by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse"^v. The NTCRS supports this commitment, however, could further support it by encouraging and recognising reuse and expanding the scope to other product classes (refer to TOR 3).</p> <p>A relevant international obligation is the Basel Convention, and the NTCRS is not adequately supporting Australia's commitment to it. Hazardous e-waste components (e.g. printed circuit boards and batteries) are being exported under hazardous waste permits due to lack of processing capacity in Australia. Further, it is alleged that illegal exports of e-waste are taking place under the following scenarios:</p> <ul style="list-style-type: none"> • Export of working e-product and possibly non-working e-product under relevant tariff codes without a permit. • Export of e-product (most likely non-working) under unrelated tariff codes or scrap codes.
<p>Contribute to reducing the amount of greenhouse gases emitted, energy used and water consumed in connection with products and waste from products.</p>	<p>Covered under the NTCRS in relation to waste from products. Recycling e-waste and diverting it from landfill results in reducing greenhouse gas emissions and energy and water consumption (refer to TOR 3).</p>

Is the design of the Product Stewardship Act a significant determining factor, either positive or negative, in effectiveness of product stewardship, or are other factors more important?

The design of the Act (and its underpinning regulations) is a significant determining factor in the effectiveness of a product stewardship program. It provides an effective umbrella to then develop specific program legislation, and it is the legislation that has the major influence on product stewardship. This includes the process of publishing products being considered for accreditation or regulation (the Minister's annual product list)(see TOR 2).

However, there are also other determining factors such as:

- the number of Liable Parties in the industry
- whether there are Liable Parties who are product stewardship leaders and therefore influence other Liable Parties
- the extent of participation of stakeholders who are not Liable Parties or arrangements e.g. waste collectors and sorters, recyclers and retailers
- the level of support and oversight provided by the Department of the Environment and Energy (the Department) e.g. communicating and promoting the product stewardship programs and enforcing the Act and its underpinning regulations where applicable
- the capacity of the recycling industry in Australia
- the level of engagement and interaction between the Department and State, Territory and Local Governments.

TOR 2: The effectiveness of the accreditation of voluntary product stewardship schemes and the Minister's annual product list in supporting product stewardship outcomes

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?

Accreditation of voluntary product stewardship schemes has the potential to yield better outcomes if accreditation conditions clearly identify:

- roles and responsibilities of the accredited arrangement
- required participation rates and collection/recycling levels
- transparent reporting requirements
- health, safety and environmental standards and codes of practice
- governance and assurance requirements (of both the arrangement and the Department)
- funding mechanisms that drive efficiency and continual improvement.

Accreditation has the potential to raise the profile of product stewardship schemes and increase participation rates via use of the Australian Government product stewardship logo, particularly if supported by a Government awareness and communication campaign.

How can the development and use of the Minister's annual product list be enhanced?

The Minister's annual product list is useful for industry and State, Territory and Local Governments and should be retained. However, the process for developing the list has not been very transparent in the past with minimal industry involvement. As such, a formal consultation process or the re-establishment of the Product Stewardship Advisory Committee incorporating industry representatives and other key stakeholders (e.g. waste collectors and sorters, recyclers and retailers) could enhance the process.

The development of the Product Impact Management Strategy is likely to enhance how the Minister's annual product list is used to prioritise products requiring a national strategy to reduce their environmental impacts. It will also provide more transparency to industry on what activities the Commonwealth and State and Territory Governments are working on (including deadlines), and therefore how industry can get involved. Given the intended collaboration between the Commonwealth and State and Territory Governments, it will also hopefully avoid the possibility of the states and territories taking action in lieu of a national approach. For example, the Victorian Government proposing to ban all e-waste from landfill before a product stewardship scheme with robust and compliant collection

and recycling channels for all e-waste items was in place, i.e., before the NTCRS had been expanded.

