

The Energy Users' Association of Australia (EUAA) is the peak body representing Australian commercial and industrial energy users. Our membership covers a broad cross section of the Australian economy including significant retail, manufacturing, building materials and food processing industries. Combined our members employ over 1 million Australians, pay billions in energy bills every year and in many cases are exposed to the fluctuations and challenges of international trade.

Thank you for the opportunity to make a submission to the National Battery Strategy Issues Paper. The proposed National Battery Strategy comes at a time of escalating costs across the entire economy alongside the requirement for rapid transformation of the energy sector, including the need for batteries to provide firming capacity and other network services. For EUAA members, electricity and gas costs have risen significantly and while there is still much to do to bring energy costs under control we take this opportunity to once again acknowledge the work being undertaken by federal and state governments to address these issues.

Like all business, EUAA member companies are also dealing with supply chain and labour constraints, significant increases in material costs, rising interest rates and broader impacts of inflation on overall costs and consumer demand. These issues will be accelerated in the short to medium term as the staggering levels of government support in the USA (Inflation Reduction Act) and EU (in response to the Russian-Ukraine war) act as a powerful magnet for people, material resources, technology and capital. Even when the conflict in Ukraine ends, these significant global influences will have a profound impact on the scale, cost and rate of change of emissions reductions in Australia, including the energy system transition.

The magnitude and impact on global markets of actions by the USA and EU is another compelling reason to preserve and even grow sovereign capacity of key sectors of the economy. In the circumstances it is unreasonable to think Australia can compete head-to-head on a global stage with the likes of the USA and EU, but we can ensure we are able to service our domestic needs through building local capability and capacity.

Therefore, the EUAA supports government efforts to build the capability and capacity for battery technology development, deployment and manufacturing in Australia.

MOVING UP THE VALUE CHAIN

Australia has long been recognized as a global leader in energy sector research, innovation and development and has abundant resources available to facilitate the deployment of new energy technologies.

However, currently the minerals required for battery production are shipped offshore for processing. While the *Critical Minerals Strategy* (CMS) will identify and progress manufacturing and processing of the raw critical minerals required for batteries, in designing National Battery Strategy, linkages to the CMS will be required so that the correct minerals are supplied in the right quantities for a domestic battery industry.

Through the establishment of manufacturing and processing of the raw critical minerals, an opportunity to expand into a new export industry may present itself. This will leverage the global recognition of Australia's quality assurance and quality control in manufacturing. The reduced shipping costs of exporting processed critical minerals

should make export a viable industry consideration. Some of EUAA's members are also currently investigating opportunities to re-purpose mineral processing plant for different minerals.

To build this opportunity, in addition to the National Battery Strategy linking with the CMS, developing relationships with existing mining and processing companies is critical to the success of the Strategy.

TURNING OUR INNOVATIVE IDEAS INTO OPPORTUNITY

Through recent years, COVID-19 has demonstrated how R&D organisations can work together to achieve advances in knowledge and science. Collaboration, and a record investment in R&D in the Pharma and Medical Products sector (US\$178 billion globally) saw many COVID-19 vaccines progress from R&D through testing and deployment.

By contrast, global investment in the energy sector was US\$26 billion globally over the same period, representing 1% of the US\$2.3 trillion expended by all sectors on R&D.

The National Battery Strategy should work with research organisations and industry research groups to encourage collaboration and provide investment (through grants) into the battery sector to advance the R&D capability, capacity and outputs, focusing on building the capability and capacity to manufacture existing technology batteries (e.g. LiFePO4) and new emerging technologies (e.g. sodium, lithium carbon etc.).

Additionally, Australia needs to develop pathways to commercializing the outputs of battery R&D, including technical specification verification, safety certification (e.g. early lithium-based battery technology was prone to spontaneous combustion), and routes to demonstration at a level provides technology guarantees to the market.

ENCOURAGING INVESTMENT TO GROW OUR BATTERY INDUSTRY

In addition to the financial investment into R&D, Government will also need to invest in the establishment and development of manufacturing capability and capacity, initially with existing technology batteries and pivoting to new emerging technologies once existing technologies are established.

It is unlikely that Australia will be able to compete against the magnitude and impact of other economies with developing or developed national battery strategies, however, it is highly likely that Australia will be able to demonstrate its technical and quality capability when manufacturing existing technology batteries, and could be a market leader globally should it be the early manufacturer of new, breakthrough technologies, unavailable from other countries.

CREATING THE ENABLING ENVIRONMENT FOR INDUSTRY GROWTH

Enabling any industry requires skills to be in place. While the Government is funding 10,000 New Energy Apprenticeships, these positions are shared across the energy sector. Government may consider having additional positions available exclusively for battery manufacture, sales and installation. In addition, the current mechanism does not support skills acquired through university degrees that will be required for a new battery industry to thrive.

In addition to the safety mechanisms required for successful deployment of new battery technologies, the lifecycle of all elements of the process will need to be demonstrable to achieve social license to create a local battery industry. The lifecycle will need to include mining, processing, manufacturing and recycling. To this end, the EUAA strongly encourages the government to establish a battery recycling industry alongside the battery manufacturing industry.

We believe that the issues we have raised in this submission are critical to advancing Australia's sovereign capability in the battery industry, focussed initially on supplying Australia and later, where relevant, potentially exporting.

Do not hesitate to be in contact should you have any questions.



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