

FINANCE FOR LARGE SCALE SOLAR AND STORAGE PROJECTS

PRESENTED BY NIALL BRADY
ATA WEBINAR - HOW TO DEVELOP, BUILD & OPERATE
SUCESSFUL PV PROJECTS WITH STORAGE IN AUSTRALIA
DECEMBER 2017

CEFC

TRANSFORMING CLEAN ENERGY INVESTMENT



WHO WE ARE

- A unique mix of finance and clean energy experts
- Proven track record in clean energy investment
- Independently-run government organisation
- National focus



WHAT WE OFFER

- Finance for cleaner power solutions and a better built environment
- \$10 billion capital
- Innovative finance, including debt and equity
- Private sector expertise with a public policy purpose

INVESTING ACROSS THE ECONOMY

Low carbon
electricity



Large
scale solar



Wind



Waste, bioenergy
and agriculture



Grid and storage
solutions

Energy
efficiency



Local govt and
universities



Community
housing



Property



Infrastructure



Manufacturing
and industry



Agriculture

Transport

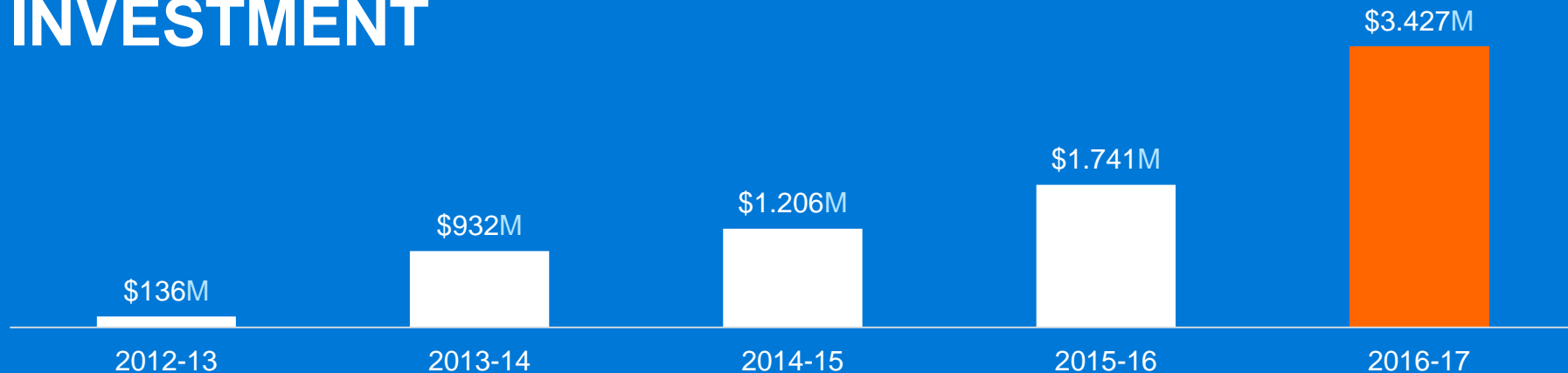


Biofuels



Vehicles

FIVE YEARS OF CLEAN ENERGY INVESTMENT



\$3.4B

current investment commitments*



79 direct projects

project value

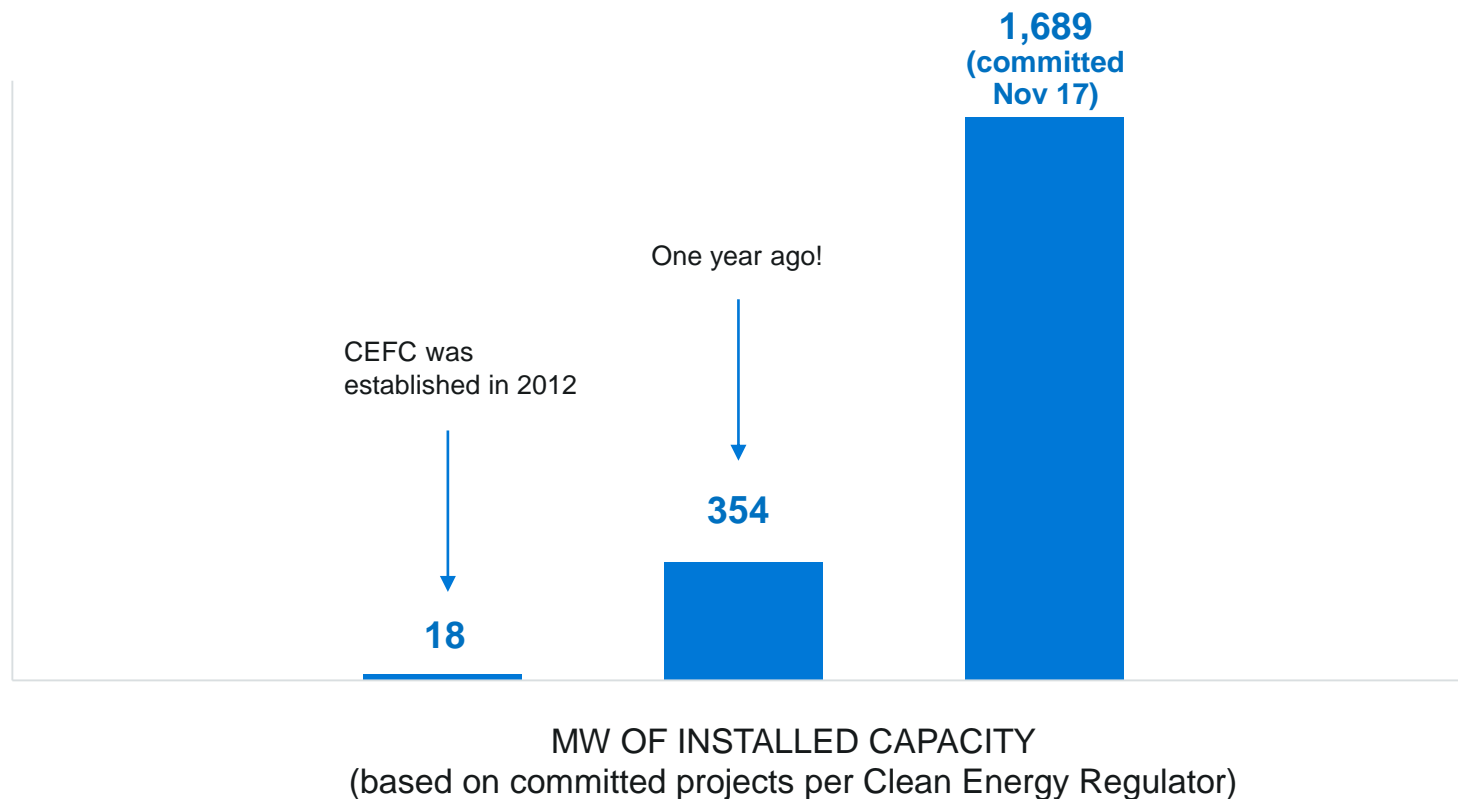
\$11B



7 co-finance and aggregation programs that have delivered over **\$700m** in finance to more than **2,000** smaller projects and businesses across Australia

*After allowing for new investments in each year, minus loans fully amortised, repaid or exited, and expired or cancelled undrawn commitments, at June 30 2017

LARGE SCALE SOLAR HAS COME A LONG WAY



DEGRUSSA SOLAR
AND STORAGE

POWERING
REMOTE
AUSTRALIA WITH
SOLAR
PLUS STORAGE

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INVESTMENT



KENNEDY ENERGY PARK

FINANCE FOR
AUSTRALIA'S FIRST
FULL INTEGRATED
WIND, SOLAR
AND BATTERY
PROJECT

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CLEAN ENERGY FINANCE CORP



WHAT DETERMINES ‘BANKABILITY’?

RISK FACTOR	PROJECT A (EASIER TO FINANCE)	PROJECT B (MORE DIFFICULT TO FINANCE)
EQUITY	Substantial equity from quality sponsor, with ability to deploy contingent equity	Non-investment grade equity sponsor e.g. high net worth where investment appetite can only accommodate initial project cost assumptions
REVENUE	Guaranteed long-term customer e.g. 10+yr contracted offtake from creditworthy counterparty	Intention to take merchant exposure for full project term. Reliance on revenue streams with low liquidity (e.g. FCAS – see next slide)