TOR 3: The operation and scope of the NTCRS

The NTCRS has achieved significant environmental and socio-economic benefits including:

- Provides a free drop-off and recycling service to the public and SMEs. In 2016-17 there were 1086 permanent drop-off sites and events across the country in metropolitan, regional, rural and remote locations².
- Resulted in the recycling of approximately 282,255 tonnes of e-waste and therefore landfill diversion since 2012^{vi}.
- Currently recycles approximately 2.2 kg of television and computer products per person in Australia³.
- Resulted in avoiding 341,246 tCO₂e emissions since 2012⁴. This is due to the benefits associated with avoiding the production of virgin materials, in particular iron, aluminium, copper and platinum group metals.
- Resulted in investment in new technologies, increased employment and significantly improved work health safety (WHS) and environmental management practices by Scheme recyclers. This has led to a more efficient and vibrant e-waste recycling industry which is key to the NTCRS's success.
- Supports local recycling jobs in Australia. During 2017-18, Co-regulatory Arrangements used 29 recycling facilities located in Adelaide, Brisbane, Canberra, Launceston, Mackay, Melbourne, Sydney, Perth and Wagga Wagga with six of these facilities being social enterprises⁵.
- Supports the transport and logistics sector transporting e-waste from collection points to recyclers nationally.

The NTCRS should be supported and enhanced to ensure further benefits are achieved on-going.

² Co-regulatory Arrangement annual reports for 2016-17 were accessed from <http://www.environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme/coreg-arrangements>. Drop-off services and events offered by each Co-regulatory Arrangement during 2016-17 were obtained from each Co-regulatory Arrangement report and summed to calculate the total.

³ Based on the 2017-18 Scheme Target of 55350270kg and the Australian population reported in the ABS 2016 Census.

⁴ Based on a carbon life cycle assessment performed for ANZRP. ANZRP engaged Lifecycles to calculate the average carbon footprint value for recycling one tonne of mixed television and computer waste using the life cycle assessment methodology in 2016-17. The assessment included emissions associated with the collecting, recycling and the downstream processing of e-waste and the benefits associated with avoiding the production of virgin materials. It was found that when ANZRP recycles 1t of e-waste this resulted in a saving of 1.209 tCO₂e emissions.

⁵ Co-regulatory Arrangement annual reports for 2015-16 were accessed from <http://www.environment.gov.au/protection/national-waste-policy/television-and-computer-recycling-scheme/coreg-arrangements>. Recycling facilities utilised by each Co-regulatory Arrangement during 2016-17 were obtained from each Co-regulatory Arrangement report.

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 recent announcement by the Department that the scaling factors for computer and printer products have been changed to 0.72 and 0.71 respectively based on Customs export data is welcomed. Scaling factors should be periodically reviewed (e.g. biennially) using Customs export data and then adjusted as required in order to ensure accurate estimates of waste arising.

However, it would be more accurate to calculate waste arising using a direct reporting regime for used computer and printer products exported for reuse (i.e. repair, refurbishment and direct reuse). This reporting could be mandated in the *Product Stewardship (Televisions and Computers) Regulations 2011* (the Regulations) for Liable Parties and include their contracted agents performing export. As many exporters of used computer and printers for reuse are not Liable Parties and therefore cannot be required to act under the Regulations, their reporting regime will need to be voluntary (self-reporting) or preferably incorporated under export requirements (e.g. as part of the evaluation and testing of used equipment destined for direct reuse requirements of the Basel Convention Technical Guidelines). Reporting of this information would help to monitor stocks and flows of e-products and e-waste and is important for making business cases for investment in new refurbishing, remarketing and recycling infrastructure in Australia.

Further, reuse (whether domestic or international) results in greater benefits to the environment over recycling and keeps e-products at their highest utility and value for longer. It also provides more affordable IT solutions for SMEs to assist with their uptake of innovation and e-commerce solutions.

Liable Parties who design repairable covered products implement reuse programs (e.g. remanufacture or repair) should be individually rewarded for keeping their products out of the waste stream rather than the collective benefit being shared amongst all Liable Parties through a lower estimate of waste arising. An independently audited reuse report could be allowed under the Regulations (similar to the new product exports report under r3.04C(2)) where the tonnage of reuse reported could be deducted from the Liable Party's import or manufacture share (i.e. their annual liability). Criteria on what constitutes allowable reuse would need to be established including applicable standards to be certified to.

Are periodic updates to product codes and conversion factors an adequate way of ensuring the scheme remains accurate and fair for Liable Parties, or should consideration be given to other approaches to allocating liability?

