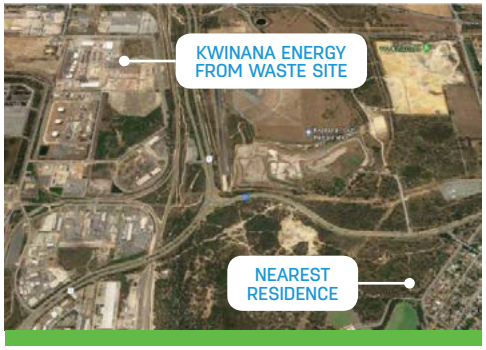
CASE STUDY *Kwinana Energy from Waste, Perth Australia*

Avertas Energy is constructing a large scale Energy from Waste plant, the first of its kind in Australia, to create energy and reduce the amount of waste disposed in landfill. The site is located in the Kwinana Industrial Area, 30 kilometre south of Perth, Western Australia.

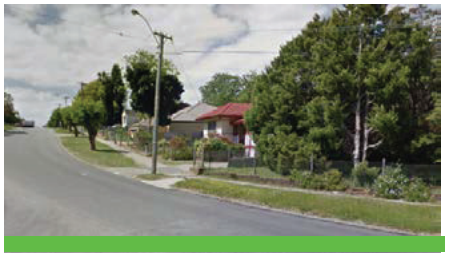
The project cost is $698 million. Construction commenced in October 2018 and will take three years. More than 800 jobs are being created during construction; and 60 new permanent positions will be created to operate the centre. The facility, which has been co-developed by Macquarie Capital and Phoenix Energy Australia (Phoenix Energy) is scheduled to open by the end of 2021.



The site is located on Leath Road, in the Kwinana Industrial Area, Perth, Western Australia.

Proximity to residential areas

The nearest home is approximately 2.5 kilometres from the edge of the site, in the suburb of Kwinana Beach, WA.



Residences near Kwinana Beach.

How does the community benefit?

Avertas Energy will deliver a wide-range of benefits to the local community, the regional economy and the metropolitan environment. This includes creating 800 local jobs during construction and then 60 jobs to operate the center.

The facility has an education center, for community information on smart waste reduction, energy from waste processes, and best waste management methods and practices.

What sort of waste will be managed?

The facility will convert thousands of tonnes of residual household and business waste into energy, which otherwise would have gone to landfill.

Some waste types are not accepted into the facility. This includes medical and radioactive waste, asbestos, contaminated soils, tyres, animal carcasses and highly corrosive or toxic substances.

What will happen on site?

When the waste arrives, it will be weighed, mixed and maintained in a storage pit under negative air pressure (this means waste odours cannot leak out).

The combustion process produces steam to create electricity using a turbine generator on site. The ash and metal products will remain at the end of the combustion process. The metals will be recycled. Avertas is currently investigating the opportunity to recycle the ash into construction materials.

Key Statistics:

Material to be processed

Post recycling household and business waste.

Waste management capacity

400,000
tonnes per year

Energy to be produced

Electricity: 36MW
powering up to
50,000 homes
on the South West Interconnected System

Reporting of emissions data

This will be in accordance with best practices. There will be Continuous Emissions Monitoring systems in place linked to controls systems. Emissions data will be available on the project website and updated regularly.

Meeting Australian standards

The site will operate safely in accordance with best practices as per the Western Australia Environmental Protection Act 1986, s38 – Waste Management.

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