

CLEAN ENERGY FINANCE CORPORATION

Australian Emissions Reduction Summit

Accelerating investment in and deployment of low carbon solutions

6 May 2014

Presentation by Oliver Yates, CEO CEFC



CEFC Mission

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

Today's presentation

1. Access to finance is critical in order to accelerate deployment of clean energy
2. Role of the CEFC
3. How the CEFC works
4. Case studies: Examples of financing solutions & technologies solutions that can deliver abatement



Access to Finance is Critical

- **International Energy Agency** says energy efficiency & renewables are the two most important measures to reduce emissions.
- **IMF, World Economic Forum & Bloomberg** all say access to finance is key to driving clean energy investment
- Growing range of international financing institutions and mechanisms around the world.



**Green
Investment
Bank**

The Australian Approach to drive investment in clean energy

About the CEFC

- Role in mobilising finance in clean energy
- Specialist financier & have access to \$2 billion p.a.
- Operate like a bank & take a commercial approach



Technologies the CEFC finances

OFF-GRID

- Solar-thermal greenhouse
- Solar PV for households, businesses & councils
- Waste coal-mine gas to electricity
- Off-grid wind & solar for mine sites.

BIOENERGY

- Municipal waste-to-energy
- Biogas in piggeries, poultry, abattoirs & rendering
- Plant waste –to-energy
- Biofuel
- Bagasse

ENERGY EFFICIENCY/BUILDINGS

- Lighting & sensors
- Elevators
- Heating & Ventilation
- Air-Conditioning
- Chillers
- Insulation
- Smart controls
- Variable speed drives

UTILITIES

- Wind Farms
- Solar Farm
- Wave Energy Technology
- High-efficiency gas
- Hydro

INDUSTRIAL

- Refrigeration, freezers & ovens
- Printing presses
- Air compressors & pumps
- Chillers
- New or upgraded high-efficiency production equipment
- Cogeneration
- Trigeneration

Where the CEFC is Financing

NOT-FOR-PROFIT

- Lighting
- Heating, Ventilation, Air- Conditioning upgrade (HVAC)
- Solar PV

LOCAL COUNCILS

- Co-generation
- Street lighting
- Building lighting & sensors
- Municipal waste-to-energy
- Insulation
- HVAC
- Solar PV

AGRIBUSINESS

- Bioenergy
- Refrigeration
- Solar-thermal greenhouse
- Solar PV

MINING

- Waste Coal-Mine Gas-to-energy

MANUFACTURING

- Refrigeration, freezers & ovens
- Lighting & sensors
- Air compressors & pumps
- Waste heat & steam capture & re-use
- New or upgraded high-efficiency production equipment
- Solar PV
- Bioenergy

RETAIL/SMALL BUSINESS

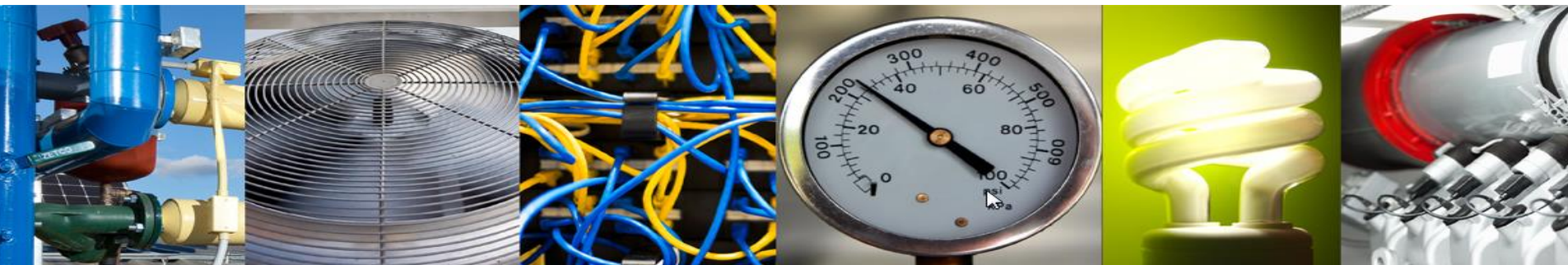
- Lighting
- HVAC
- Chillers
- Refrigeration

