



Australian Mobile Telecommunications Association | Mobile Muster

Submission to the Department of Environment & Energy | Australian Government

Review of the Product Stewardship Act 2011

Terms of Reference

29 June 2018

Introduction

The Australian Mobile Telecommunications Association ([AMTA](#)) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially, economically responsible, and sustainable mobile telecommunications industry in Australia. Its members include the mobile network service providers, handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry.

Mobile Muster is a successful product stewardship program established in 1998 by AMTA. AMTA Mobile Muster is voluntarily funded by its members which include Alcatel, Apple, Google, HMD Global, HTC, Huawei, Microsoft, Motorola, Oppo, Samsung, ZTE, Optus, Telstra, and Vodafone.

AMTA welcomes the opportunity to provide comments to the Department of Environment and Energy in relation to the Terms of Reference (ToR) of the Review of the *Product Stewardship Act 2011* (the Act) below.

Background

Mobile Muster is the product stewardship program of the mobile telecommunications industry in Australia. The program was established voluntarily in 1998 by handset manufacturers and the mobile network operators, under the auspices of AMTA, to provide an environmentally sound take back program to keep mobile phones and their accessories out of landfill.

Since the Act came into effect in August 2011, the legislation has provided the framework to effectively manage the environmental, health and safety impacts of products, and in particular those impacts associated with the disposal of products.

Mobile Muster has continued to play a leadership role in product stewardship and mobile phone recycling in Australia as an accredited voluntary program under the Act. The mobile industry is constantly working to reduce the environmental and human health impacts of their products, across their entire lifecycles. This includes improving material and energy efficiency, increasing recyclability and reducing the use of hazardous substances.

Value of accreditation and the role of Government

Mobile Muster holds voluntary accreditation under the Act. The Government's accreditation of the program provides certainty to the community and industry that Mobile Muster manages a recycling service that is safe and secure, meeting the highest Australian (AS/NZS 5377) and international (R2) environmental standards.

AMTA believes that accreditation is valuable to the Mobile Muster program. Accreditation lends the requisite credibility and assurance to the program, providing consumers with confidence and trust that the program is managed securely, safely and efficiently. Accreditation also ensures broad industry engagement with the program as industry members are assured of the program's sustainability and accountability.

AMTA sees both opportunity and potential for the Government to adopt a more active approach in promoting the value of accreditation, as well as providing increased support to programs/schemes to encourage them to complete the accreditation process. Specifically, the Government could more actively promote accredited programs/schemes within the Act, such as Mobile Muster, to the

broader community, plus also encourage governments at all levels to use the relevant schemes within their supply chain. Such an approach would add value to accreditation and encourage other programs/schemes to pursue accreditation.

We also suggest that local government should be strongly encouraged to participate in programs accredited under the Act, such as Mobile Muster. We note that Mobile Muster currently has approximately 384 local councils participating in its program as collections points, but there are still around 537 councils across Australia. Local councils can act as a collection point for the Mobile Muster program or simply educate their residents on how, why and where to recycle within the community. Mobile Muster is free program to all level of Government. Increased Government endorsement of the program would help to drive awareness and participation across the community.

Social and community benefits

The program also provides social benefits to the community. The recycling service is both free and accessible to all mobile phone users. Along with providing a free take back program, Mobile Muster works to raise the awareness of mobile phone recycling through its communications and education activities, including a program targeting schools across Australia. Everything collected by the program is recycled and any data left on devices is destroyed securely as part of the recycling process, ensuring customer privacy and confidence.

Mobile Muster's long- term focus will continue to deliver on the Key Performance Indicators (KPIs) under the Product Stewardship Act 2011 as per the program's voluntary accreditation along with efficiently managing a financially sound program.

