

28 April 2017

## Rooftop solar and batteries to boom in QLD but a national plan is needed

Queensland's rooftop solar panels will increase by more than 500% by 2030, with more than 10,000 MWh in small-scale battery storage, representing both wider customer adoption and larger system sizes as costs continue to fall.

The final report of the Electricity Network Transformation Roadmap released today by CSIRO and Energy Networks Australia highlights transformational changes in the Queensland energy system.

CSIRO Chief Economist Energy, Paul Graham, said Queensland already leads Australia in the take up of rooftop solar panels.

"By 2030, Queensland's solar generation capacity will be almost as large as its current coal-fired generation capacity," Mr Graham said.

"Regional analysis for the Roadmap also indicates that battery storage would play a key role in the Queensland energy system, with the equivalent of 760,000 residential battery storage systems installed by 2030 and over 2 million by 2050.

"Queensland has a relatively young fleet of thermal generation plant which will help with grid stability in the transmission system during the early stages of decarbonisation.

"However, high levels of rooftop solar and other distributed generation will create operational challenges for Queensland's distribution network. There is the potential for 'reverse flow' in many parts of the Queensland power system within 15 years."

The Electricity Network Transformation Roadmap is an evidence-based plan detailing what needs to be done during the next decade to provide Australians with secure and affordable energy and to decarbonise electricity by 2050.

Energy Networks Australia CEO, John Bradley, said that with the right policy settings and a national transition plan, Australia's electricity system could achieve zero carbon emissions by 2050.

"This doesn't mean the changes in States will be uniform, as Queensland's transition is likely to rely more on distributed energy until about 2035, which makes reforms to electricity pricing vital in Queensland," Mr Bradley said.

"Network tariffs or incentives which reward customers who reduce peak demand are not only fairer, they will also unlock the full potential of Queensland's world leading rates of investment in solar and storage."

The Roadmap finds it critical to move to fair and efficient network charges for residential and small customers before 2021.

Mr Bradley said tariff reform would ensure a medium size family who can't take up solar and storage is \$350 per year better off in 2027.

"The Roadmap is an energy transition plan to save the average Australian household \$414 per year in their electricity bills by 2050," Mr Bradley said.

"Work will start in the coming months on the Roadmap's highest priority projects but real action is needed by government as well as industry.

"A national approach to carbon and energy policy will support commercial investment to keep the lights on and bills affordable now and in the future."

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**ENDS**

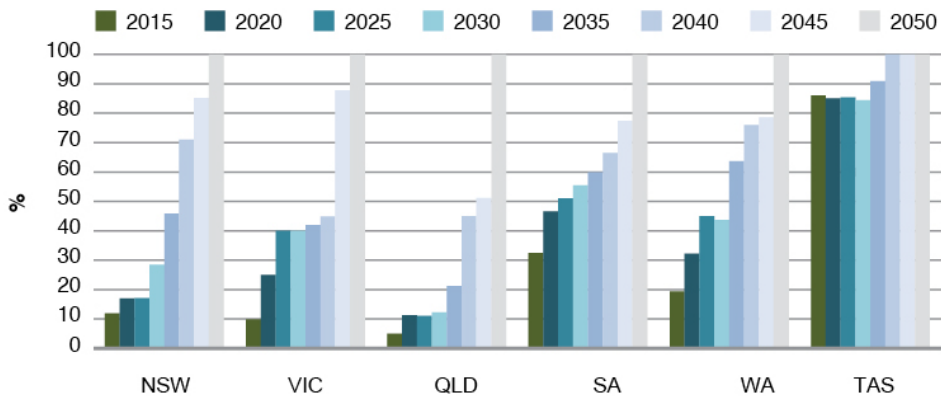
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The Electricity Network Transformation Roadmap Final Report is available [here](#).

