



Consultation document

Ngā waeture tiaki rawa kua takoto i konei: Ngā taea me ngā pūhiko kaitā

Proposed product stewardship regulations: Tyres and large batteries



Ministry for the
Environment
Manatū Mō Te Taiao



Te Kāwanatanga o Aotearoa
New Zealand Government

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Message from the Minister

This consultation is about how we deal with the waste from used tyres and large batteries. Product stewardship means putting in place a framework to deal with products before they become harmful waste. We want to make sure those making, selling and using products take responsibility to recover the materials and prevent them ending up in landfills or the environment.

Thrown away improperly, tyres and large batteries can harm the environment through fire and toxic emissions. Conversely, being smart about how we use and handle these products at the end of their lives holds social and economic benefits of a circular economy.

Disposing of used tyres is a long-standing problem. Every year 6.5 million tyres are imported into New Zealand. Of these, less than a third are exported, recycled or used for agriculture purposes such as silage weights. Many go to landfill or are illegally dumped.

The regulations we are proposing here will support the implementation of the Tyrewise product stewardship scheme. They are the last piece of the puzzle to solve this problem, following on from the release of National Environmental Standards for the outdoor storage of tyres and our infrastructure investment at Golden Bay Cement kiln, which now uses used tyres for fuel - reducing coal use.

On the other hand, large batteries are a new product. Transitioning to a low-carbon economy requires major increases in renewable energy and electric vehicles – and both require large batteries. In 2020, an estimated 1,000 electric vehicle batteries reached the end of their useful lives. It is estimated that by 2030 that number could reach 84,000 each year.

We need to act now, before the quantities of large batteries become a burden on councils and communities, and harm our environment.

Both the product stewardship schemes for tyres and large batteries have been co-designed with industry and other stakeholders, so we can benefit from the best overseas experience and design a New Zealand solution that works for the economy, communities and the environment.

The schemes will create a level playing field for the sector.

Tyres will be the first of six priority regulated product stewardship schemes implemented in Aotearoa New Zealand. Future consultation will outline proposals for refrigerants, agrichemicals and their containers, farm plastics, electrical and electronic products (e-waste) and plastic packaging.

I encourage you to have your say on the proposed regulations. Your input will help us achieve a more sustainable country and environment.



Hon David Parker
Minister for the Environment

Glossary

Term	Definition
Circular economy	Linked to the low-carbon economy, a system designed to build a sustainable society. It is based on three principles: eliminate waste and pollution, keep products and materials in use, and regenerate natural systems
Co-design	In this context, the process of working groups designing schemes for managing priority products to meet the published guidelines and be eligible to apply for accreditation. These processes are co-funded by the Waste Minimisation Fund and report to the Ministry. The working groups include significant stakeholders (eg, industry, recyclers, local government, iwi) who would be affected by a regulated product stewardship scheme
E-waste	Waste electrical and electronic equipment (also WEEE)
End of life	At the end of useful product life
End of use	At the end of original product use, but able to be used for another purpose. For example, a battery no longer able to power an EV can be repurposed for storage of power from a solar energy system
EV	Electric vehicle – hybrid or fully electric
Free-rider	In this context, a person or company that obtains the benefits of a product stewardship scheme without paying their fair share towards costs of stewarding their products at end of life
Guidelines	In this context, the General Guidelines for Product Stewardship Schemes for Priority Products Notice 2020
Large batteries	Batteries over 5 kg in weight, typically used in electric and hybrid vehicles, stationary storage for local use such as solar power and off-grid systems and utilities, buffer units for fast charging stations, industrial uses such as mobile phone towers or data centres
Legacy product	Product that entered the market before being covered by a product stewardship scheme and has an owner or responsible person
Linear economy	An economy which takes resources, makes products, and then disposes of them to the environment. This results in pollution to air, water and land; climate change; release of persistent toxic substances; unsustainable rates of harvest for food and materials; and loss of species, habitats and ecosystems
Low-emissions/low-carbon economy	An economy based on power sources and processes that have low output of carbon dioxide and other greenhouse gas emissions into the atmosphere
Orphan product	A product that entered the market before being covered by a product stewardship scheme and has been abandoned by an owner or liable brand owner
Product stewardship	When people and businesses take responsibility for the lifecycle impacts of products, either voluntarily or in response to regulations
Priority product	A product declared to be a priority under section 9 of the Waste Minimisation Act
Producers	This includes manufacturers, brand owners, and importers of a priority product
Product stewardship organisation (PSO)	The organisation which implements an accredited product stewardship scheme. The guidelines require PSO governance to represent the interests of producers and consumers of the priority product and the wider community as informed by stakeholder advisory groups
Regulated product stewardship	Product stewardship covered by WMA regulations to ensure that responsibility for reducing end-of-life product impacts is shared by the producers, brand owners,

Term	Definition
	importers, retailers and consumers rather than the wider community, and accredited schemes are cost-effective and accountable
Second-life product	An end-of-life product able to be used again
Second-life repurposer	A person or business that takes waste products and upgrades them to allow another product life
Sellers and distributors	Under the WMA (section 5) 'sale' is defined as "an offer for sale" as well as "distribution or delivery, whether or not for valuable consideration (including delivery to an agent for sale on consignment)". This is relevant as the 'participation obligation' regulation option (section 22(1)(a)), if used, would prohibit sale of a priority product except in accordance with an accredited scheme for that product
Take-back	Collection for recycling provided by those who sell the product. Options include collective responsibility for depots, collection from businesses and take-back at individual retail outlets
Tyre-derived fuel (TDF)	Fuel derived from whole or shredded end-of-life tyres
Voluntary product stewardship	Voluntary actions by producers and other stakeholders to reduce the impact of products, whether under an accredited scheme or not
Waste minimisation	The reduction of waste, and the reuse, recycling, and recovery of waste and diverted material
WMA	Waste Minimisation Act 2008
WMF	Waste Minimisation Fund – derived under the WMA from 50 per cent of the waste disposal levy, the balance of the levy going to district and city councils

Introduction

About this consultation

Towards a circular economy

New Zealand currently has a 'linear' economy. This involves taking resources, making products, then discarding the products when there is no longer a use for them.

We are now making the shift to a circular economy. With this approach, we do not dispose of or discard used goods and products as a waste product, but return them to the system through reuse, repair, repurposing or recycling, reducing the impacts of waste and extracting greater social and economic benefit from resources.

Product stewardship

The Waste Minimisation Act 2008 (WMA) has various tools to support the circular economy. One approach that could reverse linear resource use is 'regulated product stewardship', through regulations in the WMA. This would increase the responsibility of manufacturers, importers, retailers and consumers/users to:

- better manage end-of-life products
- create incentives to keep using resources.

Priority products

In July 2020, the Government declared six products as priority products, to enable use of regulated product stewardship tools under the WMA. These products are: tyres; electrical and electronic products (e-waste); agrichemicals and their containers; farm plastics; refrigerants and other synthetic greenhouse gases; and plastic packaging.

Once a product is declared a priority, a stewardship scheme must be developed and accredited for that product. Regulation can also be made to require producers and sellers to comply with an accredited scheme.

Designing stewardship schemes

Deciding how an accredited scheme will work is an important step. We are taking a co-design approach, with working groups that include significant stakeholders (such as industry groups, recyclers, local government and iwi) who would be affected by a scheme. For some products, this process has been completed, and for others it is still underway.

Have your say

The purpose of this consultation is to:

- seek your views on **the proposed WMA regulations for tyres and large batteries**, set out in this document
- understand business and consumer perspectives on the possible impacts of these proposals.

We welcome your feedback on the options set out in this document.

Overview of the proposed schemes

- Tyres: [appendix 1](#).
- Large batteries: [appendix 2](#).

Sending feedback

To submit your comments, you can complete the online feedback form at <https://consult.environment.govt.nz/waste/rps-tyres-and-large-batteries>

For full details, see [How to have your say](#).

Consultation questions

The questions throughout this document are a guide only. You do not have to answer them all, and we encourage any comments. [View all questions](#).

Progressing regulated product stewardship | Te kōkiritanga o ngā waeture tiaki rawa

The Government wants Aotearoa New Zealand to have a productive, sustainable, inclusive and low-emissions economy. The aim is for a more prosperous and fairer society, allowing for economic growth within environmental limits.

Designing out waste: the circular economy approach

A 'linear' economy (take–make–dispose, figure 1) is the dominant system globally. Many countries, including several of New Zealand's trading partners, are now challenging this model as unsustainable.

Symptoms of market failure for the linear economy include: pollution to air, water and land; climate change; release of persistent toxic substances; unsustainable rates of harvest for food and materials; and loss of species, habitats and ecosystems.

Figure 1: Comparison of linear and circular economies



Harmful waste

In 2018, municipal landfills received around 3.7 million tonnes of waste – roughly 750 kilograms for every New Zealander. This makes New Zealand one of the highest generators of waste per person in the OECD.¹ Regional surveys indicate that most farm waste is still burnt or buried in unlined pits.² Public opinion surveys consistently show majority support for better management of waste.

¹ [Waste - Municipal waste - OECD Data](#)

² Eg, Waikato Regional Council and Bay of Plenty Regional Council. 2014. *Rural Waste Surveys Data Analysis. Waikato & Bay of Plenty*; Environment Canterbury. 2018. *New Zealand Waste Minimisation Project*.

Poor management of products when they become waste can damage taonga that are guaranteed protection under Te Tiriti o Waitangi – for example, through direct pollution of water, air and land, and indirectly through contribution to climate change. This is a general risk rather than one specific to individual iwi or rohe (territory). Accordingly, specialist iwi advisors have informed the product stewardship programme and scheme design.

Benefits of a circular economy

By moving towards a circular economy we keep resources in use for as long as possible, for maximum social and economic value. We can recover and regenerate these resources into new products and materials, instead of discarding them at end of life.

Circular use of resources is essential to:

- reduce all forms of waste, including emissions of greenhouse gases
- remove the local impacts of waste, to maintain healthy communities and ecosystems.

New Zealand could gain significant financial and environmental benefits from expanding resource recovery systems, and creating new income streams and industry onshore. Proposed stewardship fees set at product entry into market will capture funding to improve the recovery and recycling facilities that provide environmental and social benefits.

Apart from a few exceptions of voluntary stewardship, producers are not responsible for the lifecycle impact of their products. These costs largely fall at end of life on councils, communities and the environment. Regulated product stewardship can level the playing field, by:

- ensuring that all producers, importers, and retailers of a priority product play their part in a scheme
- requiring schemes to provide free waste product collection to encourage reuse and renewal.

Designing the priority product scheme

Declaration of priority products

In July 2020, the Government declared six products under the Waste Minimisation Act (WMA) as priority products. This opened the door to regulated product stewardship and guidelines for schemes managing such products.³ This decision was informed by public consultation, which indicated majority support.⁴

³ Declaration of Priority Products Notice 2020 (updated 29 September 2020) <https://gazette.govt.nz/notice/id/2020-go4533> and General Guidelines for Product Stewardship Schemes for Priority Products Notice 2020 <https://gazette.govt.nz/notice/id/2020-go3342>.

⁴ Ministry for the Environment. 2020. *Proposed priority products and priority product stewardship scheme guidelines: Summary of submissions* <https://environment.govt.nz/publications/proposed-priority-products-and-priority-product-stewardship-scheme-guidelines-summary-of-submissions/>.

