OXFORD ECONOMICS AUSTRALIA

Regional Economic Transition Analysis – Regional Investment in Central Queensland

Final report

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Disclaimer

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EXECUTIVE SUMMARY

KEY FINDINGS

Central Queensland's resource base and industrial ecosystem provide a strong foundation

- Mining, agriculture, energy generation and manufacturing form the backbone of the regional economy, underpinned by the Bowen and Galilee basins, 15 operating mines, and export infrastructure at Gladstone, Hay Point and Abbot Point.
- Agriculture (beef, grain, horticulture), logistics (Aurizon rail, Bruce and Capricorn Highways, intermodal hubs) and Gladstone Port add further depth, supported by a skilled workforce and heavy industry.
- Gladstone's heavy industry cluster, including alumina, aluminium, LNG, and ammonia facilities, anchors the region as one of Australia's key energy and industrial hubs.

Transition from coal and mining to net zero opportunities

- Coal and gas remain central to today's economy, but demand is forecast to decline over the next two decades.
- Central Queensland's workforce is well placed to pivot, with transferable skills in engineering, logistics, and plant operations.
- Net zero opportunities include renewable hydrogen, bioenergy, critical minerals processing, and large-scale renewables (solar, wind, pumped hydro, batteries).

Major projects underway or in planning

- Renewable and industrial transition pipeline exceeds 11 GW of proposed renewable generation plus large-scale storage.
- Projects include Alpha HPA's high-purity alumina, Sumitomo's Gladstone hydrogen plans, and multiple wind and solar farms.
- Industrial and defence projects such as the Shoalwater Bay Training Area upgrade, CQUniversity precincts, and the Gladstone Green Iron proposal reinforce the diversification trajectory.

Hydrogen, defence, green metals and critical minerals present key opportunities

- Shoalwater Bay and the Rockhampton-Gladstone defence corridor provide opportunities in sustainment, logistics, and advanced manufacturing that support Australia's sovereign capability.
- Gladstone's designation as a hydrogen hub, combined with strong pilot activity, established port infrastructure, and proximity to Asian markets, positions the region as a leader in green hydrogen and ammonia.
- Emerging projects in high-purity alumina and green iron demonstrate Central Queensland's potential to expand value-added processing and exports in green metals and critical minerals.

Barriers to investment remain, particularly in infrastructure and workforce transition

- Uncertain demand and high input costs create financing hurdles, especially for hydrogen and green metals needing long-term offtake contracts.
- Mixed State and Commonwealth signals and complex approvals slow defence and critical minerals investment.
- Energy, water, port, and transport upgrades are vital to scale hydrogen exports and green metals, while defence requires logistics hubs.
- Shortages of advanced trades, engineers, and defence skills drive competition across hydrogen, mining, and manufacturing.

Central Queensland's strategic plans show ambition, but need stronger alignment

- Previous state-level policies highlighted Central Queensland's role in decarbonisation, but this landscape is shifting.
- Local strategies provide sectoral detail and project pipelines. However, most lack sequenced and costed infrastructure plans, robust governance frameworks, and clear cross-tier coordination.
- Stronger alignment between Commonwealth, State, and Local priorities, supported by formal governance and enabling investment, will be essential to move from strategy to delivery.

INTRODUCTION

NZEA has engaged Oxford Economics to support evidence-based action in transition-affected regions.

Project Overview

The Net Zero Economy Authority (NZEA) commissioned this project to understand opportunities presented by the net zero transition for regional communities. There are a number of regions central to Australia's energy system and industrial base that face disproportionate exposure to structural shifts as emissions-intensive activities decline. The Hunter, Central Queensland and Latrobe Valley were prioritised for this project due to the size and complexity of their region and economies, but the analytical framework can be deployed in other regions. These regions also present opportunities to lead in clean energy generation, advanced manufacturing, and resource-based value-adding, provided that the right policy, investment and workforce conditions are in place. The project seeks to inform strategic planning and intervention by forecasting how regional economies will evolve under different decarbonisation scenarios.

Oxford Economics was engaged to deliver a structured, scenario-led analysis across three core domains. These include forward-looking forecasts of industry and labour market change, an assessment of each region's comparative advantages and investment potential, and a detailed examination of transition pathways for fossil fuel and related workers. The analytical framework integrates AEMO's 2025 transition scenarios with regional planning assumptions, closure timelines, and infrastructure settings to ensure alignment with real-world transition drivers. Regional priorities and economic exposures have been informed by the NZEA's own statistical framework, which identifies both downside risks and economic opportunities across Australia's key regions.[1] The analytical framework used within this project can be deployed across other NZEA priority regions beyond the Hunter, Central Queensland and Latrobe Valley.

The project aims to generate region-specific insights that can support practical decision-making across multiple levels of government. By quantifying the scale and timing of industrial change, identifying investment barriers, and mapping reskilling needs, the work creates an evidence base that links long-term economic modelling with near-term policy and program levers. This enables a more coordinated approach to managing transition risk while positioning each region to attract and retain high-value activity.

This work provides a foundation for coordinated, place-based action across governments, industry and communities. Outputs will support the NZEA's role in shaping policy, allocating resources, and engaging stakeholders on transition risks and opportunities. By identifying emerging demand for labour and skills, sectoral growth trajectories, and enablers of investment readiness, the project aims to assist in sequencing investment, workforce support and infrastructure development. Ultimately, the analysis will help ensure that transition efforts are locally grounded, forward-looking, and capable of delivering resilient and inclusive economic outcomes.

Project Components

The project was structured into three core analytical components to align with NZEA's transition objectives. Each stream was applied consistently across the Hunter, Central Queensland, and Latrobe Valley regions. Separate reports were developed for each component in each region to ensure depth, comparability, and regional specificity. In addition, a summary report has been developed synthesizing the key insights across all three project components.

Regional Economic Forecasts

This stream provides scenario-based projections of industry composition, employment, and skills demand across 5, 10, and 25 years. These forecasts are based on AEMO's 2025 transition scenarios and represent regional futures based on current trends and industrial structures within the region. Outputs include identification of sectors likely to decline, grow, or emerge, the timing of major structural shifts, and profiles of key workforce cohorts.

Regional Investment Analysis

Focusing on each region's strategic position, this stream identifies comparative economic advantages, evaluates barriers to investment, and highlights opportunities to attract net zero aligned industries. It also outlines region-specific enablers such as infrastructure, workforce capability, and resource availability that could support long-term industrial development beyond what is identified in the *Regional Economic Forecasts* report.

Worker Transition Analysis

Centred on transition-affected workers, this stream delivers occupational pathway mapping, retraining requirements, and an assessment of local training system capacity. It also provides targeted support strategies to address cohort-specific barriers and enable workforce mobility within the regional economy. The analysis considers both the likely future economic structure of the region as identified in the *Regional Economic Forecasts* report and opportunities identified in the *Regional Investment Analysis* report.

This report identifies region-specific investment opportunities and delivery conditions to guide NZEA's coordinated transition response.

Purpose of this Report

This report provides an integrated assessment of net zero investment opportunities and enabling conditions in a priority region. It forms part of the regional investment analysis stream of the project, and supports the Net Zero Economy Authority's (NZEA) broader mandate to coordinate transition-aligned investment across Australia. The focus is on identifying the most viable and impactful opportunities for regional net zero transformation, and the institutional, workforce and infrastructure conditions required to deliver them.

The report draws on a wide range of data to build a detailed picture of regional comparative advantage and investment readiness. This includes analysis of natural and industrial assets, infrastructure availability, workforce capabilities, and policy alignment. It also reviews and expands the regional project pipeline, assesses shortlisting criteria, and examines region- and sector-specific barriers that may delay or limit project delivery. Where applicable, regional economic impacts are estimated using input-output modelling.

Findings from this report will help guide investment prioritisation and coordination across government and industry. The outputs are designed to help NZEA and its partners understand which opportunities are most aligned with regional strengths, where delivery gaps exist, and what enabling actions, such as funding, approvals or reskilling, are needed to accelerate progress. The report also supports more targeted public strategy and policy development. These findings are intended to be validated by NZEA with regional.

The structure and methodology are consistent across all NZEA priority regions. While data availability and project pipelines vary, each report follows a shared framework to ensure comparability and provides a basis for validation with local communities. The analysis is forward-looking and focuses on a medium-term investment horizon.

Report Structure

The report is structured around five core analytical components: comparative advantage, project pipeline, investment prioritisation, barriers and enablers, and gaps in public strategy. Each stream builds on the previous to form an integrated view of regional investment potential and delivery readiness.

COMPARATIVE ADVANTAGE: This section assesses each region's underlying strengths across natural resources, workforce, infrastructure, industry base, and policy settings. It provides the foundation for identifying which types of investments the region is best positioned to attract and scale.

INVESTMENT OPPORTUNITIES: A long list of ~20 net zero-aligned project types per region is compiled and validated using public and internal sources. This includes tagging by sector, technology, project status, and expected job and investment outcomes.

INVESTMENT BARRIERS AND ENABLERS: This section identifies the conditions that may support or constrain project delivery, including infrastructure readiness, market viability, workforce alignment, governance and regulatory processes. A regional barrier and enabler profile is produced to inform investment facilitation.

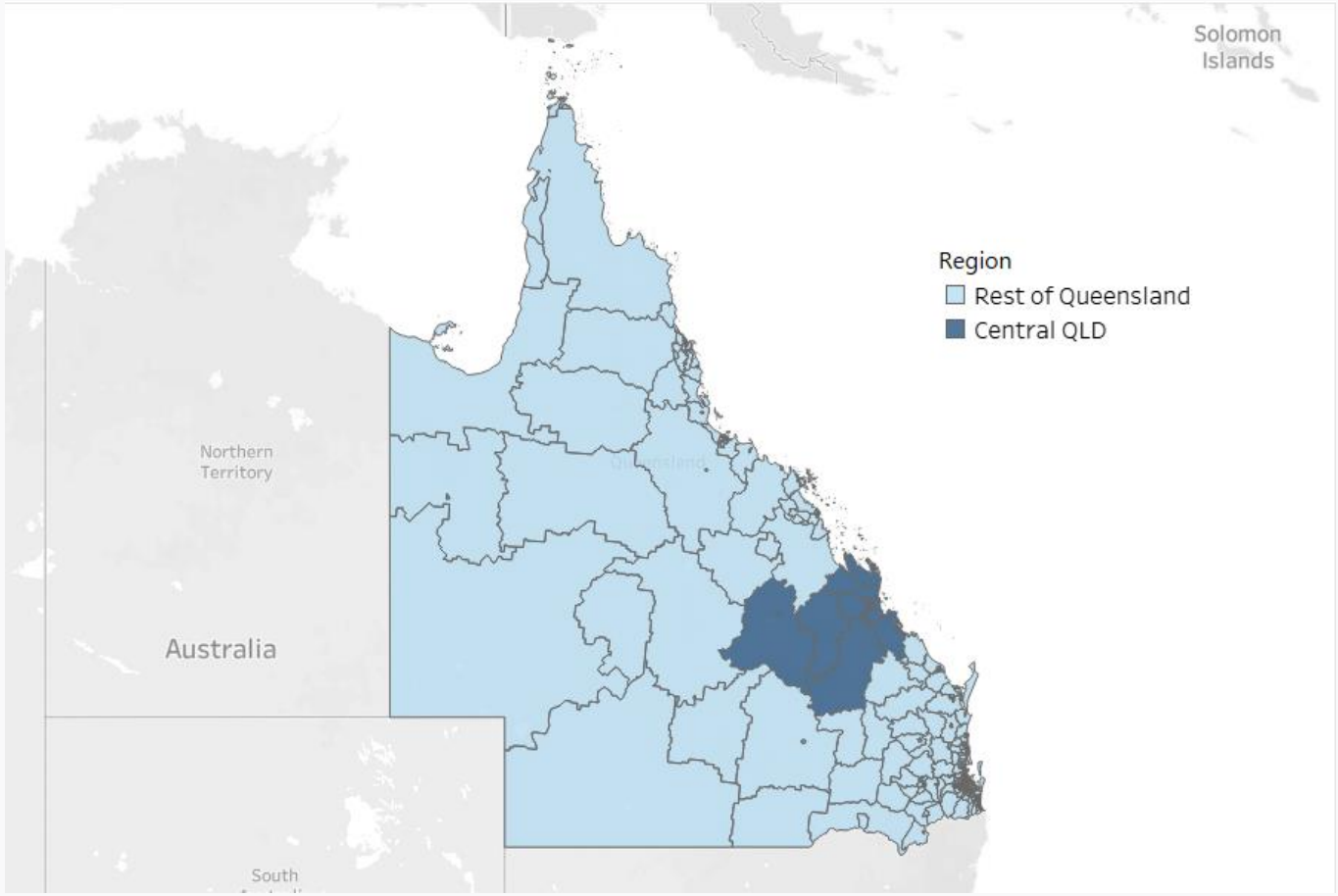
PUBLIC STRATEGY GAPS: Regional strategies and policy documents are reviewed to assess alignment with the identified opportunities and enabling conditions. A standardised scorecard highlights strengths, gaps and recommendations for improved strategic coordination and delivery.

APPROVALS: Analysis of typical and specialist approvals required across key stages of net zero projects.

APPENDICES: This section provides technical detail on the definitions, approaches and data sources used within the analysis of this report. We also provide supplementary methodological descriptions, maps, and scorecards.

The analysis in this report is focused on Central Queensland which is defined as the combination of seven working zones which cover a total of 33 SA2 regions.

Central Queensland map



Central Queensland Working Zone Listing

State	Working Zone Name
QLD	Banana
QLD	Rockhampton and surrounds
QLD	Biloela
QLD	Gladstone and surrounds
QLD	Central Highlands-East (Qld.)
QLD	Emerald and Central Highlands-West
QLD	Yeppoon and surrounds

Source: Net Zero Economy Authority, Australian Bureau of Statistics

Central Queensland SA2 listing

Banana

SA2 NAME	SA2 CODE
Banana	308041528

Biloela

SA2 NAME	SA2 CODE
Biloela	308041529

Central Highlands-East (Qld.)

SA2 NAME	SA2 CODE
Central Highlands - East	308011190

Yeppoon and surrounds

SA2 NAME	SA2 CODE
Rockhampton Surrounds - North	308031219
Shoalwater Bay	308031221
Yeppoon	308031223

Rockhampton and surrounds

SA2 NAME	SA2 CODE
Berserker	308031205
Bouldercombe	308031206
Emu Park	308031207
Frenchville - Mount Archer	308031208
Glenlee - Rockyview	308031209
Gracemere	308031210
Lakes Creek	308031211
Mount Morgan	308031212
Norman Gardens	308031213
Park Avenue	308031214
Parkhurst - Kawana	308031215
Rockhampton - West	308031216
Rockhampton City	308031217
Rockhampton Surrounds - East	308031218
Rockhampton Surrounds - West	308031220
The Range - Allenstown	308031222

Gladstone and surrounds

SA2 NAME	SA2 CODE
Boyne Island - Tannum Sands	308051531
Callemondah	308051532
Clinton - New Auckland	308051533
Gladstone	308051534
Gladstone Hinterland	308051535
Kin Kora - Sun Valley	308051536
South Trees	308051537
Telina - Toolooa	308051538
West Gladstone	308051539

Emerald and Central Highlands-West

SA2 NAME	SA2 CODE
Central Highlands - West	308011191
Emerald	308011192

COMPARATIVE ADVANTAGE

Central Queensland has established advantages in agriculture, mining and transport with the net zero opportunities in manufacturing and electricity generation.

