

25 November 2022



To the Senate Standing Committees on Economics,

Thank you for the opportunity to make a submission regarding the creation of a National Energy Transition Authority. [Beyond Zero Emissions](#) (BZE) is an independent solution focussed think tank and we welcome this consultation. We agree that a national statutory authority, working across portfolios and federal jurisdictions, has value to enable national planning, coordination and funding to drive a much needed and rapid transition of Australia's energy system.

Energy transition is essential for Australia to maximise the benefits of a zero-emissions economy - such as the \$333 billion green export opportunity identified in our [Export Powerhouse report](#) (almost triple the value of 2019 fossil fuel exports). If established, the National Energy Transition Authority may be interested in our most recent report, [Deploy](#), which outlines the scale of available technology required to transition Australia to 100% renewable energy by 2030. We will soon be releasing a follow-up report which focuses on the holistic development of a National Supergrid, infrastructure that is essential to support the energy transition, including transmission, firming/storage, distribution, system security and equitable access.

As current fossil fuel communities and workforces are a core responsibility of the Authority, within this consultation we recommend in particular:

- supporting Renewable Energy Industrial Precincts as a place based model for repowering industry with renewable energy to sustain regional industrial heritage and protect manufacturing jobs
- supporting a clean commodity export target to grow Australia's exports
- supporting local clean technology manufacturing.

Please find attached our commentary on the core functions of the Authority as outlined in the Bill, we would welcome the opportunity to discuss this further.

Yours Sincerely,

Dr Jane Sewell

Head of Research (Interim), Beyond Zero Emissions.



Beyond Zero Emissions' response to a [National Energy Transition Authority Bill \(and explanatory memorandum\)](#).

Beyond Zero Emissions (BZE) work in regional communities has demonstrated to us the potential value in a National Energy Transition Authority (NETA). BZE has worked extensively with industry and government stakeholders to develop the concept of Renewable Energy Industrial Precincts, which is a model for decarbonising industry and protecting manufacturing jobs by repowering them with renewable energy.

Renewable Energy Industrial Precincts (REIPs)

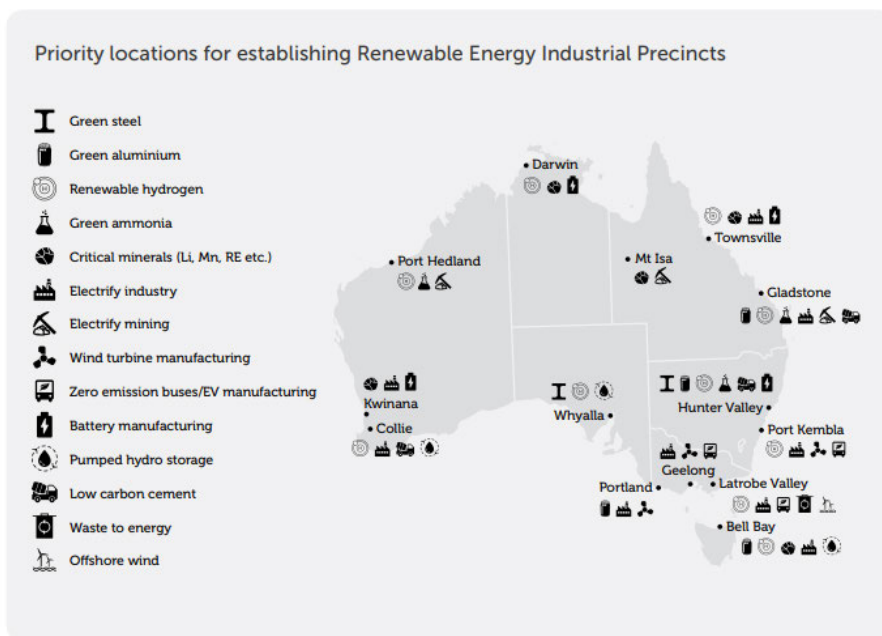
Australia's industrial regions have a proud tradition of powering our industry and manufacturing sectors. We have shown that clusters of manufacturers powered by 100% renewable energy and storage, known as Renewable Energy Industrial Precincts (REIPs), can protect and grow jobs in these industrial and manufacturing heartlands. We have also shown that REIPs encourage new industries to the region and provide jobs for this generation and the next. Using this model we can power high-intensity-energy-use sectors with low-cost renewable energy, and in doing so we future-proof Australian industry from rising energy costs and fuel supply disruptions. It also creates opportunities to fast-track large-scale reductions in greenhouse gas emissions.

Our analysis of two significant industrial regions, the Hunter Valley, NSW and Gladstone, QLD, demonstrates that investing in renewable-powered industry in this way creates jobs, increases revenue and boosts industry investment. There are immense opportunities in green aluminium, renewable hydrogen, green steel and the local manufacture of components like wind turbines and batteries. Here are some highlights¹:

By 2032	Hunter valley	Gladstone
Jobs	34,000	11,000
Annual Revenue	\$11 Billion	\$2 Billion
Industry investment	\$28 billion	\$7.8 Billion

Australia can become a strong manufacturing nation once again through the establishment of REIPs in our regions. We have identified 14 priority locations for establishing dedicated clusters for industry and manufacturing businesses powered by 100% renewable energy at an internationally competitive price.

¹ Acil Allen, 'Regional Economic Impact Analysis of Renewable Energy Industrial Precincts Hunter Valley REIP'.



