

# CLEAN ENERGY FINANCE CORPORATION

Presentation by Paul Greenop, Head of Portfolio Management, CEFC  
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## 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

# NSW Clean Energy Forum 2014

1. Role of the Clean Energy Finance Corporation
2. Finance options available
3. Case studies
4. Summary



## How the CEFC works ...

- Adopts a commercial approach - with tight criteria and filtering of investment projects
- It seeks investments with externalities that benefit the Australian economy:
  - Assisting technologies to move down the cost curve
  - Building skills and supply chain capacity
  - Providing a demonstration effect
  - Emissions reduction
- Co-financing and private sector leverage is integral to the CEFC strategy



# Outcomes

## After 12 months in operation...

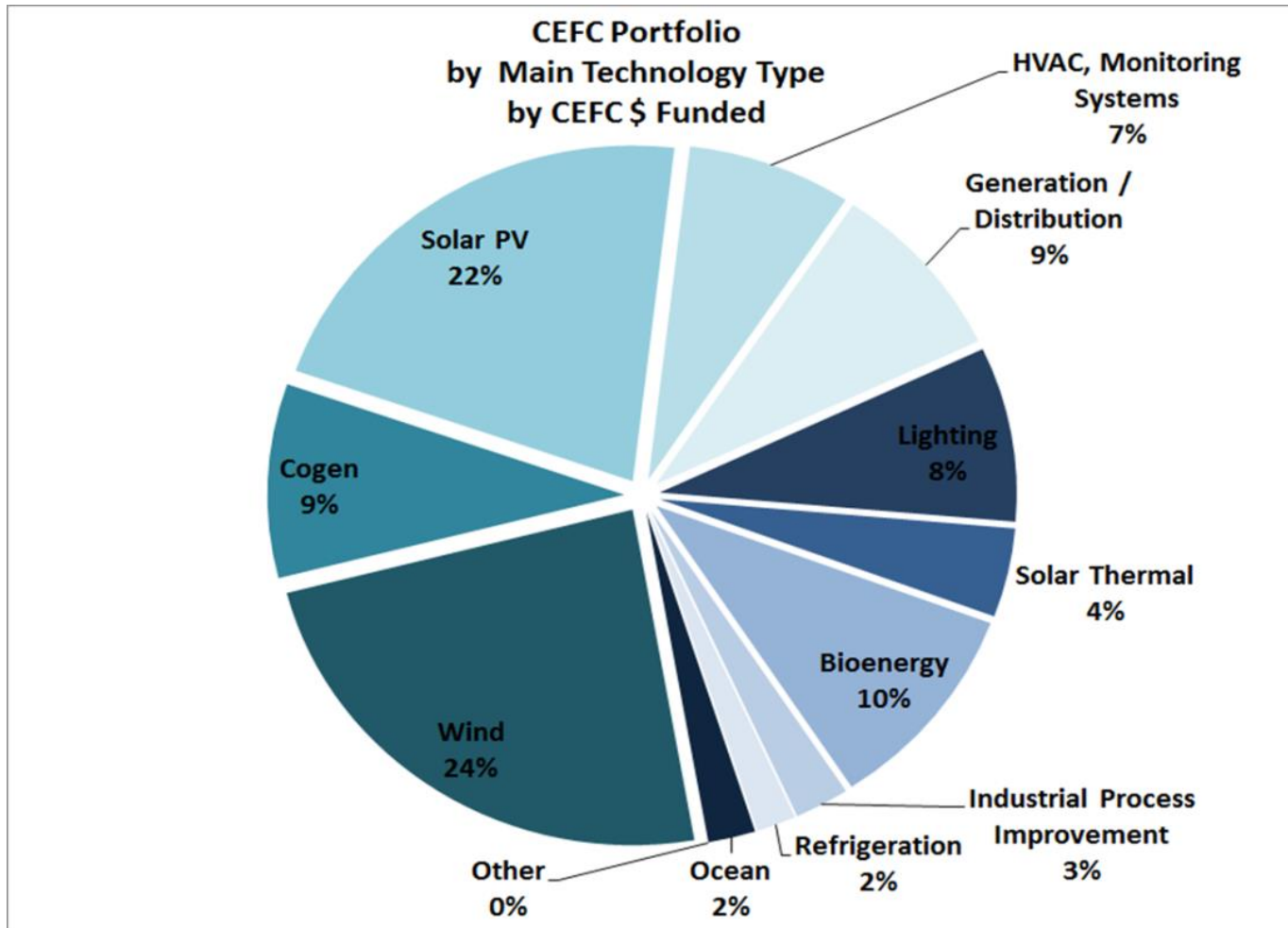
- Provided over \$931 million in finance for \$3 billion of projects. Helping deliver:
  - Lower energy costs for businesses, helping improve competitiveness
  - 700MW of clean electricity generation capacity
  - Once constructed, funded projects will deliver emissions reduction of 4.2 million tonnes CO<sub>2</sub>e annually.
  - Unlocking lowest cost abatement– positive return of \$2.40 p/tonne of carbon saved





