

# FINANCING BIOENERGY IN AUSTRALIA: CEFC EXPERIENCE AND INSIGHTS

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# CEFC MISSION

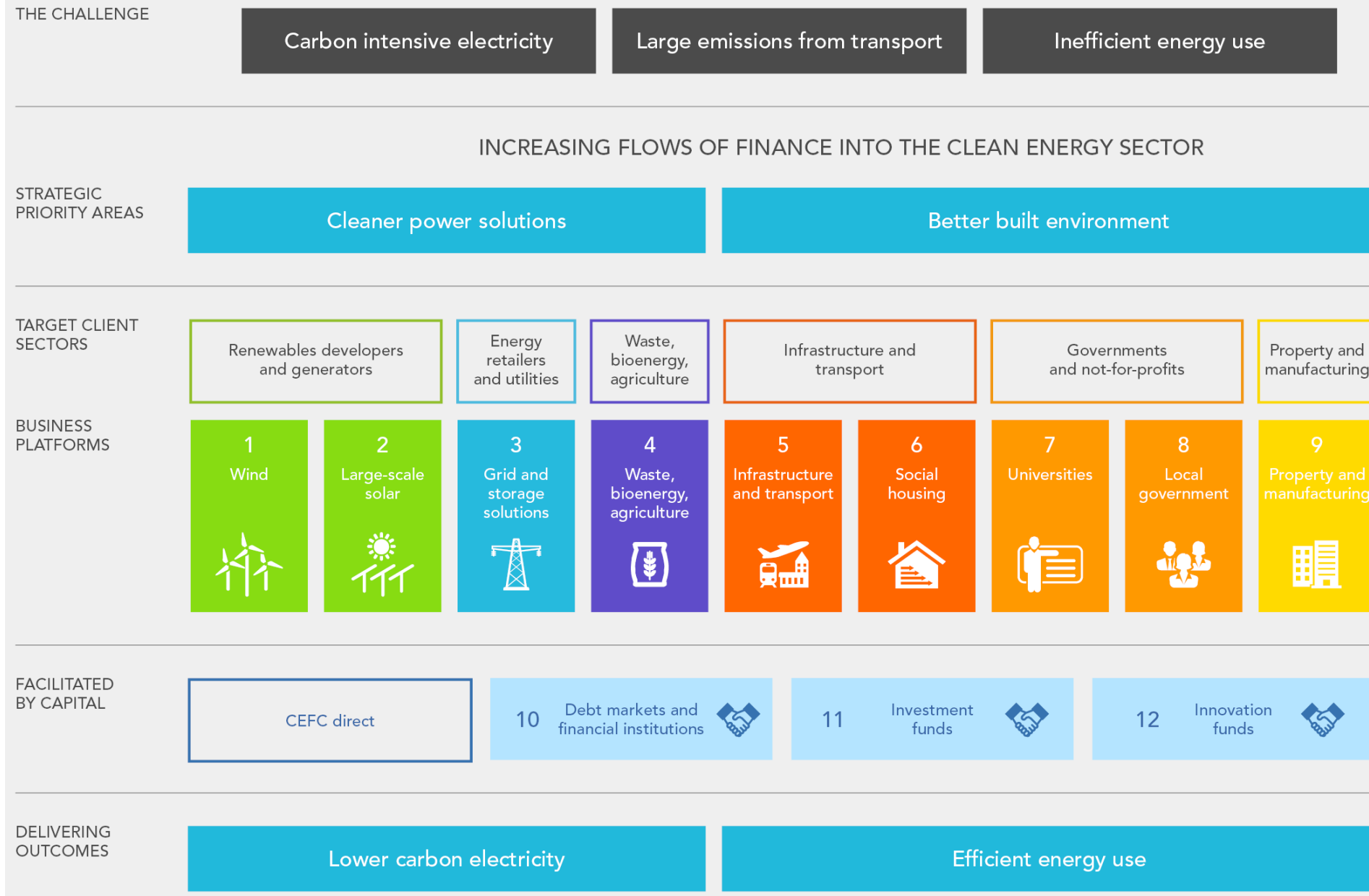
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To accelerate **Australia's transformation** towards a more **competitive economy** in a carbon constrained world, by acting as a **catalyst** to **increase investment in emissions reduction**.

