

Clean Economy Jobs Bill 2024

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To Committee Secretary, Clean Economy Jobs, Resources and Transport Committee,

Thank you for the opportunity to make a submission on the Clean Economy Jobs Bill 2024. Beyond Zero Emissions (BZE) is an independent think tank creating solutions for a prosperous zero-emissions Australia.

We welcome the Queensland Government's Clean Economy and Jobs Bill 2024 and support its intention to support reduction of greenhouse gas emissions in Queensland by stating emissions reduction targets. BZE welcomes the targets of:

- 30 per cent reduction below 2005 levels by 2030
- 75 per cent reduction below 2005 levels by 2035
- net zero by 2050.

BZE supports the Bill's aims, through more ambitious targets, to create :

- policy certainty to attract investment in new industries and and decarbonise the State's existing industries
- more job opportunities in Queensland's emerging clean economy industries and in existing industries.

BZE's Deploy report shows how Australia can reduce emissions by 81% through rapid deployment of six key technologies: solar, wind, batteries, EVs, heat pumps and electrolyzers.

BZE supports the intent to develop Sector plans to decarbonise across the Queensland economy and welcomes the opportunity to engage in the development of these plans. We encourage the alignment of the plans with the Federal Government's Sector Plans, which include:

- electricity and energy
- industry
- resources
- the built environment
- agriculture and land
- transport

In our submission below we expand on opportunities in electricity and energy, industry, the built environment and transport that have been highlighted in our recent research reports on National Supergrid, Batteries Supply Chains, Heat Pumps Supply Chains, Commercial Electric Vehicles Supply Chains and Renewable Energy Industrial Precincts.

Beyond Zero Emissions is currently undertaking detailed mapping of biodiversity land use values and renewable energy infrastructure needs in Central Queensland and would welcome

the opportunity to share this information with the Clean Economy Jobs, Resources and Transport Committee once finalised. The intent with this project is to provide a regional perspective on how to best balance renewable energy, biodiversity and other land use values and communicate the role of detailed land use planning in resolving these conflicting values.

Transparency is at the heart of authentic engagement and **we encourage the Government to provide public access to available data sets relating to statewide strategic assessment of land use, environment, cultural heritage and existing industries, together with renewable land use suitability assessments and transmission route planning.** This will help to provide impacted local communities with greater certainty that Queensland's renewable energy infrastructure is being developed in the most appropriate locations. BZE also welcomed the QREZ Roadmap framework's efforts towards rolling out renewables well.

BZE has engaged industry, government and community in Central Queensland in recent years around the concept of a Renewable Energy Industrial Precinct for Gladstone. This place based approach focuses on coordinating and clustering the energy needs of local industry and planning for the scale of new renewable energy required to power industry and support local manufacturing jobs. The Queensland Energy and Jobs Plan addresses the scale of this ambition. BZE recognises that it is critical that the roll out of renewable energy and associated infrastructure is done well in ways that are nature positive, sensitive to community values and community benefits, and that promote safe and secure jobs.

We have provided detailed comments and recommendations in the following pages for your consideration. We would welcome the opportunity to discuss any of this information further

Yours Sincerely,

Beth Mitchell

Head of Engagement, Beyond Zero Emissions.



Response

1. *Support for increase in emissions reduction target*

BZE's [Deploy report](#) shows how Australia can reduce emissions by 81% through rapid deployment of six key technologies: solar, wind, batteries, EVs, heat pumps and electrolysers.

BZE commends the work to date on the Queensland Energy and Jobs Plan, coordination of project connection to the grid by Powerlink. BZE notes renewable energy has continued to grow, [reaching 27% of Queensland's needs in 2023](#).

BZE welcomes Queensland moving towards a 1.5 degree aligned pathway, 75% by 2035 is a strong step in the right direction but is still not aligned with Queensland's share of maintaining 1.5 degrees globally. BZE recommends the Government commit to a review by 2030 on whether to increase the 75% by 2035 target.

2. *Offsets*

Wherever possible, actual decarbonisation is greatly preferred over offsets. This is especially important for methane which behaves differently to and is a more impactful greenhouse gas in the short term compared with carbon dioxide.

