1 February 2021

Right to Repair
Productivity Commission
www.pc.gov.au/inquiries/current/repair

RE: RIGHT TO REPAIR ISSUES PAPER DECEMBER 2020

To Whom it May Concern,

Thank you for providing Australia and New Zealand Recycling Platform Limited (ANZRP) with the opportunity to respond to the Right to Repair Productivity Commission Issues Paper.

ANZRP is a co-regulatory arrangement under the National Television and Computer Recycling Scheme (NTCRS). ANZRP is a not-for-profit, member-based company representing some of the largest ITC brand owners (who are liable parties under the NTCRS) such as Canon, Dell, HP, Fuji Xerox Australia and Toshiba as well as retailers such as Officeworks.

ANZRP has responded to the e-waste specific information requests in the Right to Repair Issues Paper. Some of ANZRP's members will lodge submissions to the remaining information requests.

Please find our submission attached.

Sincerely,

Warren Overton
CEO

Pg 23 – E-waste exported for recycling

The Issues Paper states that "52 percent of e-waste collected by the National Television and Computer Recycling Scheme was exported for recycling in 2017". We would like to clarify that this figure is not whole e-waste products but is predominantly separated materials. E-waste collected under the NTCRS undergoes primary recycling in Australia whereby recycling facilities (which are certified to AS/NZS 5377:2013) manually or mechanically separate e-waste into material types and components including ferrous metal, non-ferrous metals, plastic, leaded glass, non-leaded glass, printed circuit boards (PCBs), batteries, toner cartridges and fluorescent tubes. It is primarily non-ferrous metals, plastics and PCBs which are exported for re-processing.

Pg 23 – Capacity for e-waste recycling in Australia

The Issues Paper states "[t}he limited capacity for e-waste recycling in Australia can also lead to excessive amounts of e-waste being stockpiled for recycling or illegally dumped." We disagree with this statement. There is capacity within the e-waste recycling sector for IT and telecommunication equipment, consumer electrical products and lamps and within the scrap metal recycling sector for white goods. Stockpiling and illegal dumping occurs because some parties try to avoid recycling fees or landfill disposal levies and State, Territory and Federal authorities do not police and enforce environment protection regulations or the NTCRS regulations.

Information Request 7a) What data are available on the amount of e-waste generated in Australia?

•What data is there on the composition of e-waste in terms of particular materials (such as hazardous materials) by product type?

•How does hazardous e-waste compare to hazardous general waste in its prevalence and risks? Is there merit in distinguishing between hazardous e-waste and non-hazardous e-waste? And if so, how could this be done in practice?

The Department of Agriculture, Water and the Environment has data on the amount of NTCRS in scope products that is generated and recycled each year under the NTCRS. This data is broken up into metals, plastic, leaded glass, non-leaded glass, PCBs and other.

Recycling facilities who recycle NTCRS in scope product for co-regulatory arrangements also produce batch reports and material recovery rate reports for products that they recycle (e.g. laptops, computers, CRT screens/TVs, LCD screens/TVs, printers and multi-function devices) which provide material composition and recovery rate data.

The Global E-waste Monitor 2020 (http://ewastemonitor.info/) estimates that in 2019 Australia generated 554kt of e-waste.

The Victorian Government projects that the rate of e-waste generation in Victoria will increase by four percent each year between 2015 and 2035, and provides a break

down of e-waste by type in figure 1 in the Managing e-waste in Victoria Policy Impact Assessment (https://www.environment.vic.gov.au/__data/assets/pdf_file/0026/408347/Managing-e-waste-in-Victoria-PIA-PDF.pdf).

All e-waste contains hazardous materials as all electrical products contain circuitry. However, the following hazardous materials contained in e-waste in particular require separation and safe handling, management and treatment:

- Lead oxides in glass in cathode ray tube (CRT) computer monitors and TVs and in PCBs in various equipment.
- Phosphor powder containing zinc or cadmium sulfide and rare earth metals in glass in CRT computer monitors and televisions.
- Mercury, indium oxides and beryllium in fluorescent tubes, lamps and backlights in liquid crystal display (LCD) TVs, tablets, rear projection TVs, data projectors, scanners, photocopiers, fax machines and lighting equipment.
- Corrosives and heavy metals in batteries including cadmium, lead, lithium, mercury and corrosives.
- Asbestos in gaskets and fibres in older household appliances such as coffee machines, toasters, kettles, hair dryers, irons, small ovens and heating appliances.
- Beryllium, various heavy metals and polychlorinated biphenyls on PCB components (such as chips, capacitors and diodes) in various equipment.
- Cadmium, selenium and arsenic in some inks and toners in printers and photocopiers.
- Plastic casings of some computers, TVs and cables contain flame retardants, which may emit toxins such as dioxins and furans during a fire.
- Some cables and wires containing polyvinyl chloride insulation, which may emit polyvinyl chloride during a fire.