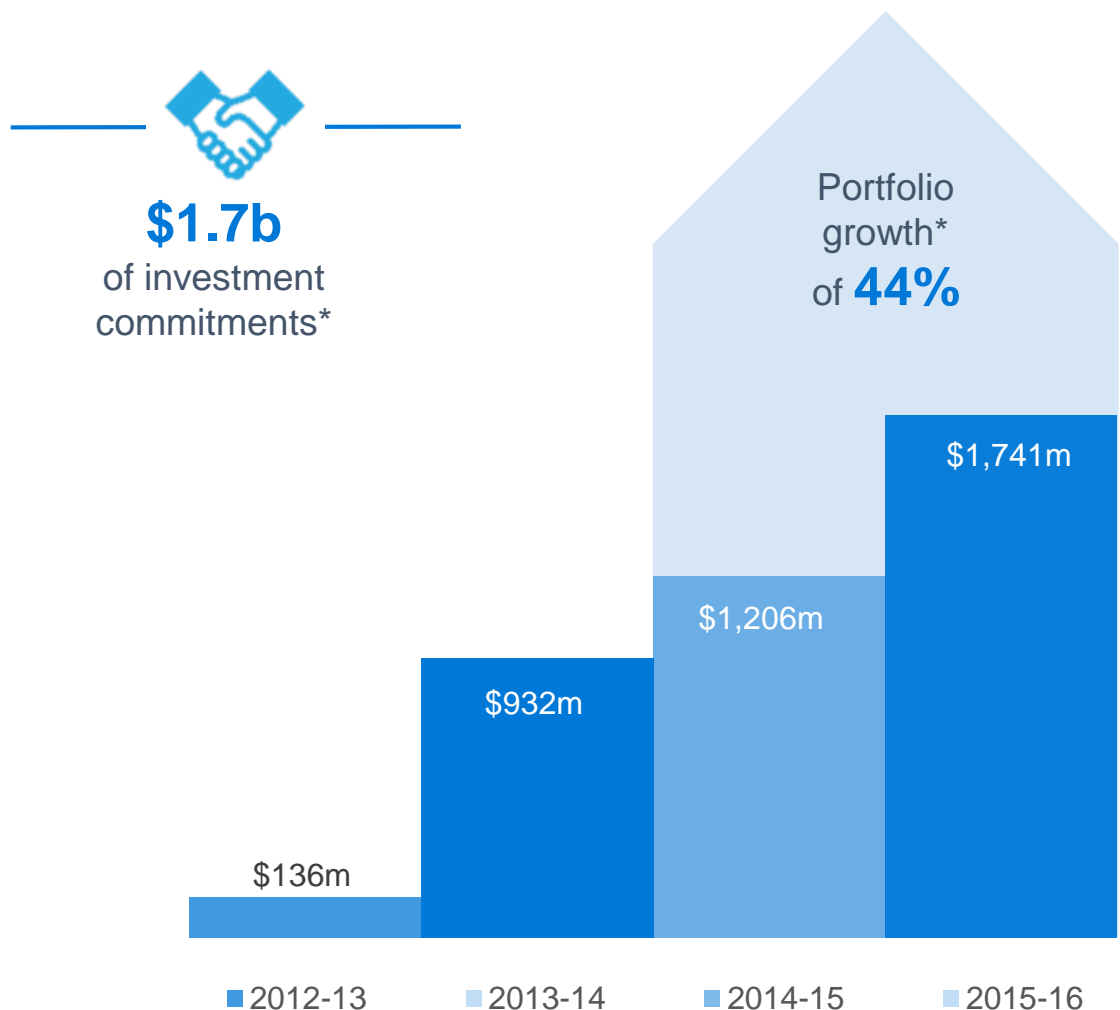
# ABOUT THE CEFC

- An independently-managed Australian Government corporation, created to facilitate increased flows of finance into clean energy
- Private sector expertise with public purpose: finance for energy efficiency, low emissions and renewable energy projects and programs across the economy
- \$10 billion available for clean energy investment finance with anticipated return on investment (debt or equity)
- Able to work on projects that are smaller, more complex, or new to the Australian market
- Operate as co-financier to encourage greater participation in the sector from banks and other financiers

