



Department of Energy and Public Works

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## Queensland's renewable energy target

In 2015, we started a renewable energy boom in Queensland to reduce emissions, create new jobs and diversify the state's economy by establishing a 50% renewable energy target by 2030.

Queensland now boasts 50 large-scale renewable energy projects (operating, under construction or financially committed) since 2015. This represents more than \$10 billion of investment, around 7,900 construction jobs, 5,774 megawatts (MW) of clean energy and more than 13.8 million tonnes of avoided emissions each year (current as at 1 July 2022).

Combined with rooftop solar, the state has more than 7,600MW of renewable energy capacity, putting downward pressure on electricity prices.

In total, 21.4% of electricity used in Queensland is produced from renewable energy sources (current as at 1 July 2022).

## Queensland energy plan

On 10 June 2021, the Premier, the Honourable Anastacia Palaszczuk, commissioned the Minister for Energy, Renewables and Hydrogen and Minister for Public Works and Procurement to develop an [energy plan for Queensland](https://www.epw.qld.gov.au/about/initiatives/cheaper-cleaner-energy) (<https://www.epw.qld.gov.au/about/initiatives/cheaper-cleaner-energy>).

The energy plan will outline how the Queensland Government will achieve our renewable energy target and ensure a sustainable and affordable energy future for Queenslanders. Opportunities arising from the next wave of renewable projects will provide benefits for local communities, workers and our economy.

## Renewable energy tracker

Queensland is on track to meet this target.

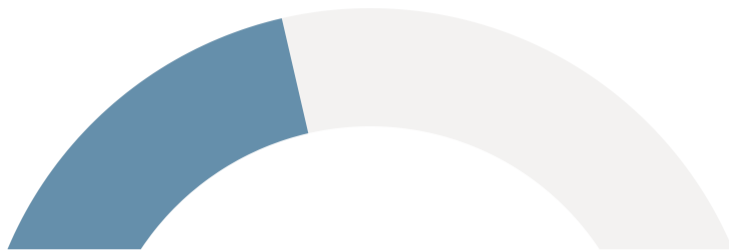
This table shows the monthly average over the last 12 months.

### Queensland's renewable energy percent

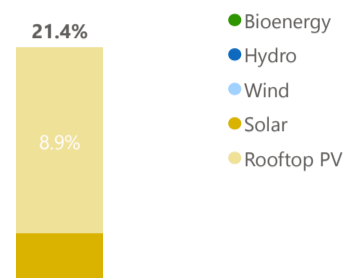
Period	Percent renewable
Aug-2020 to Jul-2021	19.6%
Sep-2020 to Aug-2021	19.7%
Oct-2020 to Sep-2021	19.9%
Nov-2020 to Oct-2021	20.0%
Dec-2020 to Nov-2021	20.0%
Jan-2021 to Dec-2021	20.4%
Feb-2021 to Jan-2022	20.5%
Mar-2021 to Feb-2022	20.9%
Apr-2021 to Mar-2022	21.1%
May-2021 to Apr-2022	21.3%
Jun-2021 to May-2022	21.2%
Jul-2021 to Jun-2022	21.4%

This graph shows Queensland's renewable energy generation as a percentage of consumption over the last 12 months.

Queensland's renewable energy past 12 months



Renewable mix past 12 months



## How the estimates are calculated

The Queensland renewable energy target (QRET) requires that 50% of Queensland's electricity consumption is sourced from renewables by 2030.

Queensland already has significant renewable generation capacity and there are times when renewable generation exceeds 50% of Queensland's consumption. However, there are variations in resource availability and dispatchability of both renewable and non-renewable generation.

As recommended in the final report of the [Renewable Energy Expert Panel \(PDF, 2634.97 KB\)](https://www.epw.qld.gov.au/data/assets/pdf_file/0016/16018/qreep-renewable-energy-target-report.pdf), the renewable energy percentage is calculated as the ratio of renewable generation to consumption.

$$\text{Percentage of renewable energy in Queensland} = \frac{\text{All renewable generation in Queensland}}{\text{All energy consumed in Queensland}} \times 100$$

The calculation of Queensland's renewable energy percentage relies on publicly available data from AEMO, supplemented by Department estimates for generators where AEMO data is not available (typically smaller generators below 30MW in capacity).

The Department seeks to assess the contribution of every renewable generator to calculate the total renewable generation in Queensland. This includes renewable generation not collected by AEMO such as small hydro and small bagasse plants which were Queensland's very first renewable facilities. The department also refers to data from the Clean Energy Regulator.