Recyclers who process the above e-waste can reduce and/or manage the risks of handling hazardous materials by implementing engineering controls and industrial hygiene programs which can include:

- Extraction ventilation systems and downdraft tables.
- PPE management programs including fit-testing (e.g. of respiratory protection) and providing lockers away from the factory floor to keep PPE clean when not in use.
- Occupational hygiene assessments including personal air monitoring for heavy metals and mercury vapour, surface swabs for heavy metal contamination and assessments of extraction ventilation systems.
- Biological monitoring for mercury and lead for workers.
- Class H vacuum cleaners to collect debris to avoid dry sweeping (which can create airborne dust).
- Washing hands after handling e-waste and prior to eating, drinking and smoking, and ensuring that eating and drinking occurs in designated lunchrooms away from the factory floor.

- Providing uniform laundry services or shower facilities to prevent transfer of contaminated dust into homes from boots and clothing of workers.

Information Request 7b) What estimates are available on the costs of e-waste disposal on the environment, human health and social amenity, in Australia and internationally?
•How do the impacts differ by disposal type, or by the type of product or hazardous material?

Section 4.4 of Managing e-waste in Victoria Policy Impact Assessment (https://www.environment.vic.gov.au/__data/assets/pdf_file/0026/408347/Managing-e-waste-in-Victoria-PIA-PDF.pdf) discusses the costs of e-waste disposal examining policy options for Victoria's projected e-waste volume from 2017 to 2035:

Activity	**Cost per tonne of e-waste**
Collection of e-waste (various collection options were examined including council/commercial collection and residential drop-off)	$154 - $312
Landfill operating costs	$46 metro $60 non-metro
Impacts of landfill	$15 (using option 1a which diverts 922,000 tonnes from landfill, not adjusted for NPV)
Unrecovered value of materials contained within e-waste	$462 (using option 1a which diverts 922,000 tonnes from landfill, not adjusted for NPV)

The above is for all e-waste. It is assumed that impacts of landfill costs would be highest for e-waste containing a higher percentage of hazardous materials.

Disposal of e-waste to landfill results in a loss of valuable materials which can no longer be recovered. A single piece of e-waste can contain up to 60 elements from the periodic table, including critical raw materials such as antimony, cobalt, graphite and tantalum (ANZRP White Paper NTCRS Scope Expansion 2020 - https://www.anzrp.com.au/education/). These materials can be recovered under recycling/product stewardship programs such as the NTCRS.

Information Request 7c) How much of Australia's e-waste is shipped overseas for recycling? Is there evidence of circumstances where this creates problems for recipient countries?
•Are there barriers to the expansion of domestic recycling facilities or the adoption of new recycling technologies in Australia (such as plasma arc incinerators)?

Work conducted by ANZRP in 2017 (ANZRP White Paper 2017 – Review of the Product Stewardship Act 2011 and NTCRS - https://www.anzrp.com.au/education/) found that

in 2015-16 export of new and used products (represented as a percent of imports) was 27% for computers and 25% for printers. These computers and printers are exported to the international second hand/re-use market.
ANZRP does not have data on e-waste exported for recycling, but this data should be available from Australian Border Force. Export of e-waste to developing countries for recycling is not permitted under the Basel Convention, but some illegal exports are likely to take place.

In 2017 the Basel Action Network used GPS trackers to monitor where e-waste dropped off for recycling under the NTCRS was recycled (https://www.ban.org/trash-transparency). This study found that out of 35 e-waste items tracked, three were illegally exported to Hong Kong and Thailand and were likely processed at facilities with low environmental and health and safety standards.

A key barrier to expanding domestic e-waste recycling facilities or investing in new technology is economies of scale. In Australia e-waste is transported over great distances to deliver it to recyclers mostly located in capital cities. Expanding the scope of the NTCRS to all e-waste will result in increased efficiencies in transport as well as recycling and material recovery processes. It will also create a higher supply of e-waste to the market and provide certainty to industry (as annual recycling targets would be in place) thereby incentivising investment in domestic treatment technologies and facilities as well as the generation of end markets for recovered resources in Australia. This would in turn create e-waste recycling jobs in both metropolitan and rural areas.

Based on ANZRP's assessment of a large e-waste recycling with mechanical shredding and separation, recycling costs would reduce by approximately 50 percent if the amount processed per year is doubled. This is a notable shift as it is hard for a single recycler to achieve a large enough volume to justify significant investment under the current NTCRS as total Australian-wide recycling is only about 50,000t. A scheme expansion to all e-waste could increase recycling to more than 500,000t per year and provide the additional volume required to support numerous large-scale plants in each state.

