

STREAMLINE BUSINESS PROFILE

BUSINESS NAME: EarthPower Technologies Sydney Pty Ltd

ADDRESS: www.earthpower.com.au / 35 Grand Avenue, Camellia, NSW 2142

Business Background:

EarthPower is a unique **food biomass waste-to-energy** facility designed and licensed to accept solid and liquid food biomass from municipal, commercial and industrial sectors in the Sydney region.

EarthPower is a medium sized company located in the Parramatta City Council area. EarthPower employs a total of fifteen people. The EarthPower facility opened in 2003 after an investment of \$35m.

In 2007 EarthPower was sold to Transpacific Industries and Veolia Environmental Services, two of Australia's leading waste management companies.

Waste sources come from businesses involved in food manufacture or processing, food transportation, distribution and storage, wholesale and retail food distribution and sales, commercial kitchens and local government.

Anaerobic treatment processes facilitate the conversion of solid and liquid food biomass using bacterial populations that operate in a controlled environment.

The breakdown of organic material in the waste involves a number of biological steps, each step involving a specific type of bacteria that decompose the biomass to access fuel for their survival and consequently assist in the production of a biogas.



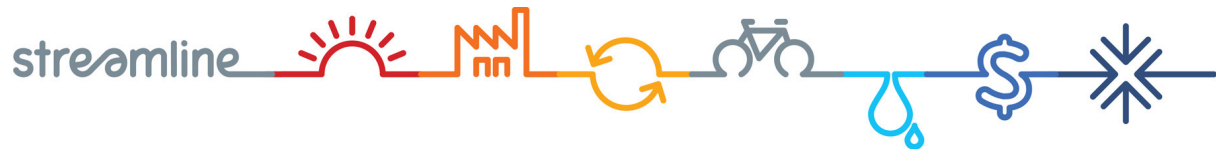
EarthPower Facility
35 Grand Avenue, Camellia

The biogas is harnessed in co-generation engines on site to produce **green electricity** and the residual product from the digestion process is dewatered and dried to produce a high quality **organic based fertiliser**.

Implementing Sustainability

EarthPower's mission is to enable waste producers to respond to the increasing regulatory and public pressure on them by providing waste disposal methods that provide reductions in greenhouse gas as compared to other commonly used disposal techniques. In other words, assist other businesses to become environmentally more sustainable.

EarthPower recognises that being more sustainable itself makes good business sense and supports the purpose of the business. Over the last two years significant focus has been placed on measuring inputs and outputs, measuring process capability, identifying process bottlenecks, identifying areas of wastefulness and quantifying the cost of these wastes. This has led to identification and prioritisation of business improvement projects.



Sustainability initiatives currently underway at EarthPower are aimed at potable water conservation, conversion to recycled water, electricity audits, and waste to landfill reduction, energy savings, improving process efficiencies and increasing plant capacity.

EarthPower is actively working with the Streamline Business Program on Waste Exchange, AquaNet on recycled water and DECCW's Energy Advantage program on energy efficiency. EarthPower and AB Mauri are currently exploring industrial symbiosis opportunities between the two facilities.

Outcomes:

EarthPower is committed to environmental best practice in the processing of organic food wastes in a sustainable and commercially viable manner to produce green electricity and fertiliser.

Over the last two years savings have been made around electricity, water, gas, trade waste, and general waste bill. The business improvement projects planned for the next couple of years are anticipated to yield significant improvements.

Participating in the Streamline Business Program has provided an opportunity to focus on sustainability. Meeting people from other businesses helps with exchanging information and ideas.

Participating in Waste Exchange has also lead to an increase in the quantity of food biomass waste received at EarthPower from businesses in the local area and also let more people know about options available for food biomass waste disposal.

Food Biomass Wastes:

Typical suitable solid organic wastes include fruit and vegetable wastes; meat and dairy products; processed foods; product destruction including damaged or out of date goods; pet foods; confectionary; commercial catering and the hospitality industry (kitchen wastes, returned food scraps from restaurants or food courts) and segregated residential food wastes.

Typical liquid wastes include sludges from industrial trade waste plants such as DAFs, grease traps and aerobic treatment systems; semi-liquid wastes (sauces, sludges from waste treatment facilities); wash water streams and waste water and effluent streams containing suspended or dissolved organic matter.



Solid and Sludge Wastes



Liquid Wastes



Packaged Wastes

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