

CEFC

CLEAN ENERGY FINANCE CORPORATION



Supporting the Deployment of Solar Energy

CEFC

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SOLAR CONFERENCE 2016

Simon Brooker
Executive Director

Agenda

1. About the CEFC
2. Our experience in solar
3. Case studies
4. Opportunities and Challenges



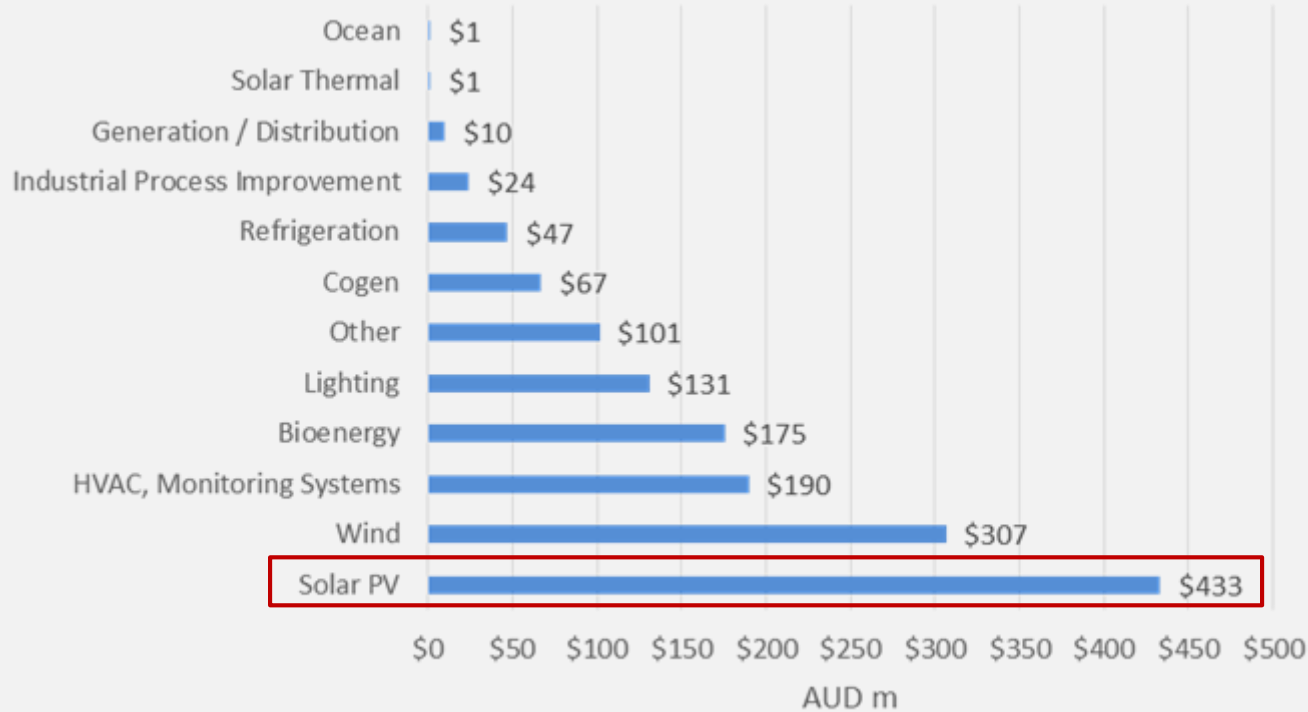
About the Clean Energy Finance Corporation

