CEFC
CLEAN ENERGY FINANCE CORPORATION

FACT SHEET

Landfill Gas Industries turns waste emissions into local energy source

CEFC commits $10 million to expansion of ERF-eligible projects

CEFC finance to support 6 MW of new waste-to-energy

PROJECT

Queensland-based Landfill Gas Industries (LGI) is expanding its waste-to-energy operations with finance from Australia's Clean Energy Finance Corporation (CEFC).

LGI was one of the successful bidders in the first round of contracts under the Australian Government's new Emissions Reduction Fund (ERF).

Up to $10 million in CEFC finance will facilitate LGI's installation of 6 MW of electricity generation using biogas-fired generators at six landfill sites in Southern and Central Queensland.

The CEFC finance demonstrates the CEFC's potential to accelerate projects that abate carbon and are eligible for funding through the ERF.

PROJECT IMPACT

The LGI expansion

LGI builds, owns, operates and maintains biogas-fired generation systems at landfill sites. It sells the electricity generated into the grid and is eligible to collect Australian Carbon Credit Units (ACCUs) from the Australian Government for carbon abated.

LGI will build, own, operate and maintain the biogas-fired generators and sell electricity generated into the grid.

The LGI biogas-fired generators to be financed by the CEFC and ERF contracts will be placed at landfill sites where LGI already has an existing working relationship with the local government authority administering the waste facility. In most cases, LGI already operates flares at the sites, as well as an existing biogas-fired generator at the Willawong Landfill.

CEFC impact

The CEFC's commitment to Landfill Gas Industries will both facilitate and accelerate the rollout of its new energy generating assets under its ERF contracts.

CEFC supported LGI projects

Brisbane City Council

Willawong Landfill - 1 MW landfill gas-to-power facility operating since 2012

1 MW biogas-fired generator producing enough power for an estimated **1,600 homes**

Gladstone Regional Council

Benaraby Landfill - biogas-fired generator to be installed

For smaller regional councils, landfill gas emissions can be **up to 90 per cent** of total carbon footprint

Fraser Coast Regional Council

Saltwater Creek Road Landfill Maryborough - engine due to be installed and operatational by October 2015

The waste sector produces around 13 million tonnes of carbon emissions each year

Moreton Bay Regional Council

Dakabin Landfill - engine due to be operational by end July 2015

Bunya Landfill - one new generator

Caboolture Landfill - one new generator

Energy generated from these facilities could power some **5,000 homes per year**

"Landfill tends to be the biggest source of greenhouse gas emissions for Australian councils, accounting for the majority of the smaller, regional councils' total carbon footprint. With the CEFC's finance aiding our expansion, we'll be in a position to help councils tackle that issue."

Adam Bloomer
Managing Director, LGI

Australia's landfill potential

The waste sector produces around 13 million tonnes of carbon emissions each year, equivalent to two per cent of Australia's total greenhouse gas emissions. According to the Australian Government's National Waste Report 2010 there were at least 665 landfills operating in Australia in 2008, with just under half of Australian waste going to landfill.

Landfill gas is generated for many years after the organic waste is deposited in landfill and begins to decompose. For smaller, regional councils, landfill gas emissions can be up to 90 per cent of total carbon footprint. Generally, about 40-60 per cent of this gas is methane; 40-60 percent carbon dioxide. Less than one per cent comprises non-methane organic compounds and trace amounts of inorganic compounds.

Flaring converts the methane gas into carbon dioxide, reducing CO2-e emissions by a factor of more than 20. Harnessing the gas and converting it to an energy source has the added benefit of providing landfill operators with a new localised energy source that can be fed back into the electricity grid.

The CEFC is supporting waste-to-energy investment by providing finance in an area that is currently not being met by existing lenders. The operation of the new generators also demonstrates how Australian Local Governments can reduce their carbon footprint and contribute to the generation of clean, base-load power from waste emissions.

About the Emissions Reduction Fund

The $2.55 billion Emissions Reduction Fund is designed to help to reduce Australia's emissions by providing an incentive for businesses, land owners, state and local governments, community organisations and individuals to adopt new practices and technologies which reduce emissions.

Eligible activities and individuals and organisations taking part can earn Australian carbon credit units (ACCUs). One ACCU is earned for each tonne of carbon dioxide equivalent (tCO2-e) stored or avoided by a project. ACCUs can be sold to generate income, either to the Government through a carbon abatement contract, or on the secondary market.

The first ERF auction results were announced on 23 April 2015, awarding 107 Carbon Abatement Contracts at an average price per tonne of $13.95, for deliveries of over 47 million tonnes of abatement.

Successful ERF participants will be paid the price they bid, with the government entering into contracts which guarantee payment for the future delivery of emissions reductions over the life of the contract.

How CEFC finance supports ERF participants

The CEFC is supporting ERF participants by providing up-front tailored finance to help accelerate project implementation.

Many ERF project proposals in the mining, transport, energy efficiency and waste and waste water, industrial, property and manufacturing sectors are potentially eligible for CEFC financing within the CEFC's broad mandate of renewable energy, low-emissions technology and energy efficiency projects.

Landfill Gas Industries (LGI's) core business is offering custom designed landfill gas solutions of all capacities for landfill owners and operators. LGI delivers innovative extraction, flaring and monitoring system design, supply and construction and also builds, owns and operates biogas-fired power facilities.

Through its construction business, LGI has installed gas extraction and flaring systems for councils including Brisbane, Bundaberg, Surf Coast, Shellharbour, Kingborough, Gladstone, Dubbo, Fraser Coast, Moreton Bay, Clarence Valley and Hawkesbury.

LGI uses GE Jenbacher gas engines as its preferred power generation equipment.

"This finance for LGI is demonstration of how the CEFC can provide upfront capital to projects bidding into the ERF, helping expand their scope and their capacity to invest in emissions reduction projects."

Oliver Yates
CEO, Clean Energy Finance Corporation

The Clean Energy Finance Corporation (CEFC) invests using a commercial approach to overcome market barriers and mobilise investment in renewable energy, energy efficiency and low emissions technologies.

Since its inception, the CEFC has committed over $1 billion in finance to investments in clean energy projects valued at over $3 billion.

The CEFC invests for a positive financial return, with its more than 40 direct investments and 25 projects co-financed under aggregation programs expected to achieve a positive net benefit for the taxpayer. These projects help to improve energy productivity for businesses across Australia, develop local industries and generate new employment opportunities.

The CEFC operates under the *Clean Energy Finance Corporation Act 2012*. More information is available on our website www.cleanenergyfinancecorp.com.au

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