

## Energy (Renewable Transformation and Jobs) Bill 2023

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# Energy (Renewable Transformation and Jobs) Bill 2023

## Queensland Parliament: Transport and Resources

### Committee

#### Smart Energy Council submission

#### Forward

The Smart Energy Council is grateful for the opportunity to provide a submission in response to the Transport and Resources Committee's inquiry into the Energy (Renewable Transformation and Jobs) Bill 2023.

The Smart Energy Council is Australia's peak independent body for renewables including solar, batteries, and green hydrogen. The council has over 950 members and 65 years of experience in the sector having been established by the photovoltaic pioneers in the 1950s and 60s who designed and built some of the world's first solar panels and solar hot water systems.

The Council understands Australia's transition to a net-zero emissions economy will deliver massive business and economic benefits; it will deliver jobs, attract investment, innovate, and make our economy more productive and competitive, all while delivering a safer climate. Achieving a strong economy and a safe climate is not just possible, it is critical if we are to confront the challenges of the future.

We actively connect the smart energy industry across Australia, building momentum and unlocking the barriers that hold us back from embracing a smart energy future.

The SEC's 950+ members provide us with real-world, empirical insights via thematic working groups that assist the SEC with drafting, testing, and advocating for fit-for-purpose smart energy policy. The

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discussion and outputs of the SEC working groups provide the basis of the evidence provided in this submission

With the world's best renewable energy resources, and innovative people and businesses, Australia has the opportunity to be a smart energy leader. As such the Smart Energy Council offers a range of initiatives for consideration.

## **Overview**

The Smart Energy Council is pleased to offer a submission in support of the Energy (Renewable Transformation and Jobs) Bill 2023.

The SEC is a strong supporter of the Queensland Energy and Jobs Plan and the planned \$62 billion in investment the Government has announced. The announced SuperGrid and energy storage plan offer the people of Queensland a viable roadmap to decarbonise their economy and reduce power costs for energy consumers.

### **A. Legislated Renewable Energy Targets**

The Smart Energy Council strongly welcomes the provision of legislated renewable energy targets in this bill.

The Queensland Government's stated goal of reaching 50% renewable energy by 2030 is well supported by the SEC. This target cultivates an investment landscape that propels the state towards this significant milestone.

The bills increased reiterate the 2030 target and now offer the improved ambition to raise the bar with new targets of 70% by 2032 and an impressive 80% by 2035. Their decision to enshrine these targets into legislation is a step we again support, showcasing the state's leadership in renewable energy. The introduction of the Bill, which formalises these targets, and the introduction of new reporting and review mechanisms, is a move that ensures these ambitious commitments are not just promised but actionable plans leading to a sustainable future.

## **B. Renewable Energy Zones**

The Bill establishes a strong framework for Renewable Energy Zones across Queensland. The creation of the Southern, Central, North and Far North Renewable Energy Zones offers clear locations for supercharged investment, development, and construction of the state's new powerhouse regions. Over time the establishment of the 12 REZ areas during the various phases of the program will provide certainty to stakeholders involved in the project.

The Smart Energy Council is pleased with the detail contained in the bill around regulation-making powers for the REZ delivery body the foreshadowing of a REZ management plan that will be delivered via regulation. However, given this body and the stakeholders who will be involved in investing in the build-out of the program over many years, it is very important to make sure any governance and regulatory arrangements put in place can last multiple years and parliamentary cycles.

## **C. Job Security Guarantee Fund**

The Smart Energy Council is pleased that the bill legislates the Queensland Government's Job Security Guarantee Fund.

The Plan pledges to safeguard the future of employees at Queensland's state-owned coal-fired power stations, offering them stability, options, and clear career pathways as Australia transitions to newer, cleaner energy generation.

This legislation, and the \$150 million fund as well as the Queensland Energy Workers' Charter will see this transition importantly has programmatic funding that will see any retraining and reskilling opportunities are taken up by workers affected by the change.

This is incredibly important from an Australian perspective because workers in this industry are vital to power the transition to renewables. The skills shortages in the energy industry are an issue that must be addressed over the coming years and the existing pool of workers must be utilised to the best possible extent if these skills shortages are not going to be exacerbated.

#### **D. Utilisation of Queensland and Australian-made local content**

The Smart Energy Council believes the Queensland Jobs and Energy plan offers a once-in-a-lifetime opportunity to build out Australian sovereign energy supply chains and capacity.

The Smart Energy Council firmly supports an Australian-made manufacturing sector for all elements of our renewables value chain. Australia's abundant supplies of lithium and nickel, key components in battery manufacturing, mean the country is uniquely placed to build out a sector that can supply a significant proportion of the world's needs for energy storage for decades to come. Australia has a long history of successfully mining raw materials and exporting them for value-add overseas. In this next phase of Australia's story, we must move up the value chain and produce more of the end products onshore capturing more of the benefits from these minerals for the advancement of all Australians.