3. *Sector Plans*

BZE supports the intent to develop Sector plans to decarbonise across the Queensland economy and encourages these to align with the Federal Government's Sector Plans, which includes:

- *electricity and energy*
- *industry*
- *resources*
- *the built environment*
- *agriculture and land*
- *transport*

BZE has conducted research and industry engagement into opportunities for Australia in key sectors including electricity and energy, industry, the built environment and transport. Details on our recommendations are highlighted in our recent [research reports](#) on National Supergrid, Batteries Supply Chains, Heat Pumps Supply Chains, Commercial Electric Vehicles Supply Chains and Renewable Energy Industrial Precincts, and Safeguarding our Future.

BZE encourages the State and Federal Governments to promote coordination and collaboration of sector wide and NEM wide initiatives incorporating skills and training (via

Net Zero Authority), infrastructure and industry and community engagement and nature positive development. In our pre-budget submission to the Federal Government, we call for A National Clean Industry Authority and Infrastructure Master Plan to work in collaboration with the Net Zero Authority (NZA) to ensure that physical infrastructure and assets are developed in parallel with the NZA policy framework to optimise resource allocation, minimise redundancies and maximise the effectiveness of both Authorities.

The National Supergrid highlights \$20 billion spending across Australia to provide transmission and distribution infrastructure and stimulate private funding for projects. Queensland renewable energy projects are progressing relatively rapidly compared with other states.

Renewable Energy Industrial Precincts and Safeguarding our Future report highlight the value of industry coordination of renewable energy transmission and hydrogen pipeline projects. BZE commend efforts by Powerlink and GOCs to coordinate and streamline infrastructure to meet industry needs. A range of coordination efforts are underway Federally and these need to be transparent and cognisant of other elements in the overall project.

The Commercial Electric Vehicles Supply Chains paper highlights:

Opportunity: Commercial electric vehicles (CEVs) account for **9% of Australia's emissions**. With a robust commercial vehicle industry and the right support, Australia could emerge as a leading CEV manufacturer. Given the nascent state of the global CEV manufacturing sector, Australia has the chance to secure a pivotal role in the global supply chain. The Australian commercial vehicle market, comparable in size to the coal industry, has significant growth potential. BZE highlights the opportunity for deploying / rolling out 1.5 Million eLCVs, 61,000 eBuses, 200,000 eTrucks.

National recommendations:

- Establish clear targets to provide a demand signal for the local industry.
- Implement Production Tax Credits for CEVs, with higher credits for greater Australian content.
- Stimulate demand to drive investment and industry growth.
- Adapt the instant tax write-off scheme exclusively for CEVs.
- Declare a zero-emission bus fleet for government fleets.
- Promote a circular economy through retrofitting, design standards, and disassembly protocols.

BZE congratulates the Queensland Government on the launch of the [Zero Emission Bus Program](#). BZE welcomes the commitment that new buses added to the South East Queensland fleet will be zero-emission from 2025 and regional Queensland buses will start the zero-emission journey soon after.

The Batteries Supply Chains paper highlights:

Opportunity: Australia is the **world's largest exporter of lithium**—accounting for half of the global supply, however we only capture a **mere 4%** of the battery supply chain onshore, being largely relegated to a **“dig-and-ship”** role. The **expansion of downstream capabilities**, beyond lithium mining, represents a considerable economic opportunity. The rapid roll-out of batteries alone can reduce Australia’s **national emissions by 23% by 2035**. Our research indicates that if Australia were to refine all its lithium domestically before export, the value of Australian-made lithium hydroxide could reach \$53 billion by 2035, compared to \$16.5 billion under the status quo, creating 11,000 jobs. Additionally, establishing a cell and assembly industry could contribute \$18 billion to the economy and create 25,000 advanced manufacturing jobs by 2035. Moreover, by 2030, a recycling industry could add at least A\$500 million to GDP and create a thousand jobs, with the global value of recycling nearing parity with mining (\$42 billion versus \$52 billion).