BUILDING

- Lighting & sensors
- Commercial solar
- Chillers
- Tri-generation
- Elevator upgrades
- Variable speed drives
- Smart controls
- HVAC

Specialised Financing: Role of the CEFC

- Offer specialised private sector finance experience and expertise in energy efficiency and renewable energy.
- Finance for technology providers with focus on projects at the later stages of technology development
- Operate as a co-financer to encourage greater bank participation in the sector.
- Loans can be tailored to suit business and life of project
- Can work on projects that are smaller, more complex or new to the Australian market.
- Invest the time and resources to understand the technology and the company's vision.



Outcomes

- Provided over \$700 mill in finance for over 50 projects worth \$2.5 bill in total value. Helping deliver:
 - Lower energy costs for businesses and helping to improve competitiveness
 - 500MW of clean electricity generation capacity supported
 - Emissions reduction of 3.9 million tonnes CO₂e annually.
 - Unlocking lowest cost emissions reduction - cost of abatement is negative cost (i.e. net return or benefit to the taxpayer) of \$2.40 per tonne of abatement.
 - Investments which are profitable for business we work with.



Low Emissions Technology delivering significant abatement

Case-Study: Energy Developments Limited (EDL)

- \$75 mill loan facility EDL to help accelerate development of new projects generating low emissions energy, including:
 - Capture of landfill gas, waste coal mine gas or mine vent air methane to generate electricity, replacing use of coal-fired power
 - Remote hybrid renewables projects
- The CEFC's fully commercial loan fills a financing gap, enables EDL to grow
- Demonstrates a flexible financing arrangement that incorporates grid-connected and off-grid elements



Innovative finance helping R&D for new technologies

Case study: Carnegie Wave Energy

- \$20 million financing for Carnegie's wave energy technology
- Long term potential for wave energy is significant for Australia.
- New finance structure that enables Carnegie to access upfront capital for R&D
- We are working with other game-changing technologies that could utilise this finance model ..watch this space!



Financing for Innovative Agribusiness to bring New Financiers to the Market

Sundrop Farms - Solar Thermal Greenhouse

- \$40 million in finance to Sundrop Farms for a “World first” project providing important demonstration impact
- Will enable sustainable food production using solar thermal energy for heating, cooling and irrigation from desalinated water.
- Innovative deal where CEFC was a catalyst in helping to raise private sector finance
- Creates 200 local jobs



Waste-to-energy technology offers huge potential

- Huge potential – wide-scale take up could reduce waste and improve productivity.
- \$20 mill financing facility with Quantum Power, leading biogas company.
- Typical individual biogas projects range from \$2 mill -\$4 mill.
- Food processors & other agribusinesses turn waste into energy, reducing on-grid electricity use by 30% - 60% and cutting waste disposal costs:
 - **JBS Australia**, Australia's largest meat processor and exporter, will use biogas in its natural-gas fired boiler to reduce on grid natural gas by 48%
 - **Darling Downs Fresh Eggs** - chicken manure and other waste to generate power through a digester. Reduce grid electricity by 60% and cut waste disposal costs.