Information Request 7d) What are Australia's current policy settings for managing the potential environmental and health effects of e-waste (such as landfill bans, the National Television and Computer Recycling Scheme or Mobile Muster)? Are these policy settings broadly right — that is, are they proportional to the impacts of e-waste on the community?

ANZRP outlines the different policy settings for managing e-waste in ANZRP White Paper NTCRS Scope Expansion 2020 https://www.anzrp.com.au/education/). Different policies currently in place for e-waste management across Australia include:

- Co-regulatory product stewardship – the NTCRS for televisions, computers, computer parts and peripherals and printers (national program).

- Voluntary product stewardship: MobileMuster for mobile phones and FluoroCycle for mercury containing lamps (national programs).
- State and Territory e-waste to landfill bans in the Australian Capital Territory, South Australia and Victoria
- Funding support at the federal, state and territory level such as infrastructure grants to generate recycling investment.

ANZRP supports co-regulatory product stewardship, such as the NTCRS, for the following reasons:

- Prevents free-riders and laggards.
- Landfill bans for products where there is not a formal product stewardship scheme in place can have unintended consequences. For example, in Victoria many councils expected NTCRS co-regulatory arrangements to pay for the collection and recycling of non-NTCRS e-waste, members of the public and businesses expected that they could drop off all e-waste at NTCRS-local council collection sites, and this confusion also resulted in NTCRS collection channels becoming contaminated with out of scope items.
- Sets high operational standards and targets to be met, for example, annual recycling targets (currently 68%), material recovery target of greater than 90% and provision of reasonable access to the public and SMEs for collection services in metropolitan, inner regional, outer regional and remote areas.
- Provides a competitive model which helps to drive down scheme operational costs. It also allows liable parties to have the power to decide which co-regulatory arrangement they align their brand with based upon who can best represent their interests and corporate values in the market (e.g. price, compliance, governance and marketing).

However, there are issues with the NTCRS which ANZRP understands the Department of Agriculture, Water and the Environment is finally investigating. The key issue is that there is currently (and has been for years) an uneven playing field between co-regulatory arrangements with some repeatedly not meeting the outcomes and requirements of the regulations for the NTCRS without financial penalties being enforced or co-regulatory arrangement approvals being cancelled. Competition is only equal if the Regulator comprehensively audits compliance with the NTCRS regulations and enforces appropriate penalties where non-compliance is identified. If not, those co-regulatory arrangements who spend the necessary resources to ensure compliance are at a financial disadvantage to those who do not.

Information Request 7e) How can a right to repair policy further reduce the net costs of e-waste in Australia, and would such an approach be an effective and efficient means of addressing the costs of e-waste to the community?

There is already an established re-use market for a variety of e-waste including laptops, computers, multi-function printer devices, mobile phones and other IT communication products. Re-use options for batteries and PV panels are also being

implemented and investigated which could make renewable energy options more accessible to the community.

The resale value of repaired or refurbished products are generally higher than the price obtained for selling commodities from recycled products. Re-use is also a key driver in propelling a more circular and lower-carbon economy in Australia.

If re-use is to be covered by the NTCRS, consideration around how re-use targets be set or how initiatives contribute to, interact with, or complement recycling targets will be required. The NTCRS requires all volume collected to be recycled which can incentivise lower order management and may penalise liable parties who perform re-use activities under their internal producer responsibility programs as these activities are not considered when determining their annual liability. It also needs to be ensured that producers are not penalised for performing repair and refurbishing operations in regions like Asia Pacific where new product manufacture takes place.

Product repair and re-use initiatives are becoming more common place in jurisdictions like Europe. Spain for example, has set a national preparing for re-use target as part of the National Framework Plan for Waste Management (2016-2022). This framework aims to achieve 50 percent preparing for re-use and recycling and has complemented another preparing for re-use target implemented in 2015 via a Royal Decree and focused on e-waste. It requires 3% of large household appliances 4% of IT equipment to be prepared for re-use from 2018. However, the WEEE Forum (an international association representing forty producer responsibility organisations across the globe) argues against preparation for re-use targets but rather proposes measures that promote circular economy activities. Instead of targets it recommends that product stewardship schemes be supported by a strong set of standards around disassembly encouraging eco-design. It also recommends a legislated waste hierarchy and national framework that supports a circular economy, such as remanufacturing using recovered commodities, mandating consumer awareness and investment in re-use, and new business models like product leasing and a sharing economy.