Ia Ara Aotearoa Transporting New Zealand's submission on:
Ngā waeture tiaki rawa kua takoto i konei: Ngā taea me ngā pūhiko kaitā
Proposed product stewardship regulations: Tyres and large batteries release date 4 November 2021

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1. Representation

1.1 Ia Ara Aotearoa Transporting New Zealand (Transporting New Zealand) is made up of several regional trucking associations for which Transporting New Zealand provides unified national representation. It is the peak body and authoritative voice of New Zealand's road freight transport industry which employs 32,868 people (2.0% of the workforce), and has a gross annual turnover in the order of $6 billion.

1.2 Transporting New Zealand members are predominately involved in the operation of commercial freight transport services both urban and inter-regional. These services are entirely based on the deployment of trucks both as single units for urban delivery and as multi-unit combinations that may have one or more trailers supporting rural or inter-regional transport.

1.3 According to Ministry of Transport research (National Freight Demands Study 2018) road freight transport accounts for 93% of the total tonnage of freight moved in New Zealand.

2. Introduction

2.1 As an alternative to the documented schedule of questions, Transporting New Zealand favours the free form approach to submissions on topical issues such as the proposed stewardship regulations relating to used tyre and battery disposal management.

2.2 Our comments will be framed around the possible consequences of the new regulations to our specific sector of the economy.

2.3 It would be very easy to get captured by the all effects all risks approach as we suspect some commentators might be. For our part, in our representation as part of the tyre and battery consumer community, Transporting New Zealand suggests it is better to take a more definitive assessment of the changes and how they impact our specific sector.

2.4 As implied, the New Zealand trucking industry is a significant user of tyres and in the future, with development of battery electric vehicles, road freight transport will become contributor to the end-of-life batteries within the proposed management framework. For these reasons we have some interest in the custody and disposal management for these end-of-life products.

2.5 The stewardship document has number of questions for consideration and we will endeavour to answer these.

3. Comments in response to the questions from page 38/39

3.1 Q1 Agree in principle a regulated framework for managed stewardship

3.1.1 We appreciate the uncontrolled disposal of end-of-life tyres and large batteries presents the need to consider how to better manage the potential for environmental harm arising from the present disjointed approach.

3.1.2 We stress that we are speaking about end-of-life products as opposed to repurposed products. Typically, truck tyres are repeatedly re-treaded until they reach their end of life, at which point they are disposed of or utilised elsewhere in the economy.

3.1.3 Because there are so many avenues to utilise end-of-life tyres, some of which are outlined in the discussion document, caution needs to be taken that the control system doesn't undermine the legitimate use of end-of-life tyres.

3.1.4 Commercial vehicle battery disposal is at a very early phase given the low numbers of battery powered heavy duty vehicles presently in the market. Once again, the disposal of vehicle batteries has to considered within an end-of-life context.

3.1.5 There may well be a number of options for deploying depleted end-of-life vehicle batteries in other services and this should be fully investigated within the New Zealand context of the battery management objective.

3.1.6 Within this discussion we stress we are not talking about how the tyres or batteries might be repurposed as part of the custody and control scheme, but simply whether or not there should be a regulatory framework to manage the fully life-cycle exhausted products to mitigate environmental consequences.

3.1.7 The in-principal answer to question 1 would therefore have to be yes.

3.1.8 The caveat is that the process must be cost neutral and not duplicate costs at any stage of the management process. We have real concerns these new regulatory controls and the system that is developed through the custody process will have the unintended consequence of multiplying its own costs and becoming a self-fulfilling tax regime. This would impact in our case, our clients and customers, becoming another inflationary impact on households.

3.2 Q2 Mandatory selling of product within accredited schemes

3.2.1 Clearly both tyres and batteries should fall within a control scheme if the aims are going to be achieved.

3.2.2 On the face of it, the proposals and approach look viable but without doubt, there will be perverse outcomes that will have to be managed, such as the uncontrolled disposal of tyres, as occurs today.

3.2.3 This is despite consumers (motorists and truck operators) who exchange new for worn tyres already paying a disposal fee that they believe contributes to

legitimate disposal. It is long-tail oversight for both batteries and tyres that will generate significant costs and these will have to be resourced from someone, or from somewhere, eventually.

3.2.4 Simply laying out a process of expectation on paper with flow charts and options is quite different to what might actually occur, especially when oversight is absent.

