



# Inquiry into the transition to Electric Vehicles

Battery Stewardship Council Submission to the  
House of Representatives Standing Committee on  
Climate Change, Energy, Environment and Water.



**Battery**  
Stewardship  
**Council**

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# Contents

1. Purpose of this document.....	4
2. Background .....	5
3. Why are electric vehicle batteries a priority for stewardship?.....	5
4. BSC Principles.....	6
5. What has BSC done to drive electric vehicle battery stewardship?.....	8
5.1 The Discussion Paper .....	8
5.2 The Submissions.....	9
5.3 The Consultation Paper .....	10
5.4 Where to next?.....	12
5.5 Detailed considerations.....	12
6. Considerations for the Standing Committee on Climate Change, Energy, Environment and Water .....	17

# 1. Purpose of this document

The purpose of this document is to respond to the Inquiry into the Transition to Electric Vehicles adopted by the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water.

Under the Terms of Reference, the Battery Stewardship Council (BSC) will address elements of the following:

## Terms of Reference

The establishment of resources, systems and infrastructure required to support transition to EVs.

The opportunities for expanding EV battery manufacturing, recycling disposal and safety, and other opportunities for Australia in the automotive value chain to support the ongoing maintenance of EVs.



## 2. Background

BSC is a not-for-profit company that was established by industry with the support of governments for the sole purpose of designing and managing battery stewardship in Australia. While the initial focus was consumer batteries, BSC identifies electric vehicles (EV) as a priority area, as reflected by the following:

- + the decision by members of the Meeting of Environment Ministers in 2018 that electric vehicle batteries and battery energy storage systems stewardship would fall within the mandate of BSC.
- + the authorisation by the ACCC in 2020 and endorsed by the Federal Government in 2021 for the Scheme design which included a phased approach to including electric vehicle batteries and battery energy storage systems within the Battery Stewardship Scheme.
- + the provision of Government funding for BSC through the National Products Stewardship Investment Fund to conduct consultation to explore the issues and identify preferred approaches for electric vehicle batteries and energy storage.

Electric vehicle and energy storage batteries were included in the listing of batteries as a priority product under the Waste Reduction and Recycling Act 2020, formerly the Product Stewardship Act 2011. This formed the basis of the work which led to the establishment of the Battery Stewardship Council (BSC) and the launch in early 2022 of B-cycle, Australia's official battery stewardship scheme. In 2022, batteries were removed from the priority list in recognition that BSC was progressing well towards the mandate of achieving the government's stewardship agenda.

## 3. Why are electric vehicle batteries a priority for stewardship?

Battery stewardship is a crucial element of the drive to increase uptake of EVs in Australia. Providing consumers with the knowledge and certainty of how their EV battery will be dealt with at end of life is a necessary part of life cycle management in the sector. It is essential that this work starts now while the EV industry is in its infancy, to explore and establish the infrastructure needed to recover precious resources to secure Australia's energy security into the future.

The EV industry is in the early and dynamic stage of its development which provides an ideal opportunity to engage in stewardship and meet the need for a circular economy approach to battery materials. Stewardship provides an effective mechanism for this, including:

- + the need to secure minerals for future battery production.
- + action to give effect to corporate sustainability commitments, including sustainable use of resources.
- + an opportunity to learn from the past and build stewardship into the ethos of electric vehicle manufacturing.
- + influencing government policy to secure strong standards for battery quality and safety.

Whilst companies are taking some action individually, industry wide collective action will ensure a more efficient outcome beyond individual corporate social responsibility. For example, stewardship also enables industry to provide a solution that addresses:

- + the period beyond the manufacturer's warranty.
- + products that may be subject to accidents or insurance claims.
- + extended battery life span.
- + products that are abandoned in the event of an exit from the market, corporate liquidation, or bankruptcy.
- + potential for second life applications.
- + the need for independent verification of recycling and environmental outcomes.
- + linkage to the domestic battery recycling industry which has undertaken a major evolution in the past 2 years with the commencement of B-cycle, Australia's national battery stewardship Scheme.

## 4. BSC Principles

In general, BSC operates under a set of clear and guiding stewardship principles as outlined in the table below.