Generally, the department utilises 5-minute metered generation data whenever possible. Where this option is not available, the department either relies on AEMO estimates or makes its own estimates when AEMO estimates are not available using the enerav

## Large-scale renewable energy projects

Queensland is accelerating towards its 50% renewable energy target, and now boasts numerous large-scale renewable energy projects (operating, under construction or financially committed).

## Statistics for large-scale (>5MW) operational, under construction or financially committed projects since 2015

Number of large-scale projects	50
Investment (AU\$ billion)	10.5

The clean energy generated from small-scale rooftop solar will play a key role in helping Queensland reach our 50% renewable energy target.

Already, more than 700,000 homes and small businesses across Queensland now have rooftop solar and generate around 4,100MW of clean energy.

Queensland has the highest rate of household rooftop solar installations in Australia, with 1 in 3 homes using solar.

## Renewable energy initiatives

### Queensland renewable energy zones (QREZ)

The \$145 million [QREZ initiative](https://www.epw.qld.gov.au/about/initiatives/renewable-energy-zones) (<https://www.epw.qld.gov.au/about/initiatives/renewable-energy-zones>) will grow Queensland's position as an investment destination for large-scale renewable energy projects, creating more regional jobs.

### Queensland Renewable Energy and Hydrogen Jobs Fund

The [Queensland Renewable Energy and Hydrogen Jobs Fund](https://www.treasury.qld.gov.au/programs-and-policies/queensland-renewable-energy-and-hydrogen-jobs-fund) (<https://www.treasury.qld.gov.au/programs-and-policies/queensland-renewable-energy-and-hydrogen-jobs-fund>) allows energy government-owned corporations to increase ownership of commercial renewable energy and hydrogen projects, and support infrastructure, including in partnership with the private sector.

### Borumba Dam Pumped Hydro: detailed design and cost analysis

The Queensland Government is investing \$22 million to investigate the potential to construct a [pumped hydro energy storage facility at Borumba Dam](https://www.epw.qld.gov.au/about/initiatives/borumba-dam-pumped-hydro) (<https://www.epw.qld.gov.au/about/initiatives/borumba-dam-pumped-hydro>), located near Imbil, 45 minutes south-west of Gympie.

### Clean energy in schools

The [Advancing Clean Energy Schools Program](https://qed.qld.gov.au/programs-initiatives/department/building-education/major-projects/cooler-cleaner-schools) (<https://qed.qld.gov.au/programs-initiatives/department/building-education/major-projects/cooler-cleaner-schools>) will deliver solar power and energy efficiency solutions for Queensland state schools.

### Solar 150 projects

Our [Solar 150](https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable/projects-queensland/solar-150) (<https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable/projects-queensland/solar-150>) program supports 4 projects through long-term revenue guarantees:

- Edify Energy's Whitsunday Solar Farm
- Genex's Kidston Solar Farm
- Canadian Solar's Longreach Solar Farm
- Oakey Stage 1.

## Solar for remote communities

In Queensland's far north, the [decarbonising remote communities program](https://www.epw.qld.gov.au/about/initiatives/solar-remote-communities) (<https://www.epw.qld.gov.au/about/initiatives/solar-remote-communities>) has seen renewable energy systems installed in 4 Indigenous communities.

## CleanCo

In 2019, [CleanCo](https://cleancoqueensland.com.au) (<https://cleancoqueensland.com.au>) was established as Queensland's first publicly owned clean energy company to deliver affordable clean energy for Queenslanders.

CleanCo has entered into a power purchase agreement with Acciona to support 400MW of new capacity at the MacIntyre Wind Farm. This complements a further 102MW of capacity at the site that will be owned and operated by CleanCo—adding to the state's publicly owned electricity assets.

## Renewables 400

The Queensland Government initiated the [Renewables 400](https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable/projects-queensland/renewables-400) (<https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable/projects-queensland/renewables-400>) reverse auction for up to 400MW of renewable energy capacity. Ten projects were shortlisted to progress to the next stage. CleanCo delivered Renewables 400, given the integral role it plays in the government's commitment to a clean energy future.

## Find out more

- View our [interactive electricity generation map](https://www.business.qld.gov.au/running-business/support-assistance/mapping-data-imagery/maps/electricity-generation) (<https://www.business.qld.gov.au/running-business/support-assistance/mapping-data-imagery/maps/electricity-generation>) to explore where these renewable generation projects are and how they contribute to our energy mix.
- Read more about [renewable energy for your business](https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable) (<https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable>).

## Contact us

For energy enquiries, contact 13 43 87 during business hours.

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