Investment in our existing manufacturing base and in new smart energy componentry in Australia is critical to the success of Australia's transition to becoming a smart energy superpower.

#### **Solar Manufacturing**

Australia currently possesses a very limited domestic solar manufacturing industry with just one operator still producing products in South Australia. Australia should have the capability to produce the basic materials of a solar panel including the tempered glass, the silicone solar cells, and other component materials. Given Australia will soon be reliant entirely on imports for a product that makes up over 12% of our current total power generation and sits on the rooftops of almost 3.3 million homes this represents a strategic gap that must be filled.

There are a number of current operators that are Australian based however they manufacture solar panels and components overseas. Some of these manufacturers are fast becoming world market leaders in their niches. Many of these companies would very much like to produce all or some of their products in Australia. With some investment from the recently legislated National Reconstruction Fund, these manufacturers could easily onshore some or all of their product manufacturing.

#### **Battery Manufacturing and Lithium mining**

The global market for lithium Batteries is expected to hit around \$100 billion by 2025 with around half being used in EV batteries and the remainder split between increasingly popular household batteries for behind-the-metre storage and in other consumer products such as drills, vacuums, etc.

In Australia, we possess significant volumes of high-quality lithium, potentially the largest deposits in the world in terms of accessible deposits. We also possess an obvious competitive advantage in Mining. Currently, Australia is the world's largest producer of unrefined lithium, and we produced \$1.4 billion in exports in 2018–19 (Australian Department of Industry, 2019). The value in 2023 is expected to be \$3.8 billion (statista.com, 2023)

This lithium is mined and sent overseas for value add, similar to other valuable metals we export including iron-ore and to a large extent bauxite.

The obvious value add here is to move our lithium process up the value chain. The Lithium-ion battery value chain consists of the six main stages, which include extraction of raw materials, processing the material, creating active battery cell materials, manufacturing of cells, and recycling the product for reuse.

At an absolute minimum, Australia should be developing lithium mining operations with a view to processing the material before it is exported.

The next phase in the process should be to build the capacity to produce the precursor, anode, cathode, and electrolyte components of the battery construction phase. Australia currently produces nine of the 10 mineral elements required to produce most lithium-ion battery anodes and cathodes and has commercial reserves of graphite which is the remaining element and could easily be exploited. Australia also has secure access to all of the chemicals required for lithium-ion battery production<sup>1</sup>.

Significant investment in lithium extraction and processing with a view to building batteries in Australia could and should be a huge boost to the Australian economy. Given the size and availability of the resource in Australia, to some extent, we have a moral imperative to exploit this resource as quickly as possible in order to meet the challenges presented by climate change, at the same time we should be attempting to add value to the Australian economy by offering a cleaner version of the product to the world.

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<sup>1</sup> The Lithium-Ion Value Chain, Austrade 2020

## **Green Hydrogen**

Australia is already shaping up to be a big player in the production of Hydrogen. This industry is in its infancy and needs a strong certification policy that will mean Australia develops its hydrogen industry from clean, green fuel sources and not from other traditional dirty fuel sources such as coal or gas.

In December 2020, the Smart Energy Council launched its Zero Carbon Certification Scheme. It is an industry-led Guarantee of Origin style scheme which promotes the uptake and distribution of renewable hydrogen products and their derivatives in Australia and overseas. The scheme, which will be delivered through the Smart Energy Council's Hydrogen Australia division, will assess the embedded carbon in participating hydrogen, ammonia, and metals produced within Australia.

There is an opportunity to develop and manufacture the many electrolyzers that will need to be built for the industry to use in the production of hydrogen. Because these electrolyzers are relatively simple to build and manufacture, are in very high global demand, and will be needed at scale domestically there is a very real opportunity now to invest in the manufacturing capability to produce the electrolyzers that will power our hydrogen industry.

### **E. Maintaining strong social license**

The Smart Energy Council encourages the Queensland Government to strongly consider the social license implications of the Jobs and Energy plan to ensure renewable energy projects can continue to be built with community support over the various phases of the plan. Effective community engagement and stakeholder consultation are crucial. This involves clear, transparent communication and addressing local concerns and expectations, which builds trust and incorporates valuable local insights into the project.

Crucial to the long-term success of the plan is a commitment to environmental and social responsibility in projects. Projects under the plan should seek to minimise environmental impacts and strive for positive social outcomes and community development, showcasing a commitment to local well-being and enhancing project acceptance.

Over the life of the project, continuous monitoring and responsiveness are vital. Establishing feedback mechanisms and adapting to community and environmental needs reinforces trust and support, ensuring the project aligns with community expectations and sustainable development practices.