# CEFC STRATEGIC FRAMEWORK



# CEFC CLEAN ENERGY PORTFOLIO



  
**\$1.7b**  
of investment commitments\*



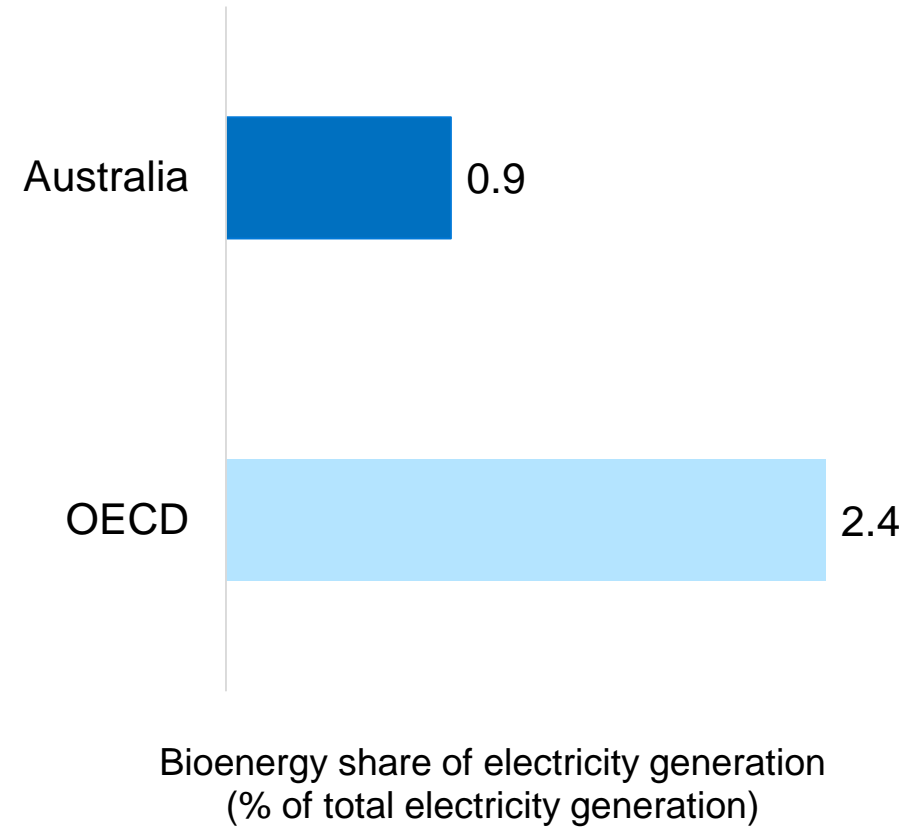
Over **60** direct investments with a forecast investment yield of over **5%**

**7** co-finance and aggregation programs that have delivered over **\$100m** in finance to more than **500** smaller projects and businesses across Australia