Through its experience and consultation with the automotive industry, however, it is clear that some additional and complimenting principles are essential to guide any consultation, and accommodate the nuances of the industry.

The automotive industry is embarking on its biggest transition since its inception, and it is awash with challenging new initiatives resulting in diverse and conflicting positions. BSC consider the following principles, in addition to its core stewardship principles, as key in the discussion regarding EV Battery Stewardship and the development of a circular economy within the automotive industry

- + Open and constructive dialogue across industry in its broadest context.
  - + The automotive industry is a large and diverse sector, and with the introduction of EV's, the stakeholders involved and the challenges awaiting are increased.
  - + It is imperative to consult with the industry as a whole, and to bring them on the journey towards a circular economy for EV batteries.
- + EV battery stewardship must be designed to meet industry's needs.
  - + Although the same battery cell may be as common in an EV as it is in a household appliance, the similarities end at the cell level. EV Batteries present their own unique stewardship challenges. Solutions from other industry sectors cannot be universally applied to the automotive industry as a compressive fix.
  - + The automotive industry must consider how best it will meet these challenges and define its own solutions.

## INQUIRY INTO THE TRANSITION TO ELECTRIC VEHICLES BSC SUBMISSION



- + Evidence based decision making
  - + Stewardship actions must be informed by facts and accurate data.
  - + The EV industry is an emerging sector with limited historical data to guide and forecast its path forward.
  - + The capture and open distribution of accurate data and factual information, at a detailed level, represent the most efficient and expeditious means to foster the development of a robust and thriving EV industry into the future.

Principle	Key Scheme Features
<b>Shared Responsibility</b>	<ul style="list-style-type: none"> <li>+ All organisations in the supply chain have a contribution to make depending on their role.</li> <li>+ Maximises engagement and minimises free riders.</li> <li>+ Government support for industry development, efficient regulation, and stewardship framework.</li> </ul>
<b>Improved Environmental and Safety Outcomes</b>	<ul style="list-style-type: none"> <li>+ Eliminates batteries from landfill to avoid environmental and health impacts.</li> <li>+ Maximises resource recovery from waste batteries and minimises use of finite raw materials.</li> <li>+ Leverages the expansion of existing collection and recycling process to reduces emissions.</li> </ul>
<b>Circular Economy</b>	<ul style="list-style-type: none"> <li>+ Improves the economics of collection and recycling of batteries.</li> <li>+ Increases availability of battery materials for remanufacturer into batteries and other products.</li> <li>+ Facilitates positive procurement policies in industry &amp; government.</li> </ul>
<b>Fair and Equitable Funding Model</b>	<ul style="list-style-type: none"> <li>+ Funding model addresses market failure by offsetting the costs with a suitable safety net.</li> <li>+ Procedures to ensure that liable parties will not be double charged.</li> <li>+ Scheme expenses offset and adjusted in response to market forces.</li> </ul>
<b>Increased Competition, Innovation, &amp; Efficiency</b>	<ul style="list-style-type: none"> <li>+ Accesses well-established recycling networks for processing.</li> <li>+ Research to support program development: best practice, innovation, stocks &amp; flows.</li> <li>+ Addresses known barriers to increased recovery of waste batteries to offset market failures.</li> </ul>
<b>Transparency &amp; Accountability</b>	<ul style="list-style-type: none"> <li>+ Good governance as a not-for-profit stewardship organisation with broad oversight and audits.</li> <li>+ Outsources import data reporting to independent agency.</li> <li>+ Independent verification of collection, processing, EH&amp;S, downstream shipments and costs.</li> </ul>
<b>Focus on Behavioural Change</b>	<ul style="list-style-type: none"> <li>+ Strong branding and marketing with a clear call to action.</li> <li>+ Incentives for stewardship action.</li> <li>+ Leverages marketing and education of industry participants and synergistic schemes.</li> </ul>

## 5. What has BSC done to drive electric vehicle battery stewardship?

BSC released a Discussion Paper on electric vehicle battery stewardship to industry in March 2023, providing the context for exploring key questions for achieving EV battery stewardship in Australia. It was intended to set the scene as a way of elevating the discussion to facilitate the following consultation steps:

1. Release of the Electric Vehicle Battery Stewardship Discussion Paper in March 2023
2. Explore Industry Submissions to the Discussion Paper
3. Release Consultation Paper arising from Industry Submissions in December 2023
4. Assess broader stakeholder views based on face-to-face consultation and resulting documents in 2024
5. Develop options for stewardship actions
6. Conduct Workshops to further discuss the issues and practicalities of implementation

### 5.1 The Discussion Paper

Together with the Federal Chamber of Automotive Industries (FCAI), BSC issued the "[Electric Vehicle Battery Stewardship: A discussion paper to establish battery stewardship in the electric vehicle sector](#)" providing context about the evolving landscape of the end-of-life pathway for EV batteries in Australia.