Driving productivity gains, lowering energy costs and reducing emissions

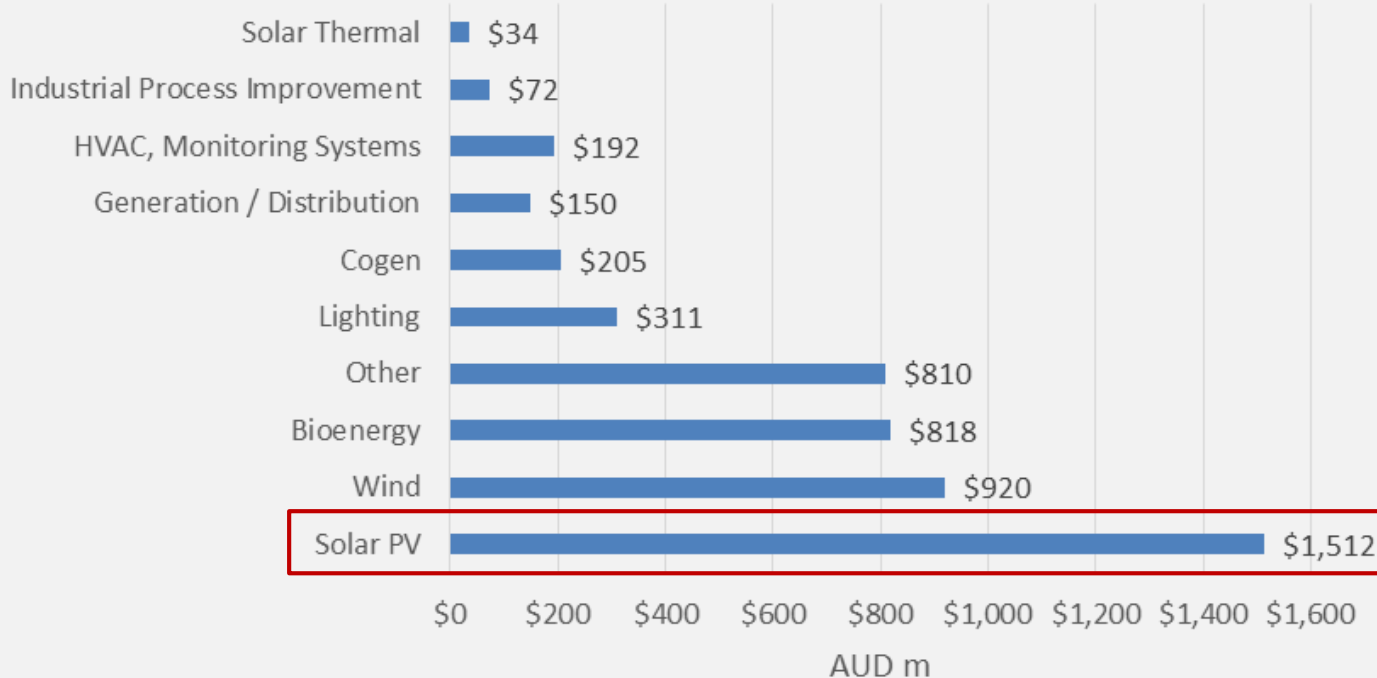
- Independent, Australian Government institution that operates like a traditional financier
- Private sector expertise with public purpose - Finance for energy efficiency, low-emissions and renewable energy projects and programs across the economy
- Access to \$2 billion a year for five years
- Commercial return on investment (debt or equity)
- Projects that are smaller, more complex or new to the Australian market
- Operates as a co-financier to encourage participation in the sector from private sector financiers



Solar has attracted the biggest share of our investment commitments



Solar is also the biggest area in our current pipeline



Types of finance available

DEBT

Project
finance

Corporate
finance

Aggregation
programs

Green bonds

Securitised
facilities

EQUITY

Australian Bioenergy
Fund

Clean Energy
Innovation Fund

Other funds

- Palisade

What we're doing in solar

Cornerstone investor
for new solar
technologies

Underwrote debt for Sundrop
Farms solar thermal
greenhouse



New financing
models, setting a
precedent for the
financial market

Solar leasing and PPAs.
\$250m large-scale solar
program.



Finance for smaller
utility-scale projects

\$13m for Uterne PV plant in NT.
\$15m for DeGrussa solar and
storage in WA



Financing merchant
solar, when needed

56MW Moree Solar PV
Farm, 20MW Barcaldine
Solar PV farm



World-leading application of solar thermal technology



Funding solar thermal to grow produce

Action

- Sundrop Farms is pioneering the use of solar thermal for heat, electricity, and desalinated water to grow vegetables in greenhouses
- CEFC underwrote up to A\$40 million in senior debt finance, then secured commercial bank debt package and private equity capital

Impact

- Sundrop Farms has entered into a partnership with global investment firm KKR (up to \$100m) and is constructing a state-of-the-art glasshouse in Port Augusta.