# Our current portfolio

## Investing across the economy and in a range of technologies



## CEFC finance can be used for investment in:

- Waste heat capture & reuse in mining and industrial processes.
- Energy efficiency upgrades to plant & machinery including air compressors, motors, variable speed drives etc
- Renewable energy fuels
- Capture waste coal mine gas and mine vent air methane and use it to generate electricity
- Optimise vehicle fleet to maximise fuel efficiency
- Remote power generation from renewable sources including solar
- Generate power using waste-to-energy technology
- Efficient ventilation & AC; absorption chillers; smart controls or lighting



## Potential project outcomes:

- Lower cost of energy through on-site generation
- Improved energy efficiency through better equipment
- Improved productivity & competitiveness (cost reductions)
- New products lines and opportunities for export
- Improved environmental performance of company operations, including lower emissions
- A more sustainable company operation



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## Some finance structures the CEFC uses:

- **Project Finance:** for larger utility scale renewable projects as well as smaller projects that have specific features that may make them harder for commercial banks to finance alone
- **Corporate Finance:** for corporates that may have one or more efficiency or clean energy projects of various sizes
- **Aggregation funding:** to provide finance for numbers of smaller projects in conjunction with commercial banks or other service or finance providers



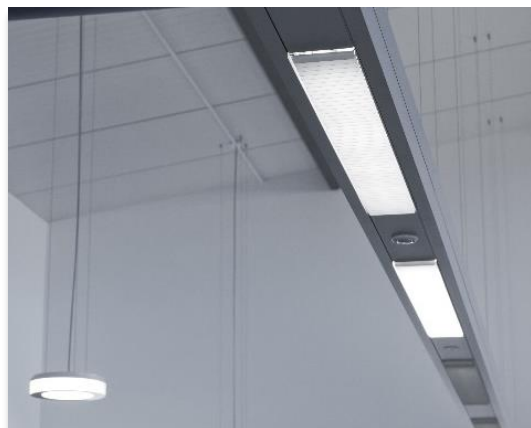
## Energy Efficient Loans with CBA

- \$200 million co-finance with CEFC & CBA to fund clean energy projects with not-for-profits, local councils, manufacturers and other businesses
- Loan value range from \$500,000 to \$5+ million
- Can be used for solar installations as well as new, more energy efficient equipment, including lighting system upgrades, building management systems, A/C, refrigeration & cogeneration for aquatic and leisure centres and sporting venues
- Available nationwide from Commonwealth Bank for project opportunities which meet CEFC eligibility criteria
- Want to know more? Contact Sarah at CBA:  
[Sarah.lalor@cba.com.au](mailto:Sarah.lalor@cba.com.au)