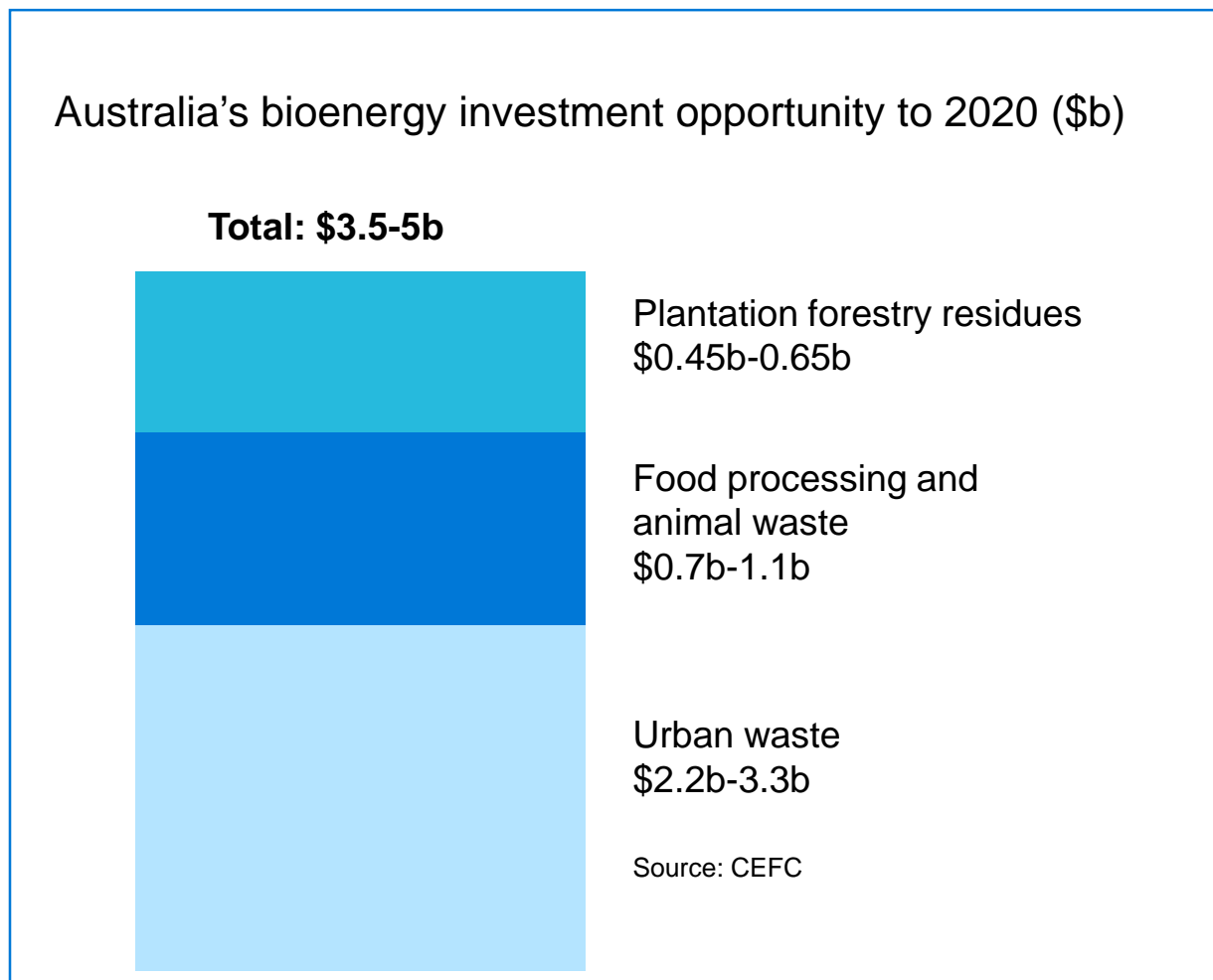
# FRAMING THE BIOENERGY MARKET



# AUSTRALIA LAGS OTHER MARKETS



# OUR \$5 BILLION INVESTMENT OPPORTUNITY



Opportunities in urban waste, food processing and animal waste, plantation forestry residues:

- An additional **800MW** of new bioenergy generation capacity
- Requiring new investment of **\$3.5-5 billion**
- Potential to avoid annual CO<sub>2</sub>-e emissions of more than **nine million tonnes**

# CEFC FINANCE OPTIONS FOR ENERGY-FROM-WASTE

DEBT		EQUITY
Direct debt financing	Co-financing programs	Indirect finance
Direct debt from the CEFC for amounts greater than \$10m	<p>For smaller projects seeking finance, we work with a number of co-finance partners:</p> <ul style="list-style-type: none"> <li>• NAB Energy Efficiency Bonus</li> <li>• CBA Energy Efficient Equipment Finance</li> <li>• Westpac Energy Efficiency Financing Program</li> </ul>	Indirectly through the <b>Australian Bioenergy Fund</b>



# INVESTMENT FACTORS THE CEFC CONSIDERS

RISK FACTOR	LOW RISK	HIGH RISK
<b>Technology</b>	Commercially deployed in Aus e.g. anaerobic digestion, landfill gas	Not commercially deployed in Australia e.g. pyrolysis, gasification
<b>Feedstock</b>	Long contract for supply and no cost e.g. waste that provides gate-fee revenue	Paying for feedstock and uncontracted
<b>Offtake</b>	Guaranteed customer e.g. 10+ yr contracted offtake	Commodity exposure
<b>Equity</b>	Substantial equity from quality sponsor	Non-investment grade equity sponsor e.g. high net worth
<b>Construction</b>	Fixed price EPC with LD regime with significant balance sheet	Non-fixed price contract
<b>O&amp;M</b>	Experienced operator with significant balance sheet	No experience

# KEY SECTOR CHALLENGES

ISSUE	CHALLENGE	SOLUTION
<b>Complexity of projects</b>	Complex compared to other energy projects such as solar or wind	<ol style="list-style-type: none"> <li>1. <i>Simplifying projects as much as possible</i></li> <li>2. <i>Attracting experienced international investors and EPC</i></li> <li>3. <i>First projects successful</i></li> <li>4. <i>Critical mass of projects</i></li> </ol> <p><i>Focus on states with supportive levy and approval regimes</i></p> <p><i>Levy consistency over long term</i></p>
<b>Capital availability</b>	Immature project market in Australia Past Australian project issues Deal complexity- multiple revenue streams	
<b>Development experience and Capability</b>	Generally smaller, inexperienced project developers	
<b>EPC/O&amp;M price</b>	Investors typically require fixed price EPC Limited projects in Australia mean limited EPC/O&M price tension	
<b>Approvals</b>	Immature project approval regimes, few approved EfW projects, limited community understanding	
<b>Levy inconsistency</b>	Inter-state waste movement is a cap on project gate fees Large councils in Qld are conducive to bankable, 'simple' waste supply agreements, but no levy	

# AUSTRALIA'S FIRST EQUITY FUND FOR BIOENERGY

## Australian Bioenergy Fund

- Cornerstone commitment of \$100m from the CEFC targeting total fund size of ~\$200m
- 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



# ZERO-WASTE FERTILISER MANUFACTURING

## Richgro

- \$2.2m loan to Richgro Garden Products towards \$8m project
- 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
- Connected to grid for export of surplus electricity

## Jandakot, WA



# NEW ENERGY FROM WASTE TECHNOLOGIES

## New Energy Corporation

- Up to \$50m in project finance debt to New Energy Corporation to develop energy from waste plant in Pilbara, WA
- Estimated annual CO<sub>2</sub>-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

## Port Hedland, WA



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