

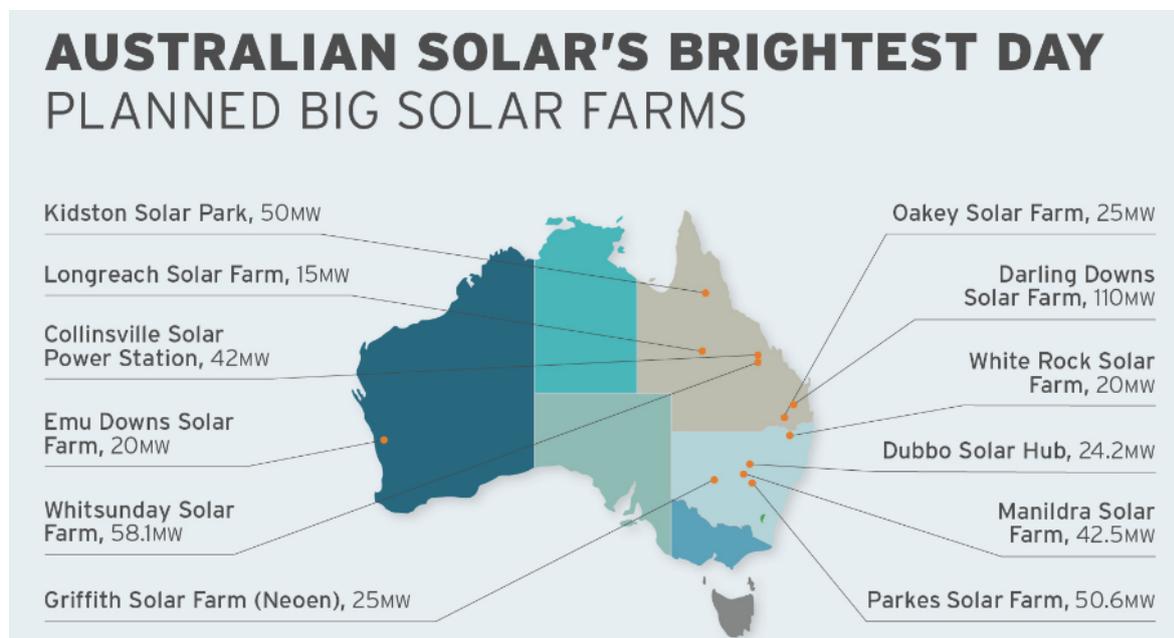
# Solar power sector handed huge boost by ARENA funding

Peter Hannam – The Sydney Morning Herald – September 8<sup>th</sup>, 2016

Australia is set to triple its large-scale solar energy capacity after funding from a threatened federal agency helped drive down costs almost to those of wind farms.

The Australian Renewable Energy Agency (ARENA) announced the 12 projects that will share part of its latest funding round of \$92 million on Thursday.

Queensland was a big winner, landing six of the projects, while NSW won five and WA the other one. (See map below.)



Solar energy costs continue to fall in Australia and overseas. Photo: FRV

The plants will generate about one-tenth of the power needed to meet Australia's 2020 Renewable Energy Target, supply enough electricity for 150,000 average homes and create 2,300 direct jobs alone, ARENA said.

The agency's chief executive, Ivor Frischknecht, said that when announced last September the funds had been expected to enable 200 megawatts of new solar capacity, compared with the 240 megawatts already in place.

Instead, the dozen ventures will deliver an extra 480 megawatts if all proceed, and drive \$1 billion of investment in regional Australia.

The level of grant funding needed to make the large-scale solar photovoltaic projects had dropped from about half the cost to just 10 per cent in three years, Mr Frischknecht said.



Solar panels being installed at the Sydney Town Hall. Photo: Damian Shaw

"It's a phenomenal change from the Moree solar farm and AGL's [two plants in NSW], where it was a little less than one commercial dollar for every subsidy dollar," he told Fairfax Media.

The success of ARENA's solar support comes at a critical time for the program's future. The Turnbull government wants to end all grant funding by the agency and strip \$1.3 billion from its budget.

Labor, which went to the July election quarantining \$300 million of those cuts, may decide as soon as Tuesday's caucus meeting whether it will back the government's omnibus funding through Parliament.

Opponents of the grant cuts say the move would trigger the loss of possibly hundreds of research positions at universities, the CSIRO and elsewhere, and slow advances in renewable energy at a time when Australia has to shift to a low-carbon future.

While large-scale solar costs are about 10 per cent more than wind farms, many other technologies require support to make them less expensive, Mr Frischknecht said. These include large-scale batteries and so-called dispatchable renewables such as solar thermal and bio power that can be switched on and off as needed.

