

CEFC

CLEAN ENERGY FINANCE CORPORATION



The role of the CEFC in the waste to energy and bioenergy market



AUSTRALIAN WASTE TO ENERGY
FORUM – FEB 2016

Paul McCartney
Executive Director

Agenda

1. About the CEFC
2. Our portfolio and case studies
3. Growth potential for bioenergy
4. Australian Bioenergy Fund

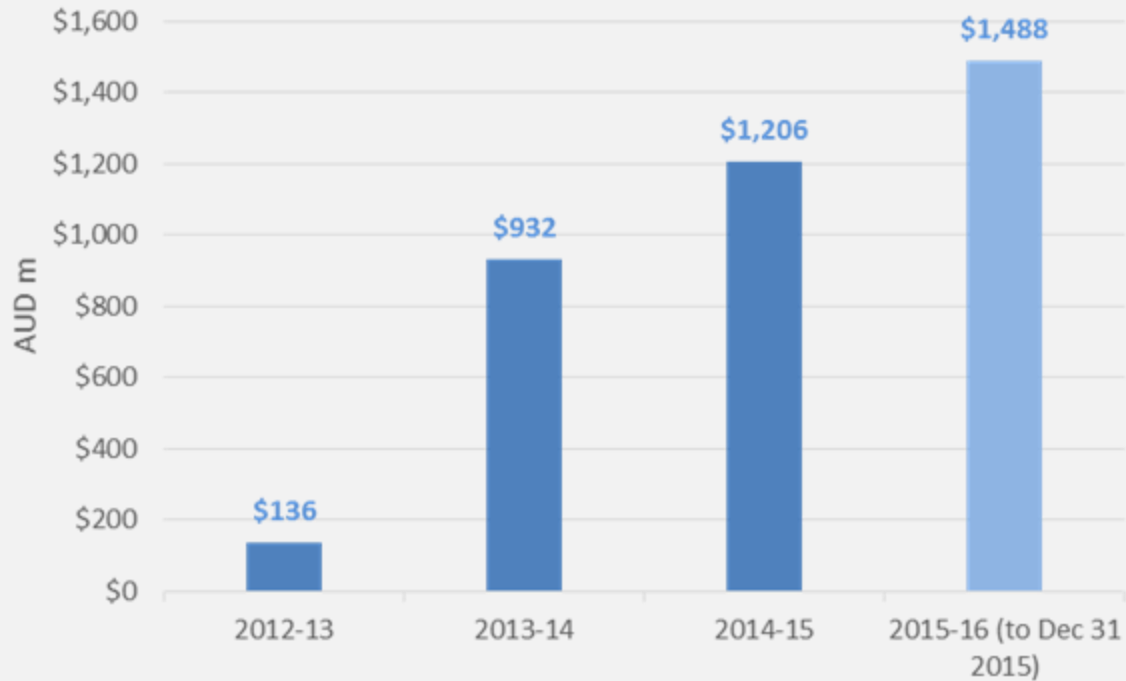


About the Clean Energy Finance Corporation

- 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



A growing portfolio of clean energy investment commitments



Sector-led programs announced in FY2016

Local government

\$250 million commitment to help councils reduce energy bills and lower emissions

- Financing eligible projects across renewable energy, energy efficiency and low emissions
- Loans of at least \$10 million
- Councils can enter into joint financing agreements



Bioenergy and waste to energy

Cornerstone commitment of \$100 million to establish the Australian Bioenergy Fund

- Co-investment with the Foresight Group to establish a \$200 million dedicated Australian bioenergy and energy from waste equity fund
- Targeting the deployment of new bioenergy from waste capacity, investing in projects in the \$2-100 million range



