Queensland renewable energy – a state of opportunity

Share in Queensland’s cleaner-energy future

Renewable energy represents a key priority for the Queensland Government, which has set a target to have 50% of Queensland’s energy generation coming from renewable sources by 2030 to reduce emissions, address climate change, create new jobs and diversify the state’s economy.

This target, combined with broader Australian renewable energy goals, means there is strong support for projects that drive the state towards a cleaner-energy future.

The Queensland Government has developed a comprehensive range of initiatives to:

- incentivise the expansion of renewable energy in the state
- prioritise the unlocking of Queensland’s renewable energy resource potential
- establish the state as a renewable energy leader.

Further information on Queensland’s renewable energy target is available from the Department of Natural Resources and Energy in its Powering Queensland Plan, at dnrme.qld.gov.au

Renewables 400

Under the Powering Queensland Plan, the Queensland Government conducted a reverse auction for up to 400MW of renewable energy capacity, including 100MW of energy storage.

The auction process also considered standalone renewable energy projects, standalone energy storage projects and integrated renewable and energy storage projects.

The auction process aimed to:

- diversify the sources of Queensland’s electricity generation
- support system security and reliability
- accelerate the deployment of energy storage in Queensland.

Renewables opportunities for investors

Queensland has more than 780MW of operational renewable generation. A surge in investment since 2016 has seen projects generating more than 2200MW of power commence construction or finalise commercial arrangements.

The state’s key renewable energy strengths and opportunities are in the following areas.

Large-scale solar

- Queensland has a strong pipeline of solar projects in development or under construction. Photovoltaic rooftop solar (PV) is widespread across the state, and the number of commercial and industrial solar PV arrays is growing.

Energy storage

- Wivenhoe Power Station is a 500MW pumped-storage hydroelectric plant. A number of large-scale solar and wind projects currently in development include battery storage or will be constructed battery-ready.
Queensland renewable energy investment opportunities

Geothermal
> Queensland has Australia’s only operational geothermal plant, located in Birdsville.

Wind
> Queensland also has pockets of world-class wind resources, particularly in the state’s north.

Biomass
> Most of Queensland’s large-scale renewable energy generation is from biomass. Half of the biomass facilities in Queensland use bagasse as fuel, reflecting the state’s strong sugarcane industry.

Hydroelectric
> Hydro is Queensland’s other major large-scale renewable source, with several projects operating throughout the state.

Understanding Queensland’s energy sector

Generation
The Queensland generation sector has a mix of government and private ownership. Government-owned corporations have a stake in about 65% of the state’s generation capacity, although the number of power stations that are owned partially or fully by private operators has increased over the past decade.

Areas of Queensland are connected to the National Electricity Market (NEM), which is the wholesale market supplying electricity into the interconnected grid that powers most of eastern and southern Australia.

The NEM does not extend to every city, town or community in Queensland — some areas rely on generators operating outside the NEM to send out electricity into isolated networks.

Transmission
Queensland has nearly 14,000km of high-voltage transmission network owned and operated by Powerlink, a Queensland Government-owned corporation that transports electricity from the generators to the distribution networks, and directly to large customers.

Distribution
The Queensland Government owns the state’s distribution network under Energy Queensland Limited, a merger of Ergon Energy and Energex.

Retailers
The state has 27 privately owned licensed retailers. Government-owned Ergon Energy also provides retail services to regional Queensland, where the electricity market is mostly subsidised.


Leasing of Queensland Government land
As the largest land owner in Queensland, the Queensland Government has released the Advancing Our Cities and Regions Strategy, an innovative approach to renewing and repurposing surplus and under-utilised state property.

Government-owned land in regional Queensland assessed as suitable for large-scale renewable energy developments will be leased to renewable energy proponents.

CleanCo
The Queensland Government is proceeding with the establishment of CleanCo, Queensland’s third government-owned energy generation company. CleanCo will have a focus on renewable energy generation and a strategic portfolio of low- and no-emission power generation assets, including the Wivenhoe pumped storage hydropower plant, Swanbank E, Barron Gorge, Kareeya and Koomboolooomba power stations. Going forward, CleanCo will also build, construct, own and maintain renewable energy generation.

The government is currently establishing the company and aims to start trading in the National Electricity Market by mid-2019, subject to receiving regulatory approvals.

CleanCo is expected to initially include 1000MW of renewable energy assets and the government will also be making an initial injection of $250 million to invest in new renewable projects, likely solar, wind and hydro.

Once established, CleanCo will create value by transforming intermittent renewable energy into a firm financial product, offering retailers and customers firm and reliable baseload power, backed by the state’s low-emission and renewable assets.

Australian Government support for renewables

Renewable Energy Target
Australia’s Renewable Energy Target (RET) for large-scale generation is 33,000 gigawatt hours (GWh) by 2020, meaning that about 23.5% of Australia electricity generation should come from renewable sources by that time.

The RET requires electricity retailers to source a proportion of their energy from renewable sources. Retailers comply with the scheme by obtaining renewable energy certificates created for each MWh of eligible renewable electricity that an accredited power station generates. This scheme will be closed to new entrants from 2020, or when the generation target is met.
The Queensland and Australian governments are currently considering a policy to replace the RET from 2020. The proposed National Energy Guarantee would require retailers to purchase a share of their electricity load from low emissions generation sources.

**Clean Energy Finance Corporation**
The Clean Energy Finance Corporation (CEFC) provides financing solutions across the clean-energy sector, spanning renewable energy, low-emissions technologies and energy efficiency. The CEFC co-finances and invests, directly and indirectly, in clean-energy projects and technologies.

**Australian Renewable Energy Agency**
The Australian Renewable Energy Agency (ARENA) is a commercially oriented agency that was established on 1 July 2012 under the Australian Renewable Energy Agency Act 2011. ARENA’s objectives are to improve the competitiveness of renewable-energy technologies and increase the supply of renewable energy in Australia.

ARENA provides funding to projects that advance renewable-energy technologies or innovate systems that increase renewable energy in our energy mix.

**Key government contacts**
All three levels of Australian government may be involved in renewable-energy investment or regulations.

**National agencies**
- Department of Environment and Energy – Designs and implements the Australian Government’s policies and program to protect and conserve the environment, water and heritage and promote climate action.
- Clean Energy Finance Corporation
- Australian Renewable Energy Agency

**Queensland agencies**
- Department of Natural Resources, Mines and Energy – regulating authority for energy
- Department of State Development, Manufacturing, Infrastructure and Planning – general project facilitation and coordination and industry facilitation services
- Economic Development Queensland – Land Use Planning and Property Development Unit
- Trade and Investment Queensland – international trade and investment agency
- Energy Queensland – Ergon and Energex
- Powerlink

**Local councils**
A local council development application is required for many projects. TIQ suggests viewing the local government electoral boundaries to identify the location and applicable council jurisdiction, if you will need to lodge an application.

**For more information**
To find out how Trade and Investment Queensland can help you with your investment inquiry, please contact:

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