

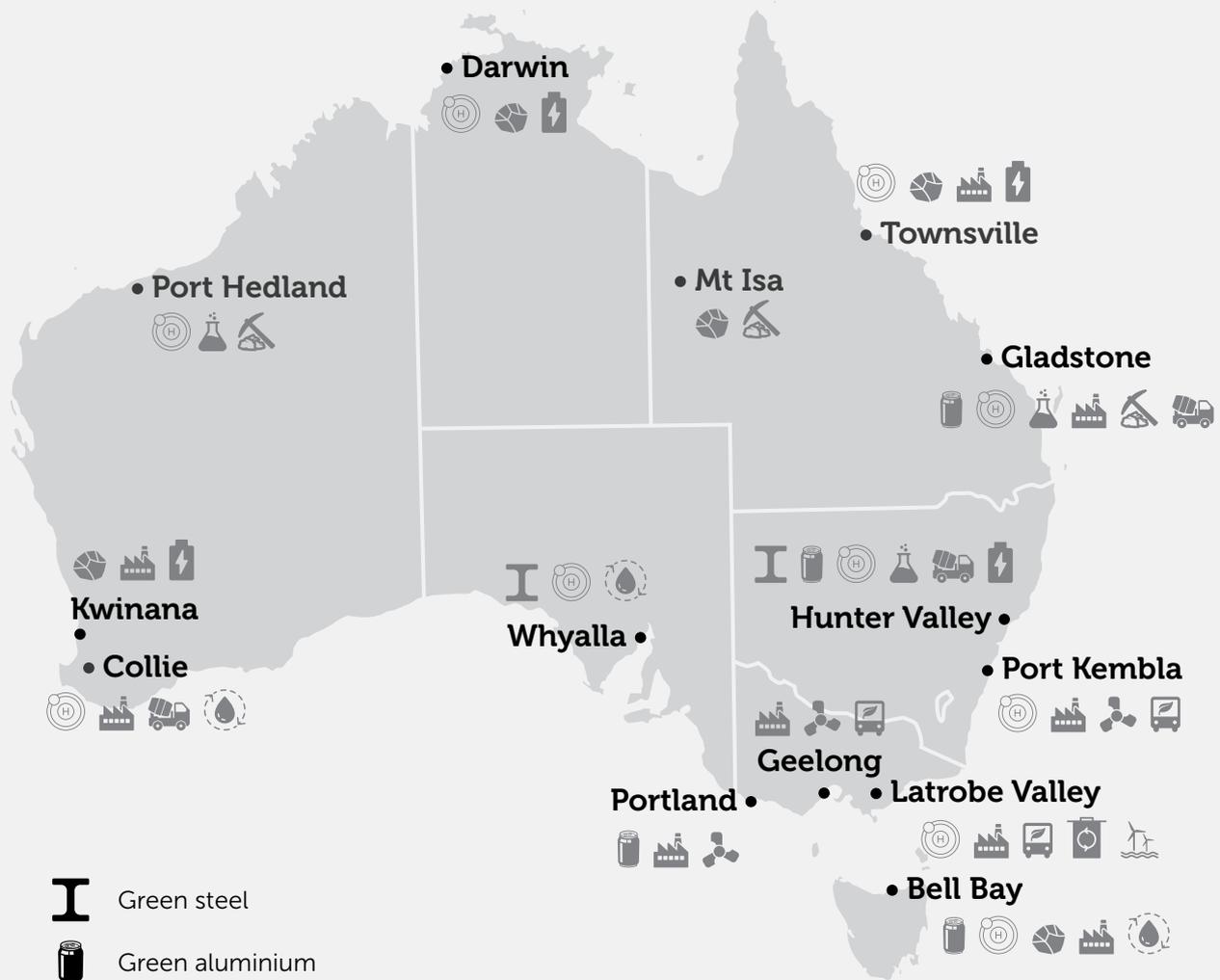


Renewable Energy Industrial Precincts



JOBS FOR THIS GENERATION AND THE NEXT

Priority Locations for Renewable Energy Industrial Precincts



- Green steel
- Green aluminium
- Renewable Hydrogen
- Green ammonia
- New energy metals (Li, Mn, RE etc.)
- Electrify industry
- Electrify mining
- Wind turbine manufacturing
- Zero emission buses/EV manufacturing
- Battery manufacturing
- Pumped hydro storage
- Low carbon cement
- Waste to energy
- Offshore wind

Principles



Industry commitment to sustainability



Existing facilities: choose to commit to 100% renewable electricity within 5 years OR to 100% renewable energy – electricity plus heat – within 10 years



New facilities: commit to 100% renewable energy (electricity plus heat) from day one

Recharge industrial futures with renewable energy

Australia's industrial regions have a proud tradition of powering our industry and manufacturing sectors.