The Discussion Paper put forward the following five key questions to the electric vehicle industry:

**Qu 1. What types of vehicles should be included in scope (now and in the future):**

- + trains, buses, autonomous ships and aircraft, automobiles, and commercial vehicles and heavy transport?

**Qu 2. What are current and emerging market failures in this sector with respect to electric vehicle batteries:**

- + safe and independently verified collection, disassembly, and processing; stockpiling; recovery and recycling of orphaned, damaged, or out of warranty batteries?

**Qu 3. What do you see as the necessary components of an electric vehicle stewardship scheme:**

- + e.g. accreditation, audit verification, traceability, recycling of all or orphaned batteries, funding model?
- + are there specific things that should not be included in an EV battery stewardship scheme?

**Qu 4. What do you consider to be essential policies or standards needed for future proofing EV battery stewardship in this space:**

- + e.g. Reuse and Repurposing standards for EV batteries for 2<sup>nd</sup> life, efficient regulation for transport of used batteries, and funding.

**Qu 5. What are the pros and cons of EV industry partnering with B-cycle to leverage industry knowledge and connections, infrastructure, skills, systems and recycling sector solutions?**

## 5.2 The Submissions

Submissions were received from:

- + IM Group
- + Insurance Council of Australia
- + TES
- + ABRI
- + Electric Vehicle Council
- + Australian Automotive Dealer Association
- + Polestar
- + TESLA
- + Auto Recyclers Association of Australia

The submissions covered a broad spectrum of topics, reflecting differing perspectives on the urgency of implementing stewardship measures, the potential scope of such initiatives, and various considerations such as second-life applications for batteries, tracking systems, and the establishment of product standards.

Additionally, submissions addressed the importance of education and awareness throughout the supply chain; as well as community, technical training, product design influence, safety protocols, quality assurance, stockpile management, governance structures, and independent verification mechanisms, among others.

Despite this diversity of views, certain recurring themes emerged. There was a common view on the significance of supporting the growth of the EV industry and facilitating widespread EV adoption. Moreover, there was a notable emphasis on aligning with the principles outlined in the EU Battery Directive and the necessity of government involvement and support along with the need for accurate and factual data to allow industry to make informed decisions. BSC aims to leverage these themes as foundational elements in shaping any stewardship approach.

It's important to clarify that while some submissions assumed BSC was advocating for the B-cycle Scheme as a blueprint for EV stewardship, this is not the case. BSC recognises the need for a tailored approach that specifically addresses the unique challenges and opportunities within the EV sector.

Regarding market failures, it was acknowledged that not all failures would manifest simultaneously. Furthermore, certain proactive measures may mitigate or delay the onset of some failures, while others could potentially be accelerated. This underscores the complexity of addressing market dynamics and the importance of strategic intervention to navigate potential challenges effectively.

The Submissions can be found [HERE](#).

## 5.3 The Consultation Paper

BSC released a second [“Consultation Paper on Electric Vehicle Battery Stewardship”](#) arising from the 2023 industry submissions, prior to further face to face consultations in 2024. It summarised the key issues found in the submissions and presented a potential path forward.

It stated that in 2023, EV batteries represented a mere 7% of the total battery market by weight and a mere 0.2% of the total battery waste stream. These figures indicate that there is no urgent demand for extensive battery recycling infrastructure specific to the EV sector. However, projections suggest a significant shift in the coming years.

Within the next decade, EV batteries are expected to constitute 30% of the total battery market, with 5% of waste originating from EVs. By mid-century, nearly 40% of all batteries entering the market will be for EVs, contributing to over 32% of battery waste. This trajectory indicates that EV batteries will become the predominant category, necessitating robust stewardship measures to foster a circular economy.