Figure 1. Key Performance Indicators FY16| 17

	Target	Actual
Collections		
Mobile Phone Collections (weight – tonnes)	75.0	79.1
Annual Collection Rate, Available Phones (%)	57.5%	68.5%
Annual Collection Rate, Net Imports (%)	8.6%	10.4%
Estimated Number Handsets & Batteries (units – millions)	1.01	1.06
Recycling		
Diversion from Landfill	97%	99.0%
Recycling Rate	>90%	99.0%
Consumer Behaviour		
Personal Storage Rate (% users with 2 or more handsets at home)	37%	34%
Disposal to Landfill Rate	2%	2%
Awareness of Mobile Phone Recycling	>80%	77%
Industry Participation		
Manufacturers	58%	40%
Mobile Network Carriers	91%	86%

The performance of Mobile Muster is measured against KPIs that include changes in consumer behaviour, collection and recycling rates, diversion from landfill and industry involvement. Each of

these indicators is assured independently by auditors, RSM Bird Australia, ensuring transparency of the program's performance.

Mobile Muster has four fundamental objectives:

Environmental: keep mobiles out of landfill; plus optimise resource recovery in a safe, secure and ethical way.

Social: free recycling service for consumers; promote awareness and education.

Political: enabling our members to meet their product stewardship requirements and obligations.

Economic: effective, efficient, equitable and sustainable program for its members.

Comments on the Terms of Reference

The Review will consider the degree to which the Act is enabling, and can enable, realisation of the benefits product stewardship can deliver to Australia's towns, cities, the environment and economy. The review will address:

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

The Objects of the Act:

- Reducing the impact of products and substances contained in them have on the environment and people

Since the inception of Mobile Muster in 1998, the scheme has collected and recycled almost 1,400 tonnes of mobile phone components, including over 320 tonnes of batteries. The program collects and recycles all brands of mobile phones as well as their batteries, chargers and accessories, plus wireless mobile technology modems. In 2017 the scheme started accepting smart watches.

In the coming years the introduction of 5G will deliver significant growth in the number of connected devices. This will include wearables, household gadgets and industrial sensors which are mobile enabled. Mobile Muster will continue to look for opportunities and work with industry to take on a proactive approach to product stewardship responsibilities as new products enter the market. AMTA believes, that as a voluntary scheme, Mobile Muster is in the best position to broaden the scope of product by introducing new members and further development of its collection channel to introduce new product.

Mobile Muster partners with leaders in the recycling industry to ensure that everything collected is recycled to the highest environmental standard. This can be seen by a high material recovery rate of 99%.

Mobile Muster's recycling partner is TES, they are a leader in recycling and resource recovery and are certified ISO14001, OHSAS18001, ISO901, R2 and ASNZS5377. AMTA will continue to be transparent when it comes to the program's performance.

- This should be achieved by encouraging and requiring manufacturers, importers, distributors and other persons take responsibility for those products throughout their lifecycle, including by taking action that relates to the following:
 - Avoiding generating waste from products
 - Reducing or eliminating waste from products
 - Reducing or eliminating hazardous waste in products and in waste from products
 - Managing waste from products as a resource
 - Ensuring that products and waste from products are reused, recycled, recovered, treated and disposed of in a safe, scientific and environmentally sound way.

Mobile Muster's membership includes handset manufacturers and the mobile network operators, with a participation rate of over 90% of Australia's mobile phone industry brands. Current members include Samsung, Alcatel, Apple, Google, HMD Global, HTC, Huawei, Microsoft, Motorola, Oppo, Samsung, ZTE, Optus, Telstra, and Vodafone. Mobile Muster's membership is unique in the sense that the mobile network operators also play an active role within the program, not only as funding members but also providing collection points and helping to promote and raise awareness of mobile phone recycling.

The program's current recycling process recovers 99% of material from product collected which is then returned to the supply chain to go into making new products. Material recovered includes metals (cobalt, lithium, gold, silver and copper), plastic and glass.

The program's recycler, TES, is a leader in recycling and resource recovery and TES is certified under ISO14001, OHSAS18001, ISO9001, R2 and AS/NZS5377.

Mobile Muster invests in education and public awareness programs to motivate Australians to recycle and change their behaviour. The industry has invested over \$42 million in almost 20 years in building a robust collection network along with resources to help educate mobile phone users on the benefits of recycling unwanted mobiles along with their accessories.