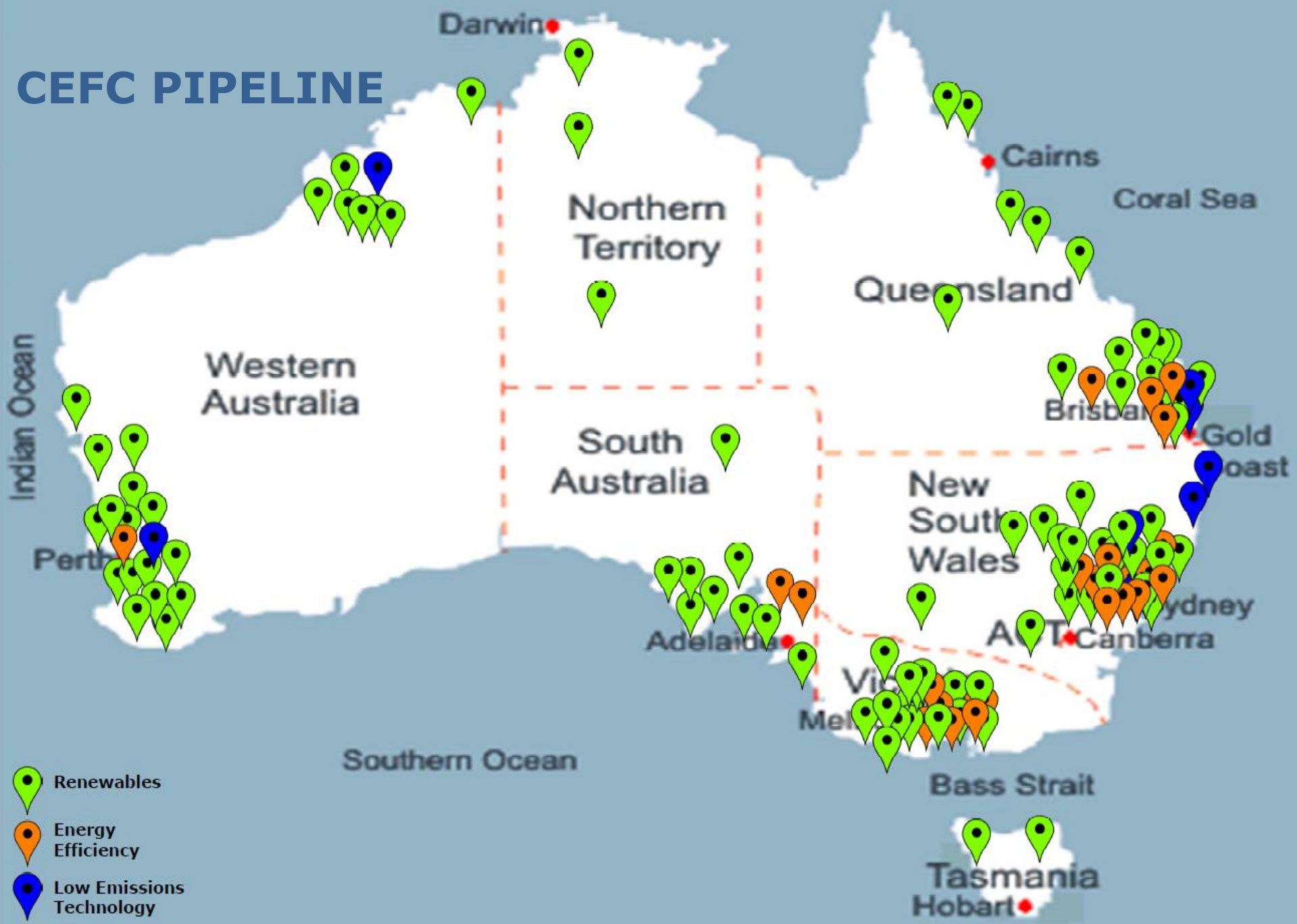


Innovative co-financing with major banks & retailers

- **Energy Smart Finance** with **Flexigroup** allows small and medium enterprises like supermarkets and manufacturers to lease solar PV resulting in 50-65% saving in electricity bills.
- Competitively rates for **Energy Efficient loans** with **CBA** (e.g. new industrial refrigerators for businesses)
- **CEFC & NAB** jointly funding up to \$80 mill for **Environmental Upgrade Agreements (EUAs)** for energy efficiency retrofit of non-residential buildings (e.g. lighting, HVAC and cogeneration)



CEFC PIPELINE



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