Periodic updates to product codes and conversion factors are a reasonably accurate way to calculate Liable Party import or manufacture share if the current process of requesting Liable Parties to provide their product weights by product codes continue. However, it is noted that this is an administrative task for Liable Parties to complete. If the Department was able to provide a schedule for when this information is required from Liable Parties

each year, this may enable Liable Parties to put internal reporting processes/systems in place to streamline the provision of the information to the Department.

What is more of an issue is the current method where the annual import or manufacture share is based on the average number of units imported from the previous three years. An alternative would be for Liable Parties to opt into a voluntary annual self-reporting regime for their import or manufacture share. Accounting methods would need to be stipulated and reports would need to be independently audited (similar to the new product exports report under r3.04C(2)).

Is intervention needed to ensure equitable distribution of collection services around Australia? If so, what should be done?

The Regulations do not prescribe the level of communication, signage or awareness (if any) Co-regulatory Arrangements need to provide to households and SMEs to make them aware of their collection services. They also do not prescribe the requirements for an event (e.g. length of event, hours/days of operation, type of venue and products covered) or for a mail-back service (e.g. type of product that this service is applicable to). As a result, Co-regulatory Arrangements may not be providing a level of service that is deemed adequate by the public (or even known to the public) or indeed the Regulations.

As such, minimum service requirements for collection sites that could be included in the Regulations (or supporting guidelines) are:

- communicating the site name, days and hours of operation, location and products accepted on the Co-Regulatory Arrangement website
- on-site signage stating that e-waste or television and computer products are accepted.

Minimum service requirements for collection events that could be included in the Regulations are:

- providing the relevant Local Government with four weeks' notice of the event
- the duration of the event to be a minimum of 4 hours
- communicating the event through relevant Local Government/community communication channels or paid advertising
- communicating the event on the Co-Regulatory Arrangement website
- communications to include the event site name, days and hours of operation, location and products accepted.

Another issue is that not all collection services accept or promote that they accept televisions, presumably given their larger size/heavier weight. As such, some collection services used to achieve reasonable access are not accepting all covered product. Therefore, r.3.02 should be updated to so that each area or town addressed in r.3.03 must be covered by a collection service(s) that accepts all covered product, regardless of product type, size or weight.

Efficient and equitable access to collection services, particularly in outer regional and remote locations, is also an issue. Requiring each of the four Co-regulatory Arrangements to have a collection service in each outer regional/remote town is inefficient and costly due to the large transport distances to be covered when moving collected items to metro recycling facilities and the lower yields achieved from these areas. It would be more efficient if only one Co-regulatory Arrangement was required to perform a quality collection service that covered the needs of the outer regional/remote town. This could be achieved via an 'allocation' model for outer regional and remote locations implemented by a 'clearing house', similar to models implemented in Europe (e.g. Austria, Denmark, Germany, Ireland, Sweden and the UK) and Illinois.

The clearing house could allocate outer regional and remote locations to the different Co-regulatory Arrangements. Options for this process include:

- Using a predefined algorithm to ensure towns and yields are either distributed evenly across each Co-regulatory Arrangement or in accordance with market size (i.e. share of Scheme Target).
- Managing a bidding process for each location by Co-regulatory Arrangements. In the event that no bids are received, sites could be allocated at random or by obligation algorithm.
- Tendering all locations or groupings/regions of locations as a package to one Co-regulatory Arrangement. The total cost of servicing these locations will then be shared between all Co-regulatory Arrangements based on share of Scheme Target.

Allocated outer regional and remote locations could be serviced by permanent collection sites where collection infrastructure/systems/networks are in place or by well promoted and serviced events. Events at the different locations could be coordinated by Co-regulatory Arrangements so that they are run on the same day/weekend and are supported by a national communication campaign (endorsed by the Department).

Should Co-regulatory Arrangements be required to report on the amount of 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 percent?

The maximum amount of energy recovery that can be used to treat collected product is 10 percent as at least 90 percent of material collected must be sent for material recovery (i.e. made available for use in new products) in order to achieve the material recovery target (note: landfill disposal can also make up the 10 percent).

