CLEAN ENERGY FINANCE CORPORATION

Queensland Energy Forum *"Financing energy user projects"*

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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

Agenda

1. How the CEFC works
2. Types of CEFC financing available for large energy users
3. CEFC case studies
4. CEFC pipeline in Queensland

About the CEFC

Working with businesses to improve energy productivity

- Independent, Australian Government institution that operates like a traditional financier
- Finance for renewable energy projects energy efficiency, and low-emissions
- Has access to $10 billion over 5 years
- Tailors finance terms to accommodate specific company and project needs
- Can work on projects that are smaller, more complex or new to the Australian market
- Facilitate the participation of private sector banks by sharing our expertise, acting as a co-financier and pioneering new solutions

How the CEFC model works

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- Commercial approach - with tight criteria and filtering of investment projects
- Partners with financial institutions to co-finance
- 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
  - Catalysing emissions reduction



Investing in many different technologies

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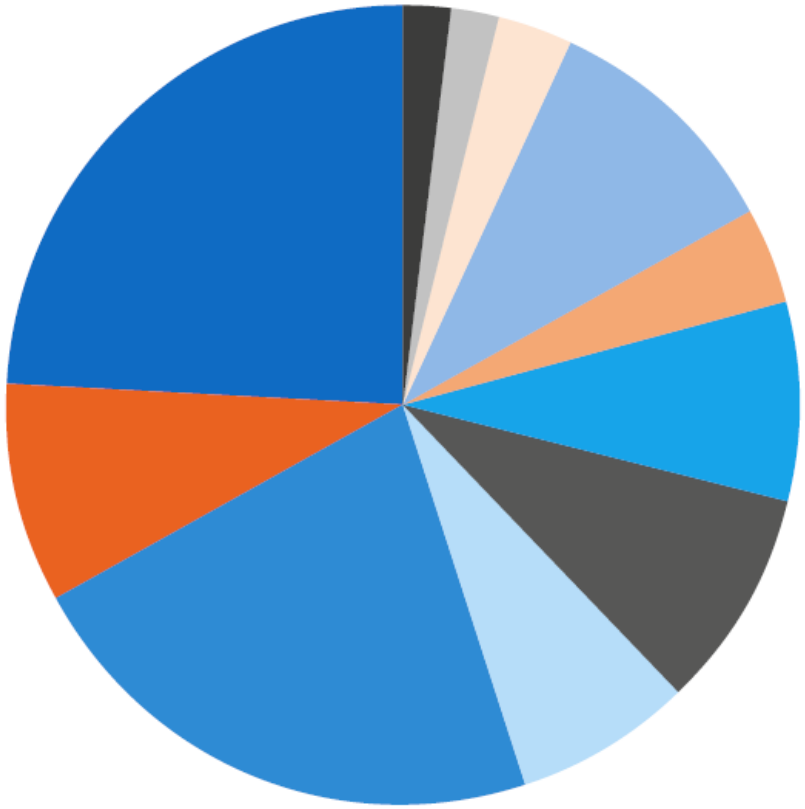
CEFC portfolio by sector type (CEFC AUD$ funded in %)



Wind	24%
Cogen	9%
Solar PV	22%
HVAC, Monitoring Systems	7%
Generation/Distribution	9%
Lighting	8%
Solar Thermal	4%
Bioenergy	10%
Industrial Process Improvement	3%
Refrigeration	2%
Ocean	2%

CEFC is working right across the economy

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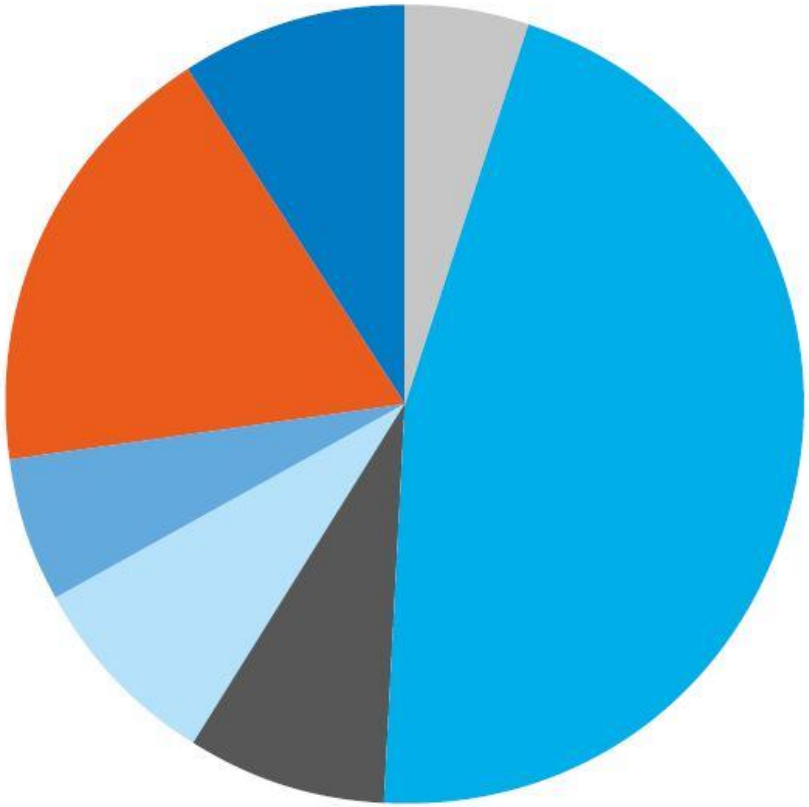