*The establishment of a circular economy for batteries is critical for Australia's journey towards achieving net zero emissions and ensuring long-term energy security. The EV industry is poised to play a pivotal role in driving this transition and leading the way in creating a circular economy for essential battery minerals.*

The consultation paper presented a possible phase approach to EV Battery Stewardship for discussion and consideration by industry as highlighted in the following table.

**INQUIRY INTO THE TRANSITION TO ELECTRIC VEHICLES  
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Possible Phases of EV Battery Stewardship		
Today	2025 - 2030	2030 - 2040
EV sales expansion, EV battery tracking, training, awareness, education, safety controls and incident response.		
	Reuse, refurbishment, repurposing, technical training, collection and transport, storage and stockpiling	
		Recycling with on-shore processing capacity

Advocate for staged approach to EVB with government		
CUMULATIVE APPROACH TO A STAGED STEWARDSHIP SCHEME DESIGN		
Stage 1	Stage 1 & 2	Stage 1, 2, & 3
Accelerate the uptake of EV's and transition the national vehicle fleet towards electrification	Engage industry in the design of stewardship mechanisms that supports reuse, refurbishment, and repurposing of EV batteries.	Expand a scheme design to drive onshore processing.
Align with global approaches such as the EU Battery Regulation to inform future requirements as stewardship evolves.	Demand mandatory participation in battery data capture across the battery life cycle from all industry players.	Augment the emerging domestic critical mineral industry with recycled content.
Explore the integration of voluntary takeback programs as a possible pathway for stewardship participation.	Work with Government and industry to develop policy and remove barriers to investment for reuse and recycling	Align a scheme design to integrate with a whole of vehicle stewardship Scheme.
Define an appropriate funding model that evolves through three phases of EVB Stewardship to be adjusted over time.	Define the requirements for specialised skills and expertise in battery recycling and repurposing.	
Accelerate the implementation of advanced battery tracing across the lifecycle (e.g. Battery Passport).	Develop standards to support safe battery reuse, refurbishment, and repurposing.	
Publish and advocate for factual and accurate commentary and communication about EV's.		
Create and deliver training and education materials and guidelines for handling used EV batteries.		
Provide a framework for safe recovery of EV batteries following accidents.		
Adjust funding model over time to enable each stage to be effective		

## 5.4 Where to next?

As outlined in the Consultation Paper, BSC put forward for discussion a phased approach to implementing EV battery stewardship and fostering a circular economy for critical battery minerals within the industry. The proposals outlined to industry, stem from insights gathered through industry submissions, research, and consultations facilitated by BSC. It's important to note that while these ideas are presented by BSC, they require further deliberation and collaboration with industry stakeholders to ascertain their viability and acceptance.

To advance this proposition, BSC has been in further dialogue with original equipment manufacturers (OEM), Associations representing OEM's, dealers, consumers, after market service providers, dismantlers, the insurance industry, organisations operating in the remanufacturing and repurposing of EV batteries, State and Federal Governments, Fire & Rescue ,and Transport and Roads authorities; to gain current insights into the emerging issues, their views on the proposals, and desire to take part in the consultation process.

To date, the feedback has been supportive, and industry is keen to attend two consultation forums, hosted by BSC in April/May 2024 in Sydney and Melbourne. Alongside local and international speakers scheduled to present insights into the recycling sector and the emerging EU Battery Regulation, these forums will facilitate discussion on several key topics:

- + Identifying challenges in ensuring a circular economy for EV batteries, particularly those that could lead to market failures.
- + Reviewing and refining the proposed phased approach, considering both current and anticipated market dynamics.
- + Exploring the challenges and opportunities associated with an incremental approach to EVB stewardship.
- + Assessing existing and future data availability and identifying knowledge gaps.
- + Defining roles and responsibilities necessary for achieving effective EV battery stewardship.
- + Exploring potential funding mechanisms to support the initiatives at each stage.
- + Identifying essential elements for a successful pathway forward in implementing EV battery stewardship and advancing circular economy goals.