Comparative advantage summary

Segment	Sector	LQ*	Growth rate**	Skilled labour ***	% of economy ****	Infrastructure and endowments
Established advantage	Agriculture, Forestry and Fishing	1.87	0.7%	3,499	3%	• Fertile land, irrigation schemes (Fitzroy Basin, Dawson River), and proximity to export ports
	Mining	5.61	-2.2%	6,597	51%	• Bowen and Galilee coal basins, Cobalt, Copper, Gold, Iron Ore - Magnetite, Zinc, Lead
Net zero opportunities	Manufacturing	1.13	-1.0%	4,209	4%	• Gladstone heavy industry precincts, Boyne aluminium smelter
	Electricity, Gas, Water and Waste	1.48	4.3%	1,375	4%	• Coal fired power stations, Gladstone Energy Hub
Enabling industries	Construction	1.15	1.4%	7,774	6%	
	Wholesale Trade	0.78	0.6%	1,205	1%	
	Information Media & Telco.	0.41	0.5%	500	0%	
	Transport, Postal and Warehousing	0.91	0.9%	1,802	4%	• Major freight rail, Gladstone, Hay Point & Abbot Point ports, Rockhampton Airport
	Financial and Insurance Services	0.22	0.9%	839	1%	
	Rental, Hiring and Real Estate	0.62	1.0%	881	7%	
	Professional, Scientific and Technical	0.43	1.6%	3,957	2%	• Emerging hydrogen R&D in Gladstone and CQU
	Administrative and Support Services	0.96	1.2%	1,218	1%	• Shoalwater Bay Military Training Area
	Public Administration and Safety	0.91	1.6%	4,107	3%	
Population serving	Retail Trade	0.98	-0.2%	2,458	2%	
	Accommodation and Food Services	0.77	1.3%	1,846	1%	• Tourism infrastructure (Sth. Great Barrier Reef)
	Education and Training	1.10	1.3%	8,372	3%	• CQUniversity, TAFE Queensland campuses
	Health Care and Social	0.87	0.9%	10,374	5%	• Rockhampton and Gladstone Base Hospital
	Arts and Recreation Services	0.68	1.9%	945	0%	
	Other Services	1.28	0.9%	4,182	1%	

Source: ABS; REMPLAN; Oxford Economics Analysis

Description

Central Queensland's economy is anchored by mining and agriculture, supported by world-class transport and export infrastructure. Mining dominates with 6,597 skilled workers, contributing more than half of regional value added (51%) and showing a very high LQ of 5.61, though employment is projected to decline by 2.2% annually. Agriculture, forestry and fishing also provides a strong comparative advantage (LQ 1.87), with 3,499 skilled workers and modest 0.7% growth.

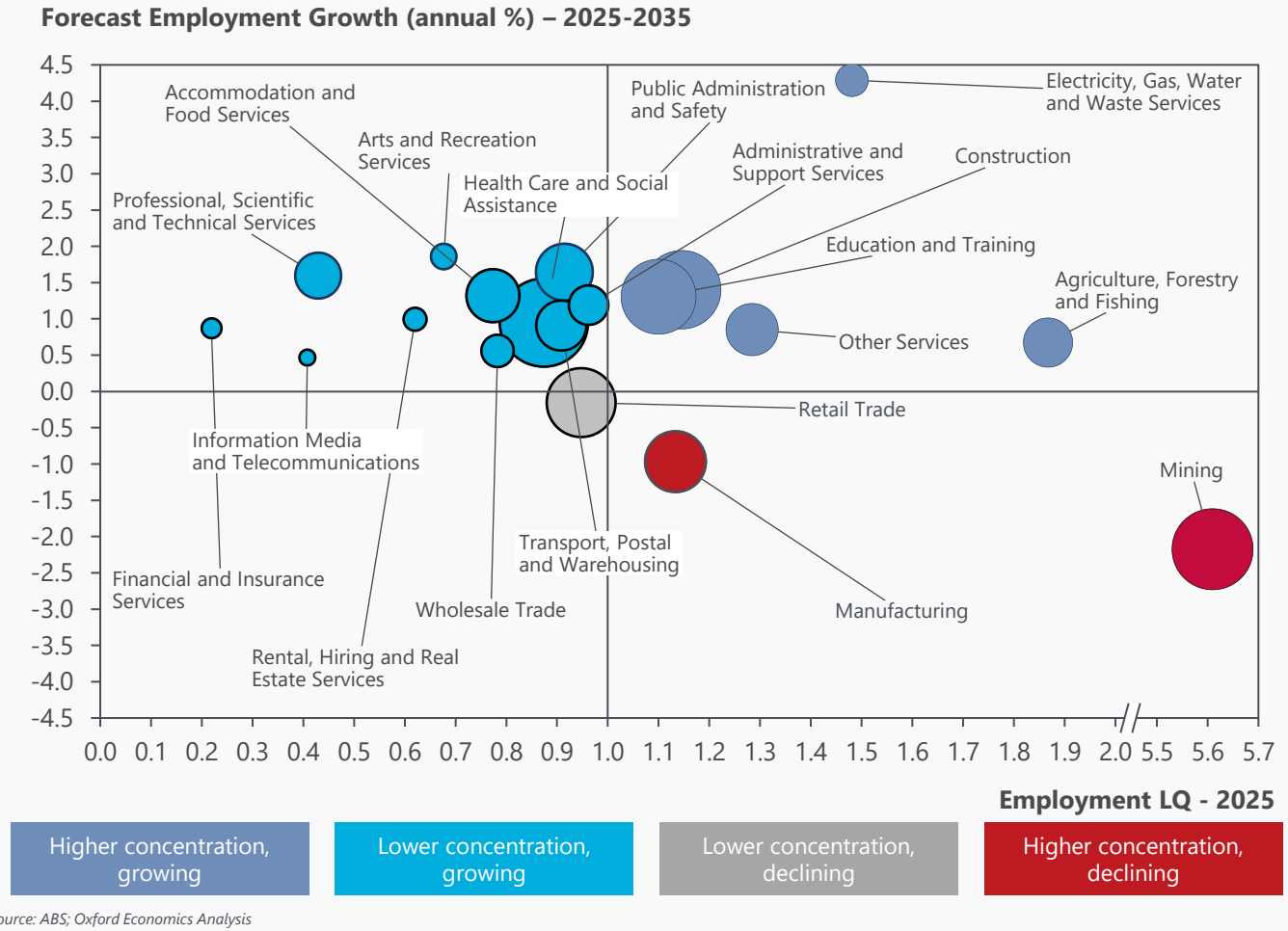
Net zero opportunities are motivated by the renewables rollout, led by electricity, gas, water and waste, which is both specialised (LQ 1.48) and the fastest-growing sector at 4.3% a year, employing 1,375 skilled workers. Manufacturing is also driven by the rollout, retaining above-average concentration (LQ 1.13) and a 4% share of the economy, though jobs (4,209) are expected to decline by 1% annually. Construction remains significant with 7,774 skilled workers (6% of the economy) and 1.4% growth, while professional, scientific and technical services, though under-represented (3,957) workers, LQ 0.43), is forecast to grow 1.6% annually. Transport, postal and warehousing is a key supporter of the region's industries, employing 1,802 workers with 0.9% growth, underpinned by the region's rail and port network. Wholesale trade (1,205 workers) and financial services (839 workers) also provide capacity, despite low concentration, highlighting the importance of enabling sectors.

Population-serving industries underpin liveability and resilience. Health care and social assistance is the largest single employer, with 10,374 skilled workers (5% of the economy) and steady 0.9% growth. Education and training is also sizeable, with 8,372 workers, an above-average LQ of 1.10, and 1.3% growth supported by CQ University and TAFE. Public administration and safety adds further stability, with 4,107 workers and 1.6% growth. Smaller sectors including accommodation and food services (1,846 workers) and arts and recreation (945) are expanding at 1.3% and 1.9% a year respectively, pointing to opportunities in tourism and lifestyle. Together, these trends suggest the region is well placed to leverage established strengths while gradually diversifying into clean energy, advanced manufacturing and services.

** Location quotient of employment in 2025 relative to national levels; **Employment growth forecast 2025-2035 - step change scenario; *** Defined as workers in industry with skill level 3 and above; ****Defined as the percentage of regional GVA*

Mining dominates Central Queensland's workforce, but services and tourism are driving future growth.

Regional employment – Location Quotients, Forecast growth, [Bubble size = 2025 Employment]



Source: ABS; Oxford Economics Analysis

Occupation trends in the Central Queensland region

The Central Queensland region's employment base is anchored by a mix of legacy resource industries and growing service and infrastructure-oriented sectors. Mining remains the dominant employer, accounting for close to 14,000 jobs in 2025, with a very high employment concentration (LQ 5.61, over 5x the national average). However, the sector is forecast to contract at around 2.2% per year over the next decade, reflecting structural headwinds for coal and other resource industries. Manufacturing shows a similar pattern, with above-average concentration (LQ 1.13) but modest decline (-1.0% annually), reflecting global competitive pressures.

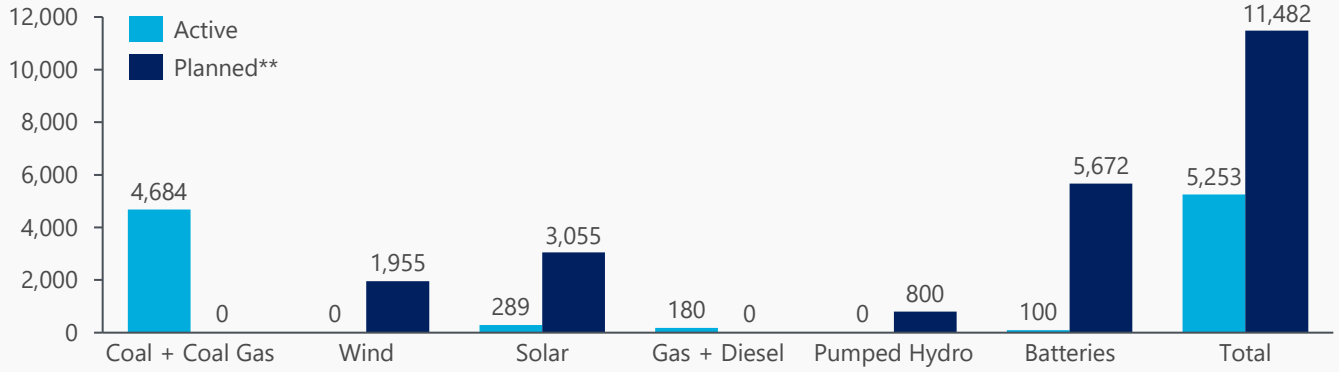
In contrast, the region's utilities sector (Electricity, Gas, Water and Waste services) is expected to be a growth standout, expanding at 4.3% per year from its current base of more than 2,200 jobs. This reflects the concentration of energy assets in the region and the scale of investment in renewable and transitional infrastructure. Construction also plays a central role, employing over 13,000 workers with an above-average LQ (1.15), and is forecast to grow by 1.4% annually, consistent with major project activity and population-driven demand.

Health care and social assistance is the single largest employing industry (~17,300 jobs), though its employment concentration is below the national average (LQ 0.87). Growth is forecast at 0.9% per year, supported by population ageing and demand for hospital and community health services. Education and training is similarly important, with nearly 12,000 workers, an above-average LQ (1.10), and 1.3% annual growth.

Several smaller but expanding industries indicate early diversification. Professional, scientific and technical services (forecast 1.6% annual growth), arts and recreation services (1.9%), and accommodation and food services (1.3%) are all growing from lower bases. While their location quotients are below 1.0, indicating they are underrepresented relative to national employment shares, they reflect emerging opportunities in professional services, lifestyle, and tourism-linked activities.

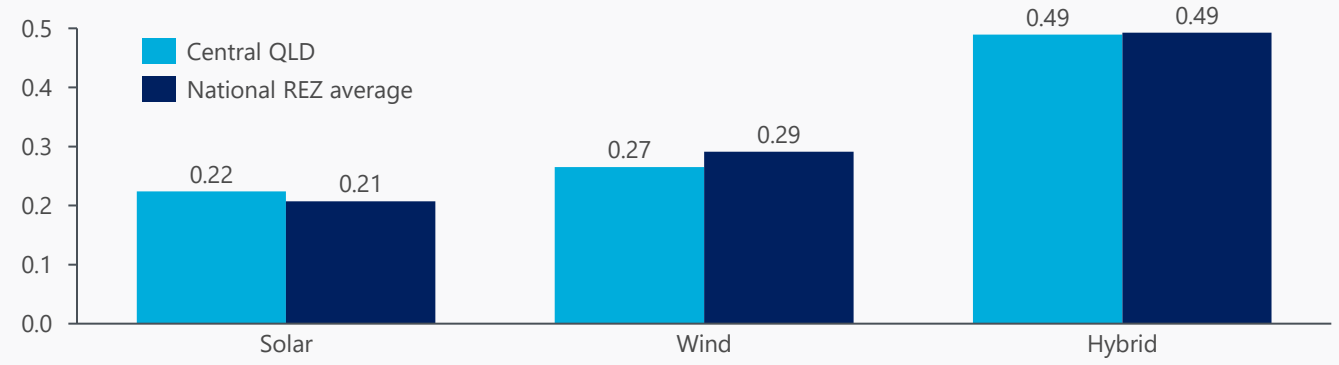
Central Queensland's energy mix is shifting from coal to planned wind and solar projects, though policy uncertainty clouds the outlook for renewable investment.

Total generation by fuel type (MW) – Nameplate capacity – Active and planned



Source: AEMO Planned, Committed and Proposed projects.

Renewable energy capacity factors* – Central Queensland region



Source: Geoscience Australia

Energy and renewables profile of the Central Queensland region

Central Queensland is poised for a significant transformation in its energy mix, with planned renewable generation capacity dwarfing current active assets. As shown in the chart, only 5,253 MW of generation capacity is currently active, predominantly from coal and coal gas (4,684 MW), but there is an ambitious 11,482 MW of planned capacity, led by 3,055MW from planned solar projects and 1,955MW from planned Wind projects. Capacity factors, which measure how effectively renewable technologies convert potential capacity into actual output, indicate that Central Queensland performs slightly above the national REZ average for solar (0.22 vs. 0.21) and marginally below for wind (0.27 vs. 0.29), while hybrid systems match the national REZ average (0.49). This suggests the region is well-suited for a diversified renewable portfolio, with solar and hybrid projects showing strong operational potential.

The scale of planned investment aligns with Queensland's SuperGrid Infrastructure Blueprint[2***], aiming to position Central Queensland as a renewable energy hub. The region's favourable natural conditions (high solar irradiance and wind resources), proximity to industrial centres like Gladstone and surplus of industrially zoned land in the Banana Shire region are strong advantages for renewable-powered heavy industries, green hydrogen, and minerals processing. Large-scale storage initiatives, particularly batteries and pumped hydro, will be critical in smoothing renewable output and maintaining grid reliability as coal plants retire.

However, this ambitious outlook is tempered by policy uncertainty and project cancellations. Uncertainty regarding renewable energy targets, extensions of coal fired power stations and REZ-linked project cancellations also impact investment confidence. The recent cancellation of the $1 billion Moonlight Range Wind Farm[4] highlights the increasing regulatory scrutiny, including mandatory social impact assessments and community benefit agreements. Investor confidence has also been affected by the LNP government's review of renewable energy targets[5] and the extension of coal-fired power plant lifespans, which could reduce the pace of transition.

** Estimated as the average capacity factor across areas of region overlapping designated REZ areas. National average measured across average of all designated REZ areas; ** Includes upcoming projects tagged by AEMO as anticipated, committed or proposed (note only proposed generation projects greater than 1000MW and proposed storage projects greater than 1500MW are included here). Note that the Aldoga Solar Farm is expected to be fully operational in November 2025, which has a capacity of 380MW.*
****The Energy (Renewable Transformation and Jobs) Act 2024 is currently tabled in QLD parliament to consider being repealed*

Central Queensland holds 14% of Australia's coal reserves and significant untapped deposits of cobalt, copper, gold, zinc, and lead-zinc.

Summary of mineral deposits and mines – Central Queensland region

Mineral	EDR + SR + IR*		Total Producing Mines	Total Unutilised Deposits	Forecast Real Price Growth
Name	Mass	% Aus Total	Number	Number	CAGR 2024-2027
Black Coal	28,500 Mt	14.47%	15	45	-8.51% (Met. Coal**) -8.41% (Thermal Coal***)
Cobalt	175 Kt	4.84%	0	6	N/A
Copper	2 Mt	1.07%	0	8	0.29% (LME Spot)
Gold	110 t	0.49%	1	13	1.32% (LMBA)
Iron Ore - Magnetite	350 Mt	0.44%	0	2	-9.14% (fob Australian basis, 62% Fe)
Zinc	1 Mt	5.88%	0	2	N/A
Lead-zinc	0.5 Mt	0.33%	0	1	N/A

Source: Geoscience Australia AIMR, DISR Resources and Energy Quarterly

Minerals profile of the Central Queensland region

Central Queensland holds abundant mineral resources, with black coal remaining the region's dominant commodity. The region holds 28,500 Mt of black coal reserves, accounting for 14.47% of Australia's total deposits, with 15 active mines and 45 unutilised deposits. This strong coal base underpins the region's role as one of Australia's primary energy and export hubs, particularly through the Bowen and Galilee basins and major export ports such as Gladstone, Hay Point, and Abbot Point. However, the forecast price decline for both metallurgical and thermal coal between 2024-2027[6] underscores the need for diversification and a shift toward emerging mineral and energy opportunities.

