

CLEAN ENERGY FINANCE CORPORATION



Image courtesy of Geodynamics Limited

Outline

1. Introduction to CEFC
2. What does the CEFC mean for the Australian Solar Industry?
3. How the CEFC can influence the cost of Solar Projects
4. CSP – Challenge in raising finance
5. Long Term Potential – Key Drivers
6. Summary



Investment approach – to assist the industry to close clean energy transactions

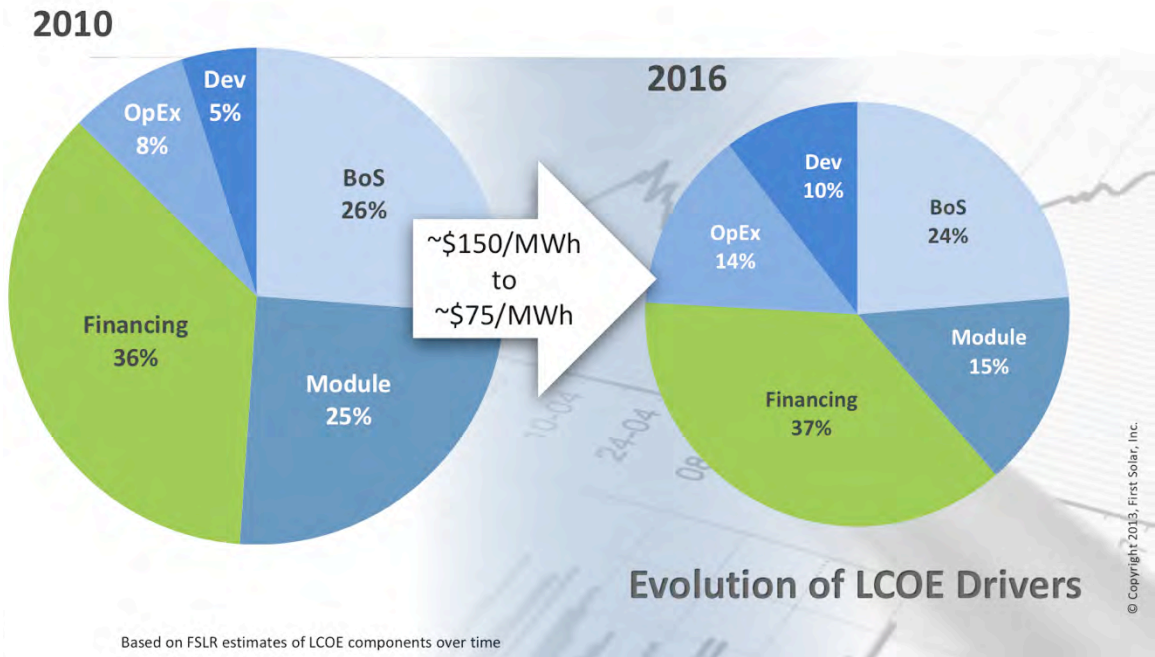
- CEFC will co-finance and invest in solar opportunities and technologies
- CEFC take a commercial approach and assess opportunities on a case-by-case basis, seeking stable, cash flow generative solar investments
- Our focus is on projects at the later stages of development, which have:
 - A positive expected rate of return
 - Will repay capital; and
 - Generate a solid return
- We will always lend close to market terms
- Limited ability to provide concessional finance

CEFC's Mission

“Accelerate Australia's transformation towards a more competitive economy in a carbon constrained world, by acting as a catalyst to increase investment in the clean energy sector”