Agriculture, Forestry and Fishing	9%
Commercial Buildings	18%
Government	6%
Manufacturing/Industry	8%
Mining	8%
Utilities	46%
Residential	5%

Outcomes after 18 months in operation

- Committed to investments of over $1bn in projects with value at over $3bn
- These projects are helping deliver:
  - Lower energy costs for businesses, thereby improving competitiveness
  - 600MW of clean electricity generation capacity
  - Emissions reductions of 4.2 million tonnes CO2e annually (once projects are constructed and operational)
  - Low cost abatement – positive return of more than $2 p/tonne of carbon saved by these projects

Courtesy of SunPower

CEFC finance can be used for investment in:

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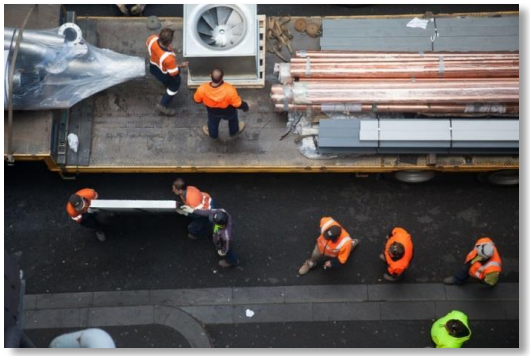
- Replacing/upgrading plant & machinery including air compressors, motors, conveyors, pressers, dryers, variable speed drives etc
- On-site power generation from renewable sources like solar & waste-to-energy, including in remote areas
- Waste heat capture & reuse in mining and industrial processes
- Efficient ventilation & AC; absorption chillers; smart controls or lighting
- Process upgrades which deliver energy efficiency gains

Potential outcomes from projects:

- Better access to and lower cost of energy through on-site generation; energy security for end-of-line or remote areas
- Improved energy efficiency and lower operating costs through process improvements and better equipment
- Reduction in maintenance costs
- New product lines as a result of using new machinery
- Improved productivity & competitiveness
- Improved environmental performance of company operations, including lower emissions

Project Finance

- For larger-scale renewable projects ($20m+) as well as smaller projects that have specific features that may make them harder for commercial banks to finance alone
- Project finance is provided on the basis that debt and equity will be paid back solely from the cash-flow generated by the project so there is an identified revenue stream (often from long term contracts such as a power purchase agreements)
- Example is the new waste-to-energy plant in the Pilbara utilising Australian gasification technology
- In Queensland, we are considering project finance for a utility scale solar farm; a wood pellet facility as well as waste-to-energy plant using bagasse.


Corporate Finance

- Corporate loans for corporates that may have one or more projects of various sizes, with the loan provided on the basis that security is taken over all assets of the organisation and debt is repaid from its cash flow
- Size of these individual projects may vary from the very small (less than $1m) to the very large ($50m or more)
- We usually participate in corporate loans as a co-financier alongside other banks, either in an existing facility or as part of a new facility and share full corporate security
- In Queensland, we are considering providing a corporate finance facility for a business that is looking at doing a number of small landfill gas projects.

Case study: Waste coal mine gas & ERF

- Loan facility for expansion of Moranbah North in Queensland increasing capacity from 45 to 63 MW
- Capture fugitive waste coal mine gas to generate electricity
- Abate waste coal mine gas
- Offset mine demand on a constrained electricity grid
- Provides power with lower-emissions, saving 1.3 Mt CO2-e p.a.