Co-regulatory Arrangements are only required to report on tonnage of material sent to material recovery and landfill disposal under r.5.14(4). However, the Regulations and reporting provisions should be updated to require reporting of energy recovery to improve transparency and provide more complete information on the fates of recycled materials such as plastic, and furthermore, to promote energy recovery as a better outcome than landfill generally.

Domestic energy recovery could also be a viable treatment method for waste materials where reuse or recycling is becoming increasingly difficult given the changes in global markets for materials for recycling (e.g. mixed plastics). Energy recovery is a popular method internationally (particularly in Europe), considerable investment (\$200M) has already been made in the industry in Australia and the Federal Government is currently prioritising waste-to-energy projects^{vii}. As such, the percentage of material allowed to be treated via domestic energy recovery should be increased where it can be shown that there are no suitable reuse/recycling markets. It is noted that environmental standards and transparent downstream material traceability processes would need to be implemented to ensure the waste is used for acceptable energy recovery as opposed to simple incineration for disposal.

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?

Expanding the categories of products covered by the NTCRS that are compatible with existing collection, sorting and recycling networks and infrastructure should be done after full analysis of the impact to the scheme and participants. Compatible items include television peripherals, batteries, small household appliances, power tools and PV solar panels.

Benefits of expanding the scope of the NTCRS include:

- further supporting the objects of the Act
- easier to communicate and reduced public confusion about what products can be taken to drop-off sites resulting in higher yields^{viii}
- increased diversion from landfill and increased resource recovery resulting in environmental benefits
- increased efficiencies in e-waste transport and some recycling and material recovery processes
- potentially increased jobs and investment in the domestic recycling sector.

However, it is noted that expanding the Scheme coverage will result in an increased number and type of Liable Parties which will require additional Departmental resources to implement and regulate.

If the Scheme was expanded, separate product classes will be necessary (possibly based around the new WEEE Directive categories) with separate targets for each product class. Separate targets allow the 'new' product classes to have a lower target compared to 'existing' product classes, and also ensures that only manufacturers/importers of a particular class are liable for their collection and recycling.

Under the current Scheme, IT manufacturers/importers are liable for collecting and recycling televisions which are heavier and more expensive to recycle compared to IT products. Based on ANZRP's collection and recycling data for FY18, televisions (CRTs and flat screens) represent 33% of the volume it recycles but represent 43% of its recycling costs.

As such, IT Liable Parties (i.e. importers of computers, printers and computer parts and peripherals) are subsidising television Liable Parties. This highlights the importance of separate product classes.

Are there improvements you would like to see to the scheme administration, monitoring and compliance processes? If so, what are the highest priorities?

Robust reporting by Co-regulatory Arrangements is essential to providing assurance to the Department and stakeholders that outcomes are being achieved as intended and to ensure a level playing field for Co-regulatory Arrangements and their recycling partners. To ensure this, the following requirements for Co-regulatory Arrangements should be clarified and/or updated:

- r.3.02 Collection services: Co-regulatory Arrangements to report (or retain auditable records of) what products were accepted by each collection service (i.e. at each location) and what promotion and communication activities were implemented so the community was aware of each collection service.
- r.3.05 How recycling targets may be met:
 - Co-regulatory Arrangements to report on how they ensure that television and computer products are recycled in accordance with AS/NZS 5377:2013 (r.3.05(b)(ii))
 - Co-regulatory Arrangements to report on the downstream processing methods and locations and weights of agreed focus materials (e.g. materials or components of e-waste that when handled or processed at a recycling facility may pose a HSE risk) such as batteries, leaded glass, mercury lamps and printed circuit boards
 - Provide clarification on which practices cannot be used to meet recycling targets, e.g., receiving parts/components from dismantling facilities which are not certified to AS/NZS 5377:2013, processing whole products at scrap metal recycling facilities, removing batteries from whole products and exporting them as 'working product' for recycling
 - Provide clarification on what practices must be undertaken if whole products are exported for reuse
 - Provide clarification on how recycler certificates of destruction (CODs) can be generated and used under the Scheme, e.g., what steps must be completed before a COD can be generated, the currency of CODs and whether they can be traded (either by Co-regulatory or recyclers).
- r.3.06 Material recovery target: Co-regulatory Arrangements to report tonnage of material sent to energy recovery.