Large-scale solar financing

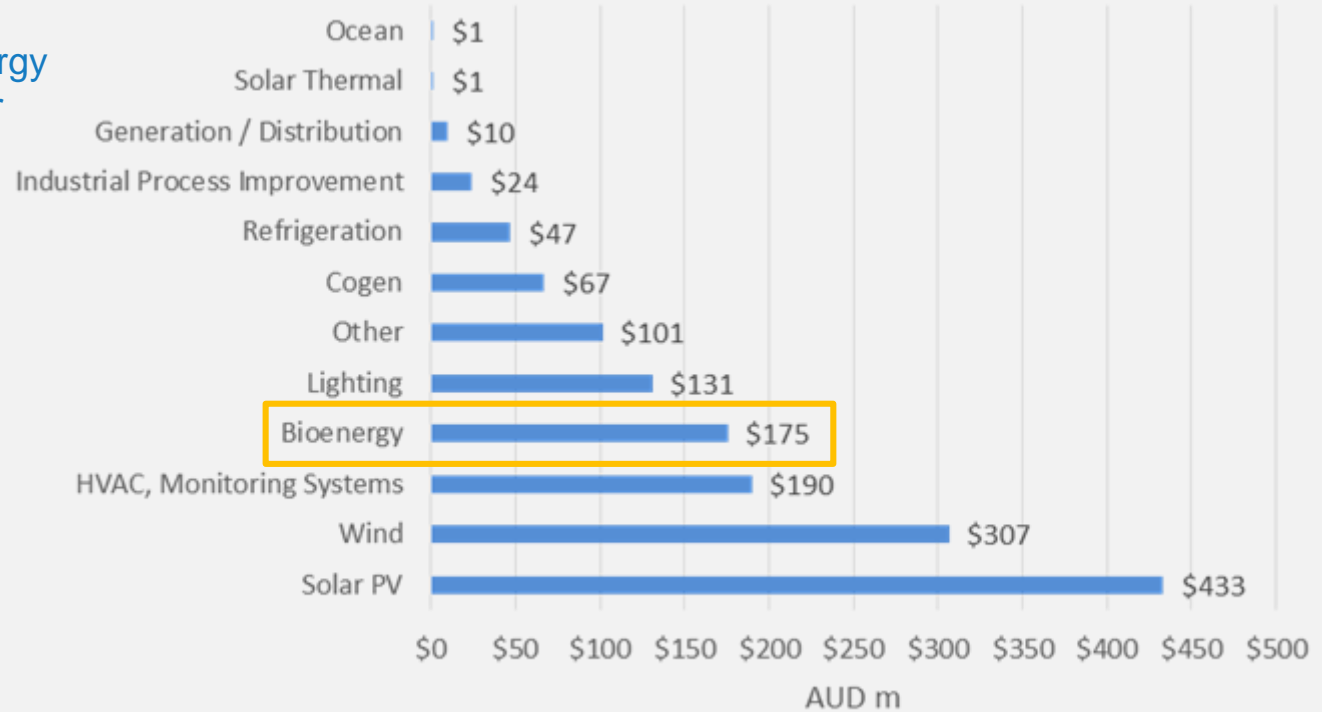
CEFC's single largest commitment to large-scale solar in Australia to date

- \$250 million in debt finance available for merchant and contracted projects
- Substantially increasing installed large-scale solar capacity in Australia
- Developing the Australian supply chain for large-scale solar and bringing it down the cost curve



The CEFC has a diverse portfolio of investment commitments

At Dec 31 2016, bioenergy made up \$175 million or nearly 12% of our total portfolio of commitments



Delivering sustainable waste solutions



Waste to energy facilities in Western Australia

- Up to \$50m in project finance to New Energy Corporation to develop waste-to-gas plant in Pilbara, WA
- Using Australian-developed world-leading ENTECH™ waste-to-gas gasification technology
- Estimated annual CO2-e savings of 135,000 tonnes
- Ability to process up to 225,000 tonnes of waste per annum.
- Waste services contracts signed with City of Karratha and Shire of East Pilbara
- Two new plants to open between 2017 and 2018

CEFC COMMITMENT

Up to \$50 million

TECHNOLOGY

Waste to energy

NEW RENEWABLE CAPACITY

16.6 MW

LOCATION

Port Hedland and Rockingham, WA



High-tech waste to energy solution



Creating new power for Western Australia

- \$2.2 million loan to Richgro Garden Products
- Funding an anaerobic digestion waste-to-energy project as part of a zero waste fertiliser manufacturing
- Plant has capacity to divert 35,000-50,000 tonnes of commercial and industrial organic waste per year
- In October 2015, the grid was connected for export