The first priority products declared under the WMA are:

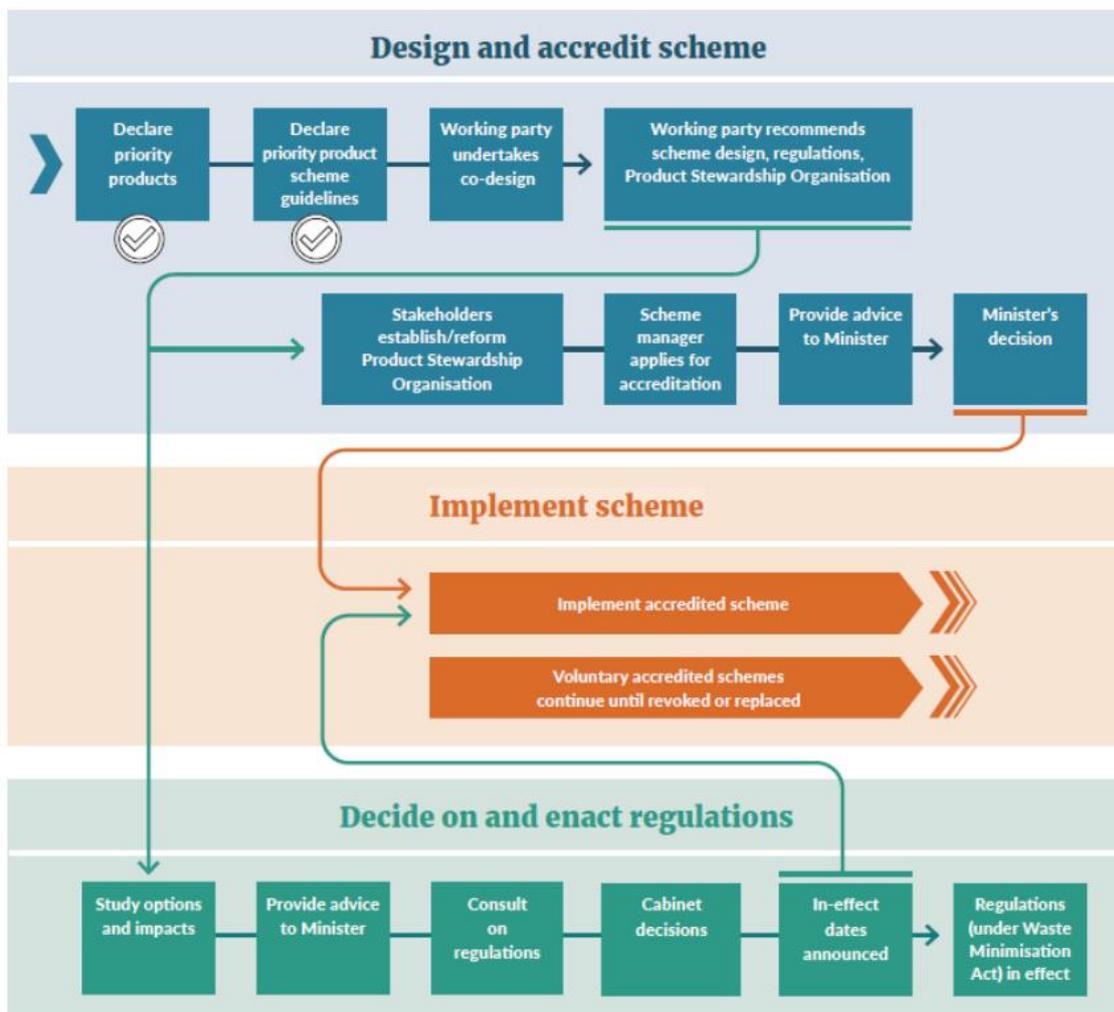
- tyres
- electrical and electronic products (includes large batteries)
- agrichemicals and their containers
- refrigerants
- farm plastics
- plastic packaging.

Co-design, regulation and implementation

Developing and implementing effective stewardship schemes for these products under the WMA involves three stages, which may run in parallel (figure 2):

- design and Ministerial accreditation of the scheme
- decisions on WMA regulations to support the scheme
- implementation of the scheme.

Figure 2: Process for an accredited regulated product stewardship scheme



The schemes for each of the products are currently at different stages (table 1).

Table 1: Progress towards regulated stewardship of priority products

	Priority products	Co-design			Establish new PSO		New PSO accreditation		Voluntary scheme accreditation expiry	Earliest possible in-effect start date
		Started	Report to MfE	Lead parties for co-design	Started	In place	Applied	Granted		
1	Tyres	Yes	Yes	Product Stewardship Foundation		Yes	Yes	Yes	<i>(no scheme)</i>	March 2023
2	Large batteries	Yes	Yes	WasteMINZ and Battery Industry Group	Yes				<i>(no scheme)</i>	March 2023
	Other e-waste	Yes		TechCollect NZ					February 2022 (<i>Fuji-Xerox</i>) and Nov 2023 (<i>Sharp</i>)*	2024
3	Refrigerants	Yes	Yes	3R Group Ltd	Yes		Yes		August 2024	Sept 2023
4	Agrichemicals	Yes	Yes	Agrecovery Foundation	Yes				August 2024	Sept 2023
5	Farm plastics	Yes		Agrecovery Foundation	Yes				June 2024	Sept 2023
6	Plastic packaging			<i>Yet to be determined</i>					March 2025 (<i>soft plastics</i>)	2024

PSO = Product Stewardship Organisation

* Covers Sharp or Fuji-Xerox products only. The mobile phone scheme accreditation has expired.

Consultation: Your views on stewardship schemes

We are seeking public feedback on regulations for product stewardship schemes for tyres and large batteries. The proposed regulations for stewardship of these products are in the next section.

For an overview of the proposed schemes, see:

- Tyres: [appendix 1](#).
- Large batteries: [appendix 2](#).

Under the WMA, accreditation of a scheme by the Minister for the Environment is not automatically subject to public consultation. Before accrediting, the Minister must be satisfied that a scheme meets statutory tests. This includes consistency with the 2020 guidelines for the stewardship schemes, published after the results of public consultation.

Consultation on other priority products

Work is underway for public consultation on regulations for stewardship schemes for **agricultural chemicals and their containers, refrigerants, farm plastics, and other e-waste**.

Next steps

- Subject to feedback on this consultation, we propose to announce decisions on WMA regulations for priority product stewardship schemes for **tyres and large batteries** in 2022.
- Subject to those decisions the next consultations, in 2022, may cover stewardship regulations for **farm waste (agricultural chemicals and farm plastics) and refrigerants**.
- Timing for consultation on regulations for **wider e-waste and plastic packaging** will depend on the outcomes of their respective co-design processes.

Governance and role of stewardship schemes

Under the WMA and the guidelines published under section 12, PSOs are expected to meet certain requirements, including:

- Accredited by the Minister for the Environment if meets WMA criteria (section 15), which may be revoked if scheme objectives not being met (section 18).
- Legally registered non-profit entity (guidelines).
- Independently audited, and annually reporting to the Ministry and public (guidelines).
- Directors or governance boards represent producer and consumer interests and are informed by stakeholder advisory groups (guidelines).
- Empowered to collect, receive and manage stewardship fees for identified purposes if established by regulation (section 23(1)(d)).
- Full net costs of managing priority products met by stewardship fees, and product collection free to businesses and households (guidelines).
- The scheme will minimise waste and harm, maximise benefit from the product at end of life, and support the move to a circular economy (guidelines).

Wider work programme

Regulated product stewardship is part of a larger existing work programme to reduce waste and shift to a low-carbon, circular economy.

The **Waste Reduction Work Programme** has the following objectives:

- build the foundations for a transformed waste system
- expand investment in the sector
- introduce system-level change
- address individual material streams and products
- strengthen compliance.⁵

There are also strong links with New Zealand's **Emissions Reduction Plan**, in response to the recommendations of the Climate Change Commission.⁶

Waste: reducing harm and increasing benefits

The priority products declared in 2020, including tyres and large batteries, can cause significant harm to the environment if not properly managed. Although modern landfills are highly engineered and professionally run to minimise environmental damage, older landfills with poorer design still operate, and erosion and natural disasters can breach landfills that are closed or still working.⁷

When allowed to enter the environment, many waste products can cause toxic pollution through fire, leachate or direct discharge. Tyres and large batteries are in this category, as are refrigerants, e-waste and agrichemicals. Fires are also an immediate risk to human health and property.

Evidence from other jurisdictions shows that there are more economic opportunities from recovering resources than there are from sending them to landfill.⁸ Stewardship will require significant expansion of voluntary schemes, or new schemes for each category, which will generate new industries and jobs. As import supply chains remain unstable under COVID-19, resilient onshore resource recovery is even more valuable.

⁵ <https://environment.govt.nz/publications/waste-reduction-work-programme>.

⁶ Recommendations of the Climate Change Commission address refurbishment of EV batteries and reduction of refrigerant emissions (eg, recommendations 18, 23) *Ināia tonu nei: a low emissions future for Aotearoa* (amazonaws.com). *Consultation on an Emissions Reduction Plan* for New Zealand began in October 2021.

⁷ Eg, the Fox River landfill disaster in December 2019; <https://www.stuff.co.nz/environment/123675840/remaining-rubbish-to-be-removed-from-fox-river-and-nearby-landfill>.

⁸ As an average across a range of studies, for every five jobs in landfilling, 15 to 20 jobs could be created in resource recovery: *Reducing waste: a more effective landfill levy – consultation document*, page 16 (Ministry for the Environment, 2019).

Tyres

About 6.5 million tyres reach their end of life each year in New Zealand. Currently, there are limited options for disposing of them in an environmentally friendly way. An estimated 30 per cent will be exported, recycled, used in agriculture (eg, silage weights) and, since 2020, used to replace coal in a cement plant. The remaining tyres will be sent to landfill, illegally dumped or left in storage or stockpiles. Stored tyres pose a risk of fire, toxic emissions and leaching. Large tyre fires have occurred in New Zealand.⁹

Benefits

If New Zealand can use its bank of end-of-life tyres as a valuable resource, instead of seeing them as a waste to discard, both the environment and the economy will benefit.

Tyres are converted into a range of products overseas, and contain significant stored energy (more than coal, with lower carbon emissions). However, the New Zealand market for end-of-life tyre products is not mature, and the industry needs encouragement to shift from a linear to a circular model.

Tyrewise

A working group to co-design a regulated stewardship scheme for tyres was set up in 2012, with support from the Waste Minimisation Fund (WMF). The voluntary tyre stewardship scheme Tyre Track (2004-2009) had been ineffective, and the motor trade industry considered that a regulated framework was essential to control free-riders. Under the umbrella of the Product Stewardship Foundation, the group represented major tyre importers and retailers, vehicle importers, vehicle fleet managers, the Motor Trade Association, the Automobile Association, local government and tyre recyclers.

Their report to the Government in 2013 proposed the Tyrewise scheme. The Government did not progress this, favouring other complementary measures which have since come into effect:

- A National Environmental Standard for nationally consistent rules for the responsible outdoor storage of tyres, in effect as of 20 August 2021.
- Infrastructure for onshore use of tyre-derived fuel (TDF) has been advanced through the WMF funding \$15.6 million of the \$25.4 million project that uses TDF to power Golden Bay Cement's kiln and \$3.8 million of a \$6.4 million project with Waste Management NZ Limited to establish a tyre recycling facility in Auckland for the processing of end-of-life tyres collected from across the North Island. Currently, the plant is producing 15,000 tonnes of TDF per year with the capacity to make up to 30,000 tonnes per year, as the market demands.

A WMA regulated product stewardship framework and the proposed Tyrewise processing and use incentive payments are required for self-sustaining economics of TDF manufacturing and use.

⁹ Eg, most recently in May 2020 in Rolleston ([Rolleston tyre fire extinguished after seven-hour battle | Newshub](#)) and January 2021 in Amberly ([Inaction from authorities blamed for second massive tyre blaze | Stuff.co.nz](#))

In 2018 the Tyrewise co-design group was re-convened with WMF co-funding to update their 2013 report. This was completed in 2019 and published in 2020.¹⁰

Tyrewise is designed to promote product stewardship and environmentally-sound waste management for end-of-life tyres and support transition to a circular economy. A summary of the scheme and proposed stewardship fees is in appendix 1.

Accreditation has been granted to Auto Stewardship New Zealand to manage the Tyrewise scheme. However, Tyrewise cannot be implemented until regulations set the framework for industry participation and collection of tyre stewardship fees.

Large batteries

Moving to a low-carbon economy requires a big increase in renewable energy and electric vehicles (EVs), and both require large batteries. If large batteries end up in the landfill or illegal dumping, they would release toxins such as heavy metals into the environment. The most common large battery chemistry cell currently used is lithium-ion, which also poses a risk of explosion and fire if damaged.

In New Zealand, an estimated 1,000 large batteries reached their end of use in 2020. By 2030 there could be up to 84,000, mainly due to the uptake of EVs.¹¹ There is currently no widely accessible system for capturing large batteries disposed of, nor a facility for processing and recovering materials onshore. Some large batteries are refurbished, some are sorted and shipped overseas for processing, but based on current practices a large proportion will likely be stockpiled or left in end-of-life vehicles and shredded.

Benefits

Regulated stewardship schemes could create new income streams and industry onshore. Large EV batteries may retain 70–80 per cent of their capacity when they reach the end of useful life in a vehicle after 10-15 years. EV battery life can be extended through refurbishment and second life uses.

