

Western Queensland Renewable Energy Industry Profile

July 2018



Rooftop solar

Over 2017 we estimate rooftop solar installations supported 8 full time jobs across the Western Queensland region. The total installed base of solar systems across the region indicates that around 34% of all residential dwellings have a solar system installed, which is the second highest in the state.

Table 11-1 Uptake of rooftop solar PV in Western Queensland Region

Number of installations	Proportion of dwellings with solar	Capacity (MWs)	Estimated Generation (MWh)	CO2 Savings (tonnes)
3,935	34%	22	33,422	26,403

Sources: Number of installations, capacity and generation derived by data published by the Clean Energy Regulator as at March 2018. Number of dwellings taken from the 2016 Census.

Utility-scale projects

Due to its superior solar resource the Western Queensland Region has led the state in the establishment of solar farms, with 5 in operation. These were all constructed within the past 2 years and we estimate created 104 job-years of employment. Altogether these solar farms are expected to produce about 111,194 MWh per year on average, which is equivalent to the electricity consumption of 21,220 average Queensland homes.

Table 11-2 Operational large-scale power projects in Western Queensland Region

Fuel type	No. plants	MW	Annual generation (MWh)	Avoided CO2 (tonnes)	Households powered
Solar	5	47.1	111,194	87,844	21,220
TOTAL	5	47.1	111,194	87,844	21,220

Sources: Number of projects, their capacity and generation from Green Energy Markets Power Plant Register. Avoided CO2 based on generation displacing the average grid emissions intensity of Queensland electricity according to the Australian Government's National Greenhouse Accounts Factors – July 2017. Households powered derived on the average Queensland household's annual electricity consumption according to the Australian Energy Market Commission's 2017 Residential Electricity Price Trends publication.

In addition to these projects that are already operational, Table 11-3 details that there are another 2 projects in construction and another 3 under development in the region. These projects' 89 megawatts of capacity are capable of producing 207,262 megawatt-hours per annum which is equivalent to the annual average electricity consumption of almost 40,000 Queensland households.

Table 11-3 Projects under construction and development in Western Queensland region

	Solar	
	No. plants	MW
Under construction	2	4
Development - planning approved	2	55
Development - yet to be approved	1	30
TOTAL	5	89
Annual generation (MWh)	207,262	

Source: Green Energy Markets Power Plant Register for project capacity and generation.

Table 11-4 provides estimates of the employment, investment and emissions abatement these projects could be expected to provide if they were all to proceed. All up the \$134 million of investment in these projects could be expected to support 196 job years of employment building these projects plus 9 ongoing full-time jobs.

Table 11-4 Employment, investment and emissions abatement flowing from projects under construction and development in Western Queensland region¹

	Solar
Construction employment (job-years)	196
Operations employment (FTE)	9
Investment (\$m)	\$134
Equivalent households powered	39,554
CO2 avoided (tonnes)	163,737

Note: job estimates indicated above are not taken from specific estimates for each project cited by developers due to inconsistent methods for estimating a single job between companies. See section 3.4 for information on how employment is estimated.

Note: Western Queensland includes the Local Government Areas of Paroo (S); Bulloo (S); Murweh (S); Barcoo (S); Quilpie (S); Blackall-Tambo (R); Barcaldine (R); Longreach (R); Boulia (S); Winton (S); Diamantina (S); Richmond (S); Burke (S); Croydon (S); McKinlay (S); Doomadgee (S); Cloncurry (S); Mount Isa (C); Carpentaria (S); Mornington (S)



This is an extract from the report '**Renewable Energy Across Queensland's Regions**' by industry analyst Tristan Edis of Green Energy Markets, details current at June 2018.

The report was commissioned by community organisation Solar Citizens and can be downloaded at www.solarcitizens.org.au/qld_regions

For full project list – see next page.

¹ Sources: See section 3.4 for information on how employment is estimated. Avoided CO2 based on generation displacing the average grid emissions intensity of Queensland electricity according to the Australian Government's National Greenhouse Accounts Factors – July 2017. Households powered derived on the average Queensland household's annual electricity consumption according to the Australian Energy Market Commission's 2017 Residential Electricity Price Trends publication.

Large-scale renewable energy projects in Western Queensland

Current at May 2018, includes projects >2MW²

Operational

Type	Name	Company	MW	Locality
Solar	Barcaldine Solar Farm	Barcaldine Remote Community Solar Farm Pty Ltd	20	Barcaldine
Solar	Dunblane Solar A	Kinelli Pty Ltd	3.8	Barcaldine
Solar	Dunblane Solar B	Kinelli Pty Ltd	3.8	Barcaldine
Solar	Longreach Solar Farm	Diamond Energy Pty Ltd	15	Longreach
Solar	Normanton Solar Farm	Normanton Solar Pty Ltd	4.5	Normanton

Under construction

Type	Name	Company	MW	Locality
Solar	Doomadgee Upgrade	Ergon Energy	1	Doomadgee
Solar	Cannington Mine Solar	South 32 & Energy Developments	3	McKinlay

In development³

Type	Name	Company	MW	Locality
Solar	Cloncurry Solar Farm	Infigen Energy	30	CLONCURRENCY
Solar	Winton Solar farm	Solar Choice Pty Ltd	5	WINTON
Solar	Barcaldine Stage 2	Elecnor	50	BARCOLDINE

² Appendix B - 'Renewable Energy Across Queensland's Regions' Green Energy Markets, 2018

³ Projects 'in-development' have either: a site identified and landholder consent; submitted a development application to local Council; or have a development approval.