3.3 **Q3 How would mandatory participation effect business?**

3.3.1 We have some reservations about the fees however, these will be added to the truck and trailer operational costs and be absorbed into the goods delivery charges and eventually passed through to customers and consumers of the products transported. This applies equally to end-of-life battery management.

3.3.2 ***Tyre management proposal***

3.3.2.1 If we look at just the tyre proposals alone, Page 41 states the tyre stewardship fee will be paid on loose and fitted tyres and retailers will pass on the fee.

3.3.2.2 The question here is, how at the point of purchase of a new vehicle does the tyre stewardship fee show as an additional cost and is that approach really necessary? We know that purchase invoices for new vehicles include all forms of government charges, but these are often masked under some sort of generic description. More interestingly, when a vehicle purchase is inclusive of GST the additional charge is over and above the normal claimable GST, constituting a tax upon a tax in some circumstances.

3.3.2.3 This raises the question as to whether the fee visually emerges when purchasing replacement tyres, even though the proposal implies (table 11page 45) an upfront fee is being considered.

3.3.2.4 This is latter approach is one we are opposed to. The fee should only become visible at the time a replacement tyre is purchased and the policy should avoid a pre-emptive approach of trying to apply the fee before tyre/tyres are actually consumed by the vehicle. This is treating tyres with a sort of “sin tax” even though no sin, as such, has been committed. Arguably this approach is total over reach.

3.3.2.5 For the average consumer, and for that matter truck operators, any stewardship fee should in the main be relatively benign, as the present tyre disposal fee is now. We would not want it to present a financial discouragement to replacing tyres that are arguably worn out.

3.3.2.6 Having articulated our opposition to a pre-emptive fee approach, we note the $231.00 per vehicle base tyre fee (Truck) based on the table 11 calculation is reflective of the typical 10-tyred vehicle only. Assuming this is the generic set fee for new trucks entering service the impact is unacceptable, despite how low the fee might be.

3.3.2.7 We are suspicious the actual fee for large multi-axle truck combinations might be considerably more if we apply the calculation of fee per vehicle EPUs x tyre count

x $5.50. Page 44 tends to confirm the $231.00 fee applies per vehicle, based on the group average numbers of tyres per vehicle category, including spares, which tends to make our previous point purely hypothetical. None the less, a higher fee would in our view, simply not be justifiable, especially in the context that the tyres are yet to be consumed pending some future disposal. Interestingly, the typical medium truck tyre fee is set at $138.60.

3.3.2.8 Our scepticism around these values is based on the fact that this paper is a draft and not final policy and anything can change through the consultation and stewardship development phase.

3.3.2.9 The typical tyre replacement fee would be 4.2 x $5.5 around $23 per tyre position. Given tyres do not wear out uniformly, the $23 end-of-life replacement fee, say over three to five re-treads (a standard truck approach to tyre management), appears manageable. While any increase in costs is frustrating and despite a government mantra of no new taxes from the present administration and its affiliates, this proposal constitutes a new tax for road users.

3.3.3 ***The large battery stewardship proposal***

3.3.3.1 The coverage of the battery applications is self-evident and supported by the discission on the page 47.

3.3.3.2 The running of the management scheme by a product stewardship organisation (PSO) is an important component of the management process, but we question whether a whole new entity needs to be set up. We suggest the PSO be captured within Waka Kotahi NZ Transport Agency and NZ Customs and report to the Ministry for Environment.

3.3.3.3 The three entities mentioned on page 48 and their respective roles are covered in the *How It Works* discussion. They should be able to collaborate to put in place a suitable PSO with their current resources, with appropriate legislative capability to carry out the battery disposal management oversight function.

3.3.3.4 Our view is the management system should only be focused on end-of-life batteries, not end of use batteries.

3.3.3.5 The development of batteries with alternative constituents such as lithium Iron phosphate (LiFePO) use a lithium-ion-derived chemistry that shares many advantages and some disadvantages compared with other lithium-ion battery chemistries. However, there are significant differences, two being more abundant constituents with lower human and environmental impact. LFP batteries contain neither nickel nor cobalt, both of which are supply-constrained and expensive. As with lithium, human rights and environmental concerns have been raised and are well documented concerning the use of cobalt.