Recycling can reclaim valuable metals such as lithium, cobalt, nickel, aluminium and copper, but require specialist handling due to the risk of accidental discharge of toxic metals, and of fires.

Stewardship scheme

Large batteries are part of 'e-waste' and thus a declared priority product under the WMA. To enable attention to unique aspects of the large battery sector a separate co-design process was used. The large battery scheme will cover batteries for large (5 kg and above) vehicles and stationary power system storage. Medium-sized electric vehicle batteries such as for e-bikes

¹⁰ 3R Group Ltd. 2020. Regulated product stewardship for end-of-life tyres. 'Tyrewise 2.0' updated report: Update on industry solution developed between 2012-2015 'Tyrewise 1.0'. Prepared by the Tyrewise Project Managers, 3R Group Ltd, final released 22 July 2020. <https://www.tyrewise.co.nz/tyrewise-2-0-master-report-released/>.

¹¹ In June 2021 the Government announced the Clean Car package to increase the uptake of low-emission vehicles. This will help meet New Zealand's 2050 carbon-neutral target and create jobs to support the economic recovery.

and e-scooters will be covered by the wider e-waste scheme. The two schemes will be expected to collaborate on collection and treatment facilities.

The co-design for large batteries was led by stakeholders through the Waste Management Institute of New Zealand (WasteMINZ) and the Battery Industry Group (B.I.G.), and co-funded through the Waste Minimisation Fund. The group reported to the Government in May 2021.¹²

The aim of the proposed large battery scheme is to maintain the value of large batteries in a circular economy for as long as possible. This would include maximising second-life use, and the value extracted from them at end of life. A summary of the scheme and proposed stewardship fee to support it is in appendix 2.

The co-design working group is currently setting up a 'transition team' to establish the PSO and apply for scheme accreditation.

The proposed large battery scheme cannot be given effect until regulations set the framework for industry participation and collection of battery stewardship fees.

¹² Battery Industry Group. 2021. *New Zealand Battery Product Stewardship Research Milestone Three: Scheme Proposal, Report for the Ministry for the Environment.*

Regulatory options for product stewardship | Ngā whiringa waeture mō te tiaki rawa

Sections 22 and 23 of the WMA contain the powers to create regulations that support a product stewardship scheme (table 2).

Table 2: WMA regulations that support stewardship schemes

Regulation	Rationale
Participation obligation (WMA 22 (1)(a))	
Participation can be required by prohibiting sale of a priority product except in an accordance with an accredited product stewardship scheme.	Without this regulation, participation in an accredited scheme is not enforceable. This regulation will establish a level playing field for industry, and ensure producers take responsibility for mitigating the environmental impacts of the products.
Product stewardship fee (WMA 23(1)(d))	
A fee can be set to cover the end-of-life management of a product.	Fees charged at point of disposal discourage people from using legitimate disposal services. Fees charged on import and domestic manufacture will cover the end-of-life product stewardship costs and make collection services free-of-charge to the public.
Scheme monitoring cost-recovery (WMA 22(1)(e))	
Recover Ministry for the Environment monitoring costs from the scheme manager.	Without this regulation, costs to monitor a scheme would be paid by the general taxpayer rather than the priority product supply chain.
Information provision (WMA 23(1)(i))	
Set requirements for product stewardship organisations (PSOs), importers and retailers to provide specified information to the Ministry relating to regulations under 23(1)(a) through (e).	The Government requires information to monitor and enforce stewardship requirements.
Quality standards (WMA 23(1)(g) and (h))	
Quality standards can be set to ensure that best practice is followed for managing priority products to prevent harm.	Some priority products are hazardous and require specialist management by trained people. This standard would reduce the risk of harm to the environment and human health.
Take-back service (WMA 23(1)(c))	
Require the PSO to provide a free and convenient product collection service.	The Government can set enforceable expectations for service delivery, and the PSO can use cost-effective ways to meet these expectations.
Targets (WMA 23(1)(c))	
Product collection and recycling targets can be set for accredited schemes.	Targets would enable the Government to set enforceable expectations for service delivery and ensure that the public and priority product sector have access to convenient collection services.

The options

We considered five options for implementing the stewardship schemes. Two can be implemented under the current WMA; the other three would require amendment to the WMA or new legislation.

Further information on the options is in [appendix 3](#).

Option A: WMA basic foundation.

Option B: WMA basic foundation plus enhanced take-back and targets.

Option C: WMA basic foundation plus enhanced stewardship fee collection.

Option D: Central government control.

Option E: Polluter pays tax or levy.

Assessing the options

To give timely effect to the Government's priority product decisions, we propose using existing WMA powers until additional options are available under revised legislation. If this occurs in time for subsequent consultations on priority product regulations, we can make adjustments accordingly.

For the time being, being able to give effect to the option under existing legislation is part of the current assessment criteria (table 3).

Table 3: Criteria for assessing options

Criterion	Description
Effective	Is the option likely to significantly: <ul style="list-style-type: none">improve reuse of resources/minimise waste?reduce harm from the products?
Fair	Is the option likely to: <ul style="list-style-type: none">move costs and responsibilities from communities to producers and consumers?encourage full sector participation?
Efficient	Can the option be implemented: <ul style="list-style-type: none">without placing undue costs on the community, business or public funds?under the current legislation?

We ranked the options against these criteria, with the following preliminary results:

1st Option B: WMA basic foundation plus enhanced take-back and targets.

2nd Option A: WMA basic foundation.

3rd Option C: WMA basic foundation plus enhanced stewardship fee.

4th= Option D: Central government control.

4th= Option E: Polluter pays tax or levy.

Table 4 shows the assessment of the options against the criteria. **We are consulting on whether to proceed with Option B, the highest ranked option. This uses all the WMA regulations listed in table 2.** We will finalise the assessment after this consultation, based on the submissions we receive.

Table 4: Comparison of WMA regulatory options against assessment criteria

	Assessment criteria						
	Effective Likely to significantly improve:		Fair Likely to:		Efficient Able to be implemented:		Net 'yes' scores
	circular resource use/waste minimisation	reduction of harm in relation to the products	move costs and responsibilities to producers and consumers	encourage full sector participation	without placing undue costs on the community, business or public funds	under existing legislation	
Individual WMA regulation options							
Obligation to take part (WMA 22(1)(a))	Yes	Yes	Uncertain (yes with funding)	Yes	Yes	Yes	5
Set product stewardship fee (WMA 23(1)(d))	Uncertain (yes with targets)	Uncertain (yes with targets)	Yes	Yes	Yes	Yes	4
Take-back service + targets (WMA 23(1)(c))	Yes	Yes	Uncertain (yes with funding)	Yes	Uncertain (yes with targets)	Yes	4
Quality standards (WMA 23(1)(g and h))	No	Yes	Uncertain (yes with funding)	Uncertain (if enforceable*)	Uncertain (if enforceable*)	Yes	2
Set user-pays monitoring fees (WMA 22 (1) (e))	No	No	Yes	No	Yes	Yes	3
Information provision (WMA 23(1)(i))	Uncertain (supports monitoring and enforcement)					Yes	1
Import data from Customs (WMA 24)	Uncertain (supports monitoring and enforcement)					Yes	1
Intervention package options (see appendix 3)							
A – Basic foundation	Uncertain (yes with targets)	Uncertain (yes with targets)	Yes	Yes	Yes	Yes	4
B – Enhanced take-back and targets (recommended)	Yes	Yes	Yes	Yes	Yes	Yes	6
C – Enhanced stewardship fee collection	Yes	Yes	Yes	No	Yes	No	4
D – Central government control	Yes	Yes	Yes	No	Uncertain (adds costs)	Uncertain	3
E – Polluter pays tax or levy	Uncertain (depends on design)		Yes	No	Yes	No	2

* Packages A and B add enforceability by regulating matters otherwise left to guidelines, which are difficult to enforce.

The proposed regulations

Obligation to take part

We propose to prohibit the sale of a priority product except in accordance with an accredited scheme under section 22(1)(a) of the WMA. This means producers, sellers and distributors¹³ of tyres or large batteries would be required by law to act in accordance with an accredited scheme for that product, to place the goods on the New Zealand market.

Currently, there is no such requirement to take part in a stewardship scheme for any product in New Zealand.

What it means to “act in accordance with an accredited scheme” will be clarified when a scheme is accredited. At the time of announcing a decision to regulate, and before the regulations take effect, the Ministry would publish this information on its website, and ensure that the PSO provides the essential information to parties likely to be affected. Other parties that can participate on a voluntary basis (eg, the public and local authorities) will also have access to the information on the Ministry and PSO websites and via information campaigns.

Roles and responsibilities of key players

- For the tyre scheme, see [table 9](#).
- For the battery scheme, see [table 13](#).

Why require participation?

The combination of accrediting suitable schemes and introducing this regulation could significantly increase the beneficial diversion of priority products away from landfill or illegal dumping in New Zealand. Evidence from international jurisdictions where participation in such schemes is compulsory for producers shows much higher rates of diversion from landfill or illegal dumping than seen here under voluntary schemes.¹⁴

If WMA section 22(1)(a) is not implemented:

- there would not be a level playing field within priority product supply chains, as no party would be required to participate, resulting in the free-rider issues experienced by voluntary schemes
- there is unlikely to be a drop in the current rates of disposal to landfill or illegal dumping of the priority products.

¹³ Under the WMA (section 5) ‘sale’ is defined as “an offer for sale” as well as “distribution or delivery, whether or not for valuable consideration (including delivery to an agent for sale on consignment)”.

¹⁴ Table 2 in *Proposed priority products and priority product stewardship scheme guidelines: Consultation document*. (Ministry for the Environment, 2019)

Question 1

Do you agree in principle that a regulated framework should be introduced to ensure effective stewardship for:

- a. end-of-life tyres?
- b. end-of-life large batteries?

If not, why not?

Question 2

Do you agree with the proposal to make it mandatory to sell a product only in accordance with an accredited scheme for:

- a. tyres?
- b. large batteries?

If not, why not?

Question 3

If you had to take part in a proposed scheme, how would this affect your business?

- a. For tyres – Tyrewise scheme (appendix 1)
- b. For the large battery scheme (appendix 2)

Please give details or anticipated costs, benefits and other impacts.

Product stewardship fee

The Government proposes to set a product stewardship fee on imported and domestic-manufactured tyres and large batteries under sections 23(1)(d) and 23(1)(j) of the WMA. This would require producers and importers to pay a fee for tyres and large batteries at entry into the market.

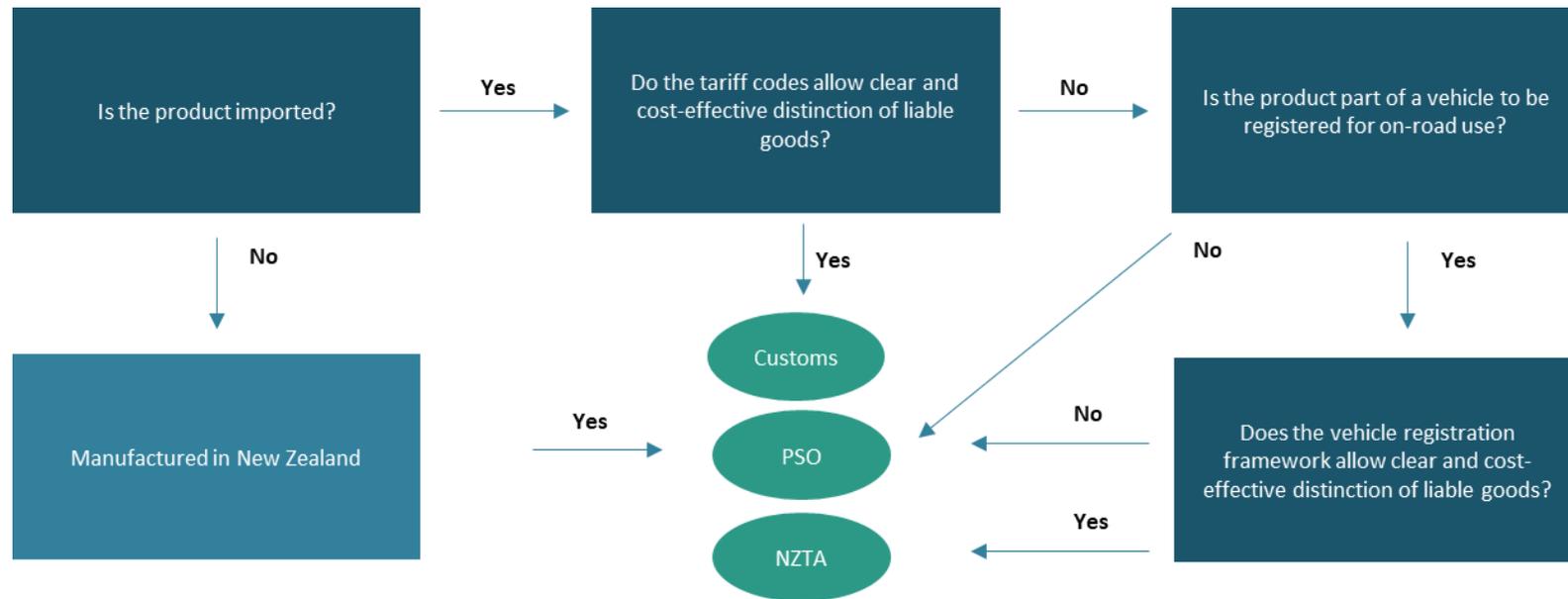
To identify liable parties and ensure they pay their fair share, the fee collection point must offer both clear identification of liability and cost-effective delivery.