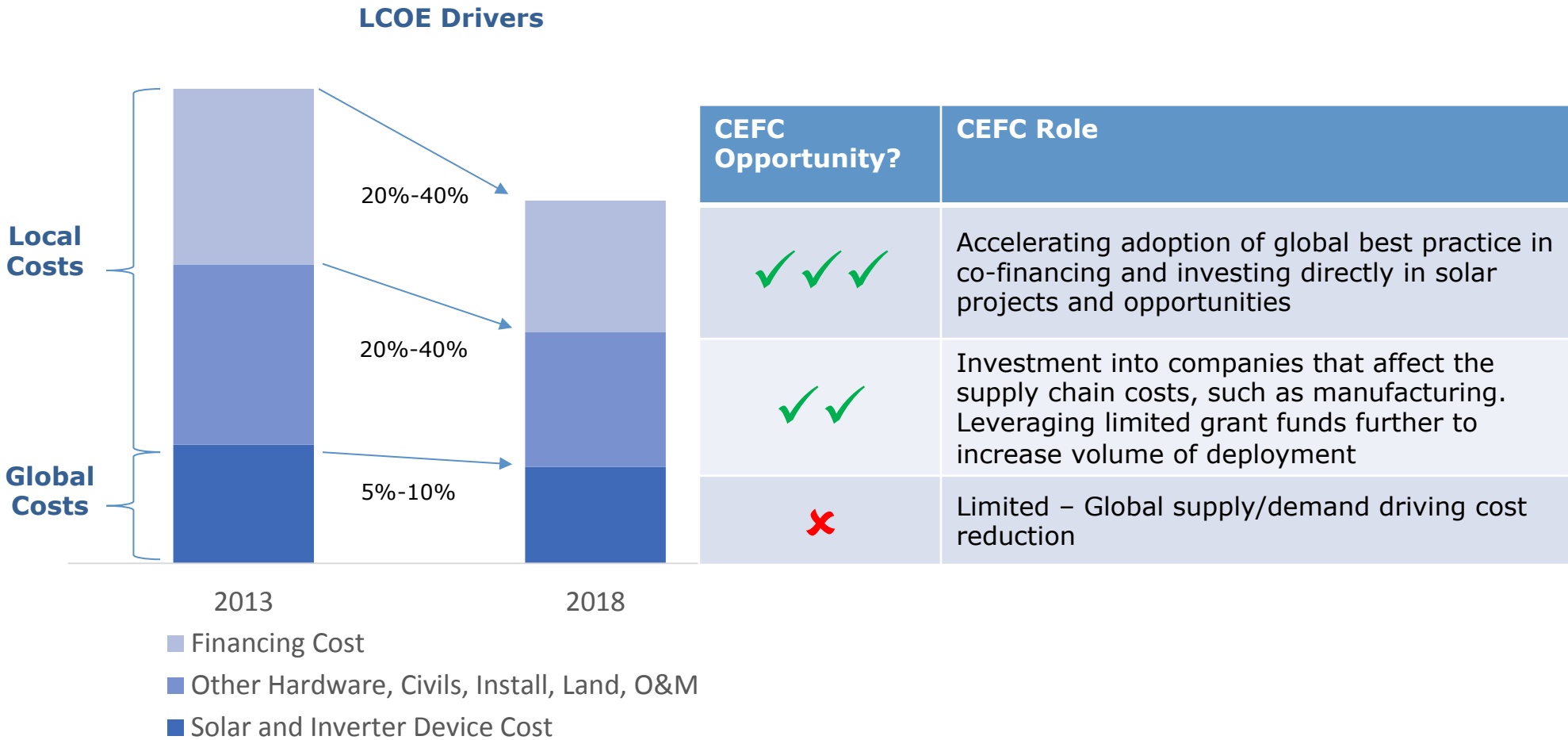
More than one third of the LCOE for Solar PV today is financing cost

- Despite the expected decline in the LCOE for Solar Projects over the near term, financing remains a significant portion of the LCOE
- CEFC seeking to lower risk premiums required to finance Solar through demonstration to and co-operation with the commercial banking sector
- CEFC have a portfolio of Utility scale PV projects under consideration and aggregation strategies