CEFC COMMITMENT

CEFC underwrote up to A\$40 million in debt financing

TECHNOLOGY

Solar thermal

LOCATION

Port Augusta, SA

SECTOR

Agriculture



Replacing diesel fuel with solar and storage



Debt financing for solar and storage at remote copper mine

Action

- A commitment of \$15 million to Sandfire Resources for Australia's largest integrated off-grid solar and battery storage facility
- Installation of 34,000 solar PV array integrated with battery storage and existing diesel generator at DeGrussa Copper Mine

Impact

- Peak-load power expected to offset nearly half of mine's daytime electricity consumption
- Reduces reliance on diesel fuel and exposure to oil price volatility.

CEFC COMMITMENT
Up to \$15 million

PROJECT VALUE
\$40 million

EXPECTED CO₂ REDUCTION
12,000 t/CO₂-e annually

TECHNOLOGIES

- 10.6MW solar PV array with 6MW of battery storage integrated with existing diesel generator



Tracking the sun to drive performance for large-scale solar farm



Debt finance for 56 MW solar power station

Action

- Funded in conjunction with FRV and ARENA
- CEFC underwrote the senior debt
- CEFC provided finance even with merchant power price risk

Impact

- Investment supports innovative on-grid, large scale solar with single axis tracking to increase performance
- Employing more than 150 people during construction and benefitting up to 40 local businesses

CEFC COMMITMENT

Up to \$46 million

TOTAL PROJECT VALUE

Up to \$46 million

NEW RENEWABLE CAPACITY

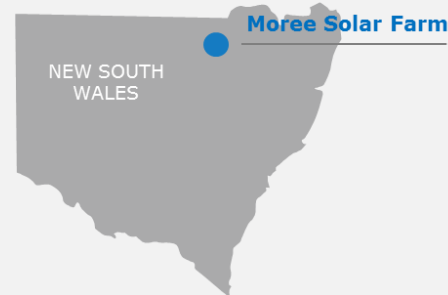
56 MW

LOCATION

Moree, NSW

TECHNOLOGY

Solar



Large-scale solar for edge-of-grid applications



Large-scale solar supporting rural and remote communities

Action

- Up to \$20 million in cornerstone debt finance for a large-scale \$69 million solar farm near Barcaldine, Central Queensland

Impact

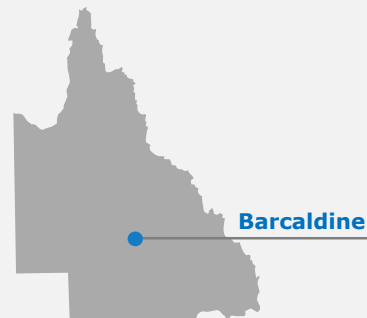
- The new 20MW solar plant will be capable of generating power for over 5000 homes
- Demonstrates use of solar at edge-of-grid locations

CEFC COMMITMENT
Up to \$20 million

NEW RENEWABLE
CAPACITY
20 MW

LOCATION
Queensland

TECHNOLOGY
Solar



Financing for off-grid solar PV and storage



Epuron solar: Uterne and TKLN

Action

- Finance for mix of fixed and single axis tracking solar PV arrays and energy storage
- Hybrid corporate loan and project finance structure - too complex / small to appeal to the commercial banks.

Impact

- Replaces gas & diesel generation in remote Australia
- Demonstrates the potential for this type of finance to be used in similar, smaller and complex but scalable portfolios of renewable energy projects.