The three potential collection agents being considered are Customs, NZTA and the accredited PSO. For each of the priority products, and different ways of entry to the market, the decision may need to vary (figure 3).

The tariff codes for tyres are well differentiated, but those for large batteries are not. Whether collection costs are cost-effective will be determined after consultation, and before regulations are made.

Based on this preliminary analysis, we have proposed the fee collection entities for tyres and large batteries (table 5). We are still gathering information on some products, so there are several options.

Figure 3: Selection process for fee collection entities



Customs = New Zealand Customs Service
 NZTA = Waka Kotahi New Zealand Transport Agency
 PSO = Product Stewardship Organisation (accredited)

Table 5: Proposed fee collection entities

Priority product	Imported			New Zealand manufactured ¹⁵
	Loose	Attached to vehicles		
		On-road use	Off-road vehicles	
Tyres	Customs	NZTA or PSO	PSO	PSO
Large batteries	PSO	NZTA or PSO	PSO	PSO

Customs = New Zealand Customs Service, NZTA = Waka Kotahi New Zealand Transport Agency, PSO = Product Stewardship Organisation.

Why impose a fee?

At present many tyre retailers charge fees to customers to dispose of tyres, sometimes called an ‘environmental fee’. This fee is not part of any scheme, and there is no accountability or transparency on how it is set or used. In practice, only part of the fee is spent on collection services, contributing to under-resourcing of collection services and inappropriate disposal of tyres.

A fee would ensure all sector players contribute to the cost of managing their product, and provide transparency and certainty in the use of fees and end-of-life product destination.

If WMA section 23(1)(d) is not implemented:

- it is unlikely that the participation requirement (WMA section 22(1)(a)) can be implemented. As section 23(1)(d) expressly allows the Minister to set the fee amount in regulations, regulations cannot empower the PSO to set the fee amount itself
- the PSO will not receive enough funding for the safe management of priority products and associated infrastructure in New Zealand.

Monitoring and enforcement

We also propose to set requirements for the PSO under WMA section 23(1)(i), to provide information to the Secretary for the Environment on collecting and disbursing fees, for effective monitoring and enforcement.

Points to consider

- For the PSO to effectively collect fees on imported products, they would need to have access to data on importers, which is confidential. Although the Ministry could obtain this under WMA section 24 for the purposes of enforcing regulations, it could not be released to the PSO. If tariff codes allow clear identification of liable products, we consider Customs collection likely to simplify the identification of liable parties and maximise the fee capture rate. For either scenario there is a risk of importers stating false tariff codes, to evade fees.

¹⁵ To the best of our knowledge there are currently no New Zealand manufacturers of tyres or large batteries. To be consistent with international trade rules, both importers and domestic producers should have the same obligations.

- For priority products with fewer easily identified market players, PSO identification of liable parties would be less challenging. The large battery co-design group proposed collection by the PSO, but the tyre co-design group proposed Customs and NZTA.
- Any new collection system will require new or amended information technology systems and create ongoing transaction costs, for both the PSO and any agencies collecting a fee. These will need to be accounted for in setting the fee level, and deducted from the fee collected. We will finalise the fee levels after consultation.
- If agencies are to collect fees, administrative arrangements would need to be confirmed between the Ministry for the Environment and the New Zealand Customs Service and/or Waka Kotahi New Zealand Transport Agency. This would include ensuring that collection costs are deducted in favour of the agency before passing on the balance to the accredited PSO.

Fee rate

The proposed rate for tyres is on par with the average price of current ad hoc fees, and would replace them. The proposed fee for large batteries would be a new cost.

The initial fee rate will be based on the cost of encouraging environmentally sound management of the product at end of life. We expect that we will need to adjust the level roughly three-yearly, as the estimates and the onshore collection and processing system mature.

The published guidelines for priority product stewardship schemes include a requirement for scheme costs to be internalised, and collection services to be free to end-users.¹⁶ Therefore the fee must cover the costs of this service.

Expenses included in the fee:

- stewardship fee collection and administration
- priority product management: collection, transportation, processing
- information for participants and product consumers
- compliance, monitoring and enforcement
- developing and maintaining infrastructure and market development partnerships
- organisation administrative costs: staff, governance, overheads
- reporting.

For more details, see **tyres:** [appendix 1](#), **large batteries:** [appendix 2](#).

¹⁶ “Full net costs for stewardship of priority products at end of life met by product or producer fees” and “free and convenient collection of the priority product for household and business consumers at end of life”.

Fee for tyres

For tyres, the proposed fee is \$5.50 per equivalent passenger unit (EPU).¹⁷ An EPU is a standardised measure for the quantity of tyres equivalent to the weight of a 'typical' passenger tyre. For details of fees by type of tyre, see [table 8](#) and [table 9](#) in [appendix 1](#).

Fee for large batteries

For large batteries the proposed fee structure is a fixed fee plus a variable fee, with indicative costings of \$56 per battery and \$0.52 per kg. The fixed plus variable fee structure more accurately reflects the actual cost drivers of managing each battery than either fixed or variable fees alone. Weight is used as the standard unit of measure for the variable fee, as research found weight to be more equitable and reflective of recycling costs than use of kilowatts per hour. Details are set out in [appendix 2](#).

Based on assumptions of the projected number of batteries (driven mainly by EV fleet growth rate), the fee will need to be adjusted over time. Slower growth of the fleet means national system costs for historic batteries entering end of life are shared among fewer new battery imports. As the number of batteries entering use is expected to increase faster than the numbers reaching end of life, fees are expected to decrease, before eventually increasing again as the numbers of batteries entering and leaving use approaches equilibrium.

Battery fee: your views

We invite those engaged in this sector of the market to send feedback, including on:

- whether the proposed fixed fee plus variable fee structure is appropriate in comparison to variable fee structure
- information to help select the initial rate for battery stewardship (eg, current transport, processing and net refurbishment or export costs)
- which entity is best placed to collect the battery stewardship fee
- whether the basis of battery weight should include associated components (eg, casings, cooling systems) and where such information can be found
- where large battery weight information is recorded, and if this information is readily available.

Coverage of legacy products

'Legacy' refers to product that entered the market before being covered by a product stewardship scheme and has an owner or responsible person. 'Orphaned' products are similar except they have been abandoned by owners.

The guidelines require the stewardship schemes to fully or substantially fund the collection and management of legacy and orphaned products.¹⁸ However, the WMA fee-setting powers

¹⁷ Note: this may be recalculated as low as \$4.75 prior to lodgement of final draft for consultation.

¹⁸ <https://gazette.govt.nz/notice/id/2020-go3342>, section 4(1)(b)(iii).

in 23(1)(d) require a clear connection of charges to services, unlike a levy which can fund broader purposes.¹⁹

Products like tyres and large batteries take a number of years to enter the waste stream after their first use. If stewardship fees are paid on new products coming into the market, the funds will be paying for the management of older products coming into the stewardship system that year. Likewise, the products on which the fees are paid will themselves be managed in future years, using fees collected on new products later. This can pose a fiscal risk if volumes of new products are significantly lower than volumes of those collected for processing. Averaging costs over several years can be used to set a fee level that poses less risk.

An alternative approach is to allocate fees to producers by brand volume once they are collected for processing. That year's fees will still pay for previous year's products, but the brand owners may feel the balance is fairer if brand share fluctuates significantly from year to year. However, this method imposes additional costs in counting and billing by brand, and difficulty when the brand is difficult to ascertain (labels not present or illegible) or where the brand owner is no longer in the market.

Stockpiles of legacy and orphaned products may pose both fiscal risk and equity issues if large volumes arrive to be processed at once, which is a known risk with tyres. The Tyrewise scheme therefore has a number of safeguards to restrict payments to collectors and processors registered with the scheme that can account for tyre sources from registered generators and collection sites. It is also accepted that properly stored legacy and orphan end-of-life tyres cannot be distinguished from bonafide waste tyres covered by the tyre stewardship fee, and in the first three years of the scheme some funding will be required to manage these. The clean-up of legacy stockpile tyres that do not meet the acceptance criteria (eg, soiled from burial) will require separate funding.

Recovering monitoring costs from the PSO

Accredited priority product schemes will be monitored by the Ministry in line with WMA section 20. Under the WMA, monitoring costs cannot be recovered from the scheme manager except through a regulation made under section 22(1)(e).

We propose that the Ministry will recover the cost of monitoring the scheme's effectiveness from the scheme manager. This may take the form of the Ministry, or another government agency, retaining the monitoring costs when the fee is collected, or the Ministry collecting the monitoring costs from the PSO, where the PSO collects the fee. For both the tyres scheme and the large batteries scheme, the proposal is for the PSO to recover the monitoring cost from the importer or manufacturer of the product as part of the fee set under section 23(1)(d).

Averaging annual monitoring costs over all products entering the market would result in a per-product cost of:

- \$0.02 per passenger tyre equivalent
- \$6.74 per large battery.

¹⁹ Legislation Design and Advisory Committee. *Legislation Guidelines 2018 edition*, Chapter 17. Authorising the charging of fees and levies, <http://www.ldac.org.nz/guidelines/legislation-guidelines-2018-edition/issues-particularly-relevant-to-empowering-secondary-legislation/chapter-17/>.

Without this regulation, monitoring costs would be paid by the general taxpayer, rather than the priority product supply chain.

The fee we are proposing to set under section 23(1)(d) will also recover government compliance monitoring and enforcement costs and government agency fee collection costs (where applicable). The Ministry will be able to recover these costs without additional regulation.

Question 4

Do you agree with the proposal to set a product stewardship fee on imported or domestic manufactured products to cover the end-of-life management for:

- a. tyres?
- b. large batteries?

If not, why not?

Question 5

Tyre stewardship fee

The Government is considering three entities to collect the tyre fee (see figure 3 and table 5). Do you agree with the proposed fee collection entities at different points of entry to the market?

- a. New Zealand Customs Service at the point of import for loose tyres.
- b. New Zealand Customs Service or the product stewardship organisation (PSO) for tyres attached to imported off-road vehicles.
- c. Waka Kotahi New Zealand Transport Agency or the PSO for tyres attached to vehicles at point of first vehicle registration.
- d. The PSO for tyres made in New Zealand.

If not, why not?

Question 6

Large battery stewardship fee

The Government is considering two entities to collect the large battery fee (see figure 3 and table 5). Do you agree with the proposed fee collection entities at different points of entry to the market?

- a. The product stewardship organisation (PSO) for large batteries imported loose, imported attached to off-road vehicles, or made in New Zealand.
- b. Waka Kotahi New Zealand Transport Agency or the PSO for large batteries attached to vehicles at point of first vehicle registration.

If not, why not?

Question 7

Do you agree with the proposal that the Ministry will recover the costs of monitoring the performance of the accredited scheme from the scheme manager?

If not, why not?

Take-back system and targets

A take-back service is collection for recycling provided by those who sell the product. Options for tyres and large batteries may include collective responsibility for depots, a collection service for businesses and take-back at individual retail outlets.