## 5.5 Detailed considerations

As part of the consultation process with the EV industry, the following points have been, and will continue to be, taken into consideration:

**Table 1. Initial discussion points – food for thought**

Topics	Context	Question
Scope	<ul style="list-style-type: none"> <li>➤ The potential proliferation of EV's is set for unprecedented growth across a variety of vehicle types such as Cars, Trucks, Buses, Mining vehicles, bikes, marine applications etc., and other battery suppliers, e.g. after market batteries.</li> <li>➤ Despite the various transport modes all battery packs present similarities and challenges at end of life.</li> </ul>	<ul style="list-style-type: none"> <li>➤ What types of vehicles are to be considered in the stewardship scope.</li> </ul>
	Market size and waste arising	<ul style="list-style-type: none"> <li>➤ Given the right conditions and supporting Government policies the market expansion of EV's will result in a potentially massive battery waste problem into the future.</li> </ul>
<ul style="list-style-type: none"> <li>➤ All minerals used to manufacture batteries such as Lithium, Cobalt, Nickel etc. are finite and the World Bank reports that by 2050 the consumption of these finite resources may lead to a mineral's shortage.</li> </ul>		<ul style="list-style-type: none"> <li>➤ How do we maximise the recovery of finite resources?</li> </ul>
<ul style="list-style-type: none"> <li>➤ As minerals become more difficult to extract from the earth and greater sustainability in mining practices becomes mainstream (e.g. the reduction in blood cobalt) the economic value of recycled materials vs raw materials will shift.</li> </ul>		<ul style="list-style-type: none"> <li>➤ Is this seen as an issue for the EV industry to consider?</li> <li>➤ Is this a challenge to address if we don't have an onshore battery manufacturing capability?</li> </ul>
Market failure	<ul style="list-style-type: none"> <li>➤ In this early stage of the introduction of Electric Vehicles, manufactures are dealing with the majority of battery failures under in-warranty programs.</li> <li>➤ The collection of end-of-life EV batteries is largely occurring through manufacturer authorised service centres.</li> <li>➤ There is currently no requirement for manufacturers to report on the outcomes of end-of-life battery management specifically with respect to in-warranty collection rates, recovery rates, and materials recycling efficiencies.</li> </ul>	<ul style="list-style-type: none"> <li>➤ How do we ensure that key stewardship metrics for the management of end-of-life batteries are accurately and openly reported?</li> <li>➤ Is the EV industry demonstrating accountability for the management of end-of-life battery outcomes including recovery rates and materials efficiency?</li> </ul>

Topics	Context	Question
Market failure cont...	<ul style="list-style-type: none"> <li>Outside of in-warranty services a significant percentage of battery failures would be due to accident damage or out-of-warranty failure.</li> <li>This results in the insurance sector, after-market service providers, and the scrape metal industry becoming involved in the management of end-of-life EV batteries.</li> <li>Aftermarket service providers and the scrap metal industry will need to enhance their electrical safety expertise</li> </ul>	<ul style="list-style-type: none"> <li>What is the insurance industry currently doing to manage end-of-life EV batteries?</li> <li>Who is responsible for recycling failed EV batteries in the aftermarket service sector?</li> <li>What training and information is needed to ensure the after-market service providers and the scrap metal industry is prepared for an upsurge of EV batteries and who will provide it?</li> <li>Are there unique environmental hazards that need to be consider when dealing with EV accidents?</li> <li>What fire and/or electrical safety need to be considered?</li> <li>What costs need to be considered and how are they currently tracked?</li> </ul>
	<ul style="list-style-type: none"> <li>There are many new entrants to the EV market along with the traditional vehicle manufacturers.</li> <li>As the industry is in the early development phase, the possibility of new entrants exiting the market early for various reasons is high.</li> </ul>	<ul style="list-style-type: none"> <li>Who is responsible for retired out of warranty batteries?</li> <li>How do we avoid the proliferation of stranded batteries left by manufacturers exiting the market?</li> </ul>
Battery Information	<ul style="list-style-type: none"> <li>Capturing details of EV batteries when introduced and tracking that battery through to its final fate is critically important in stewardship management.</li> <li>When an EV battery is no longer suitable for its current application it may be possible to repurpose the battery for another application.</li> <li>State of health information for the battery is important to determine the next appropriate use and safety requirements for:                             <ul style="list-style-type: none"> <li>repurposing</li> <li>reuse, or</li> <li>recycling.</li> </ul> </li> <li>Current considerations to capture such information are via a battery passport and/or another shared database or blockchain technology is under study.</li> </ul>	<ul style="list-style-type: none"> <li>What information do we need to capture to determine:                             <ul style="list-style-type: none"> <li>Safe recovery</li> <li>Safe transportation</li> <li>Reuse and repurposing</li> <li>the fate of the used battery</li> </ul> </li> <li>What is the best way to capture and share this data now and into the future?</li> </ul>
Disassembly	<ul style="list-style-type: none"> <li>Deenergising and disassembling the EV battery from the vehicle is a critical step requiring specific skills, knowledge, and experience to ensure safe work practices are followed.</li> </ul>	<ul style="list-style-type: none"> <li>What facilities currently exist to perform this service?</li> <li>Is there a national infrastructure in place or needed to enable safe and responsible disassembly?</li> <li>What training and information is needed to ensure the industry is prepared disassembling EV batteries and who will provide it?</li> <li>What is the cost?</li> </ul>