CEFC COMMITMENT

Up to \$17.7m

TOTAL PROJECT VALUE

~\$27m

NEW RENEWABLE CAPACITY

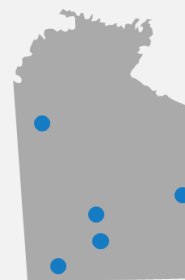
6.9 MW

LOCATION

Northern Territory

SECTOR

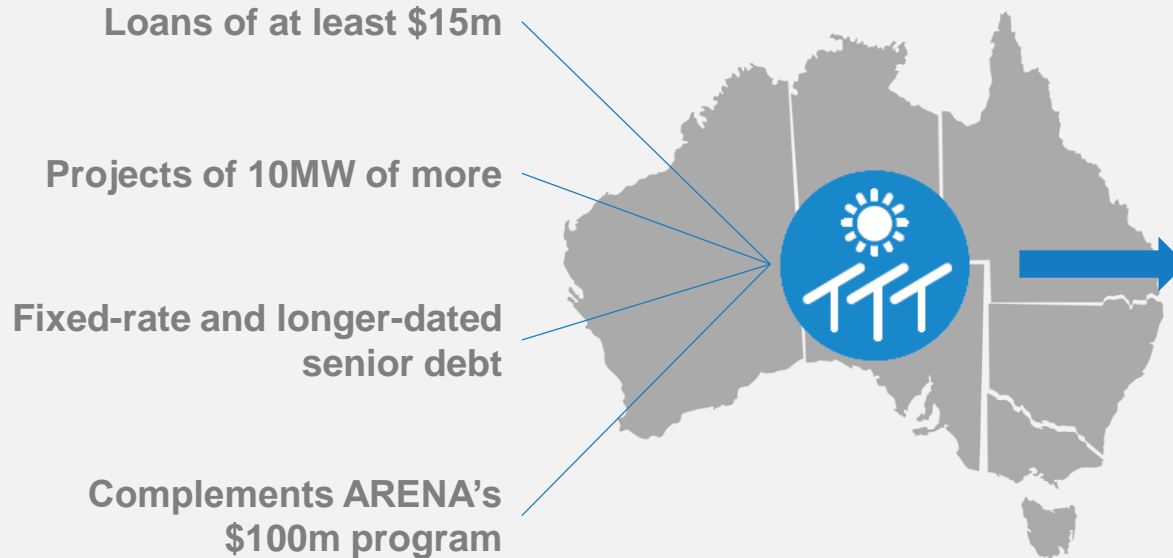
Utilities



Remote solar projects across the NT

Update on our large-scale solar financing program

To date, our single largest debt financing commitment to large-scale solar

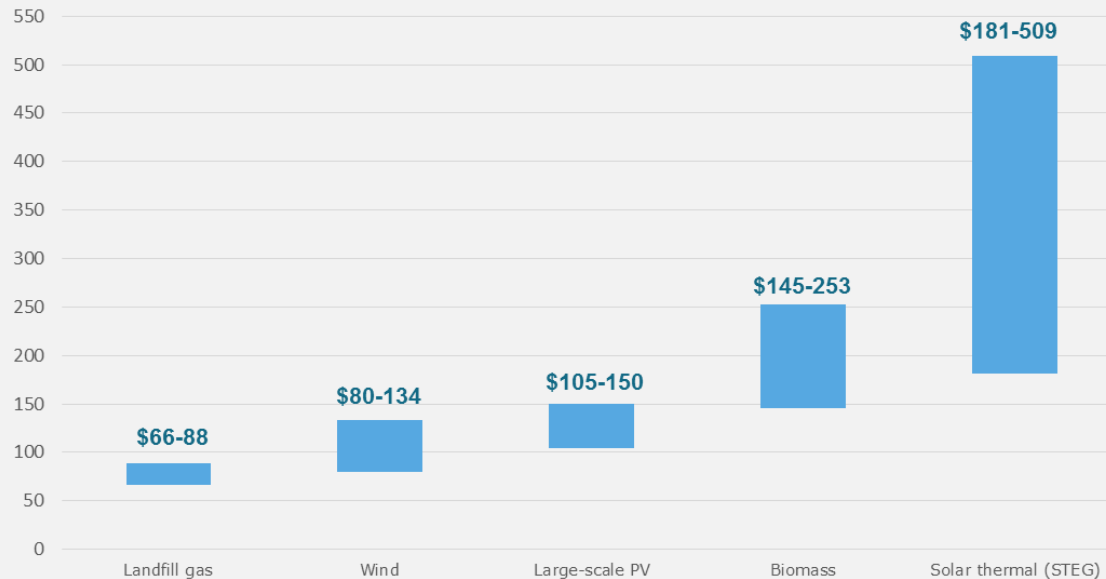


INTENDED OUTCOMES

1. Substantially increase installed large-scale solar capacity in Australia
2. Help develop the Australian supply-chain for large-scale solar
3. Bring large-scale solar down the cost curve

How fast will solar come down the cost curve?

LCOEs for renewable energy technologies
(AUD real per MWh, 2015)



- The emergence of behind the meter storage
- Meeting the RET
- New PPA models

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