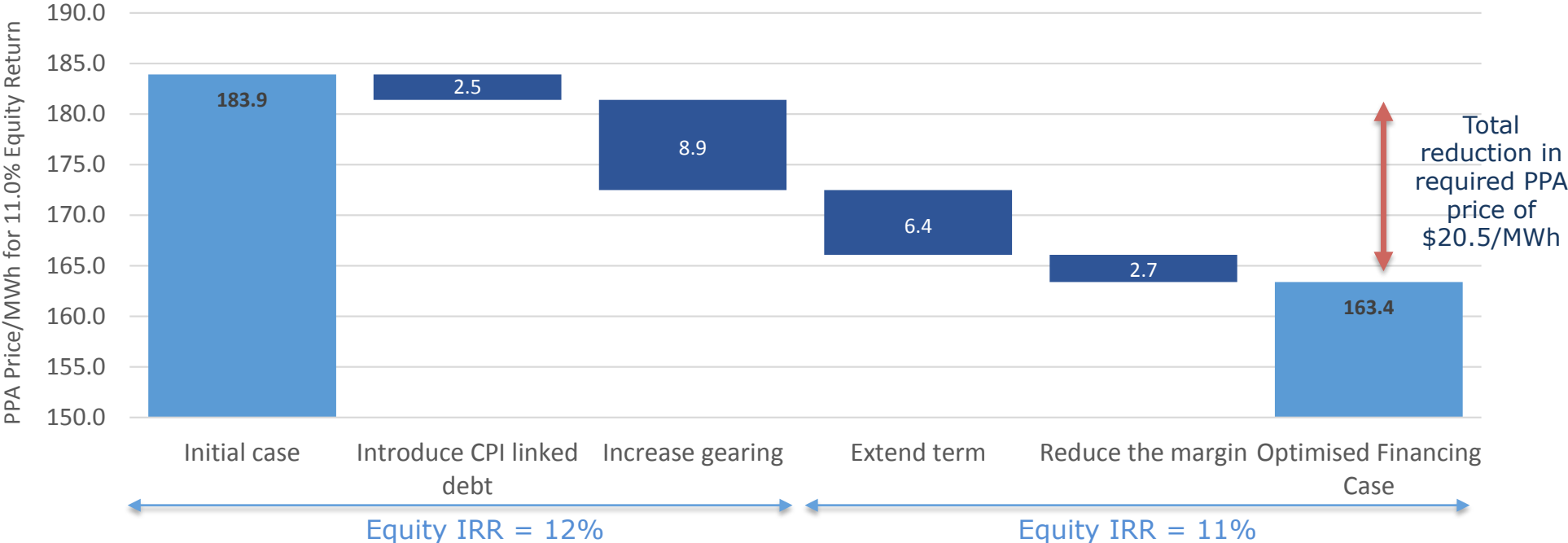
Source : First Solar

CEFC can help to lower the cost of financing and overall LCOE costs



An example of the potential impacts of using CEFC financing

- For a \$200m solar PV project, utilising 70% commercial financing, the PPA price required for an 12% equity return is ~\$184/MWh
- Making the following financing changes, reduces the risk and the required PPA for an 11% equity return to \$163/MWh:
 - Use CPI linked debt for half the senior debt (saves \$2.5/MWh)
 - Increase the gearing by 5% (saves \$8.9/MWh)
 - Extending the debt term, reducing risk and therefore the required return (saves \$6.4/MWh)
 - Reduce the risk margin by 1% (saves \$2.7/MWh), comparable to US pricing today