Qld Bioenergy potential

- Qld leads the way in generating electricity from waste streams such as bagasse from sugar milling and macadamia nut shells
- Qld has also commercialised a range of world-first technologies, such as using scrap tyres to make an explosive media for the mining sector, replacing diesel
- Benefits of waste-to-energy technology: reduced waste, reduced soil & water contamination; more clean energy; alternative source of revenue for farmers and growers; and job opportunities
- Bioenergy LCOE ranges from $USD60 MWh for landfill gas (lowest of any renewable energy globally) to $146 MWh for anaerobic digestion

Case study: waste-to-energy using gasification

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- Turning waste into energy can significantly improve energy productivity as well as reducing waste disposal cost
- Example is the new waste-to-energy plant in the Pilbara utilising Australian gasification technology
- Turns industrial, municipal and commercial waste into cost-competitive, base load energy with lower emissions
- Capacity of 16.6MW, saving 135,000 tonnes of CO2-e p.a.
- Also help meet grid & waste management constraints in Northern WA

Case study: Biogas for large energy users

- Gas prices expected to rise sharply
- Businesses looking to alternative fuel options including biogas
- Example is JBS, Australia's largest meat processor and exporter
  - Retrofit an existing wastewater treatment plant to captures and uses biogas at its Dinmore, Queensland facility
  - Result = halved its dependence on grid-connected natural gas and saving more than $1m p.a. on natural gas costs

Case study: Biogas for Qld egg producer

- Finance for innovative waste-to-energy project at Darling Downs Fresh Eggs, a major Queensland poultry business.
- Digester using waste to provide onsite power.
- Result is lower energy costs, lower carbon emissions & reduced reliance on grid-supplied electricity & gas supplies.
- They still access power from the grid in peak periods, but the digester will produce sufficient energy to operate 100% of the businesses energy requirements in all other periods.

Case study: improving productivity by turning waste into energy

- Garden products supplier is turning organic food waste into energy through a $4 million anaerobic digestion plant with a capacity of up to 2MW
- Plant will produce sufficient energy to power all equipment & vehicles, reducing waste and energy costs for the business
- Divert 35,000 tonnes commercial & industrial waste from landfill

Case study: CEFC finance for new plant

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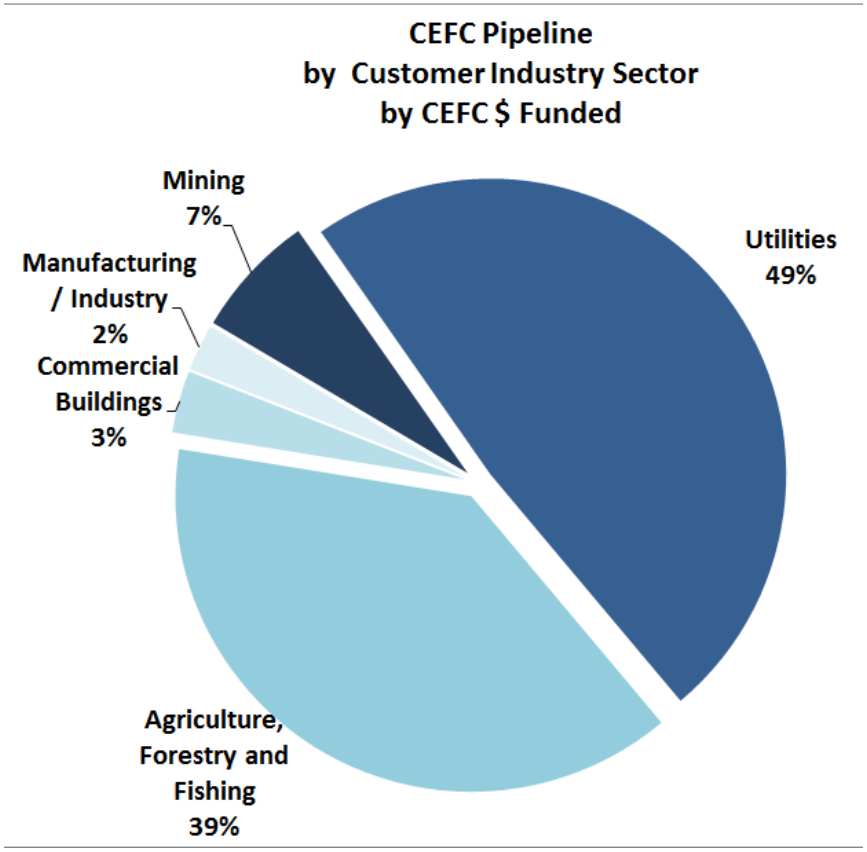
- CEFC finance not limited to renewable energy, can be used for new plant & equipment where there are energy efficiency or emissions savings
- CEFC finance helped paper manufacturer build new $90 million de-inking plant, which opened last week
- Only premium paper recycling facility of its kind in Australia
- Plant will produce sustainable, certified, recycled paper
- Create 50,000 tonnes of recycled fibre
- Divert up to 80,000 tonnes of waste paper from landfill p.a.