Section 23(1)(c) of the WMA permits the Government to require an accredited scheme to provide a take-back service for products, and meet requirements for managing the products. The guidelines for stewardship schemes set an expectation that the schemes will provide a free and convenient collection service for priority products, but do not define a 'convenient collection'.

We are developing requirements for take-back on a case-by-case basis for the priority products, based on likely phase-in periods for the collection network, and targets recommended by the co-design groups.

Targets for the take-back system

Table 6 shows the proposed targets for the tyre and battery take-back systems.

The large battery scheme proposal ([appendix 2](#)) includes criteria that could be used to monitor the effectiveness of the collection scheme.

Under WMA section 23(1)(i), the Government also proposes to require the PSO to provide information to the Secretary for the Environment on take-back facilities and achievement of targets, to enable effective monitoring and enforcement.

If WMA section 23(1)(c) and related 23(1)(i) information requirements are not implemented:

- Full scheme revocation under WMA section 18 is the only current enforcement tool available to the Ministry.
- The Ministry's monitoring and enforcement will be extremely limited if the PSO does not share information. (It would be difficult to accurately monitor the scheme, and the Ministry might be unable to determine if the scheme is meeting the desired outcomes.)

Table 6: Proposed targets for take-back system – tyres and large batteries

Category	Short term				Medium term		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
TYRES							
Tracking system	Established						
Scheme awareness	Launch scheme	60%	70%	80%		90%	95%
Take-back system audit compliance	70%	80%	80%+	90%	90%+	90%+	90%+
Capacity to manage projected 72,000 tonnes	Build network	60%		80%		90%+	90%+
Percentage of total tyre stewardship fee paid out to different processing steps.	Establish payment incentive percentage system: Collection: 11% Processing: 51%	60%		80%		90%+	90%+

Category	Short term				Medium term		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	Transport: 24% Market research / development: 5%						
LARGE BATTERIES							
Tracking system	Established		Battery passport ²⁰				
			Pilot	Operative			
Scheme awareness	Launch scheme	50%	60%	70%	80%	90%	95%
Take-back audit compliance	70%	80%	80%+	90%	90%+	90%+	
Capacity to manage up to 800 batteries in 2024 and 6,400 in 2030	60%		80%		90%	90%+	

Question 8

The Government proposes to set minimum expectations for the product stewardship organisation to provide an effective product collection service, including targets for recovery, reuse and recycling, and to report on these targets. Do you agree with this for:

- tyres?
- large batteries?

If not, why not?

Quality standard

Some priority products, such as large batteries, other e-waste, agrichemicals and their containers and refrigerants, can be hazardous to the environment and human health. They require specialist management by trained people. In addition, some tyre-derived products require adherence to best practice to minimise risk of harm when they are used.

To ensure that best practice is followed to prevent harm, the Government proposes to:

- prescribe quality standards for transporting, storing and processing large batteries
- prescribe quality standards for eligibility for tyre stewardship incentive payments
- require the PSO to ensure these are met under WMA section 23(1)(g) and (h).

The tyre-derived products which require attention include the use of crumb rubber in sports fields and playground surfaces, and application of rubber-modified bitumen to road surfaces. International standards exist for these which can be used in New Zealand.

²⁰ The 'battery passport' is a method to track large batteries and battery components through their life cycle, including repairs and repurposing.

The large battery co-design working group has published draft guidelines on this issue.²¹ Their report also proposed that:

- before the scheme launch the PSO would identify, develop and publish standards for each step of the value chain
- any service provider accredited or contracted to the scheme would be required to meet the standard in order to maintain their accreditation or contract, and to make claims for work done in accordance with the scheme
- as one of the criteria for accreditation, recyclers would have to provide transparency around the markets they supply recovered materials to, and how they handle any disposed materials.

The hazards of handling and storage of lithium-ion batteries are mainly in the workplace, so they would also be covered by Worksafe under the Health and Safety at Work Act. In due course, formal standards could be set in collaboration with Worksafe and industry stakeholders, and referred to as appropriate in regulation.

If WMA sections 23(1)(g) and (h) are not implemented:

- compliance by scheme participants and service providers with the best practice guidelines or safety standards could be neither required nor enforced
- the risks of harm to environmental and human health would not be reduced.

Question 9

Do you agree with the proposal to set quality standards for:

- a. transporting, storing and processing large batteries?
- b. eligibility for tyre stewardship incentive payments?

If not, why not?

What is the expected impact?

The proposed regulations are expected to reduce environmental harm from priority products at end of life, in line with international schemes with comparable policies.

Typically, overseas regulated schemes gain much higher rates of diversion from landfill than in New Zealand with voluntary schemes.

Below are some of the ways we propose to gain the benefits:

- Accredited product stewardship schemes will be designed to reduce environmental harm from priority products at end of life, and encourage product management higher up the waste hierarchy to reduce harm (eg, reduce, reuse, recycle or recover).

²¹ Guidelines for the Safe Handling, Transportation, Collection, and Storage of Large Used Batteries. Appendix A.11.0 in Battery Industry Group. 2021. *New Zealand Battery Product Stewardship Research Milestone Three: Scheme Proposal, Report for the Ministry for the Environment*. <https://big.org.nz/wp-content/uploads/2021/05/BIG-Milestone-3-report-final-18-May.pdf>.

- All sellers and distributors of priority products must do so in accordance with an accredited scheme for that product, including safe stewardship standards for more hazardous products.
- Requirements for product take-back and collection targets are likely to increase the volume and quality of recycling, which can be enforced.
- Stewardship fees will cover the cost of administering the scheme.
- Free collection and treatment will reduce the incentive for illegal disposal.
- Quality standards will address the risks with storing, transporting, handling and disposing of large batteries, and installing specified tyre-derived products. This will set a requirement for qualified people to do these activities.

Table 7: Comparison of current and future state of product stewardship

Current state	Future state with proposed regulations
<p>Voluntary schemes are in place for some products (12 schemes accredited). No schemes are in place for tyres and large batteries.</p> <p>In general producers can opt out of taking responsibility for a product’s environmental impacts and costs, leaving these costs to councils and the community. For tyres, a 2021 regulation will add some controls for outdoor storage.</p> <p>Waste minimisation and participation rates are moderate to low.</p>	<p>All producers, sellers and distributors will act in accordance with accredited schemes; they will take responsibility for the environmental impact of their products by paying fees to cover stewardship. Through fee revenue the PSO can provide free and convenient collection and product management.</p> <p>Product take-back collection and targets are expected to increase availability and quality of recycling services. This will shift the costs from the public and environment to consumers and producers.</p>
<p>Producers are not encouraged to consider environmental costs of their product at end of life, or to design them to generate environmental benefit.</p>	<p>As producers are responsible for funding end-of-life product management, they will be encouraged to redesign products to lessen the environmental impact (eg, improve ease of recycling and refurbishment).</p>
<p>There are limited barriers to disposing of products cheaply in ways that harm the environment and communities.</p> <p>Product collection services are user pays at the point of disposal, discouraging their use.</p>	<p>The stewardship fee, which is payable when the product enters the New Zealand market, would cover end-of-life management costs, and encourage people to use collection and recycling services, which would be free at the point of collection. Trained people would operate drop-off facilities, and ensure they are carefully managed to reduce environmental harm.</p>
<p>Environmental rules vary between regions and are difficult to enforce.</p>	<p>This approach is expected to reduce illegal disposal and environmental harm from priority products.</p>
<p>Environmental standards to reduce impact from products are voluntary and not followed by all participants in the priority product sector.</p>	<p>Accredited schemes would ensure safe stewardship in accordance with best-practise quality standards.</p> <p>Those wishing to sell or distribute the products would need to comply with these schemes.</p> <p>This approach is expected to reduce environmental harm and improve the safety and effectiveness of recovery processes.</p>
<p>Accredited voluntary product stewardship schemes are required to provide information on achieving their targets to the Ministry. There are no accredited voluntary schemes for tyres or large batteries.</p>	<p>Accredited schemes would be required to report to the government on the number of products collected and processed (ie, recycled), as part of their targets and take- back requirements.</p> <p>The government would monitor the success rates of stewardship schemes, to understand whether the targets and desired outcomes are being achieved.</p>

Who would be affected?

The proposed regulations would affect:

- people and organisations who import, manufacture, purchase, sell, recover, refurbish or recycle tyres and large batteries, and
- PSOs that administer and run the schemes.

Table 8 summarises how and when this could occur.

Table 8: Proposed regulations and their impact

Regulation	Description	Who it affects	Point of impact
Participation obligation (WMA section 22(1)(a))	Those who wish to sell or distribute ²² the product must do so in accordance with the accredited scheme for that product.	Any person or entity selling or distributing tyres and large batteries.	When tyres and large batteries are sold or distributed.
Product stewardship fee (WMA section 23(1)(d))	Importers and manufacturers must pay a product stewardship fee.	Any person importing or manufacturing tyres and large batteries. Product consumers may pay some or all of this, passed on in the purchase price.	Loose tyres, tyres on off-road vehicles or large batteries: at import, or entry onto market if produced onshore. Tyres fixed to vehicles (including spare tyres) and large batteries: at point of first vehicle registration.
Take-back, target and related information requirements (WMA section 23(1)(c) and (i))	PSO must meet target and take-back expectations for product collection, recycling and disposal services. PSO must collect and provide information on compliance with take-back and target requirements.	PSO – must ensure that the take-back service is provided, that the scheme is managing the product in line with targets, and that required information is provided. Consumer – ultimately shares the cost of the services and benefits directly or indirectly.	Ongoing Share costs on purchase of product. Frequency of takeback service varies based on population.
Quality standard (WMA section 23(1)(g) and (h))	Large battery end-of-life management must meet the quality standard. Specified tyre-derived products must meet quality standards in order to be eligible for stewardship incentive payments from PSO	Any person collecting, storing, transporting, dismantling, recycling refurbishing or disposing of a large battery. Any person manufacturing or installing specified tyre-derived products	When dismantling, recycling or disposing of large batteries. Eligibility for stewardship incentive payments following sale of specified products

Penalties for contravening the proposed regulations include fines of up to \$100,000 (WMA sections 65 and 67).

Environmental impact

Poor management of products when they become waste can damage taonga that are guaranteed protection under Te Tiriti o Waitangi, for example through direct pollution to

²² The meaning of 'sale' under the WMA includes both an offer for sale, and distribution or delivery, whether or not for valuable consideration (including delivery to an agent for sale on consignment).

water, air and land, and contribution to climate change. These proposals will likely lower that risk.

Social impact

People on low incomes may find product stewardship fees, no matter how small a percentage of the purchase price, to be an extra burden or constraint to access. In the case of tyres and large batteries, this may affect access to transport or energy self-sufficiency. There may be disproportionate effects on those groups over-represented in their population in having low incomes, including tangata whenua, women, Pasifika, and those with disabilities. The proposed fee settings are either replacing an ad hoc fee and not adding extra cost (tyres), or a minor part of the total product cost (large batteries), minimising this risk. In addition, at the point of recycling the product there would be no fee for the consumer.

Compliance, monitoring and enforcement

The Ministry, through officers appointed by the Secretary for the Environment, would enforce the proposed regulations made under section 22 and 23 of the WMA. The WMA allows for enforcement proceedings to do this, and infringement offences are not provided for.

Where alleged breaches or non-compliance in the proposed regulations are identified, various enforcement tools may be used to bring about positive behaviour change and to deter future offences. Enforcement measures would be proportionate to the seriousness of the non-compliance following an investigation. Table 8 sets out the penalties for non-compliance.

The PSO would have a role in monitoring compliance of agreements with scheme participants. The PSO will set record-keeping requirements for participants to monitor for compliance. If participants do not comply, the PSO may escalate enforcement to the Ministry.

How to have your say | Me pēhea tō tuku mai i ō whakaaro

We welcome your feedback on this consultation document. The questions throughout the document are a guide only, and all comments are welcome. You do not have to answer all the questions.

For the full list of questions, see [Consultation questions](#).

To ensure we clearly understand your point of view, you should explain your reasoning and give supporting evidence where appropriate.

Timeframes

This consultation starts on 4 November 2021 and ends on 16 December 2021.

When the consultation period has ended, we will take feedback into consideration and will announce decisions on regulations for tyres and batteries in 2022.

How to provide feedback

There are two ways you can make a submission:

- via Citizen Space, our consultation hub, available at <https://consult.environment.govt.nz/>
- write your own submission.

If you want to provide your own written submission, you can upload it in Citizen Space.