As CODs are a key piece of evidence that Co-regulatory Arrangements use to meet their recycling target, they could be managed centrally by the Department using a central IT system. This system would generate CODs with unique identifiers to recyclers and track their acquittal to Co-regulatory Arrangements thereby avoiding duplication/double counting and providing the Department with full system oversight. Co-regulatory Arrangements would be required to only use a recycler who produces CODs from this system and any

recyclers who wish to use the system must sign a contract requiring them to participate in any audit performed by the Department.

The Department also has an important role to play in Scheme reporting, such as preparing the annual scheme outcomes reports and publishing individual Co-regulatory Arrangement reports on the Department's website. These reports are important for Liable Parties, recyclers and other stakeholders to see whether Co-regulatory Arrangements have achieved their Regulatory outcomes and to understand tonnage of material types collected, recycled and exported. Resources should be assigned by the Department to prepare/approve these reports in a timely manner and they should be published without delay whether or not there is a good story to tell. It is noted that the FY17 Co-regulatory Arrangement annual reports were not published until 17 May 2018 and that the FY16 scheme outcomes report is yet to be published.

The Department must also audit Co-regulatory Arrangement performance in order to ensure a level playing field for Co-regulatory Arrangements and to ensure a compliant and responsible recycling industry as expected by the community. Key assurance activities that should take place include:

1. The Department to conduct annual whole-of-scheme outcomes audits to ensure there is no double counting of CODs and that recycling targets are being met. This audit should check material flows across all Co-regulatory Arrangements and their service providers, from collection through to downstream processing.
2. The Department to conduct at least annual or random spot checks of Co-regulatory Arrangements (and their service providers as required) to check that compliant processes are being followed and sufficient evidence is retained to demonstrate that recycling targets and reasonable access are achieved, that recycling is done in accordance with AS/NZS 5377:2013, and that material recovery target calculations are prepared in accordance with the "Material Recovery Measurement and Reporting Methodology for the National Television and Computer Recycling Scheme".
3. An auditing standard should be stated in r.5.15 that must be used to conduct an audit over Co-regulatory Arrangement's annual reports. A suitable standard is ASAE 3000 Assurance Engagements Other than Audit or Reviews of Historical Financial Information.
4. Co-regulatory Arrangements should provide AS/NZS 5377:2013 certificates of registration to demonstrate to the Department their compliance with r.5.14(6)(b)(v).
5. r.5.14(6)(b)(v) should be updated to require AS/NZS 5377:2013 certification audits to be completed by JAS-ANZ accredited auditors.
6. As the owner of the JAS-ANZ AS/NZS 5377:2013 certification process, the Department must work with JAS-ANZ to update the certification audit scope for recyclers to adequately cover downstream material traceability to final disposition.
7. The Department to update or provide guidance to the *Hazardous Waste (Regulation of Exports and Imports) Regulations 1996* with specific details for each e-waste type which requires an export permit (e.g. export codes and descriptions) and provide training for Customs officers to determine illegal exports^{ix}.

The Department must ensure that auditors are appropriately qualified, for example, financial auditing firms with competence in traceability of accounts and material flows would be competent to perform activity 1 and engineering consultants with specific experience in e-waste recycling and downstream processing practices would be suitable for activity 2. In addition, as the owner of the JAS-ANZ AS/NZS 5377:2013 certification process, the Department must work with JAS-ANZ to ensure that accredited auditors are adequately trained in the requirements of AS/NZS 5377: 2013 including downstream material traceability, and the health, safety and environmental risks associated with e-waste recycling.

It should be noted that as the AS/NZS 5377:2013 certification audits do not adequately cover the downstream material traceability requirements of the standard and the fact that not all certification auditors are experienced in e-waste recycling practices, Co-regulatory Arrangements are performing their own audits over recyclers. As such, a recycler may be audited many times on the same topic which is expensive and time and resource intensive.