National recommendations:

- Consolidate existing capacity in manufacturing
 - Consolidate existing manufacturing capacities and invest \$2 billion in equity from the government to expedite the diversification and scaling of Australian technologies and companies.
 - **Queensland has a key role** to grow existing players to bolster energy security, focusing on stationary applications like redox flow batteries.
 - **Queensland has a key role** to leverage Australia’s position as a leader in grid-scale battery pipelines to become an early mover in the redox flow supply chain.
- Incentivise onshore production through Production Tax Credits
- Replicate the success of Australia’s rooftop solar by including battery storage in the Small Scale Renewable Energy Scheme.
- Foster a circular economy to ensure sustainability.

BZE congratulates the Queensland government on its progress against the [Queensland Battery Industry Strategy](#) (2024-2029) including battery deployment across regional Australia and investment in onshore battery manufacturing in Queensland.

The Heat Pumps Supply Chains paper highlights:

Opportunity: Promoting demand and local production of heat pumps could decrease emissions by 11%, enhancing the Australian economy with \$28.9 billion in revenue and creating over 18,000 jobs by 2030. Currently, most heat pumps sold in Australia are either fully imported or assembled locally with Australian-made components, including unit controllers, piping, electronics, cables, plastics, ducting, and hot water tanks, with imported parts such as compressors, pumps, fans, heat exchangers (built to local specifications), and external air conditioning units. Our research shows that up to 75% of the materials for a complete hot water unit may be locally sourced. The main barrier to deployment is demand, not supply, with obstacles including higher upfront costs, technology awareness, the

absence of Minimum Energy Performance Standards for hot water heat pumps, and insufficient government procurement to support adoption in its facilities.

Recommendations:

- Increase awareness of heat pump air conditioning units as the most efficient and healthiest option for residential heating and cooling.
- Facilitate the deployment of 7,000 commercial heat pump air conditioning units annually until 2030, generating \$975 million each year for local businesses from installation work, totalling \$5.8 billion by 2030.
- Encourage the adoption of hot water heat pumps to make them the primary technology for new and replacement water heating; prioritise the replacement of fossil fuel units.
- Promote the deployment of 300 industrial process heat pump units annually until 2030, generating \$57 million annually for local businesses through design and installation work, totalling \$339 million by 2030.
- As demand for air conditioning and hot water heat pumps grows, seize the opportunity to increase the production of Australian-assembled units with a high proportion of locally produced, low-emission components.

4. Clean Economy Expert Panel

It is essential that the Clean Economy Expert Panel must incorporate knowledge and interests of First Nations. As well as local groups we commend the work of First Nations Clean Energy Network, First Nations Chamber of Commerce and Industry (initiated in Queensland), and Indigenous Energy Australia. All of whom have a presence in Queensland.

5. Community Engagement and Nature Positive Approaches

BZE welcomes the recent Australian Energy Infrastructure Commissioner's *Community Engagement Review*, which BZE contributed to, and its nine recommendations including for improved community engagement for renewable energy developments.

BZE also draws attention to the recently released *Better Practice Renewables and Biodiversity: Opportunities for Collaboration Guide* developed by the Energy Charter and RE Alliance with input from environmental and other Non-Government Organisations and the Energy Industry which offers further insights into best practice towards protecting nature as part of the renewable energy roll out. BZE was a collaborator on the development of this document.

Beyond Zero Emissions is currently undertaking detailed mapping of biodiversity land use values and renewable energy infrastructure needs in Central Queensland and would welcome the opportunity to share this information with the Clean Economy Jobs, Resources and Transport Committee once finalised. The intent with this data is to provide a regional perspective on how to best balance renewable energy, biodiversity and other land use values and communicate these conflicting values.

Transparency is at the heart of authentic engagement and we encourage the Government to provide public access to available data sets relating to statewide strategic assessment of land use, environment, cultural heritage and existing industries, together with renewable land use suitability assessments and transmission route planning. This will help to provide impacted local communities with greater certainty that Queensland's renewable energy infrastructure is being developed in the most appropriate locations. BZE also welcomed the QREZ Roadmap framework's efforts towards rolling out renewables well.

6. Adaptation

BZE commends the planned establishment of a Clean Economy Expert Panel and supports another panel focused on providing advice related to climate science and climate impacts. This second panel should factor in costs to communities and nature and should be cognisant of other regulations such as the Queensland Human Rights Act.