

# Wide-Bay Burnett Renewable Energy Industry Profile

July 2018



## Rooftop solar

Over 2017 we estimate rooftop solar installations supported 89 full time jobs across the Wide-Bay Burnett region. The total installed base of solar systems across the region indicates that around 35% of all residential dwellings have a solar system installed which is the highest of any region in the State.

**Table 8-1 Uptake of rooftop solar PV in Wide-Bay Burnett Region**

Number of installations	Proportion of dwellings with solar	Capacity (MWs)	Estimated Generation (MWh)	CO2 Savings (tonnes)
44,867	35%	154	212,421	167,812

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

The main source of renewable energy in the Wide-Bay Burnett region has historically been bagasse residue from 3 sugar mills. The region also has a small landfill gas plant and also a power plant producing power from waste macadamia nut shells and a small hydro plant. Altogether these 6 operational projects are expected to produce about 77,000 MWh per year on average, which is equivalent to the electricity consumption of 14,706 average Queensland homes.

**Table 8-2 Operational large-scale power projects in Wide-Bay Burnett Region**

Fuel type	No. plants	MW	Annual generation (MWh)	Avoided CO2 (tonnes)	Households powered
Bioenergy	5	40.0	76,304	60,280	14,562
Hydro	1	2.7	756	597	144
<b>TOTAL</b>	<b>6</b>	<b>42.7</b>	<b>77,061</b>	<b>60,878</b>	<b>14,706</b>

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.

Table 8-3 details that there are another 8 projects either in construction or under development in the region. These projects' 934 megawatts of capacity are capable of producing almost 2.2m megawatt-hours per annum. This is equal to 4.1% of Queensland's entire annual electricity consumption and equivalent to the annual average electricity consumption of 418,466 Queensland households.

**Table 8-3 Projects under construction and development in Wide-Bay Burnett region**

	Solar	
	No. plants	MW
Under construction	2	173
Development - planning approved	3	610
Development - yet to be approved	3	151
<b>TOTAL</b>	<b>8</b>	<b>934</b>
Annual generation (MWh)	2,192,759	

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

Table 8-4 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 \$6.4 billion of investment in these projects could be expected to support 2,054 job years of employment building these projects plus 93 ongoing full time jobs.

**Table 8-4 Employment, investment and emissions abatement flowing from projects under construction and development in Wide-Bay Burnett region<sup>1</sup>**

	Solar
Construction employment (job-years)	2,054
Operations employment (FTE)	93
Investment (\$m)	\$1,400
Equivalent households powered	418,466
CO2 avoided (tonnes)	1,732,280

*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: The Wide-Bay Burnett Region includes the Local Government Areas of Gympie; Fraser Coast; Bundaberg (R); North Burnett (R); South Burnett.



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](http://www.solarcitizens.org.au/qld_regions)

*For full project list – see next page.*

<sup>1</sup> 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 the Wide Bay Burnett region

Current at May 2018, includes projects >2MW<sup>2</sup>

### Operational

Type	Name	Company	Capacity MW	Locality
Bagasse	Isis Central Sugar Mill	ISIS Central Sugar Mill Co Ltd	25	Isis Central
Bagasse	Maryborough Sugar Factory	The Maryborough Sugar Factory Limited	7.5	Maryborough
Bagasse	Millaquin Sugar Mill	Bundaberg Sugar Ltd	5	Bundaberg North
Hydro	Paradise Dam Mini Hydro	Burnett Water Pty Ltd	2.7	Coringa

### Under Construction

Type	Name	Company	Capacity MW	Locality
Solar	Childers Solar Farm	Elliott Advisers	75	Childers
Solar	Susan River Solar Farm	Elliott Advisers	98	Susan River

### In development<sup>3</sup>

Type	Name	Company	Capacity MW	Locality
Solar	Aramara	Eco Energy World	140	ARAMARA
Solar	Bundaberg Solar Farm	Denzo Group	58	BUNDABERG
Solar	Teebar Solar Farm	Teebar Clean Energy	52.5	TEEBAR
Solar	Lower Wonga Solar Farm	SolarQ	350	LOWER WONGA
Solar	Kingaroy Solar Farm	Terrain Solar	40	KINGAROY
Solar	Munna Creek Solar Farm	REST Energy	120	BAUPLE

<sup>2</sup> Appendix B - 'Renewable Energy Across Queensland's Regions' Green Energy Markets, 2018

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