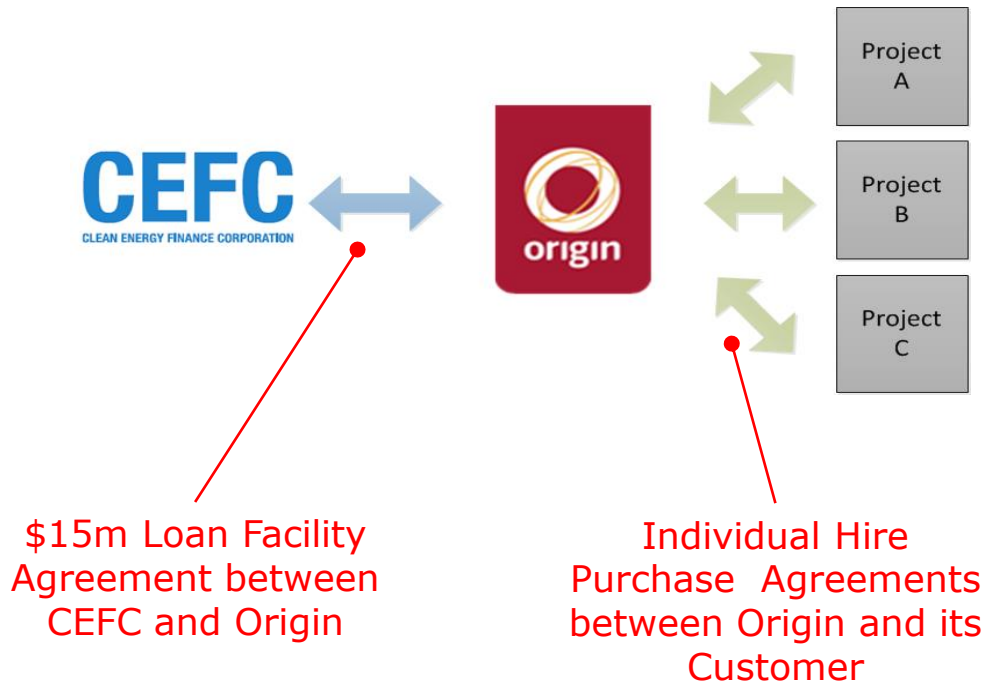
# Environmental Upgrade Agreements

- Environmental Upgrade Agreements (EUA) enable ageing commercial property to be retrofitted (e.g. lighting, HVAC, elevator upgrades).
- EUA – three way partnership between financier, local council and property owner
- On average, retrofits result in a 45% reduction in building energy costs.
- Want to know more? Contact Ashley Robertson Associate Director, NAB [ashley.robertson@nab.com.au](mailto:ashley.robertson@nab.com.au)



# CEFC and Origin on-bill finance for energy projects

Want to know more? Contact: Daniel at Origin  
[Daniel.TrujilloEscomel@originenergy.com.au](mailto:Daniel.TrujilloEscomel@originenergy.com.au)



**Electricity**  
Tax Invoice: 100000012345 Issued: 21 May 12  
Enquiries & moving address: 1300 661 544  
Faults or emergencies, Call Powercor (24hrs): 13 24 12  
Visa or MasterCard Payments: 1300 668 783

Account No: 123 456 789 101  
Total Amount Due: \$XXX.XX  
Due Date: 06 Jun 12

Service Address: 123 SAMPLE ST SAMPLE TOWN VIC 1234  
Meter Read: Estimated  
National Meter Identifier (NMI): 7777777777

Account Summary: 21 Feb 12 to 21 May 12  
Opening Balance: \$000.XX  
Payments Received - Thank You: \$000.XX  
Balance Carried Forward: \$X.XX  
New Charges:  
Total Electricity Charges Incl. Discounts: \$000.XX  
Total Amount Due - Incl. Overdue Amount: \$000.XX  
New Charges Incl. GST Charges of: \$000.XX

**Important Information**  
For more information on greenhouse gas emissions visit [originenergy.com.au](http://originenergy.com.au), [climatechange.vic.gov.au](http://climatechange.vic.gov.au) or call us on 1300 661 544.

