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www.earthpower.com.au

EarthPower had its grand opening in 2003 making it Australia's first food waste-to-energy facility .

In 2007 Cleanaway and Veolia, two of Australia's leading waste management companies bought EarthPower providing their customers a leading sustainable food waste disposal option.

Today with the investment and support from Cleanaway and Veolia; EarthPower has improved immensely in terms of safety, operations, customer management and all other aspects of the business.



KEY BENEFITS FOR CUSTOMERS



Generating Green Energy



Diverting waste to
resource recovery



Producing nutrient-rich
fertilizer



Saving on Waste Disposal
Costs

EarthPower's customers include businesses involved in;

- food manufacture and processing,
- food transportation, distribution and storage
- wholesale and retail food distribution and sales
- commercial and retail property management
- commercial kitchens
- local council
- waste management services

WHAT WE RECYCLE

EarthPower is designed to process five specific food waste streams for the production of energy and nutrient rich fertilizer.

- Solid Food Wastes
- Spadable Sludge Wastes
- Liquid food wastes
- Grease Trap
- Packaged food wastes

With maximum inorganic contamination of less than 5% .

EXAMPLES



Solid and Sludge Wastes



Liquid Wastes



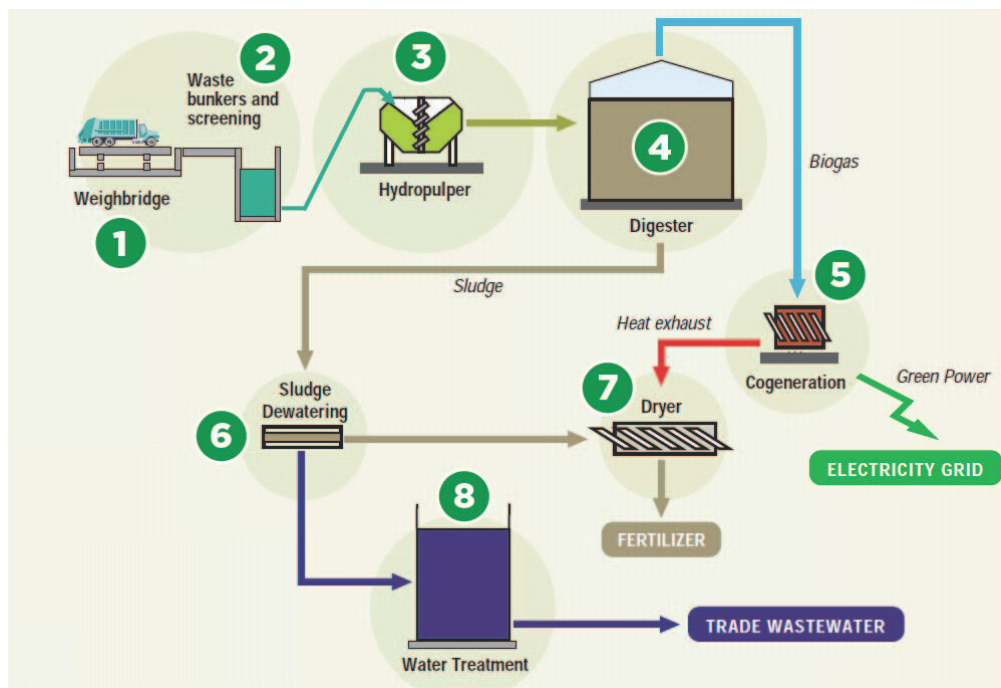
Packaged Wastes

THE TECHNOLOGY

EarthPower facility uses anaerobic digestion technology to convert solid and liquid food waste, into biogas; a combustible gas similar to natural gas.

The biogas is then recovered and used as a renewable fuel source in cogeneration engines to produce green electricity. This electricity is then sold to the grid for distribution to domestic, commercial and industrial clients.

An important by-product of the anaerobic digestion process is a nutrient rich sludge. This is dried and granulated for sale as a fertilizer into the agriculture and horticultural markets. Waste heat from the cogeneration engines is used in the fertilizer drying process and to heat the digesters.



Step 1. Weighbridge

Step 2. Waste Bunkers & Screening

Step 3. Hydropulper

Step 4. Digester

Step 5. Cogeneration Engine

Step 6. Sludge Dewatering

Step 7. Dryer

Step 8. Water Treatment

HELPING CUSTOMERS BE MORE ENVIRONMENTALLY SUSTAINABLE

When compared to other food waste disposal processes, such as landfill and composting, the EarthPower facility achieves the highest environmental sustainable use of food waste and most favourable environmental outcomes by way of production of green energy, while also producing organic fertilizer for local agriculture businesses, reducing the need of synthetic fertilizers. At full capacity, EarthPower can power up to 3,600 homes.

EarthPower enables 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.

KEY POINTS

- Current throughput – 1,000 t/week
- Maximum contamination - 5% by weight
- Hydropulper – BTA, 32m3
- Waste generated from process proportional to contamination level in food biomass waste
- Anaerobic digestion – wet (<5%TS), mesophilic (38oC), single stage
- Digester capacity – 2 by 4,600m3
- Generators – 3 by 1.25MW
- EarthPower is a net exporter of electricity
- Fertiliser – 2 to 4mm prills / NPK 5:2:1
- Water treatment – activated sludge

EarthPower is always interested in evaluating new sources of food wastes from the greater Sydney region

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A short overview of EarthPower is located on YouTube
"Earthpower - Australia's First Food Waste to Energy Plant"