CEFC COMMITMENT
\$2.2 million

TOTAL PROJECT VALUE
\$6 million

TECHNOLOGY
Bioenergy

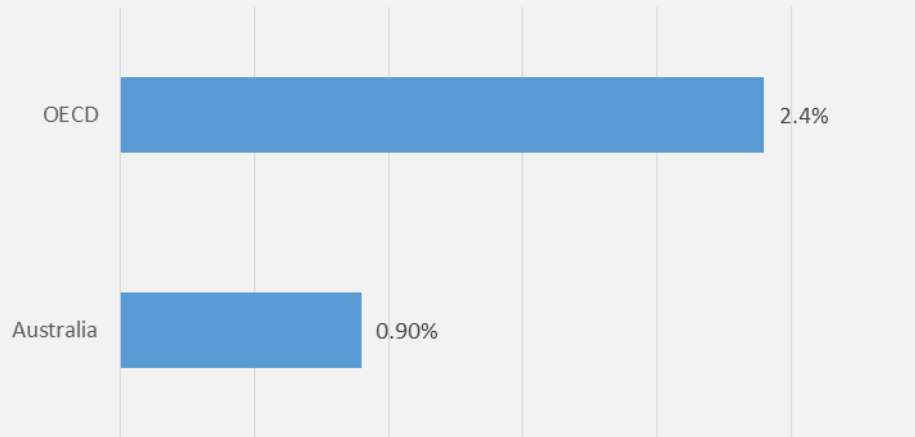
LOCATION
Jandakot, WA



Richgro

CEFC bioenergy and energy from waste market review

Bioenergy share of electricity generation (% of total electricity generation)



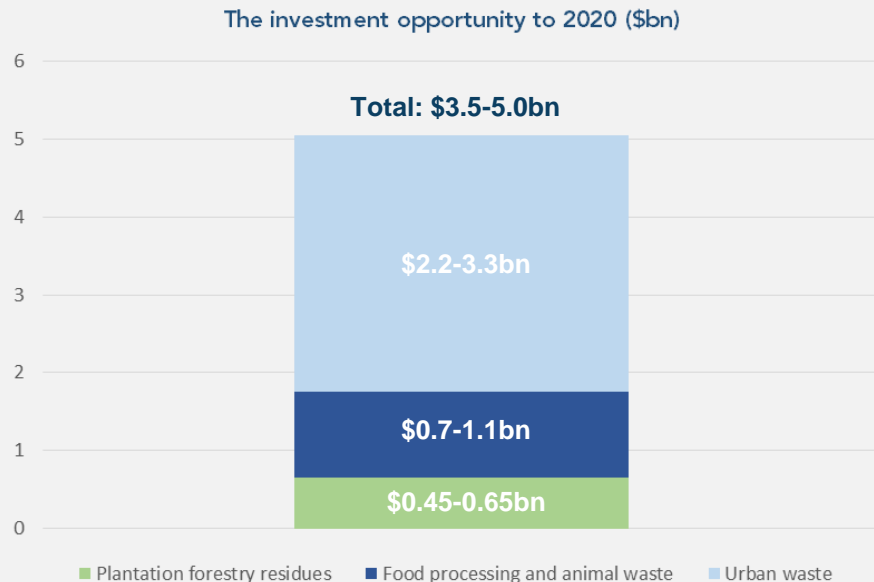
The Australian bioenergy and energy from waste market

A market report by the
Clean Energy Finance Corporation

November 2015

Doubling Australia's bioenergy electricity capacity is a \$3.5-5.0bn investment opportunity

- An additional 800MW of new bioenergy generation capacity will require \$3.5-5.0bn of investment
- Opportunities in urban waste, food processing and animal waste, and plantation forestry residues.
- This could potentially avoid more than 9 million tonnes of CO₂-e emissions each year



Where are the opportunities?

Urban
waste



Food and garden
organics, waste
wood and timber,
wastewater and
residual waste

\$2.2-3.3bn
investment
opportunity to
2020

Intensive
livestock and
food
processing



Organic waste from
poultry farms, cattle
feedlots, piggeries,
dairy farms and
abattoirs

\$0.7-1.1bn
investment
opportunity to
2020

Plantation
forest
residues



Stem
tops and branches left
after harvest, as well
as plantation forest
sawmill residue and
pulplog

\$0.45-0.65bn
investment
opportunity to
2020

How the CEFC can finance bioenergy

DEBT	EQUITY	AGGREGATION PARTNERS
Direct debt financing through the CEFC (for amounts greater than \$10m)	Indirectly through a cornerstone commitment to the Australian Bioenergy Fund	For smaller projects seeking corporate debt, through banks and other financiers the CEFC is working with: <ul style="list-style-type: none">• NAB Energy Efficiency Bonus• CommBank Energy Efficient Loans

CEFC supporting The Australian Bioenergy Fund



Cornerstone commitment into bioenergy-focused equity fund

- Cornerstone commitment of \$100m from the CEFC
- Establish a dedicated Australian bioenergy and energy from waste fund
- Targets deployment of new bioenergy and energy from waste capacity
- Equity investments in project vehicles and companies

CEFC COMMITMENT
\$100 million

TOTAL FUND SIZE
\$200 million+



Closing comments

- Australia has significant potential for waste to energy.
- Projects are not easy but we think things are moving in the right direction.
- The CEFC has experience in the sector and a number of options for finance are available.
- Talk to us about your project.

CEFC

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