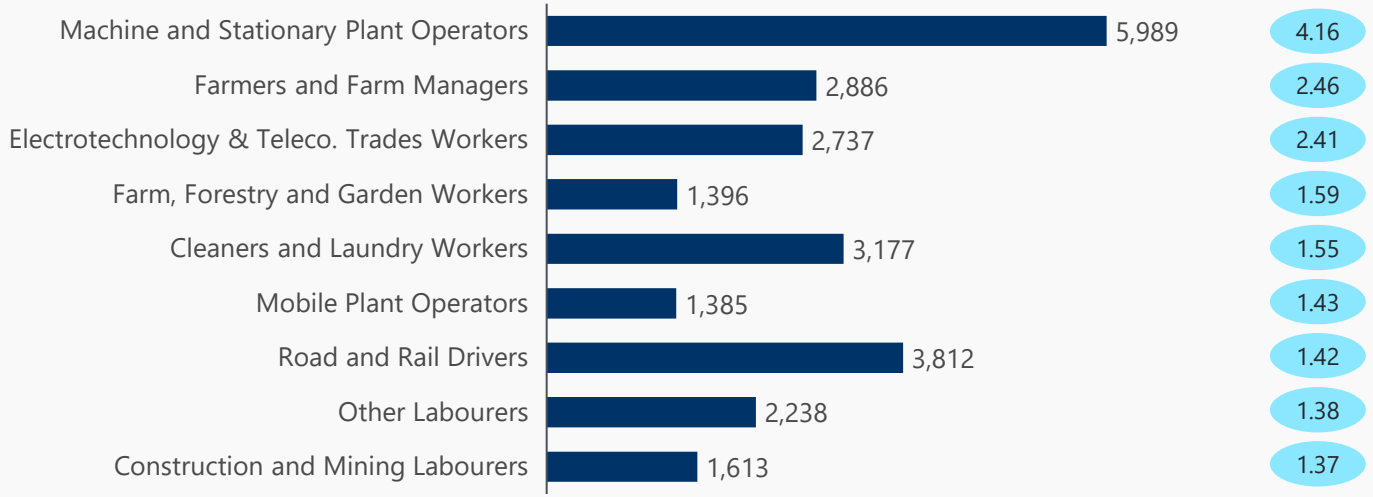
Beyond coal, Central Queensland hosts significant deposits of cobalt, copper, gold, zinc, and lead-zinc, providing strong potential for critical minerals processing. Access to these minerals are strong comparative advantages for Rockhampton (Mount Morgan), Banana (Cracow) and the Central Highlands (Drummond Basin). The region also holds 175 Kt of cobalt (4.84% of Australia's total) and 2 Mt of copper, despite there currently being no producing mines for these metals. Similarly, there are 1 Mt of zinc (5.88%) and 0.5 Mt of lead-zinc (0.33%), all currently unutilised but strategically important for the clean energy transition due to their role in battery technologies and renewable energy systems. The presence of 8 unutilised copper deposits and 6 cobalt deposits highlights opportunities for future exploration and downstream value-adding, particularly as global demand for battery-grade materials accelerates.

Gold is another notable resource, with 110 tonnes across 1 producing mine and 13 additional unutilised deposits, supported by a positive price growth outlook of 1.32% CAGR through 2027. Although the region holds 350 Mt of magnetite iron ore (0.44% of national reserves), forecast price declines (-9.14% CAGR) through 2027 are likely to dampen investor confidence, unless projects are coupled with value-added processing initiatives. Overall, Central Queensland's resource profile is defined by a mature coal industry and substantial untapped critical minerals potential. Coupled with Gladstone's industrial infrastructure and export capacity, this provides a pathway to establish local processing facilities, capture greater domestic value, and diversify the regional economy.

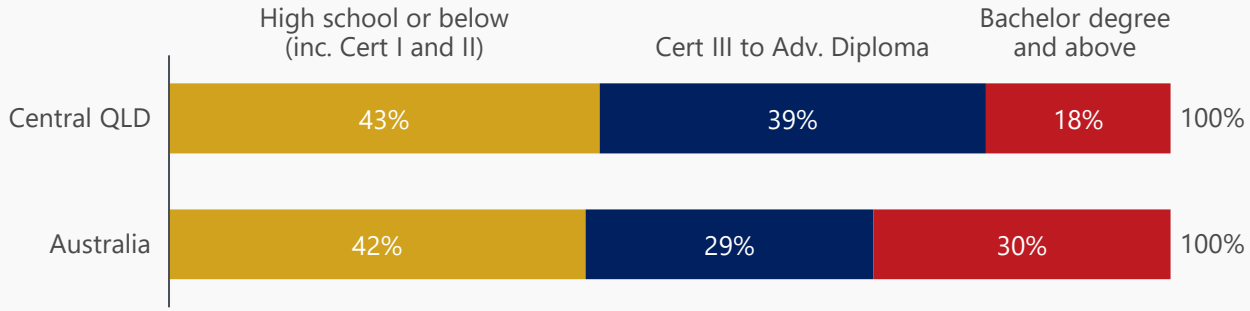
** Economic Demonstrated Resources + Subeconomic Demonstrated Resources + Inferred Resources; ** Hard coking coal FOB Australia east coast ports; ***FOB Newcastle 6000Kcal*

Central Queensland's workforce is dominated by highly skilled plant operators, trades, and logistics roles, supported by vocational training and industry-aligned education.

Top nine occupations by location quotient (employment and LQ)



Educational attainment (% highest level attainment)



Skills trends in the Central Queensland region

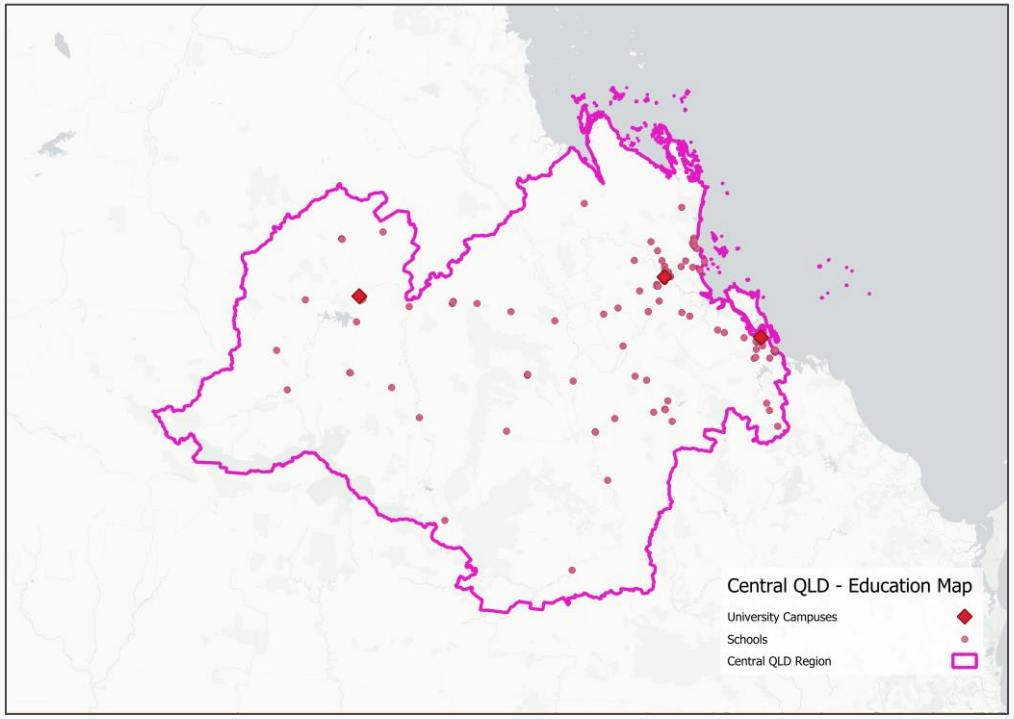
Central Queensland (CQ) has a strong skills base shaped by its industrial, mining, and agricultural heritage. The region has a high concentration of machine and stationary plant operators, with 5,989 workers and a location quotient (LQ) of 4.16, indicating a workforce density more than four times the national average. Similarly, CQ has strong representation in farmers and farm managers (LQ 2.46), electrotechnology and telecommunications trade workers (LQ 2.41), and road and rail drivers (LQ 1.42). These skills reflect the dominance of mining, transport, and agricultural sectors, which require technical expertise, plant operation, and logistics capabilities. Labour-intensive roles, such as construction and mining labourers, also show a higher-than-average concentration (LQ 1.37), underscoring the region's readiness for large-scale infrastructure and energy projects.

The region's educational profile reinforces its comparative advantage in vocational and technical skills. Around 39% of the population holds a Certificate III to Advanced Diploma, compared with only 29% nationally. This indicates a strong pipeline of trade-qualified workers suited to industries such as energy, mining, and construction. While only 18% of residents hold tertiary qualifications (versus 30% nationally), CQ's strength lies in its vocational training systems, particularly through TAFE Queensland campuses and Central Queensland University (CQU), which focus on trades, engineering, and industry-relevant programs. These institutions play a critical role in aligning workforce skills with local industry needs.

The combination of a technically skilled workforce and sector-aligned education infrastructure positions CQ well for both traditional industries and the emerging energy transition. Skills in electrotechnology and plant operations are particularly transferable to renewable energy projects, such as battery storage, hydrogen, and advanced manufacturing. Road and rail drivers (3,812 workers, LQ 1.42) also highlight the region's strong logistics and transport capacity, which will be vital for supporting industrial and export activities linked to mining, agriculture, and energy. The region's ability to leverage this technical workforce, supported by tailored vocational education, remains a key strength in driving future economic diversification.

Central Queensland's education and training strengths, led by CQU and TAFE, align with regional priorities in renewable energy, mining, and manufacturing.

Education facility map – Central Queensland region



4
Dual-Sector Campuses

140
Schools

Source: TAFE NSW 2025; Study Australia 2025; ACARA 2024

Education trends in the Central Queensland region

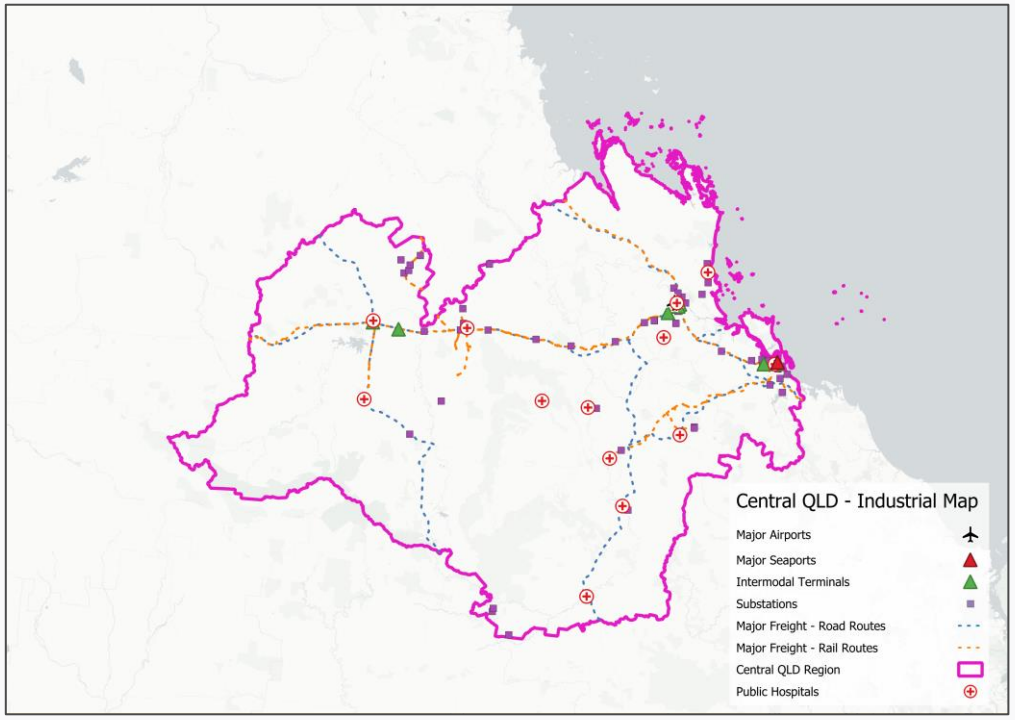
Central Queensland (CQ) has a strong foundation in education and training, which underpins workforce development across the region's key industries, including mining, energy, agriculture, manufacturing and logistics. The region's educational infrastructure is led by Central Queensland University (CQU), a dual-sector (combined vocational and higher education) institution with a significant presence across Rockhampton, Gladstone, and Emerald. CQU offers programs aligned to regional needs, including engineering, renewable energy technologies, agriculture and healthcare. Its emphasis on vocational delivery, industry partnerships and applied research aligns with CQ's economic priorities, particularly the transition to renewable energy and advanced manufacturing. For councils such as Rockhampton, the university represents a distinctive comparative advantage, attracting both students and industry collaboration. Gladstone and Emerald also benefit from CQU's networked campuses, linking local skills training directly to their industrial and agricultural bases.

In the vocational sector, TAFE-level training is delivered primarily through CQU across its campus network. Delivery covers mining operations, process plant technology, heavy machinery, trades and construction, and emerging areas such as hydrogen and renewable energy systems[7]. Rockhampton and Gladstone have particular strengths in engineering and heavy industry trades that directly support the Gladstone heavy industrial precinct and regional mining operations. As such, institutions like CQU provide councils with a platform to upskill their workforce and specialise in the trades most relevant to their local economies.

From an R&D perspective, CQ has growing capabilities linked to its industrial base. CQU operates research hubs such as the Institute for Future Farming Systems[8] and runs applied engineering and renewable energy initiatives. James Cook University also maintains a presence in Rockhampton through a study centre and delivers GP training pathways in Central Queensland, complementing local health workforce development. Gladstone is emerging as a centre for hydrogen R&D, with pilot projects supported by government and industry, including initiatives linked to the now cancelled Gladstone Hydrogen Hub[9] and partnerships with major energy companies.

Central Queensland's extensive transport, port, and industrial infrastructure positions the region as a leading hub for mining, energy exports, and emerging industries.

Infrastructure map – Central Queensland region



1 Major Airport

1 Major Maritime Port

13 Public Hospitals

8 Intermodal Terminals

Source: Geoscience Australia, Digital Atlas of Australia

Infrastructure trends in the Central Queensland region

Central Queensland (CQ) possesses a robust infrastructure network that underpins its role as an economic hub for mining, energy, agriculture, and export industries. At the centre is the Port of Gladstone, one of Australia's largest multi-commodity ports and the state's leading trade gateway, handling coal, alumina, LNG, and agricultural exports. This port is a clear comparative advantage for Gladstone, which has positioned itself as Queensland's primary heavy industry and export precinct. Other ports, such as Port of Rockhampton and the Curtis Island LNG terminals, provide additional capacity but play more specialised roles.

Extensive freight infrastructure reinforces this advantage. The Aurizon Central Queensland Coal Network connects the Bowen Basin and surrounding mining regions to Gladstone's export terminals, while major road corridors, including the Bruce, Dawson, and Capricorn Highways, link inland production zones to coastal centres. Here, Rockhampton benefits from its position as the primary road and rail junction, where north–south and east–west freight flows converge, strengthening its logistics and distribution profile. Planned connections such as Inland Rail[10] are expected to enhance this role, integrating Rockhampton into national freight supply chains.