Josh Frydenberg, minister for environment and energy, said the latest round brought federal investment through ARENA to \$1.2 billion for around 250 projects, drawing a further \$1.6 billion from the private sector.

"ARENA will continue to be a major supporter of renewable energy through the \$1 billion Clean Energy Innovation Fund [for concessional loans] which will see new jobs and investment in the sector," Mr Frydenberg said.

## Biggest plant

The winners include what will become the country's largest solar farm, with ARENA chipping in \$20 million towards the \$216.7 million needed to build the 110 MW plant.

That project, to be owned by Origin Energy, will be on Queensland's Darling Downs. (See list of winning projects below.)

Applicant	Project name	Size (MW AC)	ARENA funding	Total project cost	Nearest town
Origin Energy	Darling Downs Solar Farm	110.0	\$20 m	\$216.7 m	Dalby, QLD
Whitsunday Solar Farm	Whitsunday Solar Farm	58.1	\$9.5 m	\$122.4 m	Collinsville, QLD
Neoen Australia	Parkes Solar Farm	50.6	\$7.5 m	\$107.9 m	Parkes, NSW
Genex Power	Kidston Solar Farm	50.0	\$8.9 m	\$126.2 m	Kidston, QLD
Manildra Solar Farm	Manildra Solar Farm	42.5	\$10.9 m	\$109.3 m	Manildra, NSW
RATCH Australia Corporation	Collinsville Solar Power Station	42.0	\$9.5 m	\$95.9 m	Collinsville, QLD
Neoen Australia	Griffith Solar Farm	25.0	\$5.0 m	\$54.6 m	Griffith, NSW
Canadian Solar (Australia)	Oakey Solar Farm	25.0	\$2.2 m	\$47.5 m	Oakey, QLD
Neoen Australia	Dubbo Solar Farm	24.2	\$5.5 m	\$55.6 m	Dubbo, NSW
APT Pipeline (APA Group)	Emu Downs Solar Farm	20.0	\$5.5 m	\$47.2 m	Cervantes, WA
Goldwind Australia	White Rock Solar Farm	20.0	\$6.0 m	\$44.5 m	Glen Innes, NSW
Canadian Solar (Australia)	Longreach Solar Farm	15.0	\$1.3 m	\$28.7 m	Longreach, QLD
<b>TOTAL</b>		<b>482.0</b>	<b>\$91.7 m</b>	<b>\$1,056.4 m</b>	

The title of largest plant, though, may be up for grabs. Genex's 50 MW Kidston Solar Plant, which has a 20-year supply deal with the Queensland government, has plans to extend to 150 MW.

For NSW, the ARENA-funded projects will support as many as 800 jobs during construction and, when fully operational, will provide enough electricity to power about 62,000 homes or 2,800 schools.

"These five new solar facilities save about 350,000 tonnes of greenhouse gas emissions per year, the equivalent of taking 78,000 cars off the road," Mark Speakman, the state's environment minister, said.

## **Falling costs**

The recent steep drop in large-scale solar costs is mostly from domestic gains, ARENA said.

A falling Australian dollar had largely nullified the drop in global price of imported panels, inverters and other equipment, which typically make up 40 to 50 per cent of total costs, Mr Frischknecht said.

Banks were becoming more comfortable supporting large-scale solar, resulting in cheaper finance, he said, while expanded scale and improved construction process through experience also helped make plants more competitive.

Kellie Caught, a spokeswoman for WWF Australia, said the winning bids amounted to "one billion reasons" for the government to maintain full grant funding.

"ARENA plays a critically important role in building new technologies, reducing the cost of renewable energy, increasing renewable energy supply and diversity in Australia, improving grid stability and reliability, building industry skills, developing export capabilities and creating thousands of jobs," she said.

## **Open letter**

Details of solar's advance came as 11 major energy companies issued an open letter to federal politicians calling on them to protect ARENA's funding.

The companies – which include AGL, General Electric, First Solar, wind turbine maker Vestas, electric car and battery maker Tesla and wind farm operator Infigen Energy – said investment confidence would be undermined in the sector if one of the new Parliament's first moves was to cut ARENA's support.

"The grants provided by the agency are modest investments that will lead to the jobs and investment of the future," Kane Thornton, chief executive of the Clean Energy Council, said.

"Hundreds of projects have been funded to date, and hundreds more are needed if we are to transform Australia's energy system at the lowest possible cost to consumers."

Queensland's Energy Minister, Mark Bailey, said additional support from the Palaszczuk government had helped boost the "competitiveness of so many Queensland projects in the ARENA process".

The backing is in the form of long-term revenue contracts to aid investor confidence.

Mr Frischknecht said the current funding round would be "a litmus test" to determine whether additional rounds would be needed in the future for large-scale solar PV – an outcome that could be known within six to 12 months.