ACIL Allen, 'Regional Economic Impact Analysis of Renewable Energy Industrial Precincts Central Queensland REIP

Working with regional communities

BZE has experience working with companies in Gladstone and the Hunter that are powering and repowering their operations with renewable energy and growing cleantech manufacturing capacity, thus growing and protecting manufacturing jobs. These companies include:

- Molycop² and Martin Milltech Bright - transitioning from tradition steel manufacturing to Green Steel
- AGL - investigating options in the Hunter to capture renewable hydrogen opportunities
- Ampcontrol- providing renewable energy powered options to support zero-emissions mineral mining, such as the Solar Cube, Gilghi and batteries for electric mining vehicles
- Energy Renaissance - manufacturing niche lithium-ion batteries suitable for hot climates including for domestic use and export to South East Asia
- Alpha HPA - manufacturing high purity aluminium products for use in low emissions products like electric vehicles and LEDs.

BZE is also aware of other industry moves towards renewable energy indicative of strong appetite for decarbonisation, including:

- Fortescue Future Industries - investing in the renewable energy generation and equipment (e.g. electrolysers) to manufacture green hydrogen
- CQ-H2 project from Stanwell, Iwatani and others, H2U's H2-Hub Gladstone - projects to capture renewable hydrogen opportunities

² Molycop, 'Landmark Sustainable Power Purchase Agreement'.

- Rio Tinto - publicising strategy to transition to renewable energy for their aluminium smelter and alumina refinery operations in Gladstone and Tomago.
- Orica - committing to net zero emissions by 2050

The Next Economy has also worked with regional communities that are historically economically reliant on fossil fuels to understand what regions need on a [path to Net Zero](#). They have undertaken extensive research in communities, a key takeaway is that the earlier this planning begins, the smoother and more likely the success of this transition.

The Australian Council of Trade Unions also presented a policy paper calling for an [Energy Transition Australia \(ETA\)](#) statutory authority in 2016, asking for planning and support around transition, jobs and energy.

RE-Alliance is another group that places regional renewal at the centre of the clean power transformation. Its work with landholders recommends that consideration of the social and environmental impacts of new transmission infrastructure be included within the Regulatory Investment Test for Transmission (RIT-T) process..

[First Nations Clean Energy Network guidelines](#) have recently launched, these were designed by Australian National University with community. BZE is a proponent of using this strong framework to guide meaningful, considered engagement with First Nations communities. New guidelines relating to Aboriginal and Torres Strait Islander Best Practice Principles for Clean Energy Projects and a Clean Energy Negotiations Guide for First Nations will soon be [released](#).

Growing Australia's industry and manufacturing sector

To help ensure the success of the Renewable Energy Industrial Precinct (REIP) model and realise all its benefits, Australia must act to grow its industrial and manufacturing sector, this may be via increased:

- local demand
- export demand.

Our recent Deploy report³ demonstrates that rapid deployment of six clean technologies across our building, transport and industrial sectors can reduce emissions by 81% by 2030. Many of these technologies are already being manufactured in REIPs across Australia - if the deployment rates are increased at the scale and speed we outline in the report, there are great opportunities for current and new manufacturers (and associated supply chains), to also scale to meet skyrocketing demand.

³ Beyond Zero Emissions, 'Deploy'.

In follow up to the Deploy report, we are currently preparing work on the holistic development of a new National Supergrid, infrastructure that is essential to support the energy transition and again has the opportunity to grow onshore manufacturing for its many component parts.

Australia has a proud history of exporting resources, powering many parts of the world. BZE has demonstrated through its Export Powerhouse report that Australia has the potential to grow a new green export mix worth \$333 billion per annum, almost triple the value of existing fossil fuel exports⁴. These new green export industries will meet surging demand for zero-carbon products, such as green steel, renewable hydrogen and ammonia, green aluminium and critical minerals that will dominate global economic growth this century. In the report, BZE makes recommendations that a proposed NETA may consider:

- set a national clean commodity export target of \$100 billion by 2035 to provide a strong investment signal
- set green export investment as a priority for DFAT, Austrade and Export Finance Australia
- launch a national REIP activation plan to include:
 - invest \$140 million in establishment of two first-mover REIP locations in 2022-23
 - invest \$6.3 billion to coordinate and launch seven REIPs over 10 years in priority areas
 - work towards 14 REIPs in the longer term.

Commentary on the Bill

While a National Energy Transition Authority will not control spending across state and federal government funds available to invest in an energy transition (e.g. via Rewiring the Nation, Renewable Energy Zones, Clean Manufacturing Precincts) it will be imperative that such an authority builds strong relationships across portfolios and jurisdictions to maximise the impact and implementation of national planning and coordination in order to drive the much needed and rapid transition of Australia's energy system.

With reference to NETA's core function: *to support communities and workers affected by the closure of coal-fired power stations and coal mines to adapt, including by helping to attract new public and private investment in job-creating industries and social infrastructure to affected areas, and ensuring ongoing equivalent employment or social services are provided* we suggest modifying this point to include all fossil fuel power stations and fuel fossil mining and extraction. The current function excludes gas extraction and generation for which communities and workers will also be affected by the transition.

⁴ Beyond Zero Emissions, 'Export Powerhouse: Australia's \$333 Billion Opportunity'.

BZE also recommends adding additional functions to NETA:

- Supporting industry and manufacturing to repower their operations with renewable energy electricity, green hydrogen, etc. This transition will require new jobs, new skills and technologies.
- Support industry by helping them to set more ambitious decarbonisation targets by providing knowledge and reskilling pathways.

With reference to the areas of expertise of the Chair and board, BZE recommends that the following skillsets be considered:

- Community development/engagement
- Social sciences
- First Nations representative
- Re/skilling and training experience.