We ask that you **don't email or post submissions**, as this makes analysis more difficult. However, if you need to, please send written submissions to RPS Tyres and large batteries consultation, Ministry for the Environment, PO Box 10362, Wellington 6143 and include:

- your name or organisation
- your postal address
- your telephone number
- your email address.

If you are emailing your feedback, send it to rps@mfe.govt.nz as a:

- PDF, or
- Microsoft Word document (2003 or later version).

Submissions close at 5pm on 16 December 2021.

More information

Please send any queries to:

Email: rps@mfe.govt.nz

Postal: Regulated product stewardship team, Ministry for the Environment, PO Box 10362, Wellington 6143

Publishing and releasing submissions

All or part of any written comments (including names of submitters), may be published on the Ministry for the Environment's website, environment.govt.nz. **Unless you clearly specify otherwise in your submission, the Ministry will consider that you have consented to website posting of both your submission and your name.**

Contents of submissions may be released to the public under the Official Information Act 1982 following requests to the Ministry for the Environment (including via email). Please advise if you have any objection to the release of any information contained in a submission and, in particular, which part(s) you consider should be withheld, together with the reason(s) for withholding the information. We will take into account all such objections when responding to requests for copies of, and information on, submissions to this document under the Official Information Act.

The Privacy Act 2020 applies certain principles about the collection, use and disclosure of information about individuals by various agencies, including the Ministry for the Environment. It governs access by individuals to information about themselves held by agencies. Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in relation to the matters covered by this document. Please clearly indicate in your submission if you do not wish your name to be included in any summary of submissions that the Ministry may publish.

Consultation questions | Ngā pātai mō te hui

The Government welcomes your feedback. The questions below are a guide only. You do not have to answer all the questions, and all comments are welcome. See [How to have your say](#) for details of how and when to make a submission.

Question 1

Do you agree in principle that a regulated framework should be introduced to ensure effective product stewardship for:

- a. end-of-life tyres?
- b. end-of-life large batteries?

If not, why not?

Question 2

Do you agree with the proposal to make it mandatory to sell a product only in accordance with an accredited scheme for:

- a. tyres?
- b. large batteries?

If not, why not?

Question 3

If you had to take part in a proposed scheme, how would this affect your business?

- a. For tyres – Tyrewise scheme ([appendix 1](#)).
- b. For the large battery scheme ([appendix 2](#)).

Please provide details or anticipated costs, benefits and other impacts.

Question 4

Do you agree with the proposal to set a product stewardship fee on imported or domestic manufactured products to cover the end-of-life management for:

- a. tyres?
- b. large batteries?

If not, why not?

Question 5

Tyre stewardship fee

The Government is considering three entities to collect the tyre fee (see [figure 3](#) and [table 5](#)). Do you agree with the proposed fee collection entities at different points of entry to the market?

- a. New Zealand Customs Service at the point of import for loose tyres.
- b. New Zealand Customs Service or the product stewardship organisation (PSO) for tyres attached to imported off-road vehicles.
- c. Waka Kotahi New Zealand Transport Agency or the PSO for tyres attached to vehicles at point of first vehicle registration.
- d. the PSO for tyres made in New Zealand.

If not, why not?

Question 6

Large battery stewardship fee

The Government is considering two entities to collect the large battery fee (see [figure 3](#) and [table 5](#)). Do you agree with the proposed fee collection entities at different points of entry to the market?

- a. The product stewardship organisation (PSO) for large batteries imported loose, imported attached to off-road vehicles, or made in New Zealand.
- b. Waka Kotahi New Zealand Transport Agency or the PSO for large batteries attached to vehicles at point of first vehicle registration.

If not, why not?

Question 7

Do you agree with the proposal that the Ministry will recover the costs of monitoring the performance of the accredited scheme from the scheme manager?

If not, why not?

Question 8

The Government proposes to set minimum expectations for the product stewardship organisation to provide an effective product collection service, including targets for recovery, reuse and recycling, and to report on these targets. Do you agree with this for:

- a. tyres?
- b. large batteries?

If not, why not?

Question 9

Do you agree with the proposal to set quality standards for:

- a. transporting, storing and processing large batteries?
- b. eligibility for tyre stewardship incentive payments?

If not, why not?

Appendix 1: Tyrewise stewardship scheme

Overview

Tyrewise is designed as a push-pull model.

The regulations will **push** end-of-life tyres away from landfill, stockpiling and illegal dumping, towards more environmentally sound pathways.

The scheme will oversee the payment of the tyre stewardship fee²³ through incentives to collectors, processors and manufacturers to **pull** end-of-life tyres through to increased resource cycling. Incentive payments for tyre-derived products for ongoing use will be higher than delivery to tyre-derived fuel processors.

To discourage illegal tyre dumping, the previous ad-hoc disposal fee charged by retailers, and used only in part to pay tyre collectors, would be replaced by a new incentive payment from the tyre stewardship fee paid only to bona fide registered tyre collectors.

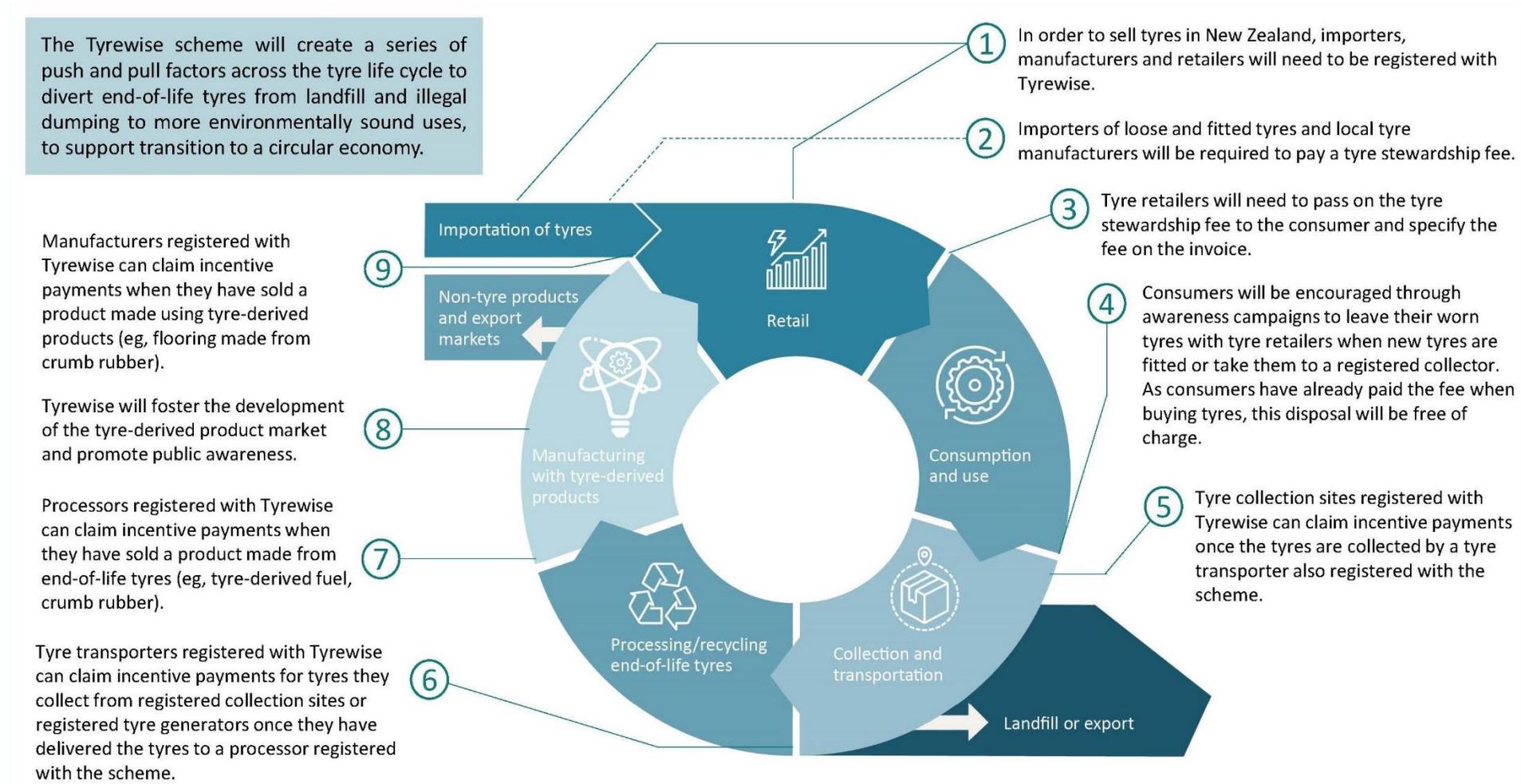
The level of the proposed fee is comparable to the current average price of the ad-hoc fee, but is paid directly to more environmentally sound outcomes and allows a clear chain of custody.

The PSO will report to the Ministry for the Environment on progress in diverting end-of-life tyres from waste towards improved destinations. It will also publish reports showing progress against targets.

Figure 4 shows the stages in a tyre's lifecycle, under the Tyrewise scheme. [Table 9](#) sets out the roles and responsibilities of the key players.

²³ Product stewardship fees were called Advance Disposal Fees (ADF) in this co-design report. This is not a preferred term as 'disposal' is not the preferred option for most priority products (exceptions being some refrigerants and agrichemicals).

Figure 4: Tyre lifecycle under Tyrewise



To be effective, Tyrewise would require the participation of all the following parties:

- tyre importers – entities that import new or used tyres either in the form of loose tyres, or import vehicles fitted with tyres and spare tyres
- consumers – tyre users
- generators of end-of-life tyres – tyre sellers or fitters, or large users of tyres who replace their tyres onsite
- end-of-life tyre collection sites – places where consumers or generators can drop off unwanted tyres
- end-of-life tyre transporters – entities that collect end-of-life tyres from collection sites and generators, and deliver them to a processor
- end-of-life tyre processors – entities that receive end-of-life tyres and transform them into either a functional end-use product, or a product to be used in the manufacture of a tyre-derived product
- end-of-life tyre manufacturers – entities that receive products derived from an end-of-life tyre by a processor and use this product in the manufacture of further products or in an end-use (eg, flooring made with crumb rubber, artificial turf, manufacture of cement using tyre-derived fuel).

Table 9: Roles and responsibilities under Tyrewise

Participants	Who is in this group?	Do I have to pay?	Do I get paid by Tyrewise?	Any small print I should know?
Tyre or vehicle importers	Organisations that import new or used tyres, loose or on vehicles.	YES A stewardship fee is owed for all tyres at first point of importation, vehicle registration, or placing on the market if locally made.	NO	The scheme relies on regulation under the WMA to set the stewardship fee obligation. Importers may be able to claim payments from the PSO equivalent to fee paid if the tyres they import fall outside eligibility criteria for the fee (eg, re-exported tyres, mobility scooter tyres).
Consumers	Private individuals getting rid of used tyres	NO to drop off The cost of the programme is built into the price of all new tyres through the stewardship fee.	NO You do not get any money for recycling your tyres.	You must recycle your tyres via a registered collection site or leave them with the company that fits your new tyres. You cannot leave more than five tyres without buying new ones. Any inappropriate dumping of tyres may result in a fine.
Generators	Either tyre seller/fitters who take used tyres when they sell new ones, or large users of tyres who replace tyres on site.	NO Any tyres you take from your customers are collected for free, covered by the stewardship fee.	NO You cannot charge customers for taking their used tyres as you will no longer have to pay to have them collected.	You will need to register with Tyrewise as a condition of selling/fitting tyres, and be prepared to take the used tyres from your customer for disposal. You can either keep these tyres for collection, or take them to a collection site. Tyrewise may require auditable reports on the

Participants	Who is in this group?	Do I have to pay?	Do I get paid by Tyrewise?	Any small print I should know?
				volume of tyres that you accept.
Collection sites	Places where consumers or generators can drop off unwanted tyres if they aren't purchasing new ones.	NO Any tyres you collect at your site are picked up for free.	YES Collection sites will be paid a service fee by Tyrewise to act as collection points, related to volumes handled.	You must be registered with Tyrewise as an approved collection site. Tyrewise may require auditable reports on your collection volumes. Examples of potential collection sites include generators who also aggregate tyres from others, and council transfer sites.
Transporters	Entities that collect tyres from generators or collection sites and deliver them to processors.	NO All tyres are collected at no charge to the generator or collection site.	YES Tyrewise pays you for the tyres you deliver to a processor.	You must be registered with Tyrewise as an approved transporter. To get paid, you must have a contractual relationship with a processor/manufacturer to accept the tyres. Tyrewise may ask to provide auditable reports on your transported volumes.
Processors	Entities that transform tyres for a good end-use.	YES – for tyres You may pay transporters to deliver the tyres you need. Tyrewise does not get involved.	YES Tyrewise makes an incentive payment per kg of tyres processed and supplied to a manufacturer, based on the end-use of your products.	To get paid, you must provide evidence of the manufacturer's end-use for the processed material. Your reports may be subject to audit by Tyrewise, to ensure the subsidy is being paid correctly.
Manufacturers	Entities that purchase tyre-derived products from a processor to use in their business (eg, for fuel or as an ingredient for a new product).	YES – for tyre products You would negotiate to pay a processor a market price for the tyre-derived materials. Tyrewise does not get involved.	YES Tyrewise makes an incentive payment for the tyre-derived product you use in manufacturing.	You must give Tyrewise evidence of what you use the tyre-derived products for, as this affects the payments they make. If you purchase whole tyres directly from a transporter you would be classified as a processor as well as a manufacturer.