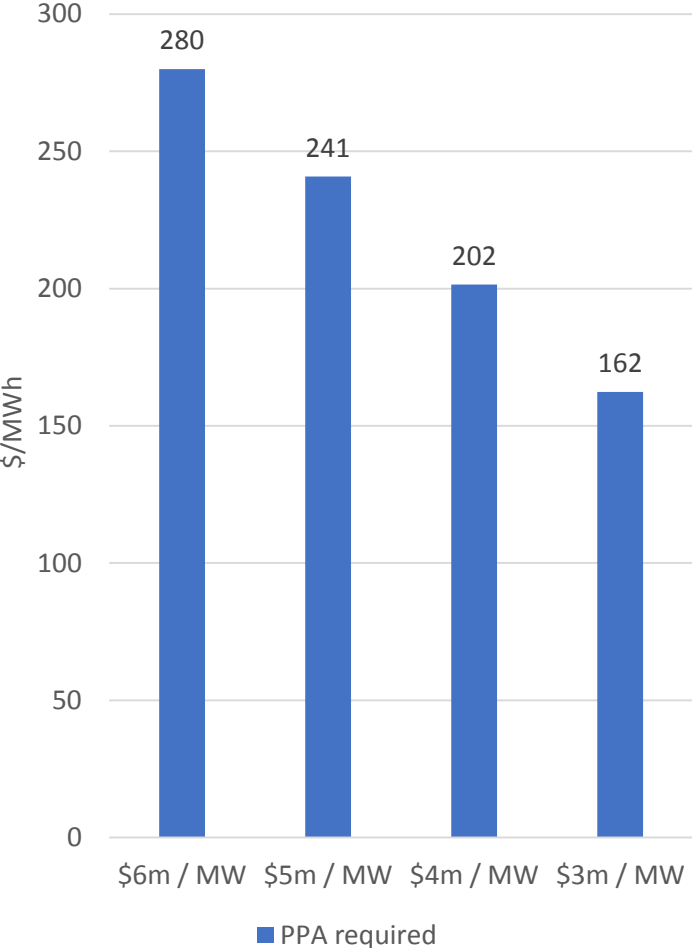


Challenge for CSP to raise Finance

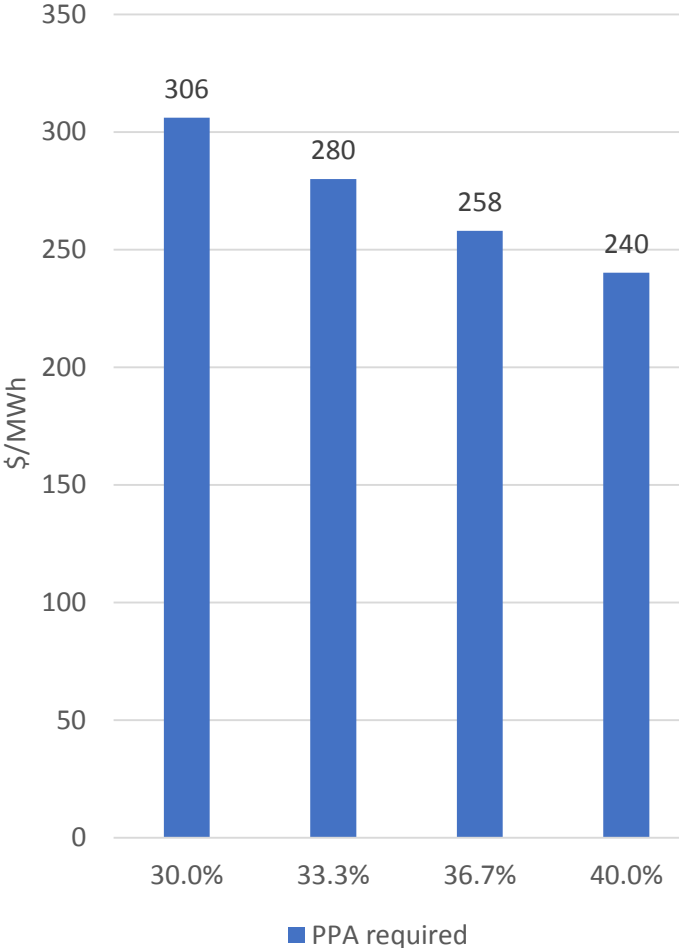
- Capital costs of approximately \$6000/kw deliver an LCOE of around \$345/MWHR with capacity factor of c30%
- Market will only pay \$110-130/MWHR
- Equity/grant funding only source to cover commercial gap
- CEFC cannot bridge the difference by itself

How can we make CSP viable?