Origin Energy Electricity Ltd ABN 39 071 012 287

**Your Average Daily Usage & Indicative Greenhouse Gas Emissions**

| Month   | Usage (kWh) | Emissions (Tonnes) |
|---------|-------------|--------------------|
| May '11 | 10.0        | 1.0                |
| Aug '11 | 12.0        | 1.2                |
| Nov '11 | 11.0        | 1.1                |
| Feb '12 | 10.5        | 1.05               |
| May '12 | 10.0        | 1.0                |

Key: kWh (Usage) Tonnes (Indicative greenhouse gas emissions)

|  |          |
|--|----------|
| Average Cost Per Day:                        | \$X.XX   |
| Average Daily Usage:                         | X.XX kWh |
| Same Time Last Year:                         | X.XX kWh |
| Indicative Greenhouse Gas Emissions (Tonnes) |          |
| Generated This Account:                      | X.XT     |
| Same Time Last Year:                         | X.XT     |
| Saved With a Green Product:                  | N/A      |

# Commercial building solutions

## Balmain finance for commercial property upgrades

- CEFC partnered with Balmain Funds to provide up to \$100 million in finance for commercial property upgrades to reduce energy consumption & emissions.
- It will be used for major building retrofits that lift the NABERS rating of a property by at least two stars, up to at least four stars.

*"This finance from the CEFC will help provide an incentive to invest in energy efficiency and improve sustainability, while cutting building operating and maintenance costs."*

Balmain Funds CEO Stephen Tunley



Want to know more? Contact Stephen at  
Balmain: [STunley@balmain.com.au](mailto:STunley@balmain.com.au)



# Solar PV for commercial buildings and industry

- Finance to lease solar panels to places like mine sites, manufacturing plants, commercial buildings or to offer power purchase agreements
- Could be used by aged-care facilities, sporting and community clubs, franchise food operations, hotels, shopping centres, government buildings and more
- Offer range of systems: small systems through to 100kW plus commercial installations
- No upfront payment required and can be structured to be cash-flow positive from day one



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## Case Study: School upgrades

### CEFC-Origin on-bill finance for Melbourne school lighting upgrade

#### Action:

- \$123,000 retrofit
- Included new lighting in gymnasium & classrooms (T5 lamps and LED lights)
- Used CEFC's on-bill finance

#### Outcomes:

- Cut lighting energy costs by over 50%
- Cut maintenance costs by \$13,500 p.a.
- Cut carbon emissions by 250 tonnes p.a.



## Case Study: Biogas from organic waste

### Finance for garden product supplier to generate on-site biogas

#### Action:

- Garden products supplier is turning organic food waste into energy through a \$4 million anaerobic digestion plant with a capacity of up to 2MW

#### Outcomes:

- Produce sufficient energy to power all equipment & vehicles
- Divert 35,000 tonnes commercial & industrial waste from landfill





## Case Study: Community club

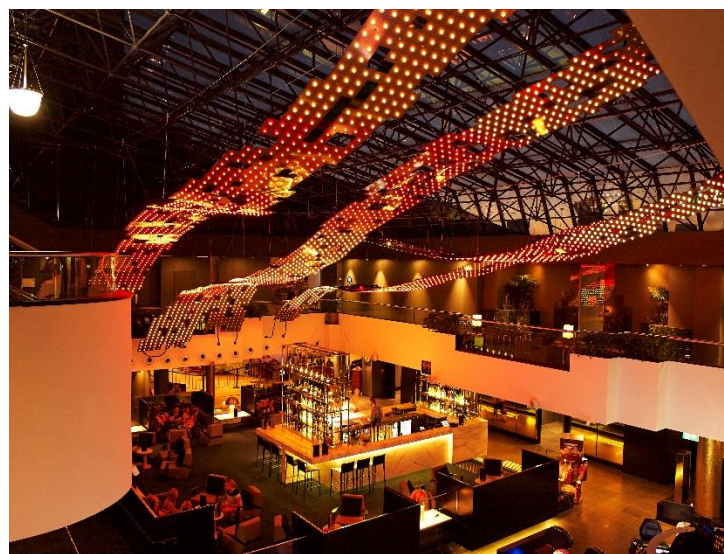
### CEFC finance used for solar and air chiller upgrade