Tyre stewardship fee

The fee, collected at entry to the market, would be \$5.50 per equivalent passenger unit (EPU). An EPU is a standardised measure for the quantity of tyres equivalent to the weight of a 'typical' passenger tyre.

The fee for loose tyres and tyres on off-road vehicles would be paid to Customs at the point of import, and charged on a per-tyre basis in relation to the tariff code (table 10).

The co-design group proposed that the fee for tyres fixed to vehicles (including spare tyres) would be paid to Waka Kotahi New Zealand Transport Agency at the point of first vehicle registration, on a per-vehicle basis. This is based on the average number of tyres in that vehicle's registration category, including spare tyres for passenger vehicles (table 11).

Table 10: Proposed fee rates: loose tyres and tyres on off-road vehicles, by tariff code

Tariff code	Vehicle type	EPUs per tyre	Fee per tyre (EPUs x \$5.50)
4011.70.00.39K	Off-road ATV	0.3	\$1.65
4011.40.00.00C	Motorbike	0.5	\$2.75
4011.10, 4011.20.03.01C, 4011.20.03.09J, 4011.20.03.11L, 4011.20.03.19F, 4011.20.12.09H, 4011.20.12.11K, 4011.20.20.12.19E, 4012.11.11.00G, 4012.11.19.00H 4012.20.01.01J	Passenger/ light truck	1.0	\$5.50
4011.30.00.00K, 4012.13.00.00D	Aircraft	1.9	\$10.45
4011.90.10, 4011.90.20, 4011.90.30, 4011.90.40, 4011.90.50, 4011.90.90.00L, 4012.19.11.00C, 4012.19.19.00D, 4012.19.29.00K, 4012.20.01.09D, 4012.20.09.00A, 4012.20.19.00G	Light commercial/industrial	2.0	\$11.00
4011.70.00.10A, 4011.70.00.23C	Tractor – small	2.6	\$14.30
4012.90.00.01H, 4012.90.00.09C	Solid industrial (forklift)	3.6	\$19.80
4011.20.03.21H, 4011.20.03.29C, 4011.20.07.01J, 4011.20.07.09D, 4011.20.12.01B, 4011.20.12.21G, 4011.20.12.29B, 4011.20.18.01L, 4011.20.18.09F, 4012.12.00.00K	Heavy truck, bus	4.2	\$23.10
4011.70.00.19E, 4011.70.00.21G, 4011.70.00.35G	Off-road (forestry)	4.4	\$24.20
4011.80.00	Construction/industrial	5.1	\$30.25
4011.70.00.11K, 4011.70.00.25K	Tractor – large	8.1	\$44.55
4011.70.00.13F, 4011.70.00.29B	Off-road (graders)	23.2	\$127.60
4011.70.00.15B, 4011.70.00.31D	Off-road (earthmovers)	63.3	\$348.15

Table 11: Proposed fee rates: tyres fitted to vehicles, by vehicle

NZTA vehicle registration category	Average tyre count	Vehicle type for calculating EPU	EPU per tyre	Fee per vehicle (EPU x tyre count x \$5.50)
Agricultural machines	4	Off-road (forestry)	4.4	\$96.80
ATVs	4	Off-road ATV	0.3	\$6.60
Buses and coaches	6	Truck, bus	4.2	\$138.60
Cars	5	Passenger	1.0	\$27.50
Miscellaneous	3	Passenger	1.0	\$16.50
Mobile machines	4	Construction/industrial	5.1	\$112.20
Mopeds	2	Motorbike	0.5	\$5.50
Motor caravans	5	Passenger	1.0	\$27.50
Motorcycles	2	Motorbike	0.5	\$5.50
Special purpose vehicles	4	Off-road (graders)	23.2	\$510.40
Towed caravans	3	Passenger	1.0	\$16.50
Tractors	4	Tractor – large	8.1	\$178.20
Trailers ²⁴	<i>Pending</i>	<i>Pending</i>	<i>Pending</i>	<i>Pending</i>
Trucks	10	Truck, bus	4.2	\$231.00

Table 12: Costs of recoverable²⁵ activities under Tyrewise

Activity	Output	Cost per year	Cost per passenger tyre equivalent (EPU)
Fee administration	Customs costs	\$20,000	< \$0.01
	NZTA information systems upgrade	\$254,902	\$0.03
	NZTA operational cost	\$376,667	\$0.04
Scheme participant information	Providing informational material to scheme participants, point of sale material, information website	\$2,368,189	\$0.26
Tyre collection	Payments to collection sites	\$6,356,400	\$0.71
	PSO programme management costs	\$487,100	\$0.05
	PSO overheads	\$36,247	<\$0.01
Tyre transportation	Payments to transporters	\$16,068,687	\$1.96
	PSO programme management costs	\$487,100	\$0.05
	PSO overheads	\$36,247	<\$0.01

²⁴ The fee for trailers will be calculated on the basis of the average number of tyres per trailer and the weight of the trailer tyres in relation to an equivalent passenger unit. A fee may be set against more than one trailer registration category.

²⁵ 'Recoverable' relates to activities that can be charged to a fee set under the WMA.

Tyre processing/ end markets	Payments to tyre processors/ end markets	\$17,682,658	\$2.13
	Payments for research and development in tyre processing	\$1,976,734	\$0.22
	Grants for market development	\$989,903	\$0.11
	PSO programme management costs	\$487,100	\$0.06
	PSO overheads	\$36,247	\$0.02
Compliance, monitoring and enforcement	MfE- information system upgrade	\$23,810	< \$0.01
	MfE – scheme performance	\$110,000	\$0.01
	MfE – compliance	\$ 220,000	\$0.02
	MfE - overheads	\$ 330,000	\$0.04
	PSO programme management costs	\$517,610	\$0.06
	PSO overheads	\$616,201	\$0.07
Total		\$49,481,801	\$5.50²⁶

²⁶ The total cost per EPU appears different to the sum of the components due to rounding of small numbers.

Appendix 2: Stewardship scheme for large batteries

Overview

The aim of the proposed large battery scheme is to maintain the value of large batteries in a circular economy for as long as possible. This would include maximising second-life use, and the value extracted from them at end of life.

What it covers

The scheme includes:

- large batteries used in electric and hybrid vehicles (EVs); stationary storage for local use such as solar power and for off-grid systems; stationary storage for utilities; buffer units for fast charging stations; industrial applications such as mobile phone towers or data centres, and electric trains and aircraft
- lithium-ion and nickel metal hydride batteries. These will likely need to be managed at end of life in New Zealand, over the short to medium term.

More information is needed to clarify whether the scheme will include other uses such as electric or mobility scooters and golf carts.

Exclusions

The scheme does not include:

- lead acid batteries – there is a strong export market and nationwide collection, and therefore no lack of end-of-life solutions
- nickel cadmium, as it is not used in large batteries
- flow batteries, as they do not pose known risks²⁷
- batteries smaller than 5 kg, such as for e-bikes and e-scooters.²⁸

Running the scheme

The scheme would be run by a product stewardship organisation (PSO). This would oversee and administer the payment of incentives, manage data, and provide governance and operational functions.

²⁷ Flow batteries have an extremely long lifespan and can be refurbished by replacing fluids. Further research is required to understand whether end-of-life flow battery fluids are an issue, and if so whether they should be included in the scheme.

²⁸ EV batteries under 5 kg are out of scope due to differences in battery life span and need for specialist handling. The large batteries have a lifespan of 10-15 years and require trained technicians to remove the battery from the product. The small batteries typically have a shorter life span (less suitable to upcycle into other applications), can be removed by consumers from the product, and can be covered by the wider e-waste scheme. A number of e-bike importers were consulted during the B.I.G. co-design process.

The PSO would be a not-for profit entity, governed by a board of trustees or directors, and supported by independent advisory or technical groups.

The PSO would promote circular resource use and environmentally sound management of end-of-use large batteries. It would be supported by regulations and guidelines to push large batteries away from landfill or illegal dumping, towards repurposing, refurbishment and recycling.

End of use: The point where a battery has no further economic value from its original intended use (eg, transport) but may be repurposed for another battery application (eg, stationary storage).

End of life: The point where a battery is no longer able to be repurposed as a battery and can be recycled into component materials for use in other products.

How it works

The co-design group proposed the following steps as illustrated in [figure 5](#):

1. When a large battery is imported into New Zealand (either as a battery or in a vehicle or other machinery) or manufactured in New Zealand, information on the item is recorded by New Zealand Customs (Customs) and potentially other agencies, such as Waka Kotahi New Zealand Transport Agency (NZTA).
2. Parties obligated by regulation to participate in the scheme inform the PSO about the items they are importing or putting on the market.
3. The PSO reviews and records the information, along with that from other obligated parties. The PSO calculates the financial obligations of each party (based on the total costs of operating the scheme for that period, divided by the proportion of batteries each party imports in that period), and bills them.²⁹
4. The PSO regularly informs the Ministry for the Environment about the imported batteries. The Ministry then checks this information against data from Customs or other agencies and audits each party's declarations.
5. The importers/obligated parties sell the products, which then move through the value chain (noting there may be multiple owners) as normal, until they reach end of use or end of life.
6. At end of use, 'second-life repurposers' accredited by the PSO record details about the battery and give this to the PSO. They may also claim for handling and upgrading the battery.
7. At end of use, a recycler accredited by the PSO will accept the battery at no cost to the owner. The recycler records details about the battery and gives these to the PSO. The PSO then makes payments to the recycler to cover the net costs of recycling.

²⁹ The preferred option of the co-design group is not currently an option under the WMA for a regulated scheme. The fee per battery and per kg will need to be set in advance by regulation rather than adjusted by the PSO each year.

B.I.G. proposed regulations to support the schemes' effectiveness, reduce the environmental harm from batteries, and minimise waste by requiring obligated parties to:

- take part in the scheme
- support the scheme by giving information to the PSO
- fund the scheme through product stewardship fees³¹
- require Customs to give import data to the Ministry for the Environment.³²

Table 13 shows the roles and responsibilities in the scheme.

Table 13: Roles and responsibilities under the battery scheme

Participants	Who is in this group?	Do I have to pay?	Do I get paid by the PSO?	Any small print I should know?
Importers and manufacturers	Entities that import or manufacture large batteries (either as a battery, or in a vehicle or other machinery): <ul style="list-style-type: none"> • Original equipment manufacturer (OEM) • used vehicle importer • battery importer. 	YES. The battery stewardship fee is owed for all large batteries at first point of importation, vehicle registration, or other entry into the market.	NO.	To act in accordance with the scheme, all importers and manufacturers of large batteries must: <ul style="list-style-type: none"> • pay the stewardship fee • register with the PSO • submit regular declarations to the PSO. Importers may be able to claim rebates from the PSO, if the large batteries they import are outside the criteria for the scheme (eg, they are not placed on the New Zealand market and are exported).
Car and equipment resellers	This includes: <ul style="list-style-type: none"> • new or used car dealers • large battery retailers. 	NO , if you <i>do not</i> directly import or manufacture large batteries in New Zealand (either as a battery, or in a vehicle or other machinery). YES , if you directly import or manufacture large batteries in New Zealand.	NO , if you <i>do not</i> provide services to the PSO. YES , if you provide services to the PSO.	If you sell or fit any large batteries, you must be registered with the PSO as an approved scheme provider that meets health and environmental safety requirements. Registered and approved scheme providers must provide regular information to the PSO.
Consumers	This includes: <ul style="list-style-type: none"> • private EV owners (new or second-hand) 	NO. The cost of the scheme is built	NO. The fee covers the net cost to	You must dispose of end-of-life batteries at an approved collection site. There is no

³¹ Product stewardship fees were called Advance Disposal Fees (ADF) in the co-design report. This is not a preferred term, as 'disposal' is not the preferred option for most priority products (exceptions being some refrigerants and agrichemicals).