Powering high intensity energy uses with low-cost renewable energy can future proof Australian industry from high energy costs and fuel supply disruptions and create opportunities to fast track large scale reductions in emissions.

Clusters of manufacturers powered by 100% renewable energy and storage, known as

Renewable Energy Industrial Precincts (REIPs), can protect and grow jobs in Australia's industrial and manufacturing heartlands, by encouraging new industries to the region and providing jobs for this generation and the next.

Government investment is needed to plan and build the common user infrastructure required to accelerate this regional economic opportunity.

The opportunity is now.

Clustering industry and manufacturing provides the demand-side rationale for low-cost renewable energy, which will in turn drive competitive local economies.

The role of Federal Government

Plan

Invest \$140 million **in two REIP locations in 2022-23.**

- Co-design roadmaps with state government, industry and regional communities to match industry energy needs with renewable energy supply (\$20m).
- Undertake strategic land use planning and infrastructure needs analysis (\$80m).
- Identify gaps and fund skills development (\$40m).

Partner

Partner with industry, state government and regional communities to launch Australia as a global leader in the zero-emissions economy:

- Coordinate state, local and federal governments with regional industries and communities to deliver successful REIPs tailored for each local context.
- Set a national clean commodity export target.

Deliver

Invest a total of \$6.3 billion **to coordinate and launch seven REIPs over 10 years:**

- \$3.3 billion from 2022-23 to 2025-26
- \$3 billion from 2026-27 to 2031-32

01 / Renewable Energy Industry Precincts

By 2032, coordinated regional development of REIPs can achieve significant regional benefits.

Beyond Zero Emissions recently released detailed industry reports on two of the seven prospective REIP regions that indicate the scale of the opportunities. Regional reports for the Hunter and Gladstone regions are available at:

[Gladstone Renewable Energy Industrial Precinct: Briefing Paper - Beyond Zero Emissions \(bze.org.au\)](#)

[Hunter Renewable Energy Industrial Precinct: Briefing Paper - Beyond Zero Emissions \(bze.org.au\)](#)



02 / Priorities

Regional Development

- Coordinate planning and investment.
- Demonstrate the REIP model and its flexibility for replication.

Regional Jobs

- Protect local manufacturing jobs by repowering these industries with renewable energy.
- Stimulate onshore jobs for this generation and the next.
- Futureproof manufacturing by leveraging Australia's leadership in advanced manufacturing and innovation.

Manufacturing

- Support a sovereign manufacturing sector that builds on Australia's competitive advantage in critical minerals and renewable energy.
- Build resilience to global supply chain shocks by enabling onshore manufacturing.

Export Revenue

- Support existing and emerging industries to grow export revenue.
- Leverage Australia's natural advantages to open up export markets that can meet the growing global demand for low and zero-emission products.

Infrastructure

- Accelerate industry access to sovereign, low-cost renewable energy.
- Invest in common user energy infrastructure.
- Build on existing investment in renewable energy for industrial manufacturing.

Private and Public Investment

- Build on existing investment and support regional development and jobs growth.
- Fund common user energy infrastructure to provide long-term certainty for private investment.

03 / Regional Development

Government investment will spur private sector investment. This model can be replicated for other regions.



Coordinated planning and investment in regions can leverage their strengths and build resilient zero-emission economies and jobs.

Existing heavy industry infrastructure, export capacity, skilled workforces and access to innovation through universities are key strengths of our industrial regions. Infrastructure Australia is well placed to undertake infrastructure needs analysis; paired with a skills gap analysis this will provide a strong foundation for the development of integrated investment and training roadmaps.

Federal government will be instrumental in facilitating a best practice model for intergovernmental collaboration for industry decarbonisation.

