wasteMINZ

Product Stewardship Sector Group

Position Paper: e-Waste

e-Waste Definition

In this document, e-Waste is defined as "any household or commercial/industrial item that that has reached its useful end of life and contains circuitry, a battery or an electrical plug, including batteries themselves".

e-Waste Outcomes

Over 10 years ago, New Zealand took a giant leap forward in managing challenging waste streams with the enactment of the Waste Minimisation Act 2008. To the envy of near-neighbour Australia, New Zealand had achieved in a remarkably short time, a robust legislative framework for tackling waste challenges, including e-waste. But as time has proven, in the absence of regulations to implement the legislation, New Zealand has now fallen well behind Australia and other developed nations in managing critical waste streams.

Among e-waste stakeholders there is widespread agreement about the need for product stewardship. The specific outcomes WasteMINZ is seeking:

1. All suppliers (producers and importers) of electrical and electronic equipment, including batteries, participate in mandatory industry-led and industry-funded product stewardship schemes which support the transition to a circular economy.
2. Consumers are able to easily dispose of end-of-life electrical and electronic equipment at no cost at the time of disposal, i.e. all costs associated with product stewardship are factored in to the price of new products.
3. All electrical and electronic equipment is banned from landfills.

These measures have been legislated for in many overseas jurisdictions and are currently being complemented in some parts of the world with consumer protection legislation that tackles the widespread issue of planned obsolescence. For example, eighteen States in the US have now passed legislation for the right to repair and the European Union is currently gearing up to do the same. Therefore, we also advocate for:

4. Right to repair legislation that requires manufacturers to supply consumers with information that enables appliances to be repaired.

Background

Electronic waste was first highlighted as a growing problem for New Zealand in a 2006 report prepared for the Ministry for the Environment by Computer Access New Zealand[1], the predecessor of the eDay Trust. This report focused specifically on computer equipment and TVs, which at the time were presenting the greatest challenge in terms of e-waste. The solution recommended in this report was to follow in the

[1] CANZ, *e-Waste in New Zealand: Taking responsibility for end-of-life computers and TVs*, July 2006

footsteps of other countries and develop product stewardship schemes for e-waste. This recommendation has been frequently repeated by local authorities, recyclers, researchers and industry experts.

Since 2006, there have been a number of short-term government-supported schemes for tackling computer and TV waste, including eDay, RCN e-Cycle and TV Takeback. There have also been numerous project and consulting reports; common elements have been warnings about a looming crisis as the mountains of e-waste continue to grow and the increasing risk to our environment of continuing to landfill hazardous substances. But after more than a decade, New Zealand still does not have a sustainable solution for these waste streams and new challenging e-waste streams have subsequently emerged, notably lithium-ion batteries.

Despite persistent calls over the years from industry, local authorities and community groups, successive governments have to date failed to declare any waste stream a 'priority product', which would provide the necessary trigger for the development of mandatory product stewardship schemes. In 2015 a Ministry for the Environment-commissioned report by SLR Consulting stated that their study "determined that the level of robustness of New Zealand specific data for e-waste is insufficient to satisfy the requirements of the priority product designation criteria".

Instead, New Zealand has relied on businesses to engage in voluntary schemes. But after more than 10 years, it is evident that voluntary approaches do not provide the necessary sustainable solutions for managing New Zealand's burgeoning consumer e-waste. A 2018 Master's thesis by Vicktoria Blake, that sought to provide some of the missing e-waste data in New Zealand, found that in the Whangarei district only 1.8% of the estimated e-waste generated annually was being recycled, with the rest being landfilled.