³² Section 24 of the WMA. The Minister for the Environment may request the New Zealand Custom Service to provide in writing any information held about importers and importation of priority products.

Participants	Who is in this group?	Do I have to pay?	Do I get paid by the PSO?	Any small print I should know?
	<ul style="list-style-type: none"> fleet owners and leasing companies utility or commercial users. 	into the price of the product through the stewardship fee.	recycle these batteries	<p>disposal cost as this is covered by the stewardship fee.</p> <p>Inappropriate disposal may result in fines or prosecution.</p>
Installers, servicing and upgrades	<p>This may include:</p> <ul style="list-style-type: none"> battery refurbishers mechanics installers second-life repurposers hobbyists or small-scale refurbishers/repurposers. 	<p>NO.</p> <p>All large batteries you accept from customers or other parties are collected for free.</p>	<p>YES.</p> <p>If you are registered with the PSO as an approved and contracted supplier, you are paid for services.</p>	<p>If you sell or fit any large batteries you must be registered with the PSO as an approved scheme provider.</p> <p>You must be registered with the PSO to be able to claim payments under the scheme, and you must provide data to support your claim.</p> <p>As an approved and contracted supplier, you must meet scheme standards, eg, code of conduct; safety and logistics for handling, storing and transporting large batteries; qualifications and training.</p>
End-of-life management	<p>This may include:</p> <ul style="list-style-type: none"> wreckers battery consolidations, evaluation and sorting recycling and waste collectors and facility operators transport and logistics. 	<p>NO.</p> <p>All large batteries you accept from customers or other parties are collected for free.</p>	<p>YES.</p> <p>If you are registered with the PSO as an approved and contracted supplier, you are paid for your services.</p>	<p>If you sell or fit any large batteries you must be registered with the PSO as an approved scheme provider.</p> <p>You must be registered with the PSO to be able to claim payments under the scheme, and you must provide data to support your claim.</p> <p>As an approved and contracted supplier, you must meet scheme standards, eg, code of conduct; safety and logistics for handling, storing and transporting large batteries; qualifications and training.</p>
Reprocessing, recycling and disposal	Registered places where people can drop-off unwanted large batteries if they aren't purchasing new ones (eg, disposal facilities, battery recycler, scrap metal dealer).			

Battery stewardship fee

The proposed fee structure is a fixed fee plus a variable fee, with indicative costings of \$56 per battery and \$0.52 per kg³³. The fixed plus variable fee structure reflects the actual cost drivers

³³ The co-design group proposed a fee based on weight. Following further communications with the scheme design lead researchers, Eunomia Research & Consulting in September 2021, the fee structure was revised to a fixed plus variable fee structure to more accurately reflect the actual cost drivers of operating the scheme.

of managing each battery through the scheme and ensure each battery is well managed at end of life.³⁴

The co-design group estimated that, based on assumptions of the projected number of batteries (driven mainly by growth in the EV fleet), the fee will need to be adjusted over time. As the volume of EVs entering New Zealand increases, new batteries will increase faster than end-of-life batteries, meaning the cost will initially go down, then as more batteries come to end of life an equilibrium will be reached between battery stewardship fees paid and end-of-life batteries processed.

The co-design group proposed weight as the standard unit of measure. Their research found that weight is more equitable and reflective of recycling costs than kilowatts per hour. However, it was also noted more work would be required to finalise a standard method for assessing weight.

Table 14 shows indicative fee rates for imported EVs and residential stationary storage.

Table 14: Battery fee rates: imported EVs and residential stationary storage

Battery category	Fixed Fee per battery	Assumed average weight (kg)	Indicative fee per battery (fixed fee + average weight x \$0.52)
Residential stationary storage	\$56	115	\$115.80
Hybrid Electric (HEV)		42	\$77.84
Plug-in Hybrid Electric (PHEV)		80	\$97.60
Motorcycle EV		96	\$105.92
Second-hand EV 24kWh		294	\$208.88
New EV 75 kWh		480	\$305.60
Heavy vehicle EV (generic)		2,560	\$1,387.20
Heavy vehicle used EV (generic)		3,000	\$1,615.00

Data and other information

The PSO for large batteries would develop a database detailing all battery types and models, with information supplied by manufacturers. This would form a reliable, strong, evidence-based data source to determine the average battery weights for loose batteries and batteries fixed to vehicles.

When announcing a decision to regulate, and before the regulations take effect, the Ministry for the Environment would ensure full details on battery stewardship fees would be available on its website, and that the PSO is providing the essential information to parties likely to be affected.

Tables 15 and 16 list the activities that the fee covers.

³⁴ The financial model used to develop costs for the co-design process was updated to include hybrids and motorcycles, the impact of the clean car discount, as well as the central government administration and enforcement costs.

Table 15: Activities covered by the battery fee

Activity	Process
Fee administration	There are two options for the fee-collection entity: (a) the PSO or (b) government agencies. The final option will be decided following consultation.
Information system	Providing a system to track eligible batteries throughout their lifecycle and enable billing and payments for obligated parties and service providers.
Consumer information	Producing website and promotional material.
Recovery network	Providing the following services: <ul style="list-style-type: none">• battery removal and assessment• transport batteries to assessors, pre-processors and processors• battery storage and preparation for shipping• shipping batteries to offshore recycling facilities or facilitating second-life applications• research and market development for end-of-use and end-of-life batteries.
Compliance, monitoring and enforcement	Monitoring compliance with regulations, including auditing. Enforcing compliance regulations. Monitoring the effectiveness of the scheme.
Reporting	Annual reporting as required to government and public on scheme performance (including progress on objectives and targets).

Table 16: Costs of recoverable activities under the battery scheme

Activity	Output	Cost per year		Cost per assumed average weight battery ³⁵
		Fixed	Variable	
Fee administration	PSO salary compliance and administration	\$38,910		\$1.20
	NZTA information systems upgrade	\$254,902		\$7.82
	NZTA operational costs	\$376,667		\$11.56
Information system	Data entry	\$47,694		\$1.47
	Upgrade and maintenance	\$135,000		\$4.15
	PSO programme management	\$75,033		\$2.31
	PSO overheads	\$30,000		\$0.93
Consumer information	PR salary	\$37,808		\$1.17
	Marketing collateral	\$31,525		\$0.98
	Website	\$10,000		\$0.32
	PSO programme management	\$75,033		\$2.31
	PSO overheads	\$30,000		\$0.93
Recovery network	Payment to battery removal and assessors		\$907,009	\$27.79
	Payment to transport operators		\$348,206	\$10.67
	Payment to storage operators		\$619,602	\$18.99
	Payment to shipping operators		\$483,542	\$14.82
	Grants for research and market development		\$110,000	\$3.37
	PSO programme management		\$75,033	\$2.30
	PSO overheads		\$30,000	\$0.92
Compliance, monitoring and enforcement	MfE- information system upgrade	\$23,810		\$0.74
	MfE – scheme performance	\$110,000		\$3.38
	MfE – compliance	\$220,000		\$6.75
	MfE - overheads	\$330,000		\$10.13
Sub total		\$1,826,382	\$2,573,392	
Total		\$4,399,774		\$135.01

³⁵ The assumed average weight of a battery is 151.68 kg.

Appendix 3: Options for implementing the stewardship schemes

Table 17: Options considered for implementing the stewardship schemes

Option, WMA regulations proposed	Notes
<p>Option A: Basic foundation</p> <ul style="list-style-type: none"> require people selling priority products to act in accordance with an accredited scheme for that product (section 22(1)(a)) set a stewardship fee for all priority products (section 23(1)(d)) together with information provision requirements for entities that collect and disburse the fees (section 23(1)(i)) set quality standards where required to reduce harm (section 23(1)(j)). 	<p>A requirement to act in accordance with accredited schemes is the primary WMA option to address the central ‘free rider’ barrier to effective product stewardship.</p> <p>The absence of equitable and adequate scheme funding is a key barrier to effective voluntary product stewardship schemes.</p> <p>If an obligation to act in accordance with the scheme is put in place, it will be necessary to set fees so that obligated parties know the nature of required payments associated with the new requirements.</p> <p>A quality standard can ensure that best practise is followed for management of priority products to prevent harm.</p>
<p>Option B: Enhanced take-back and targets <i>(recommended)</i></p> <p>As for Option A, plus:</p> <ul style="list-style-type: none"> take-back service requirements and collection targets (section 23(1)(c)) information provision requirements for costs and outcomes of those services (section 23(1)(i)). 	<p>The published guidelines for priority products set an expectation for a free and convenient collection service and reporting requirements, but requirements for a ‘convenient’ service or collection and recycling targets are not clear, and they are also not easily enforced.</p> <p>Take-back requirements with targets put in place under WMA section 23(1)(c) would enable Government to set enforceable expectations for service delivery and ensure that the public and the sector have access to sufficient collection services.</p>
<p>Option C: Enhanced stewardship fee collection</p> <p>As for Option A, plus:</p> <ul style="list-style-type: none"> change to the legislative framework governing New Zealand Customs and New Zealand Transport Agency to allow them to effectively capture and enforce collection of stewardship fees at product entry into market. 	<p>This option would entail fee collection by Customs at import for bulk and loose product and by NZTA for product attached to vehicles at point of registration (eg, tyres, refrigerants in pre-charged units). This was the preferred option recommended by the tyres co-design working group.</p> <p>To put this option in place for NZTA would require legislative instruments in addition to WMA regulation. Customs could collect fees but without a legislation change or declaration of ‘special product’ under their legislation could not enforce compliance.</p> <p>Products that are domestically produced would incur the same stewardship fees but the fee collection would be by the accredited scheme or another mechanism.</p> <p>This option is not recommended as it would go beyond WMA regulation into new legislation and thus not meet all assessment criteria. It could remain an option for the future if required.</p>
<p>Option D: Central government control</p> <ul style="list-style-type: none"> The Ministry for the Environment would collect stewardship fees and contract 	<p>Some overseas jurisdictions have used this approach to ensure desired waste minimisation outcomes, prevent ‘gaming’ by industry-controlled schemes to minimise costs,</p>

Option, WMA regulations proposed	Notes
<p>services, through accredited PSOs or others, to ensure desired waste minimisation and harm reduction for priority products.</p> <ul style="list-style-type: none"> Collection convenience, recovery targets, harm reduction standards and potentially other aspects in the published guidelines would be set, monitored and enforced under contract. 	<p>and ensure community benefits (eg, beverage container schemes in New South Wales, and Tasmania).</p> <p>This option is not currently recommended for two main reasons: it is expected to require amendment to the WMA and thus not meet the assessment criteria; and running ongoing large scale national service delivery schemes is counter to the Ministry's current role as a policy agency.</p> <p>This could remain an option for consideration in the WMA review in due course if required.</p>
<p>Option E: Polluter pays tax or levy</p> <ul style="list-style-type: none"> Create a new payment to be made to the Crown by responsible parties connected with targeted products to incentivise changes to material use including recycled content. 	<p>Market mechanisms such as this are commonplace in other jurisdictions, particularly in Europe. This approach can create incentives further up the supply chain (eg, at materials rather than product entry to the market) and with the right incentives can assist market mechanisms to deliver improved waste minimisation and harm reduction outcomes. With hypothecation (eg, collected funds used directly to create related outcomes) additional targeted benefits can also be created.</p> <p>The waste levy created under the WMA is an example, as it involves hypothecation of collected funds for waste minimisation and harm reduction activities. Collected funds have been used for example to support new recycling infrastructure and to co-design regulated product stewardship schemes.</p> <p>This option is not recommended as it would go beyond WMA regulation and require new legislation, and thus does not meet the assessment criteria for progressing regulated product stewardship. It could remain an option for the future if required, including as an aspect of the pending WMA review.</p>