#### Action:

- \$2.2 million Commonwealth Bank/CEFC Energy Efficient Loan for a new chiller and cooling tower and an 85kW solar system

#### Outcomes:

- New chiller is 50% more efficient, saving 700 tonnes carbon p.a.
- Solar will generate 10% of the club's energy





## Case Study: Apple & Chestnut grower

### Energy Efficient Loan to upgrade refrigeration & cut costs

#### Action:

- Food producer replaced R22 refrigeration with new ammonia water-cooled central plant with smart controls
- \$1.2 million upgrade

#### Outcomes:

- Cut energy costs by 40%
- Save 488 tonnes of emissions p.a.



# Case Study: Meat processor

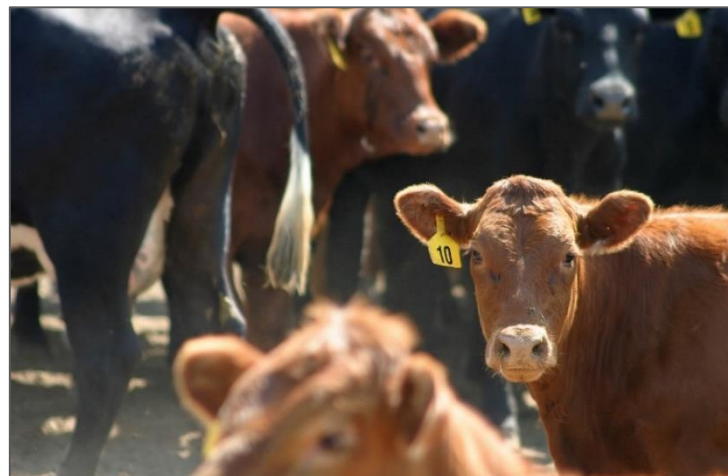
## CEFC finance to upgrade manufacturing equipment

### Action:

- Large meat processing manufacturer installed a \$4 million gas fired tri-generation that supplies electricity, hot water and steam

### Outcomes:

- Tri-generator reduces grid electricity use and carbon emissions by about a third.
- Enhances energy supply stability and helps company achieve greater control over electricity fluctuations



## Case Study: Plastics manufacturer

### CEFC finance to upgrade manufacturing equipment

#### Action:

- Plastics manufacturer of rainwater tanks & children's playground equipment upgraded their plastic moulding ovens with new-generation rotational ovens

#### Outcomes:

- Halved its oven energy use.
- New ovens quicker & easier, increasing productivity
- Cut operational costs by >\$150,000 p.a.





## Case Study: Hotel upgrade

### CEFC finances Melbourne Hotel complex upgrade

#### Action:

- \$1.3 million energy efficiency upgrade to a multi-use high-rise building
- Installed trigeneration to generate electricity, heating & cooling, as well as occupancy sensors & double glazing.

#### Outcomes:

- Energy cost savings greater than 50 per cent (\$100,000 p.a.)
- Reduced building's carbon emissions by 27%
- Increased NABERS rating to 4.5 (from 2.5)
- Improved value of building



## Case Study: Commercial office

### 15-storey B-grade commercial office building upgrade

#### Action:

- Installation of new air conditioning, lighting, and building management systems at barristers' headquarters in Sydney.