TECHNOLOGY	“Tier 1” technology providers with strong balance sheets, long term warranties (available to Project Co), limited risks identified in independent technical due diligence	Small/new technology providers, higher risk technology elements, interface between multiple different technologies, short term warranties, due diligence concerns on technology risk.
CONSTRUCTION	Fixed price, fixed time EPC with LD regime with significant balance sheet, supported by bank guarantees	Non-fixed price or fixed time contract, project company minimising costs through multiple contracts, no clear single “guarantee” for construction and generation delivery
O&M	Experienced operator with significant balance sheet	No experience

STORAGE REVENUE MODELS

Time of Day Price Arbitrage

- Exploiting intra-day pricing differences
- Requires view on future storage costs, demand patterns and generation mix

Price Insurance

- Offer cap contracts to customers and retailers wanting to mitigate high price events
- Long start date so difficult to model when and whether options will be called

Network Support Services - FCAS

- Fast response times can provide frequency support services – potentially black start support
- Market shallow, high merchant risk

Renewable Energy “Firming”

- Future regulations could provide a revenue source for dispatchable capacity to support renewables
- Requires new policy certainty



OPPORTUNITIES FOR BATTERY AND OTHER STORAGE PROVIDERS

- The National Energy Guarantee – The proposed scheme focuses on both an emissions intensity and a reliability target creating new markets for solar plus storage
- Opportunities to provide a “better kilowatt hour” to customers, through load shifting or baseload solutions
- Mining and heavy industry seeking to use solar and storage to obtain reliable, lower priced power
- Emerging hedging and retailer models

DEBT AND EQUITY TRENDS

- Tailored project finance structures based on sponsors' risk appetite and contracting mix
- High level of competition for fully contracted transactions
- Still very limited bank debt appetite for full merchant transactions
- Domestic versus international appetite for long term debt tenor
- Uncertainty regarding impact of the proposed National Energy Guarantee

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