Topics	Context	Question
<p><b>2<sup>nd</sup> Life Application:</b></p> <p><b>Reuse and refurbishment</b></p>	<ul style="list-style-type: none"> <li>➤ The term “Reuse” refers to the removal of an EV battery from one vehicle for use with another vehicle of the same make and type.</li> <li>➤ The term “Refurbishment” refers to the removal of an EV Battery and that the spent cells or cell packs are replaced with healthy cells or cell packs from another battery unit from a vehicle of the same make and model.</li> </ul>	<ul style="list-style-type: none"> <li>➤ How prevalent is reuse and refurbishment now?</li> <li>➤ Who is currently conducting reuse and/ or refurbishment activities?</li> <li>➤ Who is best placed to conducted reuse and refurbishment activities as the market increases?</li> <li>➤ What are the safety / knowledge issues with regard to reuse and refurbishment activities as the market?</li> <li>➤ How is transfer of ownership of EV batteries tracked?</li> </ul>
<p><b>2<sup>nd</sup> Life Application:</b></p> <p><b>Repurposing</b></p>	<ul style="list-style-type: none"> <li>➤ The term “repurposing” refers to the removal of an EV battery from a vehicle and then disassembling the battery unit to repurpose those battery cells of good health for a completely different application. e.g. repurposing EV batteries for use in an Energy Storage application.</li> </ul>	<ul style="list-style-type: none"> <li>➤ How do we know who is responsible for stewardship at end of this next life?</li> <li>➤ What are the safety / knowledge issues with regard to repurposing EV batteries?</li> <li>➤ What are the legal requirements for product quality in repurposed EV batteries?</li> <li>➤ What are the acceptable applications for repurposed batteries?</li> <li>➤ What standards apply to repurposing EV batteries?</li> <li>➤ How is transfer of ownership of EV batteries tracked?</li> <li>➤ Is there a need for product certification for repurposed batteries?</li> </ul>
<p><b>Accidents and roadside service</b></p>	<ul style="list-style-type: none"> <li>➤ Unforeseen incidents such as vehicle accidents will occur and may present safety risks at the site and the need to recover the battery from the vehicle.</li> </ul>	<ul style="list-style-type: none"> <li>➤ How do we ensure safe and responsible recovery of damaged batteries after an EV accident?</li> <li>➤ What is the process for recovery of batteries from EV accidents?</li> <li>➤ What additional training and information is needed to ensure safe recovery of batteries from EV accidents?</li> <li>➤ Is there a need for additional infrastructure to ensure safe recovery of batteries from EV accidents?</li> <li>➤ What is the cost of safe recovery of batteries from EV accidents?</li> </ul>
<p><b>Storage</b></p>	<ul style="list-style-type: none"> <li>➤ Dependant of numerous factors impacting the supply and ability to reprocess used EV batteries there may be the need to store used batteries.</li> <li>➤ As the industry is in the early stages of development, storage requirements will most likely wax and wane over time and the capability to offer appropriate storage facilities may be challenging.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Does EV battery storage or stockpiling exist today?</li> <li>➤ If so, are storage facilities designed to mitigate fire safety hazards?</li> <li>➤ Is there any evidence that EV batteries are being exported legally or illegally?</li> </ul>