Following the reporting and auditing processes, if the Department becomes aware of Co-regulatory Arrangements who do not comply with the Regulations or underperform, it must deal with them. This is not currently happening to an acceptable level. For example, Co-regulatory Arrangements who do not meet their recycling target over consecutive years are not currently financially penalised; they are just given a short fall to make up in the following year(s). As a result, they can charge cheaper membership fees to Liable Parties compared to Co-regulatory Arrangements who do meet their recycling targets. This is inequitable, commercially undermines compliant Co-regulatory Arrangements and jeopardises the future of the Scheme. The Act needs to be updated to strengthen the improvement notice and penalty regime to ensure that Co-regulatory Arrangements who persistently do not comply with the Regulations or consistently underperform are financially penalised or their approval is cancelled by the Minister.

There are some administrative provisions that the Department could also clarify and improve on to benefit Liable Parties and Co-regulatory Arrangements:

- Allow the exports of new products made by a related body or a contracted agent of a Liable Party to be counted towards a Liable Party's exported products amount (r.3.04C). Also remove the requirement to provide evidence that products were imported within one year of export. This is a very time-consuming exercise for Liable Parties and does not provide much value given it takes three to four years for a product to be disposed of and become waste arising.
- Issue Co-regulatory Arrangement recycling targets as close as possible to the start of the financial year.
- Implement a communication and awareness campaign to raise the awareness and profile of the Scheme.

Would you support legislative changes to enable administration of the scheme to be underpinned by cost recovery?

The Department has steadily reduced its resourcing to administering the NTCRS over recent years and this practice is continuing. The Department cannot walk away from this existing product stewardship scheme that is providing real benefits to the community, environment and industry year on year. Decreasing resources reduced the Department's capability and capacity to perform key functions required to ensure a compliant and sustainable Scheme including monitoring and regulating Co-regulatory Arrangements, Scheme reporting and industry consultation to implement improvements.

One such avenue to assist with resourcing is a cost recovery model. However, this would require an amendment to the Act for the Department to be able to recover any costs from Liable Parties or Co-regulatory Arrangements. The Act would also need to outline how the Department would ensure and demonstrate that any funds recovered from Liable Parties are only used to administer and improve the NTCRS.

Cost recovery would require consultation with the industry to determine a palatable unit cost. It has been indicated by the Department that \$1M is required to successfully run the Scheme. ANZRP members have suggested that a potential cost recovery amount for Liable Parties could be \$0.01-\$0.02/kg of liability which must then be matched by the Federal Government. Matching by the Federal Government is deemed necessary so that cost recovery is not used as a further excuse for the Department to continue to defund the Scheme.

New governance processes (e.g. collection service allocation model and COD repository), assurance processes (such as whole-of-scheme audits, Co-regulatory Arrangement audits and Customs checks for illegal exports) and communication and awareness programs could be funded by the cost recovery model. In addition, if Co-regulatory Arrangements are contributing financially they should have a strong voice in how their funds are spent.

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 NTCRS) 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?

All levels of Government are involved in waste management and recycling, so all have a role to play in implementing the objects of the Act and influencing the success of the NTCRS, MobileMuster and Flurocycle.

There are examples where the interaction between Federal Government and other levels of Government have not been effective. A recent example is the Victorian Government proposing to ban all e-waste from landfill before a product stewardship scheme with robust and compliant collection and recycling channels for all e-waste items was in place, i.e., before the Federal Government had committed to expanding the NTCRS. Another example was earlier on in the Scheme when some Co-regulatory Arrangements stopped servicing particular Local Governments as they achieved their recycling target before the end of the financial year.

To foster better interaction between the Federal, State, Territory and Local Governments, a steering committee or working group comprised of different Government and industry representatives could be reformed to monitor the progress of the Scheme and contribute to its ongoing development and enhancement. This could also include collaboration on:

- dealing with e-waste that does not get recycled through the NTCRS
- improving storage and collection infrastructure (e.g. working towards all Local Governments having e-waste collection facilities that are undercover and on impermeable surfaces)
- implementing consistent communication and awareness campaigns to the community
- State and Territory environment protection regulators implementing more nationally consistent site licensing and regulated waste transport and tracking requirements for e-waste
- expanding product classes under the NTCRS
- developing local end markets for recyclate.

