Media Release

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Australia’s first energy-from-waste plant to be built in WA

On behalf of the Australian Government, the Australian Renewable Energy Agency (ARENA) has announced $23 million in funding to develop an Australian-first energy-from-waste project in Western Australia which will reduce waste going to landfill.

Co-developed by Macquarie Capital (Australia) Limited and Phoenix Energy Australia Pty Ltd, the $668 million facility will be located in the Kwinana Industrial Area 40 km south of Perth.

The facility will recover energy from waste, delivering approximately 36 MW of baseload electricity capacity - enough to power 50,000 households.

The facility will divert up to 400,000 tonnes per year of municipal solid waste from non-recyclable curbside collection.

The plant will also be capable of processing commercial and industrial waste and construction and demolition waste.

The waste will be sourced from a range of sources including local councils in the Perth metropolitan area.

The project has the ability to generate large scale generation certificates (LGCs) for eligible feedstock in accordance with Clean Energy Regulator requirements.

The project has approval from the WA Environmental Protection Authority. The facility will produce an ash by-product which is commonly used as road base or in building and construction in Europe.

The project will use Keppel Seghers moving grate technology, which has not been previously used in Australia. This technology is used in more than 2000 facilities globally, with Keppel Seghers technology to more than 100 waste-to-energy plants in 18 countries.

The Kwinana energy-from-waste facility will be owned by a consortium including Macquarie and the Dutch Infrastructure Fund (DIF). The Clean Energy Finance Corporation

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is also committing up to $90 million in debt finance towards the project.

The project will be built by Acciona and will be operated by Veolia.

The project is expected to generate more than 800 jobs during construction and 60 full-time jobs once operational.

Construction is expected to commence this month and is expected to be completed by the end of 2021.

Energy from waste developments present an opportunity to source baseload electricity from a low emissions intensity source, while addressing waste management issues.

ARENA carries out life cycle analysis on all bioenergy projects in order to ensure it only funds projects that deliver a net benefit in terms of emissions reduction.

ARENA CEO Darren Miller said the project provides a renewable energy solution for reducing waste going to landfill.

“The use of combustion grate technology is well established in Europe and North America but has not yet been deployed in Australia.

“More than 23 million tonnes of municipal solid waste is produced annually in Australia and this project could help to divert non-recyclable waste from landfill and recover energy in the process,” Mr Miller said.

Macquarie Capital Executive Director Chris Voyce said: “The project is an example of the public and private sectors coming together to deliver a long-term solution to dual issues of dealing with the ever-growing pressures on landfill and generating low-carbon energies that are sustainable and reliable.

“We look forward to working with our team of financiers, and design, construction and operation specialists as we deliver this significant project for the community.”