3.3.3.6 BYD also Known as *Build Your Dreams* a significant Chinese Heavy-Duty Truck and Bus manufacturer has already committed to LFP battery technology which the explanation below outlines in some detail sourced from BYD publicity published in a recent copy of Transport Topics magazine, a US-based transport industry publication.

There are many different chemical compounds used in battery energy storage systems. One of the most advanced chemical compounds for battery energy storage is referred to as Lithium Iron Phosphate (LFP). Due to its superior properties regarding safety, longevity and reliability, the LFP battery chemistry has become widely used in many different applications, and is especially suitable for powering medium-duty and heavy-duty electric trucks.

The Lithium Iron Phosphate (LFP) compound consists of a chemical structure that is intrinsically stable. This chemistry therefore possesses extraordinary safety characteristics. The chemical bonds of the phosphate radical in the LFP battery are significantly stronger than compounds used in other battery chemistries, leading to a highly stable chemical structure even under the most extreme environmental conditions.

Lithium Iron Phosphate (LFP) batteries are currently the safest type of lithium-ion chemistry in the world, and can remain stable even when ambient temperatures reach 1,400° Fahrenheit without combustion or explosion. This provides a superior level of safety when compared to the stability, flammability and explosivity characteristics of other battery chemistries and combustible fuels currently used in transportation.

In longevity and reliability testing, LFP batteries far exceed the cycling capabilities of other chemistries. LFP batteries possess excellent cycling stability with high kWh capacity retention throughout the entire lifecycle. In lab tests, even after 8,000 cycles at 25°C and 1C/1C cycle rate, the LFP battery maintains 81% of the battery's initial kWh capacity. This test demonstrates that LFP batteries perform reliably and consistently over a very long-life cycle.

Lithium Iron Phosphate (LFP) batteries have proven to be the safest, longest lasting and highest reliability battery systems available today. As the United States continues its transition to zero-emission transportation, demand for safe and reliable zero-emission energy systems will continue to grow. BYD provides its Lithium Iron Phosphate batteries for a wide range of applications including medium and heavy-duty electric trucks.

3.3.3.7 The point of this lengthy statement within the scope of the battery stewardship discussion is that heavy duty batteries shouldn't be treated generically as presenting the same environmental risk.

3.3.3.8 Transporting New Zealand suggests that the stewardship fee regime be more granulated toward the primary battery constituents' relative environmental risk, as opposed to a one-size-fits-all approach. We understand Table 14 refers HV used EV (generic) with a single fee of $1615 based on an assumed weight of 3000kg, but we are of the view this rate may not be appropriate for every type of heavy-duty truck battery application. Battery technology is advancing all the time as manufacturers explore new battery constituents to increase both battery range

and longevity at the same time reducing core battery weight and reducing environmental demands both at the manufacturing phase and disposal phase. For example, disposal requirements of many present batteries require large energy inputs and granulation to extract the core constituents whereas, the LFP batteries can be reclaimed by various chemical processes leading to the possibility New Zealand could establish a New Zealand based constituent recovery facility.

3.3.3.9 We note the establishment of the battery database, page 52, for setting the stewardship fees and this approach is one we would fully support given the potential for advances in battery technology mentioned above. We are opposed to an upfront fee for new batteries that are not fitted to vehicles, as well as those fitted to vehicles, for the same reasons presented in the context of the tyre fees. The product management criteria should only kick in once a battery has exhausted its life entirely and is set for disposal. What concerns us in wider policy perspective is the implication that both the tyre and battery fee regimes are not entirely framed around environment policy concerns but that they would be seen to dovetail into a broader philosophical aspiration to make road vehicles an untenable choice for consumers and freight service providers.

3.4 Question 4 Agree on the stewardship fees to manage end-of-life products

3.4.1 We have already agreed that an appropriate steward fee is acceptable in principle for both tyre and battery end-of-life management. Once again, we stress end-of-life. However, we agree this approach only works with a comprehensive management framework that sellers and providers are willing to participate in. Unfortunately, the application of a product control, or tracking system, will need to be water-tight to ensure competitive neutrality across all supply avenues and ensure customers are not faced with compounding fees when making purchases, or exchanges of product.

3.5 Question 5 tyre stewardship fee collection and fee management

3.5.1 We have already commented on the best model going forward, specifically in respect of batteries. Initially our view was the PSO model could exist across the three agencies with Customs taking the oversight and tyre custody management role, as set out within table 5, page 25.