Towards a Sustainable Product Stewardship Solution

Principles[2]

1. Fair and equitable for all stakeholders, especially a level playing field for suppliers, i.e. no free riders.
2. Simple, comprehensive and accountable – all industry stakeholders are able to understand the system and are clear about the goals and targets; users find the system convenient, accessible and do not face any direct costs at the time of disposal.
3. Allows for competition (avoiding monopolies), but within agreed boundaries given the limited size of the New Zealand market.
4. Achievable targets, within the capacity of the New Zealand recycling industry.
5. Consistent and complies with environmental, health & safety and recycling standards.
6. Flexibility to be able to deal with a wide variety of e-waste products - historic, orphan and future products.
7. Government and industry stakeholders must agree on an implementation timeframe; without this, there will be no incentive to develop product stewardship schemes.
8. Shared responsibility across all stakeholders, including business, central and local government and consumers.
9. The product stewardship scheme must be supported by central government with the declaration of e-waste as a priority product; this will result in the development of a clear regulatory framework.
10. Central government could also consider endorsement of complying products linked to government procurement decisions, enforcement, import licences and/or economic instruments to incentivise

[2] Based on the principles adopted by the TV/IT Product Stewardship Working Group in July 2007

scheme membership.

11. Knowledge supported approach, drawing on nearly 20 years of overseas experiences; there is no need to reinvent the wheel.
12. The scheme(s) must be independent of any one stakeholder or stakeholder group, for the wider good of the public and not unduly influenced by any one company; it is expected that organisations managing product stewardship schemes would be not-for-profits.
13. The scheme(s) must be able to account for exit/entry of businesses and products from the market and/or from the scheme(s) to ensure a level playing field and compliance by new businesses.
14. The scheme(s) must include education and awareness-raising of both industry and consumers.
15. The scheme(s) should focus not only on disposal solutions, but improvements in the whole lifecycle to the extent that this is possible.

Scope

Given New Zealand's relatively small population, and the limited volumes of electrical and electronic waste generated compared to other larger developed countries, the scope of any product stewardship developments for e-waste should be comprehensive and cover all electrical and electronic equipment, often referred to as "*any equipment with a plug or battery*", as well as batteries on their own.

The geographic dispersion of New Zealand's population presents additional challenges and costs in collecting and transporting e-waste to national or international processing plants. New Zealand e-waste recyclers have demonstrated an ability to innovate and develop new solutions for extending the life of electronic equipment as well as for processing e-waste and recovering reusable materials. However, these innovations have generally failed to reach a scale where they are commercially sustainable.

As ongoing funding becomes available to recyclers through product stewardship schemes, we can expect this innovation to continue, reducing reliance on short-term Waste Minimisation Fund grants.

Product Stewardship and the Circular Economy

It is recognised that product stewardship schemes usually manage end-of-use or end-of-life products as part of a linear economy, i.e. to better recycle products. This approach does not necessarily consider the opportunities to influence upstream opportunities around product design and changing business models or downstream opportunities such as taking products back for reuse, or the value optimisation of materials at end-of-life. It is therefore proposed that in New Zealand, existing and new product stewardship schemes support the transition to a circular economy.

Mandatory Schemes

Under the terms of the Waste Minimisation Act 2008, product stewardship schemes become mandatory when the Minister declares a product to be a priority product.

The Minister may declare a priority product if he or she is satisfied that:

(a) either –
  i. the product will or may cause significant environmental harm when it becomes waste; or
  ii. there are significant benefits from reduction, reuse, recycling, recovery, or treatment of the product; and

(b) the product can be effectively managed under a product stewardship scheme[3].

In addition, the Minister may consider the effectiveness of any relevant voluntary product stewardship scheme for this product.

[3] Waste Minimisation Act 2008, Clause 9 (2)

As soon as practicable after a product is declared to be a priority product,

(a) a product stewardship scheme must be developed; and
(b) accreditation of the scheme must be obtained[4].

The significant health and environmental harm of e-waste is well-documented[5], as are the significant benefits from reduction, reuse and recycling. Overseas jurisdictions have demonstrated that e-waste can be effectively managed under a product stewardship scheme.

So, all that is required is for the Minister to be 'satisfied' about the need for priority products and for the Minister to announce an implementation timetable deemed to be 'as soon as practicable'.

Careful consideration needs to be given to the number of e-waste product stewardship schemes that New Zealand can sustain. We must avoid the perverse outcome that Australia experienced with its computer and TV product stewardship developments, whereby competition between schemes drove down the producer levies to a level where it compromised the effectiveness and sustainability of processing the e-waste.