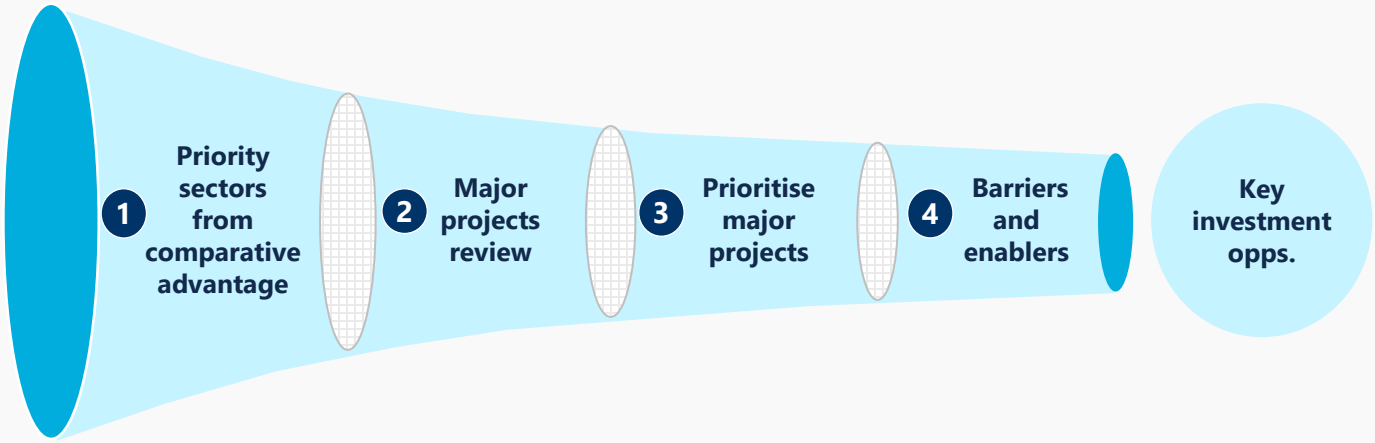
Air transport also reflects these differences: Rockhampton Airport functions as the region's main defence and logistics hub, with the capacity to handle larger aircraft, while Gladstone, Biloela and Moranbah Airports play a supporting role for industry and FIFO movements. In terms of water security, the Fitzroy Basin system provides Rockhampton with strong agricultural and urban supplies, whereas Gladstone's infrastructure is geared more directly to supporting heavy industry and export facilities.

Finally, both councils share access to high-quality renewable energy resources, yet their comparative strengths differ: Gladstone is emerging as Queensland's energy transition hub, leveraging port access for hydrogen and green metals exports, while Rockhampton is better placed for integrated agricultural, defence, and regional service industries.

INVESTMENT OPPORTUNITIES

A four step process was used for identifying and prioritising opportunities.

Investment opportunities methodology



Output

Priority sectors
- Renewable Energy and Storage
- Low-Emissions Manufacturing and Circular Economy
- CCUS
- Advanced Agribusiness and Food

21 opportunities identified by
- Value
- Likelihood of realisation
- Job creation potential

Top 3 opportunities ranked by
- Economic impact
- Jobs
- Comparative advantage
- Lead times
- Policy alignment

Top 3 opportunities
- Barriers
- Enablers
- Constraints
- Key actions to unlock investment

Key investment opportunities for NZEA to focus on and prioritise in each region

Description

The methodology for identifying investment opportunities in Central Queensland builds on the region's comparative advantages while aligning with national net zero objectives. It begins by identifying priority sectors where Central Queensland has structural strengths and growth potential,. These sectors reflect both the region's established industrial base and its capacity to transition into globally competitive industries.

The next step is a review of Central Queensland's major projects pipeline to develop a long list of 21 opportunities. Each is assessed against economic value, likelihood of realisation, and job creation potential, ensuring the pipeline captures projects that can deliver economic transformation and are commercially and technically feasible.

This is then narrowed to the top three opportunities with the greatest impact. Selection is based on economic contribution, alignment with Central Queensland's comparative advantage, job creation potential, lead times, and policy consistency. This ensures the region focuses on opportunities that are both ambitious and achievable.

Finally, the methodology considers the barriers and enablers shaping delivery. These include demand signals and offtake agreements, access to enabling infrastructure such as energy, water, and ports, policy and regulatory clarity, and availability of specialist workforce skills. Understanding these factors highlights the key actions required to unlock investment and accelerate delivery.

The outcome is a focused set of three priority opportunities for Central Queensland, supported by evidence of their economic potential, enabling requirements, and policy alignment. These opportunities form the basis for targeted investment attraction and coordinated delivery across government, industry, and the community.

Projects have been prioritised based on comparative advantage, job contribution and policy alignment with consideration to lead times.

Comparative advantage alignment

Denoted by a qualitatively derived comparative advantage score out of 5:

1. No alignment with regional strengths or capabilities
2. Minimal alignment; limited local advantages
3. Moderate alignment with some key strengths (e.g. workforce or land)
4. Strong alignment with multiple comparative advantages
5. Excellent alignment; leverages core regional assets and priorities

Project lead times*

Based on a region-specific rank of project types by expected lead time (defined as the time between project inception and construction commencement):

Short Term: Lead time of less than 3 years

Medium Term: Lead time of between 3 and 5 years

Long Term: Lead time of greater than 5 years

Typical job contributions

Based on a quintile rank of project types by expected job-year contribution within 10 years of construction starting:

1. Fewer than 600 jobs; short-term or low-quality employment
2. 600–1,600 jobs; limited regional employment impact
3. 1,600–2,800 jobs; moderate and/or specialised workforce impact
4. 2,800–4,400 jobs; strong job creation with varied roles
5. 4,400+ jobs; transformative workforce impact across skill levels

Government policy alignment

Derived from a review of government documents, as well as a review of the Major Projects Listing.

1. Not mentioned at local, state or commonwealth level; no relevant projects identified in region
2. Mentioned once at a local, state or commonwealth level; or projects identified in region
3. Mentioned twice at a local, state or commonwealth level; or projects identified in region
4. Mentioned three times at a local, state or commonwealth level; or projects identified in region
5. Mentioned at local, state and commonwealth level; and projects identified in region.

Methodology

Project types were prioritised using an equally weighted average of three index scores: comparative advantage, job contribution, and government policy alignment. Each index was scored out of 5 using a tailored methodology. The final score provides a comparative view across project types for the Central Qld region.

Comparative advantage was assessed qualitatively, based on factors such as resource endowment, industrial base, infrastructure readiness, workforce availability, and regulatory context. Given the variability across project types, no single indicator set was universally applicable. The assessment relied on structured expert judgement, informed by the most relevant metrics for each case.

Job contribution scores were based on estimated job years, combining construction and ongoing employment over a 10-year operational period. Estimates were drawn from project-level data, supplemented with desktop research where necessary. Final scores were assigned by ranking each project type into quintiles.

Policy alignment scores reflected the presence of each project type in local, state, and federal policy documents, and in Central Qld's major project pipeline.

A separate **lead time analysis** was conducted to support the evidence base. Lead times (from inception to construction) were estimated using proprietary modelling for energy projects and desktop research for others. While not included in scoring, these estimates informed comparative advantage assessments and delivery timelines.

**Note that lead times are not considered when deriving a project type's rating or subsequent prioritisation. Details and categorisation are retained here for illustrative purposes.*

Central Queensland offers key opportunities in defence, hydrogen and the minerals sector.

Project type	Lead Times*	Job Contribution	Policy	Comparative Advantage	Average Rating**	Description
Defence maintenance/sustainment	Short	5.00	5.00	5.00	5.00	Proximity to Shoalwater Bay enables long-term sustainment, logistics, and support.
Hydrogen	Medium	5.00	4.00	4.00	4.33	Gladstone is a proposed Hydrogen Hub, but state government support is mixed.
Defence manufacturing	Short	3.00	5.00	5.00	4.33	Established heavy industry base supports advanced defence manufacturing.
Green metals	Medium	3.00	4.00	5.00	4.00	Anchor projects in alumina and green iron highlight export potential.
Minerals processing	Short	2.00	5.00	5.00	4.00	Transport, logistics, regional minerals, provide a strong base for downstream refining.
Urea and ammonia production	Short	4.00	4.00	3.00	3.67	Hydrogen and ammonia capabilities and infrastructure position CQ for green ammonia.
Energy from waste facilities	Long	4.00	3.00	4.00	3.67	Local feedstock and industrial hubs support waste-to-energy opportunities.
LCLFs, biofuels and biochemicals from waste streams	Medium	3.00	4.00	4.00	3.67	Agricultural by-products can drive new biofuel and biochemical industries.
Battery energy storage systems (BESS)	Medium	1.00	5.00	5.00	3.67	Supports renewable integration and grid reliability across CQ.
Renewables component manufacturing	Short	5.00	4.00	2.00	3.67	Heavy industry skills enable manufacturing of wind, solar and battery parts.
Pumped hydro energy storage	Long	2.00	4.00	5.00	3.67	Regional sites provide potential long-duration renewable energy storage.
Transport and logistics	Medium	4.00	4.00	3.00	3.67	Ports, rail and road networks enable freight, defence and export growth.
Circular economy manufacturing	Short	1.00	5.00	4.00	3.33	Industrial land and by-products create opportunities for recycling and reuse.
Food and fibre product manufacturing	Short	2.00	5.00	3.00	3.33	Agricultural base supports expansion of value-added processing.
Offshore wind farms	Long	4.00	2.00	3.00	3.00	Central Queensland currently has no approved projects, with only early feasibility studies.
Solar farms	Medium	1.00	5.00	3.00	3.00	High solar irradiance underpins large-scale renewable energy projects.
Onshore wind farms	Medium	1.00	5.00	3.00	3.00	Hybrid resources enable scalable wind developments inland from Gladstone.
Mine rehabilitation	N/A	3.00	1.00	5.00	3.00	Large legacy mine sites offer demand for remediation and environmental services.
Carbon capture, utilisation and storage (CCUS)	Long	5.00	2.00	1.00	2.67	Recent ban of CCS activity in GAB limits opportunity and comparative advantage.
Geothermal heating and power	Long	2.00	1.00	2.00	1.67	Geothermal potential exists but remains unproven and high risk.
Data centres	Short	1.00	2.00	1.00	1.33	Proximity to renewables offers low-carbon digital infrastructure opportunities.

**Note that lead times are not considered when deriving a project type's rating or the subsequent prioritisation. Details and categorisation are retained here for illustrative purposes.*
*** These 21 industry types were considered for each region and are not specific to Central Queensland. Additional detail on methodology to derive scores is present in report appendices.*

Key opportunities Weakest 1 2 3 4 5 Strongest

Central Queensland can leverage Shoalwater Bay and its industrial base to become a leading hub for defence manufacturing, sustainment and training.

Summary of opportunity – Defence manufacturing and sustainment

Central Queensland has the potential to grow into a leading hub for defence manufacturing, sustainment and training, building on its existing industrial base, strategic location and workforce. With strong defence presence already established through facilities like Shoalwater Bay Training Area, the region is well placed to expand into defence-related manufacturing, maintenance, and logistics. By leveraging these strengths, Central Queensland can attract investment from defence primes and SMEs, create long-term skilled jobs, and position itself as a critical contributor to Australia's sovereign defence capability.

Central QLD advantages

- Strategic proximity to the Shoalwater Bay Training Area, one of Australia's premier military training facilities.
- Established industrial capabilities in heavy engineering, fabrication, advanced manufacturing, and logistics.
- Port of Gladstone, explosives ordinance logistics, Rockhampton Airport and Bajool Explosives Reserve.
- Policy alignment with federal and state government defence industry strategies, regional development agendas, and sovereign capability priorities.

Actions to realise opportunity

- Develop a dedicated defence manufacturing and sustainment precinct to co-locate suppliers, primes, and training providers.
- Attract anchor defence industry tenants (ship/vehicle sustainment, aerospace, munitions, robotics).
- Partner with TAFE, universities and defence contractors to grow the local skilled workforce in advanced trades, engineering, and systems integration.
- Strengthen transport and logistics links to ports and bases to support efficient sustainment.

Estimated economic impacts per project*

	Defence Manufact.		Defence Sustainment	
	Constr-uction	Ongoing	Construc-tion	Ongoing
Investment	$400m	$295m p.a.	$680m	$612m p.a.
GVA	$87m	$58m p.a.	$148m	$120m p.a.
Employment	148 jobs	263 jobs p.a.	367 jobs	600 jobs p.a.

Key project examples

- **Shoalwater Bay Training Area expansion**[11] **–** delivered under the Australia–Singapore Military Training Initiative (ASMTI).
- **Rockhampton and Gladstone Defence Support Hub proposals**[12] – initiatives to attract defence contractors and sustainment businesses to service land and maritime assets.
- **Central to Defence**[13] – Central Queensland Defence Industry Precinct Business Case.
- **Gladstone Port defence logistics capability** – Use of port facilities to support heavy lift, logistics and sustainment.

Key opportunity areas

Immediate priorities (2025–2030)

1. Progress QDIP Business Case and secure defence industry tenants and investment.
2. Align training programs to build a pipeline of defence-ready workers.

Medium-term opportunities (2030–2035)

3. Establish sustainment hubs for armoured vehicles, land systems, and aerospace assets.
4. Develop partnerships with international defence primes to localise supply chains.
5. Expand advanced manufacturing (e.g. composites, robotics, munitions).
6. Integrate defence logistics with regional freight and port infrastructure.

Longer-term opportunities (post-2035)

7. Position Central QLD as a national centre for joint training, sustainment, and manufacturing.
8. Develop export capability for defence-related advanced manufacturing.
9. Embed defence manufacturing as a cornerstone of regional diversification beyond coal.

** Expected investment CAPEX, and Construction and Ongoing employment impacts are taken as averages from publicly available project information. Expected Ongoing investment and GVA impacts are inferred using ratios. See more details in the Appendix.*

Central Queensland can harness its renewable resources, ports and industrial base to become Australia's leading hub for hydrogen production and use.

Summary of opportunity – Hydrogen

Central Queensland can become a national hub for hydrogen production and export, leveraging its natural resources, industrial base, and strategic port infrastructure. With early-stage projects and feasibility work already underway in Gladstone and surrounding areas, the region is well placed to scale hydrogen production, develop downstream industries, and supply both domestic markets and international partners as Australia transitions to net zero. This capability can be leveraged for both green ammonia production and green metals.

Central QLD advantages

- Gladstone is one of Australia's leading energy and industrial hubs, with deepwater port infrastructure, heavy industry, ammonia production and established energy expertise.
- Strong renewable energy resources (solar and wind) and grid access to support green hydrogen production.
- Strategic location close to Asian export markets, with established trade links through Gladstone Port.
- Policy alignment with the National Hydrogen Strategy and Commonwealth hydrogen hubs.

Actions to realise opportunity

- Secure investment in large-scale electrolysers, hydrogen hubs, and export infrastructure in Gladstone.
- Support workforce transition from fossil fuels to hydrogen and renewables through targeted training programs.
- Develop domestic hydrogen demand (e.g. heavy vehicles, industrial users, ammonia and fertiliser production) to underpin early scale-up.
- Strengthen partnerships with international offtake (Japan, Korea, EU) to guarantee long-term export markets.

Estimated economic impacts per project*

	Hydrogen	
	Construction	Ongoing
Investment	$1,400m	$420m p.a.
GVA	$248m	$136m p.a.
Employment	790 jobs	383 jobs p.a.

Key project examples

- **Yarwun Hydrogen Calcination Pilot**[14] – world-first hydrogen-powered alumina calcination pilot at Gladstone's Yarwun refinery.
- **Hydrogen Park Gladstone (HyP Gladstone)**[15] – demonstration-scale renewable hydrogen facility blending hydrogen into local gas.
- **Queensland Alumina Limited (QAL) decarbonisation studies**[16] – ongoing work into using hydrogen and alternative fuels to replace coal in alumina refining.

Key opportunity areas

Immediate priorities (2025–2030)

1. Expand upon HyP Gladstone's existing capabilities and establish domestic hydrogen refuelling and supply.
2. Trial green ammonia production and explore offtake agreements with key export markets.

Medium-term opportunities (2030–2035)

4. Scale hydrogen and ammonia export volumes through Gladstone Port.
5. Develop hydrogen-based industrial precincts (fertilisers, green metals).
6. Deploy hydrogen for heavy haulage, mining fleets and rail transport in Central QLD.

Longer-term opportunities (post-2035)

7. Position Gladstone as Australia's leading hydrogen export hub.
8. Build integrated hydrogen-to-green-metals value chains.
9. Expand into global markets for hydrogen derivatives.

Interlinkages to other opportunities

Green hydrogen development in Central Queensland is closely linked to green ammonia production, leveraging Gladstone region's existing ammonia production and infrastructure. By establishing large-scale electrolysis and hydrogen supply infrastructure, the region can enable co-located green ammonia and green metals industries, catalysing investment in low-carbon processing and advanced manufacturing.

** Expected investment CAPEX, and Construction and Ongoing employment impacts are taken as averages from publicly available project information. Expected Ongoing investment and GVA impacts are inferred using ratios. See more details in the Appendix.*

Green metals and minerals processing can make Central Queensland a global hub for low-carbon manufacturing and advanced materials.