Mobile Muster aims to increase awareness of mobile phone recycling along with the benefits it brings to the community. Our aim is to ensure that consumers do not overlook recycling as an option when a phone reaches its end of life. Our research shows that currently 73% of Australians are aware of mobile phone recycling, which is high in comparison to other recycling programs.¹

Australians continue to hold onto their old mobiles, many of which are redundant. Mobile Muster estimates that Australians are storing 5 million old handsets that are broken or not working.² Our marketing strategy works to increase awareness of how, why and where to recycle, as well as provide incentives for consumers to take action and recycle more.

The program regularly partners with other organisations such as Able Australia, the Salvos and others to promote and raise awareness of mobile phone recycling while also raising funds for these charities and their programs. Over \$1 million dollars has been provided to charity partners to continue to support vulnerable Australians and environmental programs.

¹ IPSOS, *Consumer insights into mobile phone use and recycling* (February 2018). It was based on a used sample size of 1001 people Australia-wide. Respondents were randomly selected from an online panel and were over the age of 16 with a mobile phone.

² IPSOS, 2018.

- To contribute to Australia meeting its international obligations to reduce impacts products have on the environment.

Mobile Muster aims to educate consumers on how to manage their unwanted phones by either reusing them which extends the life of devices, right through to how to recycle them the right way. Mobile Muster's recycling partner's process are environmentally sound.

The program also develops a detailed marketing and communications strategy each year to raise awareness and to motivate mobile phone users to recycle unwanted devices stored in homes and in the workplace.

In FY18/19 Mobile Muster will look to develop tools and resources to help mobile phone users manage their data on unwanted devices.

Extending the life of mobile phones is an important principle of product stewardship and in developing the circular economy. Our research shows that mobile phone users are holding onto their devices longer and more people are reusing their mobiles than ever before. Mobile Muster estimates that 1 in 10 Australians sell or trade in their mobiles and 1 in 6 Australians give their mobiles to family or friends when no longer needed. It is predicted that these figures will rise as the reuse market matures in Australia.

The materials recovered in the recycling process can be used in the manufacture of new products. For example, the recycled plastic from the mobile phone cases are used to make shipping pallets and the lithium extracted from mobile phone batteries can be reused to make new batteries.

The recycling process reduces the need to extract raw materials from the earth which saves energy, conserves scarce natural resources and protects our environment.

The mobile telecommunications industry shares concerns about the environmental, social and economic impacts of mining. AMTA members are part of a joint global initiative by Electronic Industry Citizenship Coalition in partnership with the Global e-Sustainability Initiative (GeSI), which promotes responsible procurement of mineral through accountability and traceability of the status of minerals in global supply chains.

The initiative offers companies and their suppliers an independent, third party audit that determines which smelters and refiners can be validated as "conflict free" in line with current global standards.

- To contribute to reducing the amount of greenhouse gases emitted, energy used and water consumed in connection with products and waste from products.

The Mobile Muster recycling process, which include both local and international recyclers, achieve positive results against all environmental indicators, particularly in the key indicators of global warming and resource depletion.

The logistics and recycling process impacts are low compared to the savings from avoiding primary production of plastics, ferrous metals and nonferrous metals. A Life Cycle Analysis (LCA), commissioned by Mobile Muster, suggested two important strategies for increasing the benefits from the program:

1. maximise diversion from landfill and other non-useful disposal paths (such as storage in drawers etc); and
2. increase yields and material qualities from recyclable fractions to maximise the virgin materials which are displaced.

Below are the extended results from the LCA. A copy of the LCA has been provided with this submission. Please note that the LCA is not to be made available publicly and is only for internal purposes within the Department of Environment and Energy, and not to be shared without AMTA's permission.