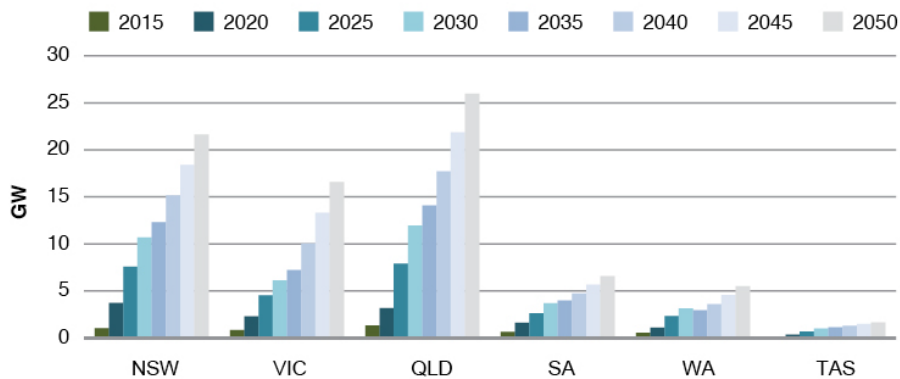
**Regional Analysis Snapshot**

	Projected renewable generation mix by state (%)			Greenhouse gas emissions reduction (%)			Installation of rooftop solar by state (GW)			Installation of onsite-battery storage by state (GWh)		
	2017	2030	2050	2017	2030	2050	2017	2030	2050	2017	2030	2050
<b>NSW</b>	14	28	100	8	39	100	2	11	22	<0.5	6	24
<b>VIC</b>	16	40	100	24	54	100	1	6	17	<0.5	6	22
<b>QLD</b>	8	12	100	0	21	100	2	12	26	<0.5	10	30
<b>SA</b>	44	55	100	11	42	100	1	4	7	<0.5	4	9
<b>WA</b>	19	44	100	14	33	100	1	3	6	<0.5	2	7
<b>TAS</b>	86	84	100	20	20	100	0	1	2	<0.5	1	2

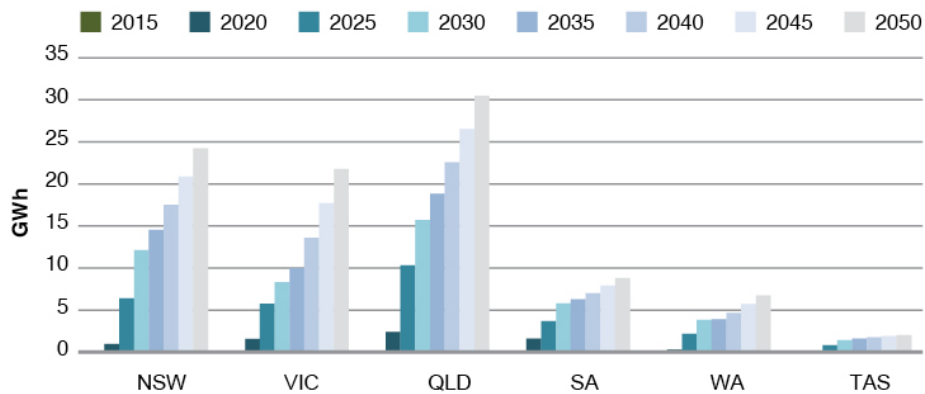
**Figure 29:** Projected renewable generation as a share of state generation under *the Roadmap* scenario.



**Figure 34:** Projected installations of rooftop solar by state.



**Figure 35:** Projected installations of on-site battery storage by state



### About the Electricity Network Transformation Roadmap

Australia's national science agency CSIRO and the peak national body representing gas distribution and electricity transmission and distribution businesses in Australia, Energy Networks Australia have partnered to develop an Electricity Network Transformation Roadmap (the Roadmap).

Energy Networks Australia has developed an action plan to achieve the Roadmap's 45 milestones. Networks are currently working on project plans for 11 flagship programs. Work will start on the highest priority projects in the coming months.

The final report is the product of more than two years of collaborative work carried out by Energy Networks Australia and CSIRO. More than 200 different industry representatives contributed at over 14 workshops and webinars held as part of the public consultation process. Information on the Roadmap has been viewed more than 30,000 times during the development process.

For more information go to [www.energynetworks.com.au/roadmap](http://www.energynetworks.com.au/roadmap)