

Submission

Battery Breakthrough Initiative

Submitted via batterybreakthrough@arena.gov.au

7 October 2024



Who we are and what we do

[Australia's Mining and Automotive Skills Alliance \(AUSMASA\)](#) is the [Jobs and Skills Council \(JSC\)](#) responsible for our mining and automotive industries. With a workforce of approximately 632,700 workers, our coverage spans the entire mining division and several automotive divisions in the Australian and New Zealand Standard Industry Classification (ANZSIC) (see Appendix 2).

As a JSC, we bring together employers, unions and governments in a tripartite arrangement to find solutions to skills and workforce challenges in our industries, while considering the needs of related ones as well. A key focus of this work involves ensuring that the vocational education and training (VET) system is fit for purpose for learners, employees, and employers. As part of this, we are responsible for the following nationally recognised training packages:

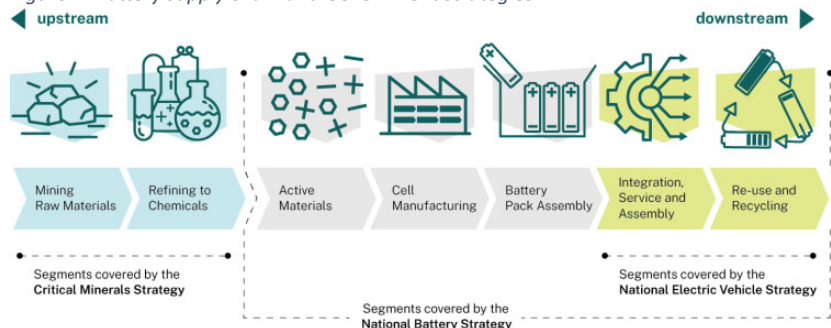
- AUM - Automotive Manufacturing
- AUR - Automotive Retail, Service and Repair
- RII - Resources and Infrastructure Industry

We also recognise climate change and the evolving demands of the transition to net zero as significant opportunities and challenges for the mining and automotive industries. This is why we and our Strategic Workforce Advisory Panels prioritise responding to submissions such as these.

Overview of AUSMASA's submission

Our high-level submission focuses on key parts of the Battery Breakthrough Initiative (or Program) – including its outcomes, focus areas, structure and financial design features – using the Australian Renewable Energy Agency (ARENA) questions (see Appendix 1). We also note the Government previously consulted on the National Battery Strategy, which informs Program's strategic intent and direction, in 2023.¹ While we did not participate in this earlier consultation, which occurred during our establishment phase, we welcome this opportunity to provide advice.

Figure 1: Battery supply chain and Government strategies²



Based on our mining and automotive remit, our submission is best understood as applying upstream and downstream of the battery supply chain (see Figure 1). While our remit excludes manufacturing,

¹ ARENA. [Battery Breakthrough Initiative](#). 2024.

² DISR. [National Battery Strategy](#). 2024.

we believe our responsibility over some of its key battery inputs and outputs provides us with a good basis to provide advice, both in this and previous submissions on Government strategies.³

References

Australian Renewable Energy Agency. (2024). *Battery Breakthrough Initiative*. Retrieved from <https://arena.gov.au/funding/battery-breakthrough-initiative/>

Australia's Mining and Automotive Skills Alliance. (2024). *Industry Workforce Plan - Moving Ahead Together*. Retrieved from Australia's Mining and Automotive Skills Alliance: <https://ausmasa.org.au/media/5vxngfo2/ausmasa-industry-workforce-plan-2024.pdf>

Australia's Mining and Automotive Skills Alliance. (2024). *Transport and Infrastructure Net Zero*. Retrieved from <https://ausmasa.org.au/media/xsbo1isl/ausmasa-submission-for-transport-and-infrastructure-net-zero-roadmap.pdf>

Department of Industry, Science and Resources. (2024). *National Battery Strategy*. Retrieved from <https://www.industry.gov.au/publications/national-battery-strategy/introduction>

³ AUSMASA. [Transport and Infrastructure Net Zero Consultation Roadmap submission](#). 2024.

Appendix 1: Consultation question responses

1.1: Are the Program Outcomes relevant and appropriate for supporting the needs of battery manufacturing in Australia?