Summary of opportunity – Green metals and minerals processing

Central Queensland is emerging as a hub for green metals and advanced minerals processing, with projects like Alpha HPA's high-purity alumina refinery[17] and the Gladstone Green Iron initiative[18] positioning the region at the forefront of value-added manufacturing. By moving further downstream, CQ can capture more of the critical minerals value chain, diversify its economy, and create high-skill, future-facing jobs beyond coal and traditional alumina refining.

Central QLD advantages

- Anchor projects in development (Alpha HPA, Green Iron) demonstrate real momentum in value-added processing.
- Gladstone offers deepwater port access, established heavy industry precincts, water security, and reliable power.
- Government support through Future Made in Australia and the Queensland Critical Minerals Strategy, ensuring strong policy alignment and funding.
- Workforce with transferable skills from resources, refining, and heavy engineering.

Actions to realise opportunity

- Support first-mover projects to full commercial operation and expansion.
- Attract further investment in refining, processing and downstream manufacturing of critical minerals and low-carbon metals.
- Develop workforce transition and training programs in partnership with CQUniversity and TAFE to build skills in processing, automation, and advanced manufacturing.
- Strengthen enabling infrastructure (ports, pipelines, energy) to scale processing precincts.

Estimated economic impacts per project*

	Green Metals		Minerals Processing	
	Constr-uction	Ongoing	Construc-tion	Ongoing
Investment	$500m	$100m p.a.	$223m	$45m p.a.
GVA	$82m	$22m p.a.	$36m	$10m p.a.
Employment	700 jobs	200 jobs p.a.	206 jobs	138 jobs p.a.

Key project examples

- **Alpha HPA's high-purity alumina refinery (Gladstone)** – producing advanced materials for LED lights, semiconductors, and lithium-ion batteries.
- **Gladstone Green Iron project** – proposed low-carbon iron production hub, leveraging renewable energy and hydrogen for steelmaking.

Key opportunity areas

Immediate priorities (2025–2030)

1. Commission Alpha HPA refinery and progress Gladstone Green Iron pilot.
2. Secure government and private investment to de-risk early-stage projects.
3. Build specialised workforce pipelines for green metals processing.
4. Begin decarbonisation of Gladstone's aluminium smelter and refineries through renewable power and energy efficiency.

Medium-term opportunities (2030–2035)

5. Expand green iron and high-purity alumina capacity for export markets.
6. Attract further critical minerals processing.
7. Develop integrated advanced manufacturing clusters around Gladstone.

Longer-term opportunities (post-2035)

8. Position Central QLD as a globally competitive low-carbon metals hub.
9. Build downstream industries in batteries, semiconductors, and clean tech supply chains.
10. Embed green metals as a cornerstone of regional diversification beyond coal.

** Expected investment CAPEX, and Construction and Ongoing employment impacts are taken as averages from publicly available project information. Expected Ongoing investment and GVA impacts are inferred using ratios. See more details in the Appendix.*

INVESTMENT BARRIERS AND ENABLERS

Central Queensland can lead Australia's clean energy and defence transition if key barriers in skills, infrastructure, and markets are overcome.

Key barriers

Commercial and market risk

Uncertain global demand and high input costs create financing challenges, particularly for hydrogen and green metals projects that require long-term offtake contracts.

Policy and regulatory uncertainty

Inconsistent signals across State and Commonwealth policies, plus complex approval cycles, delay investment in defence and critical minerals processing.

Infrastructure gaps and constraints

Upgrades to energy, water, port, and transport infrastructure are essential to scale hydrogen exports and green metals processing, while defence projects require logistics hubs.

Specialist skills in short supply

Limited availability of advanced trades, engineers, and defence-specific skills creates competition across hydrogen, mining, and manufacturing sectors

Key enablers

Commercial certainty

Bankable offtake agreements for hydrogen and green metals, plus long-term defence contracts, provide investor confidence.

Governance and regulatory certainty

Streamlined and coordinated approval processes across government tiers are needed to accelerate new precincts and large-scale projects.

Infrastructure and utilities access

Expanded port capacity, water security, transmission, and logistics upgrades strengthen Central Queensland's industrial advantage.

Workforce transition and R&D potential

Leveraging transferable skills from mining and energy, alongside targeted training and partnerships with TAFE, universities, and defence primes.

Description

Central Queensland has strong foundations for industrial transition, but success will depend on overcoming barriers in commercial certainty, infrastructure, skills, and regulation. As coal-fired power stations progressively close, the region faces both the challenge and the opportunity of building new industries that can deliver long-term jobs and economic resilience.

For **hydrogen**, barriers include high input costs, slow market development, and the risks associated with scaling capital-intensive projects. Several large-scale export projects such as CQ-H2 have already been cancelled or delayed, reflecting uncertainty in global demand and the absence of bankable offtake contracts[19]. Near-term opportunities are stronger in industrial decarbonization and green ammonia, but will require shared infrastructure, common-user facilities, and clearer demand signals.

In **defence manufacturing and sustainment**, Central Queensland benefits from the Shoalwater Bay Training Area and the region's growing role in joint exercises with international partners. However, national barriers such as long contracting cycles, complex regulatory and acquisition processes, and fragmented investment planning increase the burden of working with defence[20]. Streamlined approvals, dedicated precinct development, and investment in skills pipelines are needed to secure more local sustainment work and attract new manufacturing opportunities linked to Australia's growing defence spend.

For **green metals and critical minerals processing**, the region has strong potential through projects like Alpha HPA's high-purity alumina refinery and the Gladstone Green Iron initiative. The barriers here include the need for reliable low-carbon energy, secure water supplies, and sufficient grid capacity to power large-scale processing. Skills shortages in advanced manufacturing and process engineering also present risks. Enablers include strong government alignment through the Future Made in Australia Act and Queensland's Critical Minerals Strategy, as well as access to Gladstone's deepwater port, established industrial land, and new infrastructure like the Fitzroy–Gladstone Pipeline.

The Central QLD region can leverage brownfield decarbonisation and shared infrastructure to build a globally competitive hydrogen and ammonia export hub.

Key barriers

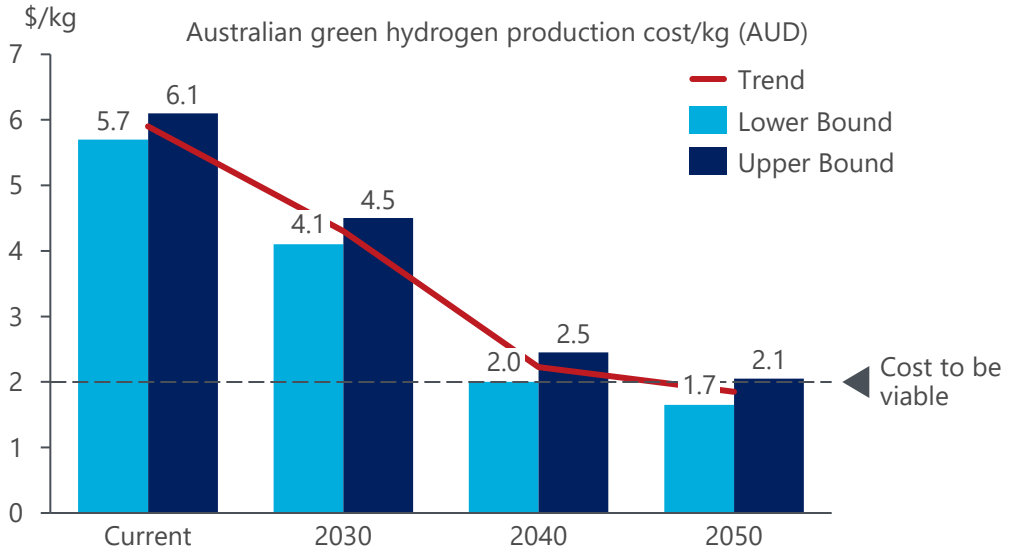
- Hydrogen momentum in the region has been primarily slowed due to high production costs, weak early-stage demand, and infrastructure and planning delays that have eroded investor confidence. The CSIRO outlines that to be commercially viable against fossil fuels, production costs need to fall below AUD $2 per kg[21].
- High capital intensity and long development lead times for electrolysers and related infrastructure create financial risks without bankable offtake agreements.
- Several large-scale hydrogen export projects in Central Queensland have been cancelled or delayed due to high production costs, slow market development, changing policy landscape and uncertainty in global demand, raising investor caution[23].
- Heavy reliance on export markets means domestic hydrogen demand is still limited, making early-stage projects more exposed to global market shifts.

Opportunities

- Use hydrogen to decarbonise existing industries in the region, creating near-term demand and lowering risk.
- Build shared hydrogen infrastructure and common-user facilities to reduce costs, attract multiple investors, and strengthen project viability.
- Position Gladstone and Central Queensland as a leading hydrogen and ammonia hub, leveraging port access, industrial land, and existing pipelines to supply both domestic users and future export markets.
- Develop local skills and supply chains through partnerships with universities, TAFEs, and industry to ensure workforce readiness and regional jobs growth.

Key enablers

- Gladstone's deepwater port and established industrial base (ammonia, alumina, LNG) provide natural anchor points for hydrogen integration and export.
- Strong Federal Government support through the Future Made in Australia Act, which provide incentives, hubs, and infrastructure investment.
- Fitzroy to Gladstone Pipeline under construction will improve long-term water security for industrial users including hydrogen projects[24].
- Co-location with existing heavy industries (ammonia, alumina refining, power generation) offers opportunities for hydrogen to support decarbonisation and scale demand. In the shorter term, these linkages enable pilot and commercial-scale green ammonia production by leveraging existing port, storage, and fertiliser infrastructure as an early hydrogen demand anchor and export pathway.
- The School of Manufacturing at CQU provides Gladstone with a world-class training facility to support the skills needs of future workforces within the advanced manufacturing and hydrogen and renewables industries[25].



Source: PwC 2025

Central QLD can build on its defence industry base by leveraging skills, facilities, and supply chain depth to secure national and export opportunities.

Key barriers

- Limited precinct infrastructure dedicated to defence manufacturing and sustainment, current facilities are quite dispersed, with CQROC noting that a priority should be growing the regional disposition, to expand part-time capability in urban areas.[26]
- Skills and training gaps in specialist trades (munitions, guided weapons, vehicle/aerospace sustainment), compounded by competition for labour in mining and energy.
- Long contracting cycles, DISP/AGSVA clearance delays stemming from mandatory facility certification and accreditation, personnel clearance requirements and physical security clearances, raise entry costs and risks for defence firms, with reforms still bedding in[27].
- Central Queensland's ports lack dedicated naval sustainment facilities, with Port Alma constrained by size and Gladstone heavily committed to commercial trade, leaving little infrastructure tailored to Defence needs.

Opportunities

- Develop a Central QLD Defence Industry Precinct co-located with Shoalwater Bay and supported by Gladstone/Port Alma logistics, to attract primes and anchor tenants.
- Streamline contracting and approvals by building state–federal coordination and providing targeted investment incentives for SMEs.
- Grow the skilled workforce through TAFE, CQUniversity, and Defence Jobs QLD partnerships, aligned with defence industry demand.
- Leverage existing infrastructure (SWBTA, Rockhampton Airport, Bajool Explosives Reserve, Gladstone Port) to support sustainment, munitions, and logistics operations.

Key enablers

- Shoalwater Bay Training Area (SWBTA), expanded under the ADF-Singapore Military Training Initiative, anchors regional demand for logistics, engineering, vehicle maintenance, and ordnance support State Development.
- The Port of Rockhampton is a natural deep-water, Class 1 Explosives capable port, located 60km from Rockhampton with a dedicated road transport corridor for specialised cargo. In addition, the Port of Gladstone is a deep dual shipping lanes and room for expansion, with potential to support national and allied naval operations, as well as land and littoral logistics.
- Central to Defence initiative, a regional advocacy alliance (Gladstone, Rockhampton, Livingstone) backed by state funding, is preparing a CQ Defence Industry Precinct business case.
- Local businesses are actively building defence capability, workshops, grants, and support now running via Rockhampton Manufacturing Hub and Defence Jobs Queensland[28].
- Strategic alignment with national defence industry policy, including federal investment in long-range strike manufacturing and sovereign supply chains positions CQ well tactically.

Key defence infrastructure in Central Queensland

Source: Oxford Economics

Central Queensland can lead in green metals and minerals processing, but energy costs, policy uncertainty and global competition remain major investment hurdles.

Key barriers

- Green metals such as green aluminium, green steel, and critical minerals refining are highly energy intensive and require competitively priced renewable energy and firming[29].
- Upfront CAPEX for smelters, refineries and downstream facilities runs into billions, with Australia at a cost disadavantage compared to China[30].
- Investors face uncertain policy signals on carbon pricing, market premiums for green products, and long-term offtake demand[31].
- Lengthy approvals for major industrial projects, including environmental and social impact assessments, can delay project timelines and increase financing costs.
- The Australian Government's *Critical Minerals Strategy 2023–2030* identifies a shortage of skilled professionals such as mining engineers, processing engineers, geologists, and metallurgists. It emphasises that downstream processing can't be achieved sustainably without investing in Australian workers' skills[32].

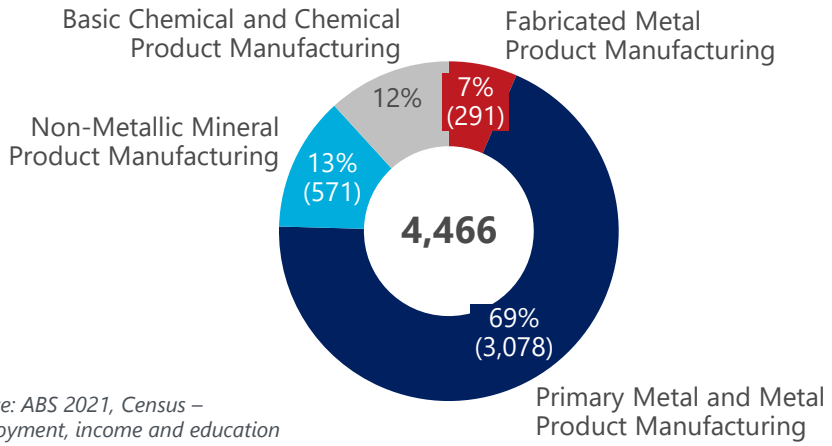
Key enablers

- Central Queensland has solar and wind resources, with Regional Energy Hubs and new transmission projects such as CopperString 2.0 providing a foundation for competitively priced renewable energy to power metals processing.
- Gladstone already hosts alumina refineries, aluminium smelters, LNG facilities and supporting industries, creating an established industrial ecosystem with a workforce of 4,500 that can be adapted for green metals and minerals processing.
- The Port of Gladstone is one of Australia's largest multi-commodity ports, enabling bulk import and export of ores, concentrates and refined products, with capacity for further expansion to support new industries.
- Federal government initiatives such as the National Reconstruction Fund, the Critical Minerals Strategy and Hydrogen Headstart[33] provide long-term policy support for value-adding in metals and critical minerals.
- Central Queensland benefits from a skilled workforce and research institutions such as CQ University, which provide expertise in process engineering, metallurgy and industrial operations.

Opportunities

- Existing alumina refineries and aluminium smelters in Gladstone can be retrofitted with renewable power and firming solutions to create green alumina and aluminium products that capture premium demand in global markets.
- Central Queensland can establish critical minerals processing hubs, integrating refining with downstream manufacturing for battery and advanced material supply chains.
- Renewable hydrogen can be deployed in alumina calcination, direct reduced iron steelmaking and critical mineral refining, positioning Central Queensland as a combined hydrogen and green metals hub.
- Shared utilities, by-products and infrastructure across the Gladstone industrial cluster can be leveraged to reduce operating costs, cut emissions.

Employment in related manufacturing fields in Central Queensland



Source: ABS 2021, Census – employment, income and education

PUBLIC STRATEGY GAPS

Central Queensland's strategies clearly identify regional strengths and opportunities but have limitations on infrastructure, governance, and coordination.

Public-facing investment strategies at Commonwealth, State, and Local levels were assessed against five criteria: (1) strategic priorities and comparative advantage; (2) priority investment opportunities; (3) infrastructure and enabling conditions; (4) coordination across government; and (5) governance and monitoring. Ratings were applied on a 1–5 scale, with higher scores reflecting greater clarity, specificity, and alignment. The assessment shows strong consistency in identifying regional strengths and opportunities, but continuing weaknesses in infrastructure planning, coordination, and governance.