To what extent can, or should, product stewardship schemes support broader government objectives, and assist in adapting to changes in market conditions?

There are some key areas where product stewardship schemes such as the NTCRS could overlap with broader Government objectives and programs including:

- All levels of Government should update their procurement processes to include the requirement to reuse or recycle end of life (and where applicable end of lease) televisions, computer products, mobile phones and fluorescent lights under the NTCRS, MobileMuster and Flurocycle programs.
- Given the recent global market changes as a result of China implementing its National Sword Policy, the Federal Government could assist the industry on compliant alternative markets to China and assist in developing local recycling capacity and end markets.
- To increase demand for recyclable waste, all levels of Government should update their procurement process to purchase items made from recyclable and recycled materials (where viable).
- Environmental benefits of product stewardship schemes (such as reduction in greenhouse gas emissions and energy, water and materials consumption) could be determined and used to demonstrate Australia's commitments to the United Nations Sustainable Development Goals and the Paris Agreement as well as state and territory environmental commitments and programs.
- Better integration of the NTCRS with the Basel Convention, such as clearly stating what types of covered products are hazardous materials under the Basel Convention so should not be exported without a permit, and interfacing hazardous waste export/import procedures to assist with reporting under the NTCRS and prevent illegal exports of e-waste.

TOR 5: International and domestic experience in the use of product stewardship to deliver enhanced environmental, social and economic outcomes through product design, dissemination of new technologies and research and development

Product stewardship should be managed more holistically in Australia rather than using the current model of individual schemes for each product type or class (there are currently individual product stewardship schemes for more than 20 products⁶). This will ensure consistency, increase efficiency, reduce public confusion and make it easier for the Department to monitor and enforce. For example, the WEEE Directive in Europe is one product stewardship program for all products that require a power source (electricity or battery) with sub-categories rather than many separate product specific programs.

A key opportunity to holistically manage product stewardship is around packaging. IT and television brand owners currently must join one of the four NTCRS Co-regulatory Arrangements and also be a signatory to the Australian Packaging Covenant for their covered products. This entails two sets of membership and reporting to and funding two different product stewardship management bodies for their products. This is expensive and time consuming for brand owners. It would be more efficient and cost effective if one product stewardship body was authorised to manage the product stewardship requirements for both the product and its associated packaging and meet the requirements of both programs. This is the way it is managed in most of Europe and Canada, for example, Eco-systèmes (the largest ERP scheme in Europe) collects and recycles WEEE, batteries and associated packaging. It is also noted that PaintBack deals with both the paint and paint packaging. As such, brand owners should have the option of satisfying their obligations under the Australian Packaging Covenant and the National Environmental Protection (Used Packaging Materials) Measure via mandatory or accredited product stewardship schemes that cover their products.

Product stewardship in Australia is often viewed as an industry requirement in the absence of truly acknowledging its environmental and socio-economic benefits. There is more work to be done to calculate and communicate the benefits of product stewardship programs to government, industry and the community to ensure their continued uptake and success.

⁶ There are schemes/programs in place for agricultural chemicals and containers, batteries, beverage containers, cartridges and toners, computer products, decorative paint, mattresses, medicines, mercury containing lamps, mobile phones, motor oil and containers, newspapers, office furniture, packaging, plastic silage wrap, plastic shopping bags, PVC, refrigerants, televisions and tyres.

Developing local end markets for recycling is topical for the Australian community. The ABC's War on Waste series and media coverage of the China National Sword Policy have resulted in the community demanding that Australia recycles its own waste instead of exporting it to offshore recyclers. In addition, ANZRP continuously speaks to the public and local council collection facilities and has noticed a trend in the community increasingly wanting to know where and how e-waste is recycled. The community is becoming more educated on recycling and wants to be assured that its e-waste is being responsibly recycled in Australia as close as possible to the waste-generating source.