In line with our remit over upstream and downstream parts of the supply chain, we consider the Program Outcomes are largely appropriate. However, we note the focus on supply chain resilience and strength in Program Outcome 1 and the Community Benefit Principles are a little ambiguous. For this reason, and as outlined in our 2024 Workforce Plan, we propose that there be an explicit focus on, or links to, greater onshore refining and beneficiation of those critical minerals and strategic materials required upstream of battery manufacturing.⁴

2.1: Are the elements of the battery manufacturing value chain prioritised in the Focus Areas appropriate and defined with sufficient clarity? If so, which Focus Areas would you identify as presenting the highest value opportunities?

As per our remit, we consider the elements are appropriate and clearly defined. Since more value from critical minerals and strategic materials is realised further down the value chain, instead of at the basic ore stage of processing, we would suggest that refining, beneficiation and the production of these and active materials together represent one of the highest value opportunities (noting we have not commented on the value-add of manufacturing).⁵

2.2: What is your view and experience with the market readiness of manufacturing projects across different stages of the value chain?

AUSMASA does not have a view on or experience with battery manufacturing's market readiness. However, based on our automotive manufacturing remit, we do not believe that the majority of this sector is sufficiently ready to pivot to EV conversions or vehicle 'repowers' at the scale needed to meet demand. At present, many such conversions and repowers are at the demonstration stage.

2.3: Which stages of the battery manufacturing value chain do you have an interest in developing or expanding? What are the timelines to deliver

this (e.g. for receiving funding certainty from ARENA, Final Investment Decision, construction, operation)?

As above, AUSMASA does not have a direct interest in developing or expanding particular parts or stages of the battery manufacturing value chain. However, as a JSC, we wish to emphasise increasing concern in industry with the recycling and end-of-life management for EV batteries. We understand that some parts of industry could produce large amounts of 'EV waste' from the likes of mobile plant equipment, which there is no current capacity or capability to re-purpose, recycle or reuse domestically. Therefore, any investment in battery manufacturing should account for this as part of a focus on the wider and circular economy.

2.4: Should certain stages of the value chain be progressed before others (e.g. do some parts enable others)? To what extent do certain stages of the value chain need to be progressed in parallel (or jointly in integrated projects) to be successful?

We believe onshore refining, beneficiation and production of critical minerals and strategic materials, followed by associated battery active materials, represent a key stage of the value chain that could be progressed before others, or at least in parallel. This is because upstream and onshore beneficiation and production activities are a necessary precondition for onshore battery cell manufacturing and pack assembly; and consequently, strong and resilient local supply chains. If the Program only or largely prioritised downstream activities, we believe this could create risks for local supply chains and potential innovations.

2.5: Do you think there is a need for the Program to support feasibility studies (or other development expenditure)?

We consider that ARENA would be best placed to make this determination after receiving completed Project Details Forms from other submitters. For advice on all types of funding incentives, please see our answer to question 3.3.

2.6: Where there is an existing manufacturing ecosystem (e.g. lithium-ion pack assembly), what could be done to ensure funding support through

⁴ DISR. [National Battery Strategy](#). 2024.

⁵ AUSMASA. [Transport and Infrastructure Net Zero Consultation Roadmap submission](#). 2024.

the Program retains competition between suppliers?

As noted earlier, AUSMASA does not have a view on or experience with existing manufacturers. Nevertheless, we consider that competition could be retained between domestic manufacturers and other parts of the value chain by funding multiple suppliers to expand existing capacity to a given level, or pursue new operations in parallel. We do not consider that a reduction in competition that would favour domestic suppliers would be a negative outcome for the Program.

3.1: Please provide any feedback on the proposed funding mechanisms.

AUSMASA anticipates that project applicants will propose funding mechanisms or structures that best meet their project needs. In keeping with our focus on greater onshore refining, beneficiation and production prior to manufacturing, we consider that production incentives and other up-front forms of funding will best ensure future successes and supply chain resilience in the near-to-medium term.

3.2: What is your preliminary view of the required production incentive value (range) for your project?

As a JSC, AUSMASA is not proposing funding for any particular project(s). For advice on the Program's funding limits, please see our answer to question 4.1.