Annex 1 – Extended Results

		Per phone	Per kg phone	Per year
Global warming (GWP100a)	kg CO ₂ eq.	0.386	1.958	154,961
Abiotic depletion (elem., econ. reserve)	kg SB eq.	0.002	0.010	791
Abiotic depletion (fossil fuels)	MJ NCV	4.229	21.465	1,698,663
Photochemical oxidation	kg C ₂ H ₄ eq.	0.001	0.003	260
Particulate matter	kg PM _{2.5}	0.001	0.006	444
Human toxicity	CTUh	1.64E-06	8.34E-06	0.66

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

AMTA firmly believes that Mobile Muster sets the benchmark for a voluntary scheme under the Product Stewardship Act 2011. The Mobile Muster program demonstrates how the mobile industry has implemented, funded and managed a successful recycling program that is free and accessible to consumers. The ongoing commitment to the program by industry members also demonstrates that regulation is not needed in relation to mobile phone recycling and product stewardship in Australia. The Act can also act as a tool to motivate all industries to establish voluntary take back schemes that would otherwise not be considered.

Mobile Muster highlights how a voluntary scheme can successfully operate and achieve sound outcomes not only environmentally, but also deliver social benefits by way of a free service to all mobile phone users and by raising awareness of mobile phone recycling through communications, educational activity and outreach programs. Not only is the program free to all mobile phone users, but retailers, work places and local councils can become collection points at no cost as our service includes free collection units, processing and logistics to participants.

AMTA would like to see a refined and streamlined re-accreditation process. Currently a program is required to apply for re-accreditation by completing the same process used when applying for the initial accreditation. As the Department will already hold substantial data on an accredited program, including financial information from audits, we suggest that the re-accreditation process could be streamlined. Unless the program is not performing or there are identified gaps in the program's reporting, then the Department should consider simplifying the reaccreditation process.

AMTA notes that most other programs/schemes have not applied for voluntary accreditation and we believe there is an opportunity for Government to highlight the value of having an accredited scheme to encourage increased take up of the accreditation process.

AMTA notes that while the priority list as outlined is useful, the challenge remains as to how various products and industry sectors are defined specifically within electrical and electronic products. For example, industry participants may find they fall into more than one stewardship scheme due to the products they sell and the product scope being so broad. Convergence between technologies and products can further make this confusing and result in unintended consequences in terms of regulatory obligations.

AMTA suggests that further consideration should be given to making the priority list fit for purpose and more appropriately targeted. To help achieve this, AMTA recommends that further consultation with industry could assist in better defining sub-groups within the product scope. For example, potentially defining a telecommunications sub- group of products, to enable more products to be captured under an existing voluntary scheme, in this case, Mobile Muster.

This will also create some assurance to industry stakeholders that product that is already under a voluntary scheme is not being considered for regulatory action. AMTA is also willing to play an active role and engage with other industries to share knowledge on how to establish a voluntary program, like Mobile Muster, that meets their obligations under the Product Stewardship Act.

3. The operation and scope of the NTCRS.

The NTCRS has achieved great results since its inception with over 230,000 tonnes of electronic waste in the way of computers being collected and recycled. However, AMTA believes that there is a lack of awareness and understanding across the community about how the scheme works and what shared responsibility means.

More specifically, we note that there has been little communication about the scheme to the public. This can be evidenced by the volume of out of scope product that Mobile Muster receives each month. Aside from packaging, 15% of product that is received by the program is out of scope for Mobile Muster, including non-mobile phone batteries, modems, digital set top boxes, tablets and landline phones.

To ensure consistency in communications and message to the public; AMTA supports a coordinated approach between co-regulatory arrangements and believes Federal Government should lead a collaborative communications program with all existing arrangements under the NTCRS.

Mobile Muster highlights how a single product stewardship scheme has delivered an investment of over \$42 million to build up a solid collection network and maintain a strong marketing and communications approach. This is reflected by annual market research by IPSOS which found an awareness level of over 70% when it comes to mobile phone recycling. Consumers have established trust and awareness in a single brand, which promotes a simple message on how, why and where to recycle unwanted mobiles along with their batteries, chargers and accessories. Mobile Muster has also worked with other schemes, like Agsafe, and organisations, like Envirostream, to develop joint campaigns, collection units and communications that increase awareness and educate the community on mobile phone recycling.