A key benefit of increasing the recycling, repair and refurbishing of e-waste under the NTCRS, MobileMuster and Flurocycle is that it has the potential to create local jobs in the collection, sorting, recycling, repair and refurbishing markets in Australia. The Senate Inquiry found that for every 10,000t of waste recycled, 9.2 jobs are created^x. It also reduces the requirement to mine raw materials thereby delaying resources from becoming scarce^{xi} and reduces adverse environmental and social impacts. Diverting valuable e-waste materials such as metals from landfill is a significant economic opportunity. It is estimated that the NTCRS recovered \$120M (USD) of metals in 2014^{xii}. With e-waste generation projected to increase to 28-29kg per capita in Australia by 2025, there is an opportunity to further increase this value creation, particularly for iron, steel, copper, silver and gold^{xiii}.

There is a great opportunity for Australia to invest in local, innovative recycling, refurbishing and remanufacturing infrastructure and the development of suitable end markets. This includes e-waste microfactories and battery and printed circuit board processing facilities. The Federal Government must work with State and Territory Governments to provide funding and assistance to industry for this investment. It must also update its procurement policies to ensure that products purchased contain recycled materials and that waste management services include using regulated and accredited product stewardship schemes.

-
- ⁱ LifeCycles, EconSearch, Colby Industries and University of Queensland (2017). *Creating value: the potential benefits of a circular economy in South Australia*. [online] Green Industries SA. Available at www.creatingvalue.net.au [Accessed 14 June 2018].
- ⁱⁱ Commonwealth of Australia (2018). *Never waste a crisis: the waste and recycling industry in Australia*. [online] Parliament of Australia. Available at https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/WasteandRecycling/Report [Accessed 27 June 2018].
- ⁱⁱⁱ Ibid.
- ^{iv} Ibid.
- ^v Department of Foreign Affairs and Trade (2017). *2017 Foreign Policy White Paper: Promoting sustainable development*. [online] Available at: <http://dfat.gov.au/aid/topics/development-issues/2030-agenda/Pages/sustainable-development-goals.aspx> [Accessed 28 June 2018].
- ^{vi} Commonwealth of Australia (2017). *NTCRS co-regulatory arrangements annual reports for 2016-17*. [online] Department of the Environment and Energy. Available at: <http://www.environment.gov.au/news/2018/05/17/ntcrs-co-regulatory-arrangements-annual-reports-2016-17> [Accessed 14 June 2018].
- ^{vii} The Hon. Josh Frydenberg MP and the Hon. Melissa Price MP (2018). *Joint Media Release: Taking Action on Waste & Recycling*. [online] Available at: <http://www.environment.gov.au/minister/frydenberg/media-releases> [Accessed 27 April 2018].
- ^{viii} Morris, A. and Metternicht, G. (2016). Assessing effectiveness of WEEE management policy in Australia, *Journal of Environmental Management*, [online] 181, p.218-230. Available at: <http://www.sciencedirect.com/science/article/pii/S0301479716303528> [Accessed 14 June 2018].
- ^{ix} Dominish, E., Florin, N., Giurco, D., Corder, G., Golev, A., Lane, R., Rhamdhani, A., Reck, B. and Graedel, T., Sharpe, S., Edwards, M., Benn, S., and Brooks, G. (2017). *Australian Opportunities in a Circular Economy for Metals: Findings of the Wealth from Waste Cluster*. [online] Available at: http://wealthfromwaste.net/wp-content/uploads/2017/11/Wealth_From_Waste_Report_WEB.pdf [Accessed 14 June 2018].
- ^x Commonwealth of Australia (2018). *Never waste a crisis: the waste and recycling industry in Australia*. [online] Parliament of Australia. Available at https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/WasteandRecycling/Report [Accessed 27 June 2018].

^{xi} Institut Montaigne (2016). *The circular economy: reconciling economic growth with the environment*. [online] Available at <http://www.institutmontaigne.org/en/publications> [Accessed 14 June 2018].

^{xii} Dominish, E., Florin, N., Giurco, D., Corder, G., Golev, A., Lane, R., Rhamdhani, A., Reck, B. and Graedel, T., Sharpe, S., Edwards, M., Benn, S., and Brooks, G. (2017). *Australian Opportunities in a Circular Economy for Metals: Findings of the Wealth from Waste Cluster*. [online] Available at: http://wealthfromwaste.net/wp-content/uploads/2017/11/Wealth_From_Waste_Report_WEB.pdf [Accessed 14 June 2018].

^{xiii} Ibid.