3.5.2 There should be only one entity for collecting the tyre fees not three. Waka Kotahi should have a reporting function only.

3.5.3 Since tyres are almost universally allied to vehicle operation, Waka Kotahi should become the repository for in-service tyre data and the fee collector, with Customs acting as the fee custodian, or fee repository. Vehicles not utilised on the road, or not registered for road use, will still have a vehicle primary identity such as VIN for the fee capture, which Waka Kotahi should be capable of managing as well.

3.6 Question 6 Large battery stewardship fee

3.6.1 We have already articulated our position on the large battery stewardship process. We are opposed to too many players in the administration process and

having more than one facility or entity by which to collect the stewardship management fee.

3.6.2 We support the three objective assessment criteria set out in table 3, Effective, Fair and Efficient, but this doesn't necessitate multiple Crown management opportunities to be involved in the process.

3.6.3 A simple, fair regime and single PSO entity managed directly through, or by way of Waka Kotahi's resources should suffice, assuming it is of the right design.

3.6.4 Under our suggested model Waka Kotahi would act as the registrant of large batteries fitted to vehicles. The fees could be remitted to the Ministry for the Environment and the MfE could remit refunds back to the tyre and battery management and disposal enterprises accordingly.

3.6.5 The reason for this approach is that Waka Kotahi has a reliable network of administrative agencies and service providers for current revenue and resource management systems.

3.6.6 This approach settles on the one PSO entity approach and avoids unnecessary duplication and cost dependencies which is always the weak link in most punitive cost, or sin tax systems.

3.6.7 Batteries and tyres released for other life cycle uses would still be recorded in the scheme as accredited entities given that these second-tier users of tyres and batteries would be required to register their reuse application and user site of products removed from motor vehicle applications, to ensure the control and knowledge loop is maintained.

3.7 Question 7 Recovery of costs for monitoring the accredited scheme from the scheme manager

3.7.1 The reality is nothing is free today and we accept that running the scheme and monitoring the performance of the scheme's manager will necessitate the recovery of costs.

3.8 Question 8 Setting of minimum standards for the PSO including the stated targets for recovery, reuse and recycling and reporting on the same

3.8.1 The issue here is the PSO role is clearly broad and we question the reasons behind this sort of approach. It's obviously data intensive but isn't the end goal about managing the battery and tyre disposal ensuring that end-of-life products are appropriately disposed of?

3.8.2 The whole-of-life management control proposed by the paper is resource intensive and unnecessarily customer intrusive to a large extent.

3.8.3 We agree the targets are important aspects that need to be reported on, but this information should only originate with accredited sellers and resellers and once they have handled an identified product they need to record where it has gone.

3.8.4 The model that tends to mirror this approach is the transfer of dangerous goods (DGs) where the product controls ensure safe circulation of DGs in the economy.

3.8.5 The objective should be to replicate that model in some way using Waka Kotahi's Landata functionality for confirming primary application of the battery and tyres to a particular vehicle before the beyond vehicle accreditation system takes over.

3.8.6 Our approach suggests to two levels of accreditation, those who supply the products for vehicle use, and those that utilise the products for beyond vehicle use.

3.9 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?

3.9.1 Q9a should already be covered to some extend by the dangerous goods provisions and the storage and transporting should already be covered by present legislation. Processing and constituent extraction is an activity that may need further consideration for standards development and safety control system oversight.

3.9.2 Q9b is interesting in that consumers are already paying a tyre carcase disposal fee. However, if there is to be a fee remittance system, it will depend on the oversight system design, and that will in turn determine where the fee might be remitted back to some custodian or accredited entity of the tyres in the stewardship chain. We agree if a legitimate process can be designed to remit the fee back at the different life cycle applications of the tyres, we would support that notion.

4. Concluding comments

4.1 The stewardship proposals in their present form appear administratively bureaucratic, typical of a whole-of-life control approach set out in the document.

4.2 We are confident there are other aspects of the process to manage the tyres and batteries that could be looked at again, especially around the interagency relationships.

4.3 We applaud the desire to meet the environmental aspirations and the intent is entire justifiable.

4.4 Charging what some may see as substantial fees can be counter-productive to achieving the goal of preventing delinquent disposal of tyres and batteries. In whatever way the final policy appears, the vehicle user is going to confronted with a tyre fee or fees which for vehicle owner, is the unpalatable piece of the proposition.