3.3: In what kinds of projects will production incentives be the most effective form of funding? In what projects might capital grants be more suitable? In what projects might a combination of capital grants and production incentives be suitable?

First, and in keeping with our submission's focus, we consider that production incentives could provide initial or additional stimulation for production and ongoing product delivery, where changes in output(s) or sales can be compared and incentivised. Second, we consider that capital grants will best suit new projects that need upfront or one-off funding for infrastructure or equipment (e.g. pilot or feasibility studies). Last, we consider that a combination of both would best suit projects with intersections across the supply chain.

3.4: ARENA has proposed that applicants design the production incentive support model as part of their applications. Would it be more productive if ARENA designed a fixed production incentive model to be

used for all projects?

We consider that ARENA may be best placed to determine this after receiving alternative production incentive designs from other submitters. However, we wish to emphasise that some comparable mining incentives operate on a fixed model (e.g., the Critical Minerals Production Tax Incentive) that may raise questions of fairness in relation to mining and between different types of submitters. For example, some submitters may be better resourced and placed to propose models that best benefit them while others may be poorer placed –affecting the quality of applications under the Program's merit-based approach. If ARENA sees this level of variability in applicants' proposals, a single fixed incentive could be a fairer, more consistent, and more transparent option for all.

3.5: What evidence could be provided to ARENA to ensure production incentives are only paid for outputs that are successfully delivered to the end customer? How might ARENA ensure that outputs meet quality standards and are fit for purpose?

Production incentives could be paired with evidence of successful delivery like acceptance documentation, delivery or inventory receipts and invoices. ARENA could then provide advice on benchmarking and associated inspections, audits, and performance testing that customers may need to undertake, or potentially undertake this work itself if it is seeking consistency across a range of outputs.

3.6: What other policies or support could Government consider that would complement the Program?

Since the Government's Future Made in Australia initiative is providing a range of supports, in addition to states and territories, we suggest that this work be compared and aligned to achieve minimum levels of supply chain capability and capacity before pursuing further support. It is not a given that existing policies and support will be taken up in a coordinated fashion, which may require guidance or a larger role from governments or ARENA. This may extend to demand-side support to realise further gains from the Program (see 5.1 below).

4.1: Are the proposed maximum and minimum funding limits appropriate, given the draft Program Outcomes? How might these limits constrain your Project?

As noted, AUSMASA is not proposing funding for particular project(s) as a JSC. However, given the Government has set aside a total of \$523.2 million over 7 years from 2024–25, we suggest ARENA provide further guidance to applicants on the types of projects that could be

approved (e.g., using answers to this question). While applicants can estimate this based on the available funds, they may benefit from further guidance on phasing and project scale before applying, especially in light of the requirement for (unspecified levels of) co-funding.

5.1: Do you think there is merit in the Program supporting projects through this demand-side model (in addition to supply-side support)?

AUSMASA sees merit in this. In particular, we note the mining industry uses large amounts of electricity in off-grid locations, which could benefit from battery storage to offset intermittency in renewable energy generation and/or support electric heavy vehicles and mobile plant equipment. Demand-side support for the industry could assist it to reduce emissions at-scale or in particular sectors (e.g. critical minerals and strategic materials).

5.2: Please provide examples (if any) where this demand-side model would effectively contribute to the Program Outcomes.

We agree that a customer or customers could contract directly with ARENA to purchase outputs related to one or more of the focus areas to stimulate demand. However, for our example involving battery systems for the mining industry, we consider that larger companies could contract directly with suppliers instead.

7.1: Do the Eligibility Criteria seem reasonable? Are there any additional criteria you would add to the list, or are there any criteria that may be challenging to achieve?

AUSMASA considers the Eligibility Criteria to be largely reasonable. However, we consider the blanket exclusion of projects that include student education and training requires greater clarity as it could become problematic, particularly where educational institutions are involved in commercialising technology.

