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Australian Council of Recycling Briefing paper: Mandatory Product Stewardship Schemes

Background and scope

Under the Product Stewardship Act 2011, schemes can be established to manage different products and materials in order to reduce their life-cycle impacts on the environment and on human health and safety.

Mandatory schemes involve enabling regulations to be made that would require some persons to take specified action in relation to products. Such requirements might include restricting the manufacture or import of products, prohibiting products from containing particular substances, labelling and packaging requirements and other requirements relating to reusing, recycling, recovering, treating or disposing of products.

This document identifies the likely costs of operating mandatory product stewardship schemes for tyres, mattresses and e-waste.

In considering the potential costs of a mandatory product stewardship scheme for various products, it is assumed that there will be development and set-up costs such as Regulatory Impact Statements, technical assessments and legal costs that will be borne by Government and industry participants / liable parties.

Any such development and set-up costs are not included in the cost identified in this document. Such development and set-up costs are considered to be one-off and absorbed by participating organisations, which could include Government or industry.

This document estimates the likely cost of mandatory product stewardship schemes as an operational and on-going cost. In estimating the likely cost of mandatory product stewardship schemes as an operational and on-going cost for tyres, mattresses and e-waste the following aspects for scheme management of each product was assessed and included aspects such as:

- Collection and transport
- Processing and recycling
- Compliance, monitoring, auditing and reporting
- Safety and environmental management
- Sales
- Administration
- Marketing, communications and education

Current international examples were reviewed, and local data used to assess the financial costs where available for these aspects. Where prices were in an international currency, an average of the exchange rate to \$AUD for the FY17-18 was applied to convert figures into \$AUD.

The estimated cost of a mandatory stewardship scheme is expressed as a total annual cost as well as an estimated per unit cost.

It is assumed the mandatory scheme will pay for / subsidise the collection, take-back, recycling and the scheme administration and marketing associated with the product and the consumer will typically not be charged at the point of disposal.

The per unit cost is based on the assumption that the cost of operating a mandatory product stewardship scheme may be based on an additional up-front cost, or advanced management and disposal fee, that is levied on the products at the point of sale and would be applied to 80% of the products sold in Australia. The following information outlines mandatory schemes outside of Australia and the operating costs of these schemes.

Summary

Product	Total annual cost (\$AUD)	Total cost per unit sold (\$AUD)
Tyres	\$154,000,000 - \$176,000,000	\$3.50 - \$4.00 (tyre unit is an equivalent passenger unit / EPU)
Mattresses	\$29,000,000 - \$33,000,000	\$14.50 - \$16.50 (mattress unit is a standard double size)
E-waste	\$203,000,000 - \$242,000,000	\$1.55 - \$1.85 (e-waste unit size equivalent product of 0.75 kg)

References

Tyres

Management Schemes Europe

There is a number of End of Life Tyre (ELT) management schemes within Europe. With some being mandatory. Schemes operate in Belgium, Czech Republic, Finland, France, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden and Turkey.

Source: <http://www.etrma.org/tyres/ELTs/ELT-management/ELT-management-schemes>

Extended produce responsibility is a legal framework and assigns responsibility to the producers to organise the management chain of end of life tyres.

RepakELT (Ireland)

In 2017 financial year there were 2.44 million tyres of which 2.39 million of these were passenger car tyres. With the remainder 50,000 being other tyres.

From this it can be assumed that RepakELT charges upwards of £0.50 per passenger car tyre.

Revenue: pound £1.76 m

Recycling Expenses: £976,000

Communication Expenses: £114,000

Other Expenses (Admin, legal fees, etc.): £916,000

Source: <https://repakelt.ie/wp-content/uploads/2018/08/RELT-Annual-Report-2017-Final.pdf>

Tyre Life Australia

Tyre Life Australia from the Boomerang Alliance presents a range of costs for tyre stewardship and take-back and recycling activities.

Tyre Life estimated that the cost of recycling a tyre in Australia was \$2.11 per unit (EPU).

<http://tyrelife.org.au/>

Mattresses

Bye Bye Mattress (USA)

This program is run by the Mattress Recycling Council (MRC) and operates across three states within the USA; Rhode Island, Connecticut and California. In each of these states these are mandatory schemes.

Each states has a different rules and costs associated with the running of the scheme. Rhode island has a \$16 fee at the point of sale to every mattress sold. With a \$1 reimbursement is given at participating recycling centers for the drop off of mattresses. California have a \$10.50 fee that applies to every mattress sold. And \$3 reimbursement is given at participating recycling facilities. While Connecticut has a \$9 fee that is applied to every mattress sold. With a \$2 reimbursement per mattress is given to participating recycling facilities. (

<https://byebyemattress.com/>)

Breakdown (California)

In 2017 \$11 unit as a fee. There were 4,046,014 sales of mattresses sold in California that financial year. which mean the **MRC revenues in California was \$44,506,154** for 2017 financial year.