Key outputs of the model would include decarbonisation plans, labour force programs, export market coordination plans and programs and coordinated delivery of energy transmission lines, roads and ports that incentivise renewable energy deployment and private investment.

BZE can share insights from our regional stakeholder consultations and collaborations with industry and local government.



Regional development grows jobs in Central Queensland

Chemical manufacturing company, Orica and green hydrogen and ammonia specialist, H2U, recently announced a strategic partnership agreement to initiate the first phase of a proposed H2-Hub™ project in Gladstone, Central Queensland. The facility will target the use of 100 per cent renewable energy from new-build solar and wind generation.

The project is designed to capture a share of the developing global green ammonia industry, which is estimated to be worth over \$50 billion by 2031.

A REIP would encourage similar private investment and partnerships by providing certainty around access to transmission, roads, workers and markets.



550
construction
jobs



140
full-time
local jobs



1,900
indirect
jobs



\$4.7bn
capital
investment



100%
renewable energy
commitment

04 / Regional Jobs

Jobs for this generation and the next.



Image credit: Ampcontrol

Jobs will be for labourers, technicians, trades, machinery operators and drivers. As industry diversifies and manufacturing expands, new career pathways will emerge.

Extensive research and industry consultation undertaken by BZE during the development of the **Million Jobs Plan**¹ identified key opportunities for jobs creation in our industrial regions. Establishing REIPs was identified as a key strategy in accelerating jobs growth in manufacturing and energy production regions.

¹ [BZE-The-Million-Jobs-Plan-Full-Report-2020.pdf](#)

Indirect job creation is likely to be significant. With secure job prospects, local families can continue their traditions in energy and manufacturing, and new workers and their families will move to the regions.

Labour market plans and skill development pathways will be required to ensure that the current workforce in regions is well placed to access job opportunities, now and in the future.



Ampcontrol – keeping the Hunter at the forefront of energy technology

Hunter Valley technology and services based company Ampcontrol would love to be part of a REIP. The company has partnered with Horizon Power to develop solar and storage solutions that enable Horizon to provide service to remote customers. Ampcontrol has also developed an off-grid water filtration solution as well as electric vehicles for the mining industry.

An agile company with a 53-year heritage in the region, Ampcontrol has demonstrated its ability to pivot to meet the needs of Australia and most recently manufactured TGA approved ventilators for the COVID-19 response in 2020. Current manufacturing supports 600 people in the Hunter Valley.



600
full-time
local jobs



The Renaissance of Onshore Manufacturing



A REIP would feature the Energy Renaissance lithium-ion battery facility at Tomago in the Hunter Region of NSW. Known as Renaissance One, it is Australia's first advanced manufacturing gigafactory that produces Australian-designed batteries. It has already hired staff and started manufacturing from a temporary facility in Tomago to meet existing demand. **92% of the components used in its batteries are sourced from Australian suppliers** as part of the company's commitment to build a local supply chain.

Energy Renaissance produces energy storage systems for stationary batteries for commercial and industrial applications and microgrids and the transport industry (heavy-duty vehicles including buses, trucks, military and special purpose electric vehicles).

Renaissance Two, its battery cell manufacturing facility that is co-located with Renaissance One is in the planning stage and expected to commence operations in mid-2023.

Image credit: Energy Renaissance



475
full-time
local jobs



245
indirect
jobs

05 / Manufacturing

REIPs capture Australia's natural competitive advantages and accelerate the production of clean technologies and zero-emissions products for local and global markets.



Image credit: Molycop Steel

REIPs will enable our regions to remain highly competitive in a changing world.

REIPs will power existing manufacturing such as aluminium, steel and chemical production and launch new clean technology industries, including renewable hydrogen, niche batteries and storage, wind turbines, recycling and sustainable critical minerals processing.

Key attributes that give proposed REIP locations their competitive advantage include

- excellent logistics infrastructure, including deepwater port facilities, rail and air infrastructure

- existing industrial bases and manufacturing activities
- skilled workforces
- access to skills training and/or educational institutions
- local and state government support for development and renewable energy
- proximity to renewable energy zones/hubs.

Manufacturers in the Precincts will benefit from shared access to clean energy and infrastructure such as roads, rail and transmission.

06 / Export Revenue

REIPs enable government to coordinate industry and investors so that Australia can capture a share of the accelerated global demand for low emission commodities.