The reuse market for mobile phones is growing and should be reflected in formulas for calculating available collection rates. Mobile Muster is committed to building up knowledge that clearly defines

what the reuse market looks like today and how it will expand over time and what effect it will have on the volume available to program to collect. Mobile Muster is committed investing further in developing its education program and developing resources to help consumers manage their personal data (stored on devices), which can be a barrier to recycling.

AMTA has conducted annual market research on ownership, use and disposal of mobile phone use since 2005. This has been vital information to help manage the program, set and review targets and to monitor shifts in consumer behaviour over time as they become more aware and engaged in the program. All these factors are key to determining waste arising and adding in a scaling factor.

AMTA believes that NTCRS arrangements should collaborate and contribute to similar market research and this information should be shared with all levels of government, with key data on consumer behaviour to be reported publicly each year, just as Mobile Muster does.

[4. The interaction of the Act with other Commonwealth, State, Territory and local government legislation, policy and programs.](#)

Local Government provides an important part of our public drop off collection network with many councils also promoting and educating their residents on the importance of recycling. This year we partnered with 384 councils throughout the country. Local councils increased their collections by 25% on the previous year.

Our partnership with local councils includes providing them with collection units and resources to help them collect mobiles and accessories plus promote mobile phone recycling to their residents.

[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.](#)

There are a number of mobile phone take-back and recycling programs around the world, similar to Mobile Muster that were established as voluntary initiatives, with self-sustaining financial structures.

In Japan, the Telecommunications Carrier Association (TCA) and Communication and Information Network Association of Japan (CIAJ) voluntarily collects used mobiles and accessories through approximately 10,000 retail outlets, regardless of carrier or manufacturer. They set three targets to promote recycling including 70% awareness of recycling, 70% material recycling rate and 30% collection rate. More information can be found at:

<http://www.ciaj.or.jp/en/news/news2017/383.html>

In Canada, Recycle My Cell is a national industry initiative led by the Canadian Wireless Telecommunications Association (CWTA) which links participating local programs together, making it easier for consumers to determine how and where they can recycle. As a voluntary program, Recycle My Cell meets the expectations of government regulations in each province and territory across Canada. The program report on two targets including increase awareness of cell phone recycling nationally to 80% and 100% customer satisfaction with the Recycle My Cell program. More information can be found at:

<https://www.cwta.ca>

In New Zealand, RE:MOBILE is the only government accredited mobile phone recycling scheme run by NZ Telecommunications Forum. RE:MOBILE has established targets to be achieved by 2020 for changes in consumer behaviour, 64% consumer awareness, 95% material recovery, reuse monitoring and recycling standards. More information can be found at:

<https://www.tcf.org.nz/assets/reports/tcf-remobile-annual-report-fy16-final-approved.pdf>

While the outcomes and targets of programs vary around the world, the Mobile Muster program, compares favourably and in is a leader in achieving high recovery rates, accessibility to the program and industry participation.

AMTA also notes that members of Mobile Muster offer a repair service within Australia that extends the life of devices. The program has also seen a 40% increase in collections from service centres again acknowledging that the repair market in Australia is growing as is the appetite of Australian consumers to repair their devices.

Conclusion

AMTA supports the Act, particularly its inclusion and support of voluntary, industry-led schemes and an accreditation process.

The mobile telecommunications industry is a strong advocate of a voluntary approach to product stewardship schemes. Mobile Muster is a strong example of a successful voluntary accredited scheme under the Act.

AMTA believes that there remains opportunity for the Government to play an active role in encouraging and promoting the establishment of voluntary schemes by other industries. The industry also feels that the Government can do more in promoting all schemes within the Act, and encouraging not only consumers but also all levels of Government to get involved.

AMTA looks forward to further engagement as the Government review of the Act continues.

Any questions about this submission can be directed to Spyro Kalos, Manager | Mobile Muster at spyro.kalos@amta.org.au or on 02 8920 3555.