Voluntary Schemes

There are three voluntary e-waste product stewardship schemes that have been accredited by the Ministry for the Environment – RE:Mobile, Fuji Xerox and Sharp. The scope and reach of each scheme is limited to their products and with the exception of RE:Mobile, have little impact on reducing consumer demand or e-waste generated:

- RE:Mobile supports the reuse and recycling of all brands of mobile phones; the scheme has a widespread collection network, including all Spark, Vodafone and 2degrees retail stores, as well as courier and freepost.
- Fuji Xerox New Zealand offers all customers a free take-back service for used machines and refurbish their machines to give them a second life. They also recycle printer cartridges, drums and fusers and repurpose toner in a low-carbon asphalt alternative, TonerPave™.
- Sharp offers its customers a free take-back service for its electronic products, including toner cartridges.

There are numerous recyclers who accept e-waste, but often with a disposal fee for hard-to-recycle equipment such as TVs and computer monitors. One exception is TechCollect; this scheme offers free take-back for any computer waste, including screens and printers, at any OfficeMax store. The limitation is that only 14 cities have OfficeMax stores and only small quantities of equipment are accepted.

WasteMINZ applauds these efforts by equipment suppliers, but they fall well short of the comprehensive e-waste product stewardship solutions we believe are necessary. Furthermore, we acknowledge that while the providers of these schemes are demonstrating leadership in handling e-waste, they will never expand to accept all the country's e-waste. Concerns about free-riders are a fundamental barrier to the expansion of e-waste schemes; the only solution is a mandatory scheme, where all suppliers contribute equitably towards the costs of recovery and recycling.

[4] Ibid. Clause 9 (4)
[5] See Blake, V (2018) *The e-waste management behaviours of household consumers in Whangarei, New Zealand*. A thesis presented in partial fulfilment of the requirements for the degree of Master of Environmental Management at Massey University, Palmerston North, New Zealand, chapter 2.

Stakeholder Engagement

Stakeholders include but are not limited to: manufacturers, retailers, government (central and local), consumers, importers, assemblers and re-users. These groups all participated in the TV/IT Product Stewardship Working Group that met 16 times in 2007 and 2008 and developed draft product stewardship schemes for computer equipment and consumer electronics. Industry representatives stressed the importance of a level playing field for a highly competitive electronic equipment market and price sensitive consumers. Local authorities have been vocal in their call for action, as every day they have to respond to consumers unwilling to pay the full cost of equipment recycling. Industry and local government representatives have consistently called on Government to action the mandatory provisions for product stewardship in the Waste Minimisation Act by declaring electronic goods a priority product; this then assured a regulatory environment that prevented 'free-rider' suppliers escaping their obligations to contribute towards the cost of recycling and materials re-use.

Because Government never took this step to declare e-waste (or any other product for that matter) a priority product, suppliers have understandably been reluctant to engage in any further discussions without a definite commitment from central government. In August 2018 Associate Environment Minister Eugenie Sage announced that she had received Cabinet support for her work programme to tackle "the big problems in waste"; this included consideration of mandatory product stewardship schemes for e-waste (starting with lithium batteries). This work needs to be accelerated, as the present government is already halfway through its current 3-year term. The Minister must focus on declaring e-waste a priority product and then we can fully expect suppliers to re-engage in the process.

Product Stewardship Collaboration

During the last decade, countries around the world have recognised product stewardship as an effective way to manage waste streams. New Zealand is becoming increasingly isolated amongst developed countries as one of the few without robust schemes. But this is not because of a lack of interest from stakeholder groups:

The **New Zealand Product Stewardship Council** provides an independent voice for effective product stewardship on behalf of the wider community. The Ministry for the Environment has established a **Product Stewardship Advisory Group**.

Local Government NZ (LGNZ) has received remits at its annual conferences from Councils calling for action from central Government to action a product stewardship agenda, and following a strong call from members, WasteMINZ has established a **Product Stewardship Sector Group**, which has identified e-waste from electrical and electronic products, as one of three product groups that need to be recognised as priority products.

What is now required is for these groups to collaborate by sharing their work plans and wherever possible work together for a common, sustainable outcome. But most importantly, we also need industry leadership, engagement and commitment; this includes all parties involved in the supply and distribution of electronic goods as well as those involved in the collection, reuse and recycling of e-waste.

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