The Federal Government can send a clear signal to industry and local investors by setting a national clean commodity export target.²

As Australia's trading partners progress their emissions reduction agendas, there is competitive advantage for supply chains that can demonstrate zero-emission manufacturing.

Other nations are currently preparing their markets to capture early market share for these opportunities. Within the Gladstone and Hunter REIPs, major local manufacturers, including Rio Tinto, Orica and Fortescue Future Industries, have announced plans to power

operations with renewable energy and to supply products to the zero-emissions global market.

To realise our share in this market, Australian investors and industry need a strong investment signal from the Federal Government.

² [Beyond-Zero-Emissions-Export-Powerhouse-Full-Report_2.pdf \(bze.org.au\)](#)

Australian company AlphaHPA would be an ideal anchor business in a REIP

ASX-listed company AlphaHPA, which received a federal government grant in 2022, is developing a new high-purity alumina manufacturing plant in Gladstone which will supply products to the clean technology and transport sectors globally. Alpha HPA produces aluminium materials used in the manufacture of products including LED and lithium-ion batteries.



\$308m
capital



300
construction
jobs



120
full-time
jobs

07 / Infrastructure

Energy transmission infrastructure is key to unlocking manufacturing jobs and growth in regional Australia.

Australia needs this transmission infrastructure regardless of the electricity source running through.



Connecting energy intensive industrial centres with reliable and affordable renewable energy allows regional manufacturers to produce goods at a lower cost for domestic and export markets.

³ Source: AEMO projections of generation potential based on announced Renewable Energy Zones.

REIPs will secure sovereign low-cost renewable energy to directly power the growth of industrial manufacturing hubs.

Recent shocks to global energy markets highlight the need to secure sovereign energy capability. Federal government can incentivise private investment in renewables by investing in common infrastructure such as transmission lines and transport networks that connect renewable energy to the regional centres where the energy will be used.

Funding this shared infrastructure can complement state government initiatives and accelerate private investment

in the renewables required to power industry in the REIPs. For example:

The Hunter Region has been nominated as a Renewable Energy Zone by the New South Wales Government. Current contracts and plans for renewable energy can provide 80 percent (18 GW) of the renewable energy required to power all industries in a Hunter REIP.³

The Gladstone Region, recently nominated as a "Clean Hydrogen Industrial Hub" by the Federal Government, requires further investment in renewable energy generation to meet the 34 GW required to power all industries in a Gladstone REIP.

08 / Private and Public Investment

Government commitment to the Precinct model will provide certainty to investors and accelerate industry uptake of opportunities in all states and territories.



Prominent leaders representing \$2.7 trillion in assets agreed that providing certainty to investors was the key to unlocking private investment.

In 2021, BZE and Climateworks Centre co-hosted an investor round table of prominent leaders representing Australia’s largest fund managers, banks and institutional investment community, together with the Clean Energy Finance Corporation (CEFC).

The round table explored opportunities to boost Australia’s existing and new industries by establishing a national program for Renewable Energy Industrial Precincts. The discussion highlighted the significant investment potential

in regional Australia, and that REIPs offer solutions to both the supply and demand sides of the energy equation. Participants noted that building common user infrastructure encourages private investment by reducing risk.

BZE analysis indicates that federal and state government investment of \$6.3 billion and \$3.15 billion respectively will provide certainty to investors. This certainty has the potential to unlock \$37.8 billion in private investment.

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Beyond Zero Emissions is an independent think tank creating solutions for a prosperous zero-emissions Australia.

We are non-partisan and funded by philanthropy. We work with industry and government to drive zero-emission economic opportunities, jobs and long-term prosperity for Australia.



We recognise that the sovereignty of Aboriginal and Torres Strait Islander peoples over their land was never ceded and the impact of this ongoing dispossession continues to this day.

Beyond Zero Emissions stands in solidarity with First Nations people in calling for the establishment of a First Nations Voice in the Constitution, as described in the Uluru Statement from the Heart. We further support calls for the establishment of a Makarrata Commission on agreement-making and truth-telling between Aboriginal and Torres Strait Islander peoples and governments.

Beyond Zero Emissions maintains an office in Melbourne on the traditional lands of the Wurundjeri-willam people of the Kulin Nation. We pay our respects to all First Nations Elders past, present and future.



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