Strategic priorities and comparative advantage are generally well-articulated across the document set. State-level strategies such as the *Regional Transformation Strategy 2024 (RTS 2024)* and the *Queensland Decarbonisation Hub* clearly position Central Queensland as an industrial powerhouse with strengths in energy, resources, and manufacturing. Local strategies such as the *Banana Shire Investment Prospectus (2025)*, the *Gladstone Region Economic Development Strategy 2021–2025*, and the *Rockhampton Region Economic Development Strategy 2023–2028* provide more detailed articulation of local comparative advantages, particularly around ports, industrial land, and workforce capability. The *CQROC Defence Strategy* and *CQROC Strategic Priorities (2023)* add depth on defence and regional coordination, while broader documents such as *GREDS* and *GRETR* identify strengths in general terms without supporting evidence, lowering their scores.

Priority investment opportunities are identified with varying levels of detail. The *Gladstone Economic Transition Roadmap* and the *CQLD Gladstone Transition Paper* outline detailed project opportunities across hydrogen, renewables, and circular economy industries. Similarly, the *Banana Shire Investment Prospectus* and *CQROC Development Strategy* present well-defined pipelines, including biofuels, advanced manufacturing, and defence. By contrast, regional frameworks such as the *Central Highlands 2043 Community Vision* or *Livingstone Shire Economic Growth and Investment Strategy Blueprint 2030* outline broad directions without project-level specificity. The highest scoring documents prioritise investment-ready projects aligned with NZEA focus sectors, while others reflect broader aspirations.

Infrastructure and enabling conditions remain the weakest dimension across the suite. While most strategies acknowledge enabling requirements such as port capacity (Gladstone and Biloela), transmission (CopperString 2.0, grid capacity), workforce, and industrial land, few provide sequenced or costed plans. Notable exceptions include the *Central Highlands Workforce Development and Accommodation Strategy 2024* and the *Banana Shire Council Investment Prospectus for Biloela Industrial Estate (2025)*, which directly link enabling conditions to industrial development opportunities. Most other documents reference enabling needs in general terms without credible delivery pathways, leaving infrastructure bottlenecks unresolved.

Coordination across tiers of government is mixed. RTS 2024 and the INZEA ROF show the strongest alignment with Commonwealth priorities, while many local documents stand alone. For instance, the *Rockhampton Region Economic Development Strategy and Action Plan (Advance Rockhampton)* and *Livingstone Shire Blueprint 2030* articulate strong local aspirations but provide limited explicit cross-referencing to state or national strategies. This limits alignment and creates duplication risks. Furthermore, State support for net zero opportunities such as hydrogen has shifted under the new government, with inconsistent objectives evident when the State withdrew from CQH2 in June.

While Commonwealth and State documents prioritise large-scale renewable projects, particularly under the Future Made in Australia Policy, national defence and statewide initiatives such as CopperString and Regional Energy Hubs development, local strategies take a more region-specific focus. *The Banana Shire Investment Prospectus*, *Central Highlands 2043 Community Vision*, *Gladstone Region Economic Development Strategy 2021–2025*, and *Rockhampton Region Economic Development Strategy 2023–2028* emphasise precincts and industries tied to local strengths. Examples include mining, agriculture, and renewable energy in Banana Shire; hydrogen and logistics in Gladstone; and defence, critical minerals and logistics in Rockhampton.

Governance and monitoring mechanisms are the least developed area. RTS 2024 outlines some governance and implementation frameworks, but most local and regional strategies, including the *Gladstone Economic Transition Roadmap* and *CQROC Defence Strategy* refer to governance only in general terms (e.g. partnerships or advisory bodies) without specifying roles, responsibilities, or monitoring structures. Under the NZEA framework, this results in low ratings (2–3), reflecting weak oversight arrangements.

Overall, Central Queensland's strategies demonstrate clear strengths in articulating comparative advantages and setting out priority investment opportunities, particularly in Gladstone, Rockhampton, Banana Shire, and the Central Highlands. However, gaps in infrastructure planning, governance, and coordination remain. Embedding formal governance structures, developing sequenced and costed infrastructure investment plans, and strengthening alignment across Commonwealth, State, and Local levels will be critical to translating Central Queensland's vision into delivered projects. In short, the region is strong on vision and opportunity identification but underpowered on the enabling conditions required for execution.

Key public facing investment strategies were assessed against five criteria.

Criteria	Sub-criteria	Cth	State	Local								Commentary
		INZEA ROF	RTS 2024	GREDS	GRETR	RREDS	BSIP	CHWDAS	CHCV	CQROC DS	CQROC SP	LSC EGISB	
Strategic priorities and comparative advantage	Identifies and targets comparative advantage	5	4	3	4	3	5	4	3	4	4	4	Strong articulation of regional strengths in energy, resources, and manufacturing is consistent across most documents, with RTS 2024 and BSIP offering clear sector positioning tied to local assets. CQROC SP and LSC EGISB frame advantages more broadly, with less detailed analysis.
	Targets high growth/high employment sectors	3	4	3	4	3	5	4	3	4	4	4	Most strategies highlight growth sectors such as renewable energy, hydrogen, and defence, though the depth of workforce impact varies. BSIP and CQROC DS score highly for clearly linking sector development to job creation, while GREDS and GRETR remain more general in employment focus.
Priority investment opportunities	High priority investment opportunities are identified	4	4	3	4	3	5	4	3	4	4	4	Investment priorities are outlined in several strategies, with BSIP and CQROC DS presenting well-defined project pipelines. RTS 2024 and GRETR identify key sectors but provide less project-level specificity, while others, such as GREDS, group opportunities under broader themes.
	Opportunities align with NZEA projects/sectors focus	5	5*	4	4	4	5	4	4	5	5	5	NZEA-aligned sectors like offshore wind, hydrogen, and critical minerals are well represented in RTS 2024, BSIP, and CQROC DS. Other strategies, like GREDS and GRETR, overlap with NZEA focus areas but do not explicitly map alignment.
Infrastructure	Infrastructure and enabling conditions identified	3	4	3	4	3	4	5	3	4	4	4	Several documents highlight enabling infrastructure, including ports, grid capacity, skills, and housing. BSIP and CQROC DS integrate infrastructure requirements into delivery plans. Others, such as GRETR, identify needs but without sequencing or costing.
Coordination	Priorities shared across Cth, State and Region	4	4	3	4	3	3	4	3	3	3	3	RTS 2024 and INZEA ROF show the strongest cross-government alignment. Other documents, like GREDS and CQROC SP, note collaboration but lack clear mechanisms to integrate priorities across tiers.
Governance and monitoring	Governance and coordinating mechanisms in place	3	3	3	3	3	3	4	3	3	3	3	Governance references vary widely. RTS 2024 outlines a coordination structure and key partners. In contrast, local strategies such as LSC EGISB and CQROC SP mention governance in broad terms without formal delivery frameworks.

Weakest 1 2 3 4 5 Strongest

**Note that State government support for net zero sectors has shifted under new leadership, which may weaken alignment.*

MAJOR APPROVALS

Navigating approvals effectively is critical to accelerating the Central Queensland's investment pipeline across multiple sectors.

Delivering large-scale net zero projects in Queensland requires navigating a structured but often lengthy approvals pathway. Approvals are staged across four phases: (1) early development, (2) environmental planning and development approvals, (3) financial and network arrangements, and (4) construction and commissioning. Timelines vary by technology, from around three years for a green ammonia facility to more than a decade for offshore wind, where marine licensing and seabed approvals significantly extend delivery horizons.

In the early development phase, proponents focus on strategic planning and policy alignment. Early engagement with Commonwealth programs (e.g. ARENA, CEFC, National Hydrogen Strategy) is also important for feasibility funding. Securing land tenure is another critical step, including land access agreements, native title and Aboriginal cultural heritage clearances, and in some cases mining leases or exploration licences. Specialist approvals may also apply, such as initial Defence clearances for projects near training areas, aviation reviews by CASA for tall structures, and feasibility licences for offshore wind.

The environmental planning and development approvals stage carries the bulk of assessment. Under the Queensland Coordinated Project process (SDPWO Act 1971), proponents submit an Initial Advice Statement, after which the Coordinator-General may declare the proposal a Coordinated Project and issue Terms of Reference for an Environmental Impact Statement (EIS). The EIS must be prepared, publicly exhibited, and evaluated before an Evaluation Report is issued. At the Commonwealth level, referral under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) may also be required where projects impact matters of national environmental significance. Outcomes range from no further approvals required to a full EPBC assessment, which can extend timelines by 6-12 months. Additional specialist approvals include Aboriginal Cultural Heritage clearances, water licences, conservation permits, and Commonwealth Offshore Infrastructure licences for marine projects.

Once environmental approvals are in place, projects move into the financial and network integration stage. A key milestone is securing a grid connection with Powerlink or the relevant Distribution Network Service Provider (DNSP), in accordance with National Electricity Rules. Registration with AEMO as a generator or market participant is mandatory. Developers must also establish a bankable revenue model, typically via power purchase agreements (PPAs), long-term offtake contracts, or government underwriting. For some projects, final ARENA or CEFC funding approvals are contingent on these commercial arrangements. Specialist approvals such as gas supply licences (under the Hydrogen Industry Development Amendment Bill 2023) and generator licences under Queensland's Electricity Act may also be required.

The final phase covers construction and commissioning. Proponents must prepare a Construction Environmental Management Plan (CEMP), obtain Environmental Authority approvals to operate prescribed Environmentally Relevant Activities (ERAs), and meet stringent Work Health and Safety obligations. Additional approvals may include hazardous chemical management plans, construction permits under the Queensland Building and Construction Commission (QBCC), and fire safety certification. These ensure projects meet regulatory and occupational safety requirements before entering operation.

While the pathway is structured, total lead times differ markedly by technology. Offshore wind remains the most protracted (averaging up to 10–12 years), reflecting marine licensing and Defence assessments. By contrast, green ammonia and hydrogen electrolysers can achieve approvals in around three to four years. Onshore renewables such as solar and battery storage typically require three to five years, while transmission projects average four to five years given land access, cultural heritage, and biodiversity assessment needs.

Overall, Queensland's approvals framework is multi-layered, combining State-led processes through the Coordinator-General with Commonwealth environmental and offshore triggers. Early policy alignment and stakeholder engagement are essential for project progression, but the most resource-intensive stage is environmental assessment, which often spans two years or more. Subsequent financial, network, and construction approvals build on this foundation, with delivery timelines heavily shaped by technology type, site context, and infrastructure readiness.

Major approvals are required across four key stages of net zero projects.

	3 – 6 months	12 – 24 months		6 – 12 months	12 - 36 months
	Early development phase	**Environmental planning & development approvals**		**Financial & network**	**Construction & commissioning**
Typical approvals	▪ Strategic Planning and Policy Alignment ○ Regional Energy Hubs/Qld Energy Plan support ○ Commonwealth programs (e.g. ARENA, CEFC, National Hydrogen Strategy) ○ Landholder agreements ○ Local council zoning ▪ Site Identification and Tenure ○ Land access agreements Native title/Aboriginal cultural heritage ○ Mining lease or exploration license considerations	▪ Queensland Coordinated Project Process (SDPWO Act 1971)[1]: ○ Submission of an Initial Advice Statement (IAS) to the Coordinator-General ○ If declared a Coordinated Project, ToR for an Environmental Impact Statement (EIS) are issued. ○ EIS[4] prepared and publicly exhibited. ○ EIS evaluated by the coordinator-general and Evaluation Report issued.	▪ Commonwealth Environmental Approval – EPBC Act[2]. May result in: ○ Not a controlled action – no further approval needed. ○ Controlled action – requires Environment Protection and Biodiversity Conservation (EPBC) approval, often assessed jointly with Qld EIS. ○ Extending timelines by 6-12 months, depending on the decision.	▪ Grid connection (Powerlink or DNSP). ▪ Registration with AEMO as market participant or generator. ▪ Revenue model or offtake arrangements (e.g. long-term contracts, government underwriting).	▪ Construction Environmental Management Plan (CEMP). ▪ Environmental Authority (EA), required to operate prescribed ERAs. ▪ Occupational Health and Safety clearances.
Specialist approvals	▪ Initial Defence clearance ▪ Commonwealth aviation review (CASA) ▪ Strategic land access constraints (incl. strategic cropping land advice) ▪ Funding Pre-Approvals (ARENA/CEFC) – Early Feasibility Stage ▪ Offshore Wind Pre-Licensing	▪ Aboriginal Cultural Heritage Act (2003) compliance ▪ Water Act Licence ▪ Nature Conservation Act permit ▪ State Development Area (SDA) approval (if applicable) ▪ Commonwealth Offshore Infrastructure Licence (Offshore Electricity Infrastructure Act 2021)[3]	▪ Development Approval (Planning Act 2016 or Local Government Act 2009) ▪ Formal Defence clearance ▪ Aviation obstacle assessment ▪ Discharge / effluent approvals ▪ Expanded stakeholder engagement obligations ▪ Industrial Relations Management Plan (IRMP)	▪ Gas Supply and Other Legislation (Hydrogen Industry Development) Amendment Bill (2023) ▪ Generation Licence (Electricity Act 1994) ▪ Final ARENA/CEFC investment approval ▪ Offshore Wind Commercial Licence (Post-Feasibility)	▪ Construction Work Permit (QBCC) ▪ Hazardous chemical management plan ▪ Fire safety certification

Notes: (1) The Queensland Coordinated Project Process (SDPWO Act 1971) pathway applies to most major net zero projects. Triggered by investment size, energy capacity, or location in Regional Energy Hubs. (2) Required if project has a significant impact on Matters of National Environmental Significance (MNES). Referral to Department of Climate Change, Energy, the Environment and Water (DCCEEW). Noting this does not take into account amendments to the EPBC Act made by the Parliament in November 2025 (3) Offshore wind projects can involve significantly longer timeframes of 7-10 years before operational (4) This includes design and engineering reports, transport, grid and geotechnical assessments and typically Aboriginal Cultural Heritage Duty of Care compliance

TECHNICAL APPENDICES

We considered a range of opportunities and compiled a list of long list of 21 major opportunities for shortlisting.

Major project types for consideration

1 Circular economy manufacturing	8 Solar farms	15 Data centres
2 Energy from waste facilities	9 Renewables component manufacturing	16 Green metals
3 Food and fibre product manufacturing	10 Urea and ammonia production	17 Geothermal heating and power
4 Hydrogen	11 Onshore wind farms	18 Minerals processing
5 LCLFs, biofuels and biochemicals from waste streams	12 Battery energy storage systems (BESS)	19 Pumped hydro energy storage
6 Defence maintenance/sustainment	13 Carbon capture, utilisation and storage (CCUS)	20 Offshore wind farms
7 Aerospace and defence manufacturing	14 Transport and logistics	21 Mine rehabilitation

Prioritisation criteria

Central Queensland's investment assessment highlights a diverse set of opportunities spanning clean energy, industrial transformation, circular economy, and enabling industries. Clean energy projects form a major share, with hydrogen and ammonia production positioned to decarbonise heavy industry, alongside planned solar and wind projects. These opportunities are supported by existing transmission infrastructure and Gladstone's role as a heavy industry hub. Energy storage options, such as battery systems and pumped hydro, add further capacity.