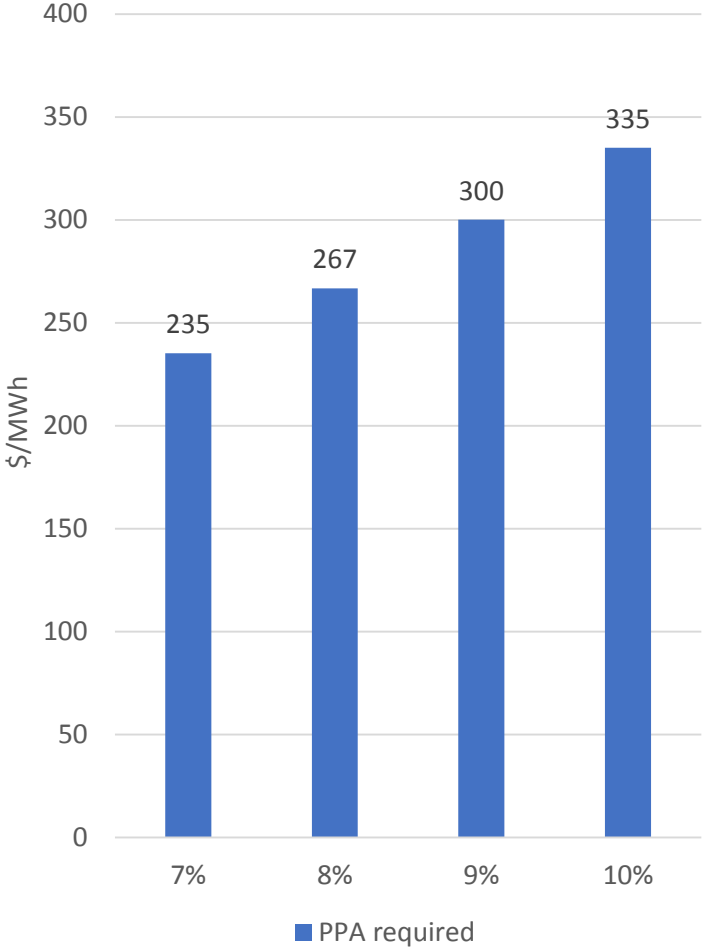
Reducing Capital Cost



Increasing Capacity Factor

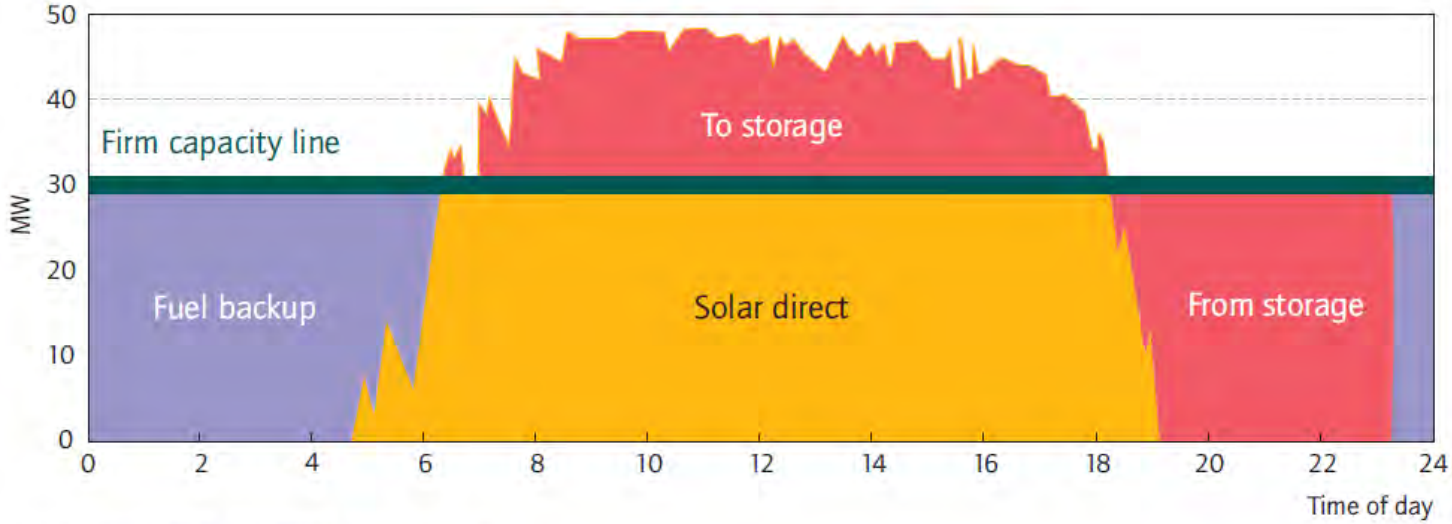


Adjusting the WACC



For CSP to achieve potential

Beyond cost reduction and technology development market ancillary services reward for firm supply will be key.



Source: Geyer, 2007, SolarPACES Annual Report.

In a market of increasing lower cost variable PV and Wind technologies that can fill troughs and meet peaks will have a critical role

State	Market average price \$ / MWh	Immediate dispatch average sale price	Ratio immediate / market average sale price	Dispatch from storage average sale price \$ / MWh	Ratio Storage / market average
VIC	\$39.2	\$58.9	1.50	\$74.6	1.90
SA	\$49.5	\$89.7	1.81	\$136.9	2.77
QLD	\$36.9	\$50.0	1.35	\$77.2	2.09
NSW	\$41.3	\$54.7	1.32	\$80.7	1.95
WA	\$50.1	\$58.1	1.16	\$65.8	1.31
AVERAGE	\$43.4	\$62.3	1.43	\$87.0	2.01

Source: IT Power, Realising the Potential of CSP in Australia (2012)

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