Total program costs:

Type of costs	USD
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Operational	\$20,294,172
Education and outreach	\$1,901,579
Administration	\$2,599,842
CalRecycle Oversight	\$447,048
Research and Development	\$54,776
Total program costs	\$25,297,417

<http://www.mattressrecyclingcouncil.org/wp-content/uploads/MRC-2017-CA-Annual-Report-Revised-10-22-18.pdf>

Soft Landing (Australia)

Soft Landing is a private not-for-profit organisation ostensibly operating a product stewardship scheme however it charges consumers for collection and recycling, current estimates are Soft Landing charges consumer on average \$30 - \$35 for collection and recycling of a mattress.

E-Waste

WEEE Producer Compliance Scheme (UK)

All producers of EEE must register to play part of the compliance scheme in the UK. There is a registration processes that will depend on how much weight of materials is in place will depend on the category in which the producer falls under. Once joined the scheme and met the obligations of finance, the PCS collects and sound disposal of the organisations obligations are completed by the PCS.

The Environment Agency has confirmed a new fee structure that will take affect from 2019 for WEEE producers. Waste Electrical and Electronic Equipment (WEEE) European Commission.

The Environmental Agency have elected to change the fees in 2019 including:

An annual £12,500 subsistence charge for Producer Compliance Schemes (PCS)

The EA stated in response that it would reduce charges for non-VAT registered producers and overseas producers. The annual producer registration charges from 2019 will be:

- £30 for each member of the scheme who is a small producer

- £100 for each large producer not registered for VAT
- £100 for each large overseas producer not registered for VAT
- £375 for each large overseas producer registered for VAT
- £750 for all other scheme members

Source: <https://www.gov.uk/guidance/electrical-and-electronic-equipment-eee-producer-responsibility>.

WEEE Ireland

WEEE Ireland is the organisation in charge of e-waste within Ireland and is the sole organisation in charge of the management of end of life electronic equipment within Ireland.

Products Collected: 35,708,000 Kg

Recycling Fees Issued to Members: £8,346,653.

Direct recycling costs: £5,741,107.

Promotion and administration: £2,605,546.

Annual report: <https://www.weeeireland.ie/wordpress/wp-content/uploads/2017/docs/IS-&-BS.PDF>

Electronic Products Recycling Association (EPRA) – British Columbia

An electronic waste recycling scheme is in place in British Columbia. EPRA is one of the number groups involved in the collection of these materials

Products Collected: 17,818,000 Kg

Revenue: CAN\$ 20,567,851

Expenses

Processes: \$ 8,182,700

Collection: \$3,970,076

Transportation, warehousing and storage: \$3,773,466

Audits: \$73,962

Consumer awareness: \$722,422

Administration: \$1,623,929

Annual report: http://epra.ca/wp-content/uploads/annual_reports/english/2017/?page=1

National Television and Computer Recycling Scheme (NTCRS)

The NTCRS has approved four (4) co-regulatory arrangements that are not-for-profit organisations responsible for managing scheme requirements on behalf of liable parties. Co-regulatory arrangements annual reports <http://www.environment.gov.au/protection/waste-resource-recovery/television-and-computer-recycling-scheme>

Current product stewardship schemes in Australia

Australia does not currently have any mandatory product stewardship schemes under the Product Stewardship Act 2011 however the following is provided as an indicative comparison with respect to current voluntary and co-regulatory schemes.

Product stewardship scheme	Scheme cost or current charge (\$AUD per unit / weight)
Tyre Stewardship Australia	\$0.25 per tyre / EPU
Paintback	\$0.15 per litre
Mobile Muster	\$0.42 per unit
National Television and Computer Recycling Scheme	\$1.25 - \$1.50 per kilogram
DrumMuster	\$0.06 per kilogram / litre

It is noted that other Product Stewardship schemes do exist in Australia however they operate under their own specific legislation, for example Refrigerant Reclaim Australia being subject to the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 and the Product Stewardship (Oil) Act 2000.

Disclaimer:

This report has been prepared for the sole use of the Australian Council of Recycling, the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of Equilibrium OMG Pty Ltd (Equilibrium).

The results and findings are based upon Equilibrium's professional judgment, experience and

expertise, based upon the reliance of information used to prepare this report.

Equilibrium has limited its assessment to the scope agreed upon with its client.

Equilibrium believes that its findings are reasonably supported and that they have been developed according to the professional standard of care for the environmental and sustainability consulting profession in this area at this time.