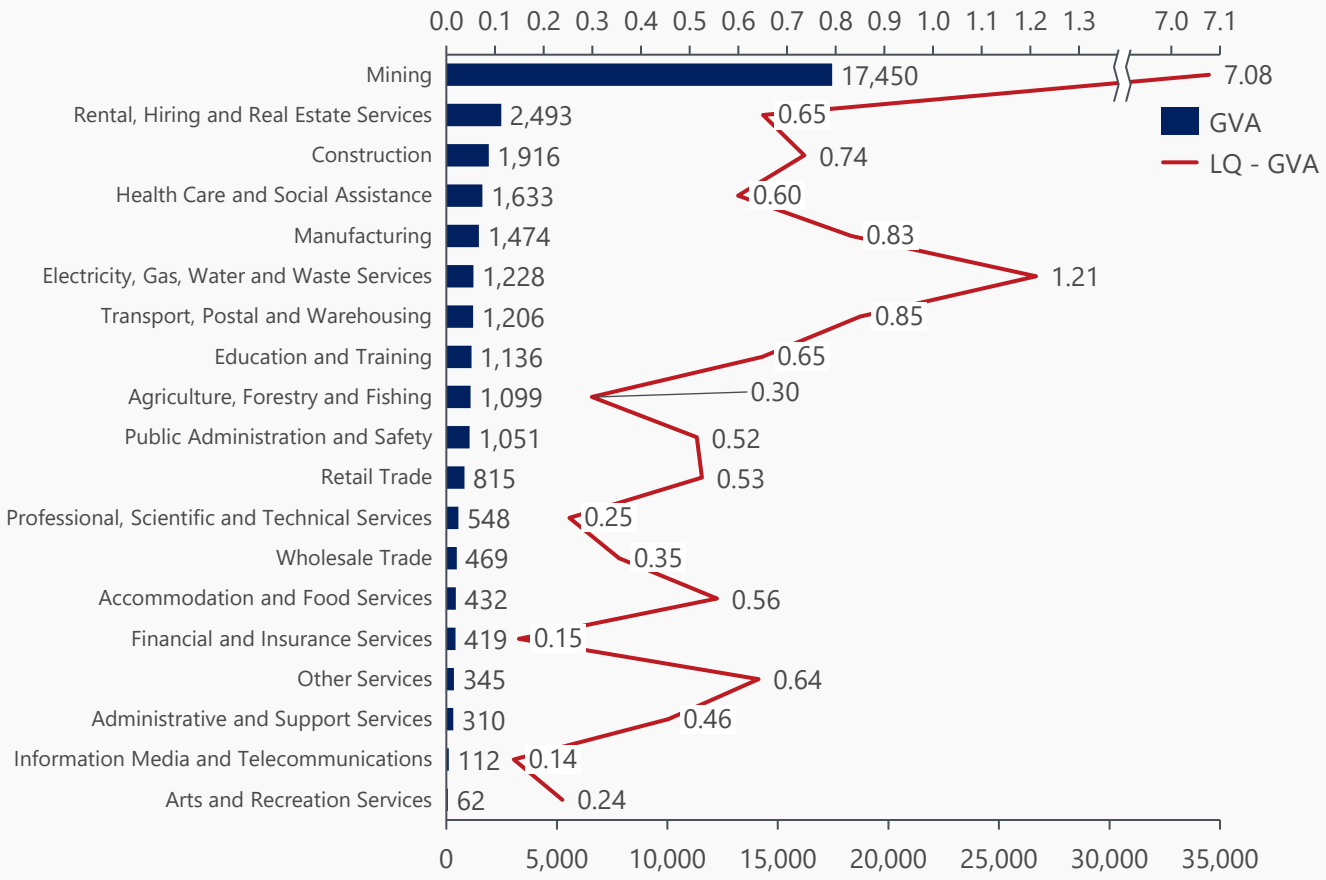
Complementary opportunities include minerals processing and green metals, drawing on the region's abundant reserves of copper, cobalt and other critical minerals. Advanced manufacturing linked to renewable components and low-carbon industrial products could strengthen supply chains and diversify the regional base. Circular economy initiatives also present scope, with energy-from-waste facilities, biofuels and biochemicals able to convert agricultural residues and waste streams into new inputs. Mine rehabilitation offers potential not only for environmental restoration but also for industrial land re-use and renewable precinct development.

Enabling and service-related industries are integral to this transition. Defence sustainment and maintenance builds on existing assets such as the Shoalwater Bay Training Area, while transport and logistics can expand through Central Queensland's established freight corridors and deep-water ports. Investment in digital infrastructure, including data centres, could also leverage the region's energy capacity and connectivity.

Together, these opportunities represent a pathway to diversify Central Queensland's economy, attract private capital, and create skilled employment, while maintaining its role as a national resource hub. The scale and timing of investment will depend on supportive policy, infrastructure delivery, and market conditions.

Industrial output in Central Queensland is overwhelmingly focused in mining.

GVA – 2024 GVA, Location quotients – Central Queensland region



Source: REMPLAN 2024

Industry trends in the Central Queensland region

Industrial output in Central Queensland is overwhelmingly concentrated in mining, which contributed an estimated $17.45 billion in GVA in 2024 and has a very high location quotient of 7.08, more than seven times the national average. This sector defines the regional economy, reflecting the scale of coal production in the Bowen and Galilee Basins and the associated export infrastructure at Gladstone, Hay Point and Abbot Point. Construction ($1.92b GVA; LQ=0.74) and transport, postal and warehousing ($1.21b; LQ=0.85) also play important enabling roles, underpinning resource activity and broader industrial development.

Electricity, gas, water and waste services contributed $1.23b in GVA and are moderately specialised (LQ=1.21), reflecting the concentration of generation assets and heavy industry. This positions the region for transition, with Gladstone emerging as a clean energy hub across hydrogen, renewables and storage. Manufacturing adds $1.47b in GVA (LQ=0.83), supported by engineering and processing capability but less concentrated than nationally. Together, these industries highlight Central Queensland's role as both a resource powerhouse and a foundation for new activity tied to the net zero shift.

Service industries add balance to the regional economy. Health care and social assistance contributed $1.63b GVA (LQ=0.60), alongside education and training ($1.14b; LQ=0.65) and public administration and safety ($1.05b; LQ=0.52). These reflect population demand and the importance of Rockhampton and Gladstone as service centres for the broader region. Retail trade ($815m; LQ=0.53) and accommodation and food services ($432m; LQ=0.56) support community and tourism activity, while agriculture, forestry and fishing contributed $1.10b GVA with a relatively low LQ of 0.30 despite its importance to beef and crop exports. Real estate ($2.49b GVA; LQ=0.65) and financial services ($419m; LQ=0.15) also account for notable output, reflecting both capital intensity and service sector activity.

Public facing documents and strategies were assessed against key criteria.

Criteria	Sub-criteria	1	2	3	4	5
Strategic priorities and comparative advantage	Identifies and targets comparative advantage	No reference to regional strengths or comparative positioning.	Mentions potential strengths but lacks clear targeting or rationale.	Identifies broad regional strengths, but limited justification.	Clearly articulates regional advantages with industry/economic basis.	Defines regional advantage with data, sectors, and strategic positioning.
	Targets high growth/high employment sectors	Does not mention target sectors or employment outcomes.	Mentions sectors broadly but lacks analysis or specificity.	Identifies sectors with some justification; lacks detail on employment impact.	Targets growth/employment sectors with some supporting evidence.	Targets high-employment, high-growth sectors with supporting analysis.
Priority investment opportunities	High priority investment opportunities are identified	No prioritisation of opportunities or vague general goals.	Some opportunities mentioned but not prioritised or scoped.	Identifies key sectors or industries but lacks project specificity.	Prioritised opportunities clearly identified, but detail varies.	Well-developed list of prioritised, investment-ready opportunities.
	Opportunities align with NZEA projects/sectors focus	No alignment or relevance to NZEA sectors/projects.	Vague mention of sectors that may overlap with NZEA.	General alignment to NZEA sectors, with implied relevance.	Strong alignment with NZEA sectors but not core framing.	Direct and deliberate alignment to NZEA focus areas and technologies.
Funding, infrastructure and enabling conditions	Infrastructure and enabling conditions identified	No enabling infrastructure mentioned or completely absent.	Lists general needs but does not connect to delivery or sequencing.	Enabling infrastructure needs listed with some planning detail, but limited costing or delivery information.	Infrastructure detail strong; partially integrated with development plans.	Sequenced, costed, and planned infrastructure enabling investment.
Coordination	Priorities shared across Cth, State and Region	No indication of shared priorities or integrated planning.	Minimal reference to inter-government coordination.	Coordination is implied through planning references.	Cross-government links or shared actions referenced.	Clearly aligned state/federal/regional priorities across tiers.
Governance and monitoring	Governance and coordinating mechanisms in place	No governance frameworks or partnerships described.	Limited or high-level governance references.	Outlines governance structure or local partnerships.	Governance structures defined with roles across levels.	Robust governance, including partnerships, councils, taskforces.

Lead times for each project were quantified and categorised as short, medium and long term.

Lead time classification by project type – Central Queensland region

Project Type	Months*	Term
Defence maintenance/sustainment	36	Short
Hydrogen	60	Medium
Defence manufacturing	36	Short
Green metals	60**	Medium
Minerals processing	36	Short
Energy from waste facilities	84	Long
LCLFs, biofuels and biochemicals from waste streams	48	Medium
Battery energy storage systems (BESS)	43	Medium
Renewables component manufacturing	30	Short
Pumped hydro energy storage	69	Long
Transport and logistics	48	Medium
Circular economy manufacturing	24	Short
Urea and ammonia production	36	Short
Food and fibre product manufacturing	24	Short
Offshore wind farms	115	Long
Solar farms	38	Medium
Onshore wind farms	47	Medium
Carbon capture, utilisation and storage (CCUS)	72	Long
Mine rehabilitation	N/A	N/A
Geothermal heating and power	84	Long
Data centres	18	Short

Lead times by project type and region were compiled using a range of sources. Lead time is defined as the period between project inception and the commencement of construction.

For energy-related project types (solar farms, onshore wind, offshore wind, BESS, pumped hydro, and hydrogen), estimates were derived from a proprietary econometric model developed by Oxford Economics for AEMO. This model draws on a national dataset of approximately 600 energy projects and provides state-specific estimates.

For non-energy project types, lead times were estimated by reviewing press releases and other public communications to identify the date of project inception and construction start. Australian examples were prioritised, though international sources were used where local precedents were unavailable (e.g. geothermal energy).

Lead times were then categorised according to the following designation, which broadly aligns with terciles of project type lead times:

- Short Term: 3 years or less
- Medium Term: 3 to 5 years
- Long Term: Over 5 years

No lead time is assigned to "mine rehabilitation" projects, as rehabilitation planning is typically required during active mining operations.

**Note these lead times include pre-construction approvals.*
*** The estimated timeframes on green metals projects can depend on availability of renewables like green hydrogen*

Construction and ongoing jobs have been quantified for each project based on the major project database and converted to a score.

Job Contribution classification by project type – Central Queensland region

Project Type	Average construction jobs	Average ongoing jobs p.a.	Job contribution score
Defence maintenance/sustainment	367	600	5.00
Hydrogen	790	383	5.00
Defence manufacturing	148	263	3.00
Green metals	700	200	3.00
Minerals processing	206	138	2.00
Energy from waste facilities	539	385	4.00
LCLFs, biofuels and biochemicals from waste streams	733	103	3.00
Renewables component manufacturing	820	702	5.00
Pumped hydro energy storage	600	39	2.00
Transport and logistics	312	266	4.00
Urea and ammonia production	1359	300	4.00
Battery energy storage systems (BESS)	148	7	1.00
Food and fibre product manufacturing	528	110	2.00
Circular economy manufacturing	132	36	1.00
Offshore wind farms	1466	198	4.00
Solar farms	249	18	1.00
Onshore wind farms	286	19	1.00
Carbon capture, utilisation and storage (CCUS)	1504	683	5.00
Mine rehabilitation	317	176	3.00
Geothermal heating and power	358	68	2.00
Data centres	217	40	1.00

Estimates of average employment (by headcount) for each project type were sourced from a range of materials.

For approximately half of the project types, average construction and ongoing job estimates were calculated by taking the mean of reported figures for projects listed in the Major Projects database. To address incomplete data and preserve available information, missing construction or ongoing job counts were imputed using a ratio between construction and ongoing employment derived from entries with complete data.

Where fewer than three projects had available job data for a given type, additional desktop research was undertaken to identify comparable projects domestically and internationally. In all cases, a minimum of three projects with relevant construction and ongoing job estimates were identified to support the averaging process.

To calculate a job contribution score, estimated “job years” were derived for each project type. This assumed a project operational life of 10 years, beyond which ongoing jobs were not counted. The resulting job years were then ranked into quintiles to generate the contribution score.

Projects were scored based on their importance and prevalence across local, state and commonwealth strategies and polices.

Policy alignment classification by project type – Central Queensland region

Project Type	Local Alignment	State Alignment	Cth Alignment	Major Project Alignment	Policy Rating
Defence maintenance/sustainment	1	1	1	1	5.00
Hydrogen	1	0	1	1	4.00
Defence manufacturing	1	1	1	1	5.00
Green metals	1	0	1	1	4.00
Minerals processing	1	1	1	1	5.00
Energy from waste facilities	0	0	1	1	3.00
LCLFs, biofuels and biochemicals from waste	0	1	1	1	4.00
Battery energy storage systems (BESS)	1	1	1	1	5.00
Renewables component manufacturing	1	1	1	0	4.00
Pumped hydro energy storage	1	1	0	1	4.00
Transport and logistics	1	1	0	1	4.00
Circular economy manufacturing	1	1	1	1	5.00
Urea and ammonia production	1	0	1	1	4.00
Food and fibre product manufacturing	1	1	1	1	5.00
Offshore wind farms	0	0	1	0	2.00
Solar farms	1	1	1	1	5.00
Onshore wind farms	1	1	1	1	5.00
Carbon capture, utilisation and storage (CCUS)	0	0	1	0	2.00
Mine rehabilitation	0	0	0	0	1.00
Geothermal heating and power	0	0	0	0	1.00
Data centres	0	0	1	0	2.00

To determine a policy alignment rating for each project type, we reviewed key local, state, and Commonwealth policy documents. Where a document explicitly identifies a project type, we increase its policy alignment score by one. A further point is added if a project of that type appears in the region's Major Project listing.

This results in a score ranging from 1 to 5. A score of 5 indicates strong policy alignment (i.e. the project type is prioritised across multiple levels of government and is present in the regional project pipeline), while a score of 1 reflects minimal alignment (i.e. the project type is not mentioned in local, state, or federal policy, and no related projects are identified as upcoming in the region).

The policy documents reviewed include those nominated by NZEA, as well as additional sources identified by Oxford Economics.

At the state level for QLD, these included:

- *Queensland 2025-2026 State Budget*
- *Queensland Treasury Strategic Plan 2025-2029*
- *Economic Development Queensland Strategic Plan 2025-2029*
- *Trade and Investment Queensland Strategic Plan 2025-2029*
- *Regional Transformation Strategy 2024*
- *Primary Industries Prosper 2050, Department of Primary Industries, Queensland*

At the regional level, documents included:

- *Banana Shire Investment Prospectus 2025 (inc. for Biloela Industrial Estate)*
- *Central Highlands Workforce Development and Accommodation Strategy*
- *CQROC Defence Strategy*
- *CQROC Strategic priorities*
- *Gladstone Regional Economic Development Strategy 2021-2025*
- *Gladstone Economic Transition Roadmap 2022-2032*
- *Rockhampton Region Economic Development Strategy 2023-2028*
- *Central Highlands Workforce Development and Accommodation Strategy*
- *Central Highlands 2043 Community vision*
- *Livingston Shire Council Economic Growth and Investment Strategy Blueprint 2030*

Comparative advantage scores were informed through an assessment of industry, workforce, endowments and infrastructure.

Comparative advantage scoring system

Each project type was assigned a comparative advantage score on a five-point scale:

1. No alignment with regional strengths or capabilities
2. Minimal alignment; limited local advantages
3. Moderate alignment with some key strengths (e.g. workforce or land)
4. Strong alignment with multiple comparative advantages
5. Excellent alignment; leverages core regional assets and priorities

Comparative advantage factors considered

The assessment considered the following dimensions of regional advantage:

- **Natural resources** – availability of physical assets such as land, water, raw materials, critical minerals and renewables potential (MW), that provide a foundation for economic activity.
- **Industrial base** – industrial advantages (LQs, GVA) and growth rates (% CAGR), and related supply chains, with potential for growth, diversification, and value-adding.
- **Infrastructure readiness** – deepwater ports, rail networks, highways, intermodal hubs, water and energy infrastructure, higher education and training facilities, and health and community infrastructure
- **Workforce and skills** – concentrations of skilled trades, specialisations, R&D and knowledge workers, and vocational training, with assessment of educational institutions.
- **Precincts and clusters –** established and emerging hubs of economic activity, supported by co-located businesses, infrastructure, training facilities, and supply chains.

The comparative advantage scores assigned to different project types in Central Queensland were designed to capture the degree to which each opportunity leverages the region's unique economic, industrial and workforce strengths. This assessment provides a foundation for identifying the projects most likely to deliver new, sustainable economic opportunities during the transition to net zero. Because the factors underpinning comparative advantage vary across project types, the scoring relied on structured qualitative assessment informed by the most relevant indicators for each industry.

This approach resulted in higher scores for industries such as hydrogen, green metals and minerals processing, defence sustainment, and defence manufacturing, which align strongly with Central Queensland's industrial base, infrastructure and workforce capabilities. Hydrogen projects scored highly due to Gladstone's designation as a hydrogen hub, access to renewable energy resources, deepwater port infrastructure for exports, and transferable skills from the energy and resources workforce.