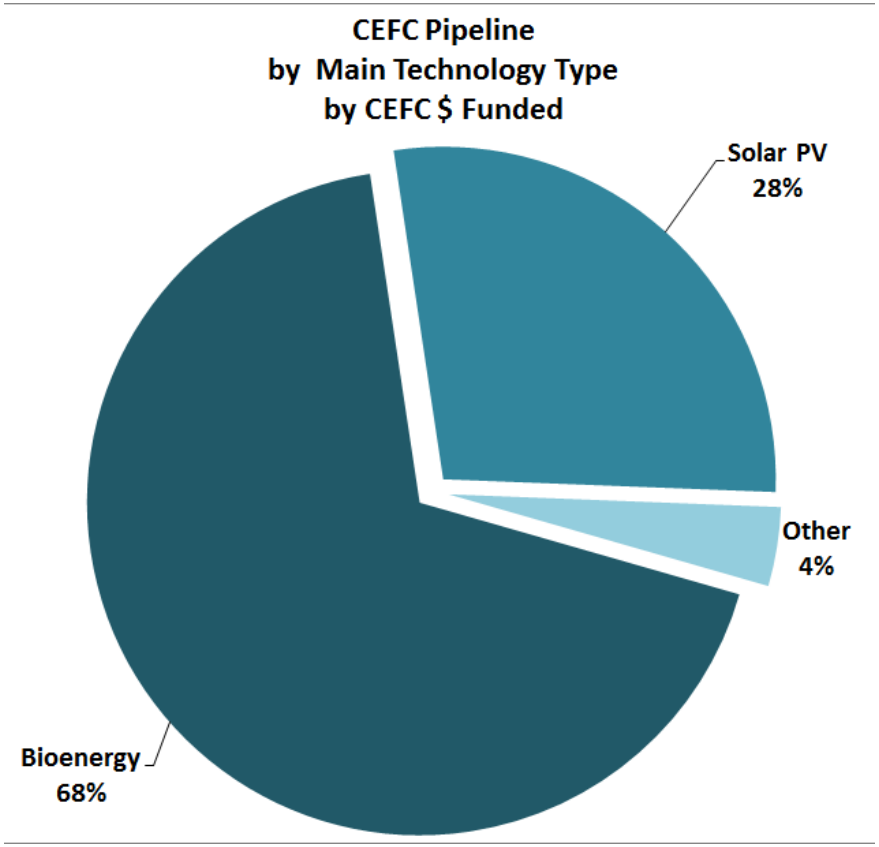
Solar commercial buildings

- The CEFC offer solar two finance options for large commercial installations, the ET Solar Power Purchase Agreement (PPA) Model & SunEdison's PPA or lease model
- Under the CEFC financed program, SunEdison/ET Solar installs, owns and maintains the solar PV systems and either leases them, or sells the power (depending on the contract) to customers
- Systems range between 30KW and 2MW

The Future

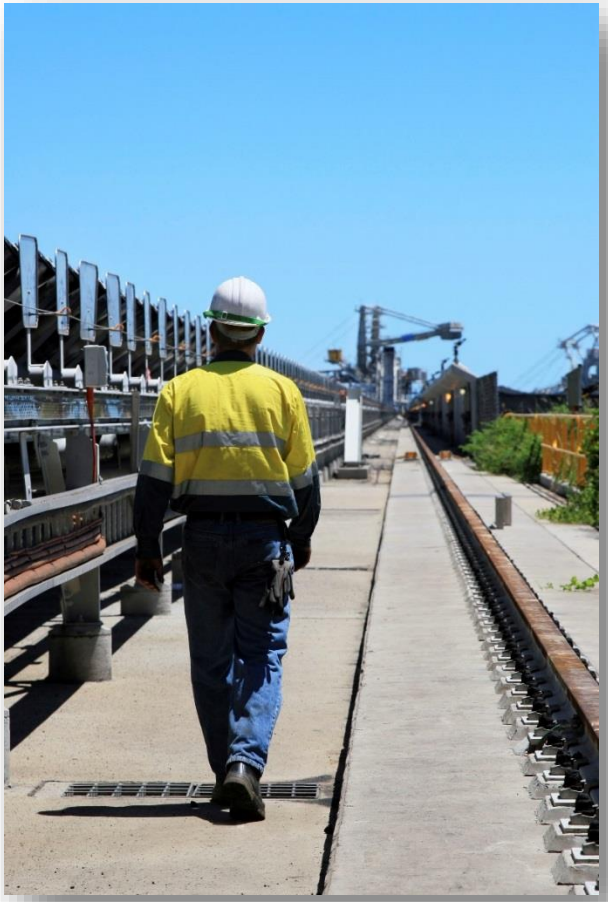
- Pipeline: Twenty Queensland-based proposals seeking CEFC finance of $600m for a total project value of $3.6bn





Summary

- We have experience across many technologies and are here to ensure that Queensland receives the finance it needs from the Clean Energy Finance Corporation for qualifying projects
- We can tailor finance to suit individual company and project needs and are here to work with you on Queensland's energy priorities
- We can dedicate the time and resources early in a project's development to ensure qualifying projects proceed to financing stage



Thank-You

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