**INQUIRY INTO THE TRANSITION TO ELECTRIC VEHICLES**  
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Topics	Context	Question
<b>Collection &amp; transportation</b>	<ul style="list-style-type: none"> <li>Legal requirements for transporting lithium batteries is evolving and decisions regarding how to regulate used and damaged batteries will likely have a significant impact on the economics of recovery and battery stewardship.</li> <li>Once the EV Battery is safely removed from the vehicle its state of health needs to be assessed to determine its next application.</li> <li>Once determined the battery is collected and transported to an approved facility so it can then be dealt with according to its next application.</li> </ul>	<ul style="list-style-type: none"> <li>What are the differences in how used EV batteries are managed in-warranty and out-of-warranty?</li> <li>Who has the skills to effectively assess the state of health of a battery and determine its next application? Where is this currently done?</li> <li>Who is responsible for collection of used EV batteries?</li> <li>How will end of life batteries be dealt if the manufacturer exits the market?</li> <li>What proportion of failed EV batteries are shipped offshore?</li> <li>Does the ownership of the battery transfer removed from the vehicle?</li> </ul>
<b>Processing</b>	<ul style="list-style-type: none"> <li>Processing is the final stage in the recycling process of a used EV Battery.</li> <li>Used EV Batteries that have a poor state of health would be disassembled down to their raw minerals and those minerals would then re-enter the manufacturing process to make new products including new Batteries.</li> </ul>	<ul style="list-style-type: none"> <li>Who is currently conducting EV battery processing in Australia?</li> <li>What are the final fates of EV batteries at the moment?</li> <li>Who is preparing to conduct EV battery processing in Australia?</li> <li>What is needed to scale up?</li> <li>What proportion of EV batteries are currently being shipped offshore for processing?</li> <li>What is the cost/benefit of processing EV batteries?</li> <li>What is the value of the commodities after processing.</li> </ul>
<b>Other stewardship schemes</b>	<ul style="list-style-type: none"> <li>Stewardship is not new to the vehicle sector with some vehicle components being already covered by a stewardship Scheme. In addition, a whole of vehicle stewardship scheme is under consideration.</li> <li>The principle of product stewardship is that all participants within an industry sector have a responsibility to actively participate in the end-of-life management, this includes producer responsibility.</li> </ul>	<ul style="list-style-type: none"> <li>Are there any relationships to existing Schemes that need to be considered when establishing battery stewardship?</li> <li>Tyre stewardship</li> <li>E-waste</li> <li>How might battery stewardship integrate with a whole of vehicle stewardship approach?</li> <li>How do we identify EV batteries being imported?</li> <li>Import codes</li> <li>Importer declaration</li> <li>How do we avoid free riding?</li> <li>How do we avoid greenwashing?</li> </ul>

## 6. Considerations for the Standing Committee on Climate Change, Energy, Environment and Water

BSC asks the Standing Committee on Climate Change, Energy, Environment and Water to carefully consider stewardship in the context of Australia's transition to electric vehicles. We emphasise the importance of establishing a circular economy for batteries as a way of recovering minerals and ensuring the energy security of Australia. Product stewardship is key to facilitating this transition.

We view our work in bringing together the automotive industry to work together in a unified and collaborative way, as central to establishing the foundational pillars to a circular economy and the stewardship of EV batteries. By opening the dialogue across industry, basing decisions on accurate and factual data, and designing stewardship based on a "for industry by industry" approach, BSC believes we can play a part in the smooth transition towards an electrified vehicle fleet within Australia.

We recognise the diverse perspectives within the industry, which is still in its early stages. With numerous uncertainties and complexities, progressing towards stewardship and a circular economy necessitates thorough consultation. It is imperative to ensure that industry is actively engaged and aligned with the journey towards sustainability.

We remain committed to working closely with the electric vehicle industry to navigate the challenges and realise the vision of a sustainable and resilient electric vehicle ecosystem in Australia and look forward to working closely with the Department of Climate Change, Energy, Environment and Water and the Standing Committee.

REF: BSC Submission for Inquiry into Transition to Electric Vehicles 20240328