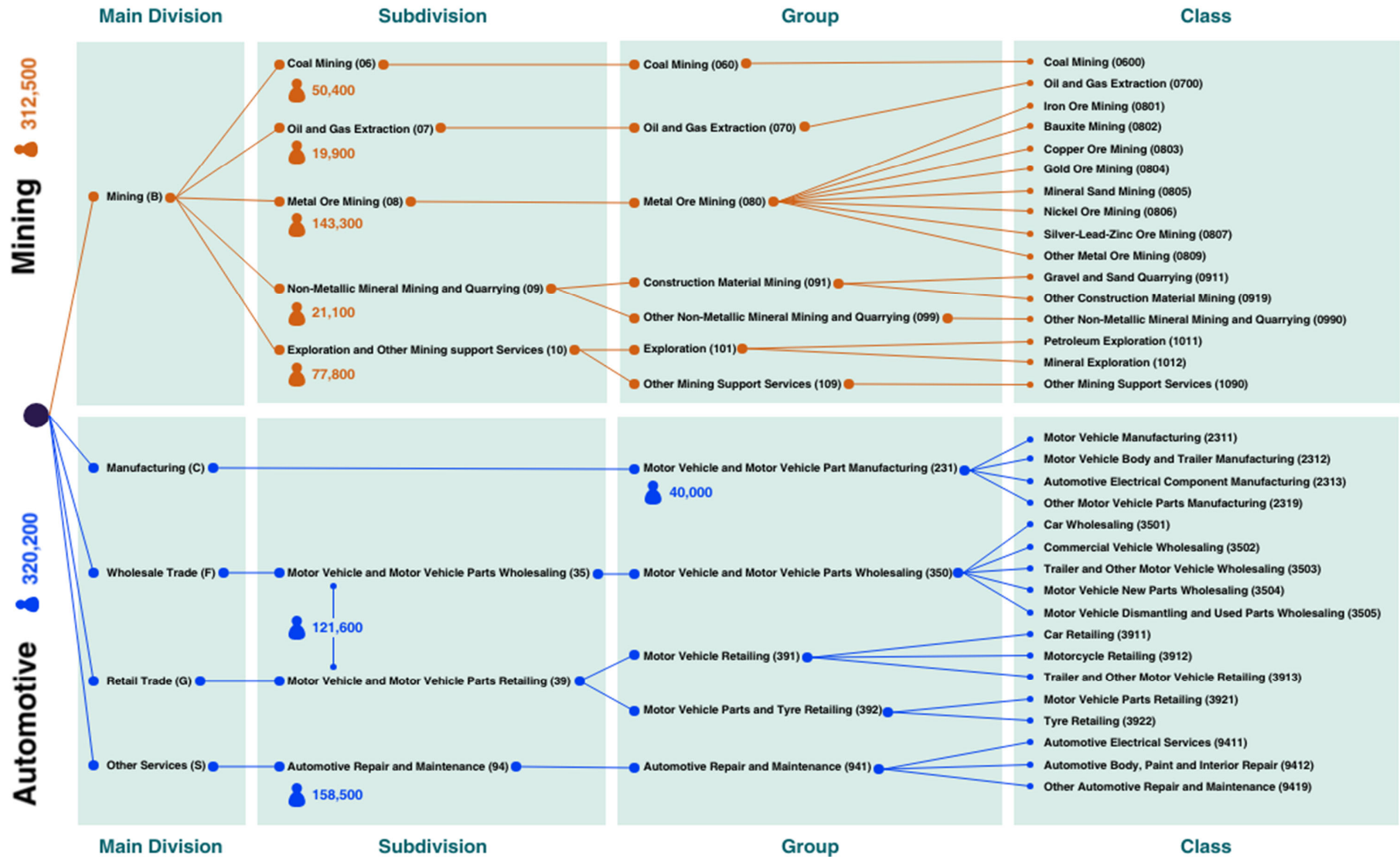
8.1: Do the Merit Criteria seem reasonable? Are there any additional criteria you would add to the list, or are there any criteria that may be challenging to achieve?

AUSMASA considers the Merit Criteria to be reasonable. However, in addition to our answer to question 4.1, we consider the requirement for co-funding to be partially unclear, and it would benefit from guidance on a figure or percentage.

10.1: What are the highest value knowledge sharing benefits that could be gained from this Program?

We consider that [Hydrogen Headstart template](#) is an appropriate model for knowledge-sharing and that the Program's highest-value benefits will ultimately rely on the quality and number of projects ARENA selects for funding.

Appendix 2: Workforce Backbone ANZSIC Data





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Jobs and Skills Council
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An Australian Government Initiative

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