#### Outcomes:

- Reduce base building energy use by 30%
- Reduce emissions by 460 tonnes p.a.
- Lower occupancy cost for tenants





## Case Study: Office building

### CEFC finances lighting upgrade Parramatta office building

#### Action:

- Lighting upgrade to high-rise, tenanted office building (15,200 sq metres)
- Replaced old lights with e1 & LED lighting

#### Outcomes:

- Energy savings of 70% (\$130,000 p.a.) on lighting bills following upgrade
- Savings on maintenance
- Improved value of property
- Savings shared between building owner and tenants



*“A significant number of buildings in and around Parramatta are over 20 years old. These types of upgrades make properties cheaper to run, and are more attractive to tenants and potential buyers who want modern, efficient and sustainable buildings”.  
Councillor Chedid, former Lord Mayor of Parramatta City Council,*

## Case Study: Corporate facility

### Corporate facility for beef processor

#### Action:

- Corporate loan facility of up to \$15 million for the installation of a biodigester and energy efficient rendering facilities

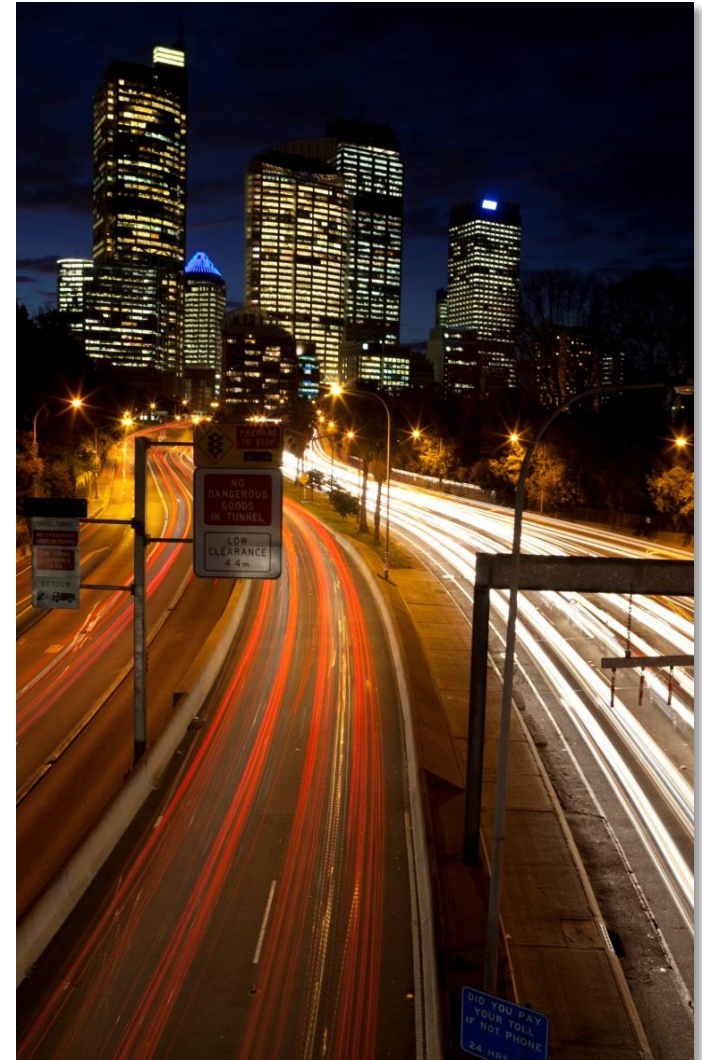
#### Outcomes:

- Halve power bills
- Boost competitiveness
- Reduce annual carbon emissions by 75%





## Summary

- CEFC is here to help finance projects that will help improve the energy productivity of businesses and organisations in all sectors
- We have specialised experience working with a range of manufacturing, large industrial companies as well as smaller retail businesses
- We can tailor finance to suit individual company and project needs
- We are happy to work with businesses looking for finance for projects which lower energy costs and improve their long-term sustainability.



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