Green metals and minerals processing leveraged Gladstone's existing alumina refineries, smelters, and heavy industry ecosystem, combined with abundant critical mineral deposits. Defence sustainment was underpinned by the presence of the Shoalwater Bay Training Area, Rockhampton Airport, explosives reserves, and strong logistics corridors, providing a ready platform for long-term sustainment and logistics contracts. Defence manufacturing scored highly through the region's heavy engineering and fabrication base, workforce skills in advanced trades, and strong policy alignment with national sovereign capability agendas.

By contrast, project types such as food and beverage processing, biofuels, or circular economy manufacturing achieved mid-range scores, reflecting some but not comprehensive alignment. The assessment for ICT and digital services, demonstrated limited ecosystem depth and potential latency issues compared to major cities.

In summary, the comparative advantage framework highlights where Central Queensland's endowments provide the strongest platform for investment, guiding prioritisation of opportunities most likely to succeed and deliver long-term regional benefits

Developments in QLD require environmental authority, substantial coordination with local government and context-specific triggers such as defence and heritage assessments.

Phase	Approval	Relevant Legislation	When It's Required
Early Development	Strategic Planning and Policy Alignment	N/A (strategic/policy context)	• Initial internal planning and alignment with national/state net zero or energy transition strategies.
	Qld Energy Plan & Zoning Support	Queensland Energy and Jobs Plan*	• Required if project is located within a Renewable Energy Zone.
	Commonwealth programs (e.g. ARENA, CEFC)	ARENA Act 2011, Clean Energy Finance Corporation Act 2012 (Cth)	• Applies when seeking Commonwealth funding or concessional finance for feasibility or project development.
	Preliminary stakeholder engagement	N/A	• Undertaken for all projects to manage social licence, Indigenous engagement, and community support.
	Strategic Cropping Land Trigger Map Assessment	Regional Planning Interests Act 2014 (Qld)	• Required if mapped land is affected
	Initial Defence clearance	Defence Act 1903 (Cth)	• Applies if the project is located near military zones or may interfere with defence operations or radar.
	Commonwealth aviation review (CASA)	Airspace Protection Regulations under the Civil Aviation Act 1988 (Cth)	• Required for tall structures (e.g., wind turbines) near flight paths or controlled airspace.
	ARENA/CEFC early feasibility stage	ARENA Act 2011, CEFC Act 2012	• Optional but common if applying for early-stage grant funding or concessional finance.
	Offshore Wind Pre-Licensing	Offshore Electricity Infrastructure Act 2021 (Cth)	• Required for feasibility rights within a declared offshore wind zone under the Offshore Electricity infrastructure Act (2021).
Environmental Planning & Development Approvals	Environmental Authority (EA) and Environmental Impact Statement (EIS)	Environmental Protection Act 1994	• Required for large-scale energy, infrastructure or industrial projects based on investment size or REZ location.
	Development Application (Material Change of Use)	Planning Act 2016	• Often coordinated with local council or the State Assessment and Referral Agency (SARA)
	EPBC Act Referral & Approval	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	• Mandatory if the project is likely to impact Matters of National Environmental Significance (MNES).
	Aboriginal Heritage Duty of Care	Aboriginal Cultural Heritage Act 2003	• Required if development has the potential to impact Aboriginal objects or places of cultural significance. Generally mandatory for all land-based developments.
	Vegetation Management Assessment	Vegetation Management Act 1999	• Required if clearing remnant or regulated vegetation.
	Water Act Permit	Water Act 2000 (Qld)	• Needed for water extraction, groundwater interference, or discharge into waterways.
	Offshore Infrastructure Licence	Offshore Electricity Infrastructure Act 2021 (Cth)	• Needed to progress feasibility studies in declared offshore wind zones.
	Formal Defence Clearance	Defence Act 1903 (Cth)	• Applies if Defence identifies unacceptable risks after initial consultation.

**Legislation anticipated to be replaced by the Energy Roadmap Amendment Bill 2025 (yet to be passed).*

Typical later stage approvals include grid connection agreements, registration with AEMO, CEMP and operational stage environmental authority.

Typical Timing	Approval	Relevant Legislation	When It's Required
Environmental Planning & Development Approvals (continued)	Aviation Obstacle Assessment	Civil Aviation Act 1988 (Cth)	• Required for formal confirmation that the structure does not pose aviation risks.
	IRMP (Industrial Relations Management Plan)	Varies (often required under project-specific agreements)	• Applies to government-backed or labour-intensive projects to ensure fair workforce practices.
Financial & Network	Grid connection agreement	National Electricity Law / Rules	• Required to connect to the transmission or distribution network (e.g. Transgrid, DNSP).
	Registration with AEMO	National Electricity Rules (NER)	• Applies to market participants such as generators, retailers, or scheduled loads.
	Revenue model / offtake arrangements	Varies (e.g., contract law, underwriting guidelines)	• Required to underpin investment through PPAs, long-term contracts, or government underwriting.
	Pipeline Licence (Hydrogen or CCS)	Petroleum and Gas (Production and Safety) Act 2004	• Needed for the transport of hydrogen, CO2, or other products via pipeline.
	Electricity Generation Licence	Electricity Act 1994 (Qld)	• Applies to parties generating or retailing electricity above licensing thresholds.
	Offshore Wind Commercial Licence	Offshore Electricity Infrastructure Act 2021 (Cth)	• Required to construct and operate offshore generation assets post-feasibility.
Construction	Construction Environmental Management Plan (CEMP)	Planning Act 2016 or EA condition (Qld)	• Required prior to construction commencement
	QBCC Construction Permit	Queensland Building and Construction Commission Act 1991 (Qld)	• Required for licensed building works
	Environmental Authority (operational stage)	Environmental Protection Act 1994 (Qld)	• Converts EA into operating licence
	Fire and Emergency Management Plan	Fire Services Act 1990 (Qld); Building Fire Safety Regulation 2008 (Qld)	• Compliance is mandatory as the Fire Services Act 1990 sets the framework for fire safety and emergency response, influencing building design and fire safety measures

The approvals process timeline ranges from 36 months for green ammonia plants to 115 months for offshore wind.

Project Type	Early Development	Environmental Planning & Development Approvals	Financial & Legal Approvals	Construction & Commissioning	Typical Lead Time to Construction
Offshore Wind	Offshore feasibility licence, seabed lease, Defence clearance	EA and EIS (marine, fisheries, aviation, noise), EPBC (if triggered), Marine Park Permits, Offshore Infrastructure Licence (Cth), CASA, Defence clearance	Grid Connection Agreement, Commercial Licence	CEMP, Offshore Wind Commercial Licence	**115 months**
Hydrogen Electrolyser	ARENA/CEFC support, land access	EA and EIS (noise, water, waste), EPBC (if triggered), Water Act Licence, Effluent Licence, Nature Conservation Act, Aboriginal Cultural Heritage Act 2003 (Qld)	MHF Licence, EPL, Grid Connection Agreement	CEMP, Delivery Management Plan	**60 months**
Transmission Line	Critical infrastructure declaration, land access	EA EIS (visual, noise, biodiversity), EPBC (if triggered), Water Act Licence, Biodiversity Offset, Aboriginal Heritage compliance	Landowner Consent, Grid Connection Agreement	Utilities Impact Plan, CEMP	**53 months**
Hydrogen/Ammonia Pipeline	Land corridor selection, border engagement	EA and EIS (groundwater, flora/fauna, risk), Pipeline Licence, EPBC (if triggered), Nature Conservation Act, CASA (if height threshold), Aboriginal Cultural Heritage Act 2003 (Qld) compliance	Cross-border Permit, Pipeline Licence	Pipeline Management Plan, CEMP	**48 months**
Onshore Wind	REZ support, land access, aviation review	EA and EIS (visual, noise, biodiversity), EPBC (if triggered), Nature Conservation Act, Water Act Licence, Biodiversity Offset, CHMP, CASA	Grid Connection Agreement, Aboriginal Cultural Heritage Compliance	CEMP, Easement Acquisition	**47 months**
Battery (BESS)	Land access, local council engagement	EA and EIS (risk, noise, safety), Development Approval (Planning Act), EPBC (if triggered), Aboriginal Heritage compliance	MHF Licence, EPL, Grid Connection Agreement	Emergency Plan, CEMP	**43 months**
Solar Farm	REZ support, land access, ARENA/CEFC	EA and EIS (BDAR, noise, visual, heritage), EPBC (if triggered), Biodiversity Offset, Aboriginal Heritage compliance	Aboriginal Cultural Heritage Act compliance, Grid Connection Agreement	CEMP, Construction Approvals	**38 months**
Green Ammonia Plant	ARENA/CEFC support, land access	EA and EIS (emissions, risk, heritage), EPBC (if triggered), Water Act Licence, Effluent Licence, Aboriginal Heritage compliance	MHF Licence, EPL, Grid Connection Agreement	CEMP, Safety Risk Plan	**36 months**

GVA and employment effects are estimated based on construction and operational spend, employment and local content proportions.

Estimating GVA and employment effects

As indicated in the investment opportunity section of this report, for each project type, estimates of the construction and annual ongoing spend, employment contribution, and GVA contribution were derived.

Average construction spend, and direct construction and annual ongoing employment impacts are taken as averages from publicly available project information. Where possible, this was sourced from the major project list (that is, the estimates derived reflect the averages of proposed and upcoming projects across the Hunter Region, Latrobe Valley and Central Queensland region). ongoing spend was not sourced from projects due to a lack of data. In cases where a low number of projects were identified across these regions, desktop analysis was undertaken to identify comparable projects from either outside these regions domestically, or where this was not possible, internationally. To estimate the construction and ongoing GVA and ongoing Spend, several data were acquired, including:

- An estimate of the construction spend.
  This was sourced using averages from the major project list. In cases where there were not enough projects on the major project list, estimates of construction spend were sourced from other projects domestically.

- An estimate of the ratio between construction and ongoing spend.
  Desktop research was undertaken for each project type to identify the approximate ratio between construction and ongoing spend using exemplar projects. Once again, domestic projects were prioritised, but where data was not available, international projects were used in their place.

- Estimated profiles on the proportional distribution of construction and ongoing spend (note: separate profiles for construction and ongoing) across 1-digit ANZSIC industries for each project type.
  For each prioritised project type, this was inferred using a combination of: 1) detailed cost breakdowns and technical documentation on construction and ongoing spend where available, and; 2) professional judgement based on available documentation where quantitative estimates were not readily available.

- Estimated domestic local content proportions assumptions at a 1-digit ANZSIC industry level for each prioritised project type
  Likewise, for each prioritised project type, the proportion of local content in the estimated spend in each ANZSIC industry was derived. That is, the proportion of spend that was not spent on sourcing inputs from overseas.

- Ratios between the gross output and GVA of 1-digit ANZSIC industries at a national level
  These were sourced using industry value-added coefficients (GVA per dollar of output), applied with the domestic A-matrix (direct allocation of imports).

Using these data, we first estimated for each prioritised project type the average annual ongoing spend. Then, construction and ongoing spend was decomposed into ANZSIC 1-digit industries, and local content proportion assumptions were made. Finally, gross output to GVA ratios were used to infer GVA contribution. We further note that we have not considered either indirect (supply chain) or induced (employee spending-driven) GVA or employment effects due to the small regions under consideration.

The following project types have been defined to support the analysis.

Project type definitions – Central Queensland region

Project Type	Definition
Offshore wind farms	Large-scale wind turbines located offshore to generate electricity from wind resources. Does not include any infrastructure beyond landfall.
Hydrogen	Production, storage, or distribution of green hydrogen (hydrogen produced using renewable energy).
Transport and logistics	Facilities or terminals focused on the moving of goods and materials efficiently between locations. Does not include roads or rail.
Food and fibre product manufacturing	Processing agricultural outputs into food, textiles or related products.
Energy from waste facilities	Plants that convert waste materials into usable energy.
Carbon capture, utilisation and storage (CCUS)	Technology capturing and storing CO2 emission, or otherwise reusing CO2 emissions before, or instead of, storage.
Renewables component manufacturing	Production of parts and equipment for renewable energy systems. This includes parts for renewable-facilitating technologies, such as batteries.
Circular economy manufacturing	Manufacturing using recycled inputs or designed for reuse and minimal waste.
Defence maintenance/sustainment	Ongoing repair, servicing and support for defence assets and equipment.
Urea and ammonia production	Facilities producing ammonia or urea, and associated chemicals (e.g. nitric acid, ammonium nitrate).
LCLFs, biofuels and biochemicals from waste streams	Production of fuels and chemicals from waste materials.
Defence manufacturing	Fabrication of weapons, vehicles and equipment for defence forces.
Solar farms	Large-scale installations generating electricity from photovoltaic solar panels.
Battery energy storage systems (BESS)	Facilities storing electricity in batteries for later use.
Green metals	Low-carbon production and processing of metals.
Geothermal heating and power	Energy generation or heating using underground geothermal heat.
Mine rehabilitation	Restoration and remediation of land disturbed by mining activities.
Onshore wind farms	Land-based wind turbines generating electricity from wind resources.
Minerals processing	Refining and transforming raw minerals into usable materials or products.
Data centres	Facilities housing computer systems for data storage, processing, and management.
Pumped hydro energy storage	Facilities storing electricity by pumping water uphill and releasing downhill.

REFERENCES

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1. NZEA (2025) Identifying the Net Zero Economy Authority's regions of focus. Available here.
2. Queensland Government. Queensland SuperGrid Infrastructure Blueprint. September 2022. Available here:
3. ABC News. "*Queensland government announces review of greenhouse gas emission reduction targets*". 8 April 2025. Available here:
4. ABC News. "*Moonlight Range Wind Farm project axed by Queensland government*". 26 May 2025. Available here:
5. ABC News. "'*Chaotic signals' from Queensland government causing uncertainty and wavering investor confidence in renewable energy sector*". 20 June 2025. Available here:
6. Department of Industry, Science, and Resources. Commonwealth of Australia Resources and Energy Quarterly. June 2025. Available here:
7. CQU. School of Trades. Available here:
8. CQU. Institute for Future Farming Systems. Available here:
9. CSIRO. H2-Hub™ Gladstone. 24 September 2024. Available here:
10. Department of Transport and Main Roads. Inland Rail. 5 August 2025. Available here:
11. Australian Government. Australia - Singapore Military Training Initiative. Available here:
12. CQROC. Central Queensland's role in enabling the ADF to shape, deter and respond. May 2022. Available here:
13. Gladstone Regional Council. Central to Defence. Available here:
14. Rio Tinto. Yarwun Hydrogen Calcination Pilot. Available here:
15. AGIG. Hydrogen Park Gladstone. Available here:
16. ARENA. "*A Roadmap for Decarbonising Australian Alumina Refining*". November 2022. Available here:
17. Alpha HPA. Projects. Available here:
18. The Energy. Gladstone Green Iron. Available here:
19. ABC News. "*Developers dump Gladstone's Central Queensland Hydrogen Project CQH2*". 30 June 2025. Available here:
20. Australian Government. Defence Industry Development Strategy. 2024. Page 33. Available here:
21. Australian Energy Council (2024) Australia's green hydrogen ambitions soldiering on despite adversity. Available here.
22. ABC News. "*Federal government 'surprised and disappointed' by Queensland decision to end support for hydrogen project*". 4 February 2025. Available here:
23. The Guardian. "*Fortescue axes two green hydrogen projects after Trump administration's shift on renewables*". 25 July 2025. Available here:
24. Gladstone Area Water Board. Fitzroy to Gladstone Pipeline. Available here:
25. CQU. "*New CQUniversity Gladstone facility set to enhance Gladstone's role as a leading region for advanced manufacturing*". 15 December 2022. Available here:
26. CQROC. Central Queensland's role in enabling the ADF to shape, deter and respond. May 2022. Available here:
27. Department of Defence (2025) Defence Industry Security Program. Available here.
28. Rockhampton Regional Council. "*Rockhampton businesses aim for defence manufacturing opportunities*". 21 February 2025. Available here:
29. DCCEEW. Australian Energy Statistics - Update Report. 2025. Available here:
30. Naoise McDonagh."*More than Money: How Australia Can Help Build a Sustainable Strategic Minerals Supply Chain*". 1 April 2025. Available here:
31. Naoise McDonagh."*More than Money: How Australia Can Help Build a Sustainable Strategic Minerals Supply Chain*". 1 April 2025. Available here:
32. DISR. Critical Minerals Strategy 2023-2030. Available here:
33. DCCEEW. Hydrogen Headstart program. Available here:

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