



EARTHPOWER: FOOD WASTE TO ENERGY

Industrial, Food & Beverage

Transforming Sydney's organic food waste into green energy and soil improver for local communities.

| The challenge

As Sydney has grown, so too has the amount of waste it produces. It is estimated that Australia is the second-highest producer of municipal solid waste per capita in the world, at around 559kg per person, per year¹. It is estimated that up to 56% of this is food waste, which in Australia is categorised as putrescible waste and accounts for approximately 3% of Australia's annual greenhouse gas (GHG) emissions².

| Veolia's solution

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

Centrally located in Sydney's suburb of Camellia, the facility processes organic food wastes to produce **green electricity** and a nutrient-rich soil improver from the byproduct.

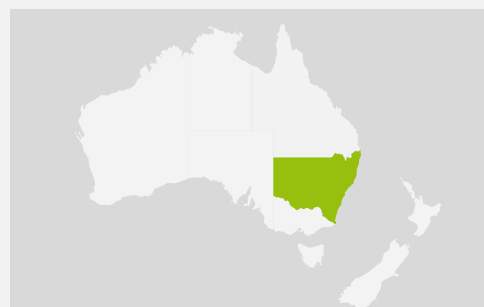
Using innovative anaerobic digestion technology, EarthPower significantly **reduces GHG emissions** while generating electricity and recovering the end product, creating new value from Sydney's waste and diverting it away from landfill.

This solution to food waste offers a sustainable alternative to fossil fuel-sourced energy and demonstrates Veolia's **resource recovery** and **circular economy** capabilities.

EarthPower's feedstock is sourced 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. By sending their food waste to EarthPower, customers are reducing both their emissions and disposal costs.

EarthPower is designed to process both solid and liquid organic waste from **five specific streams**::

- Solid organic waste
- Grease trap waste
- Spadable sludge
- Organic liquid waste
- Selected packaged waste



Sydney, New South Wales, Australia



Contract Facts:

Date: Since 2007

Type: O&M

Capacity to process up to
62,500 tonnes
of food waste per year

Generating enough energy to power
4,000 households

Supporting sustainability goals of
large food retailers &
intermediaries



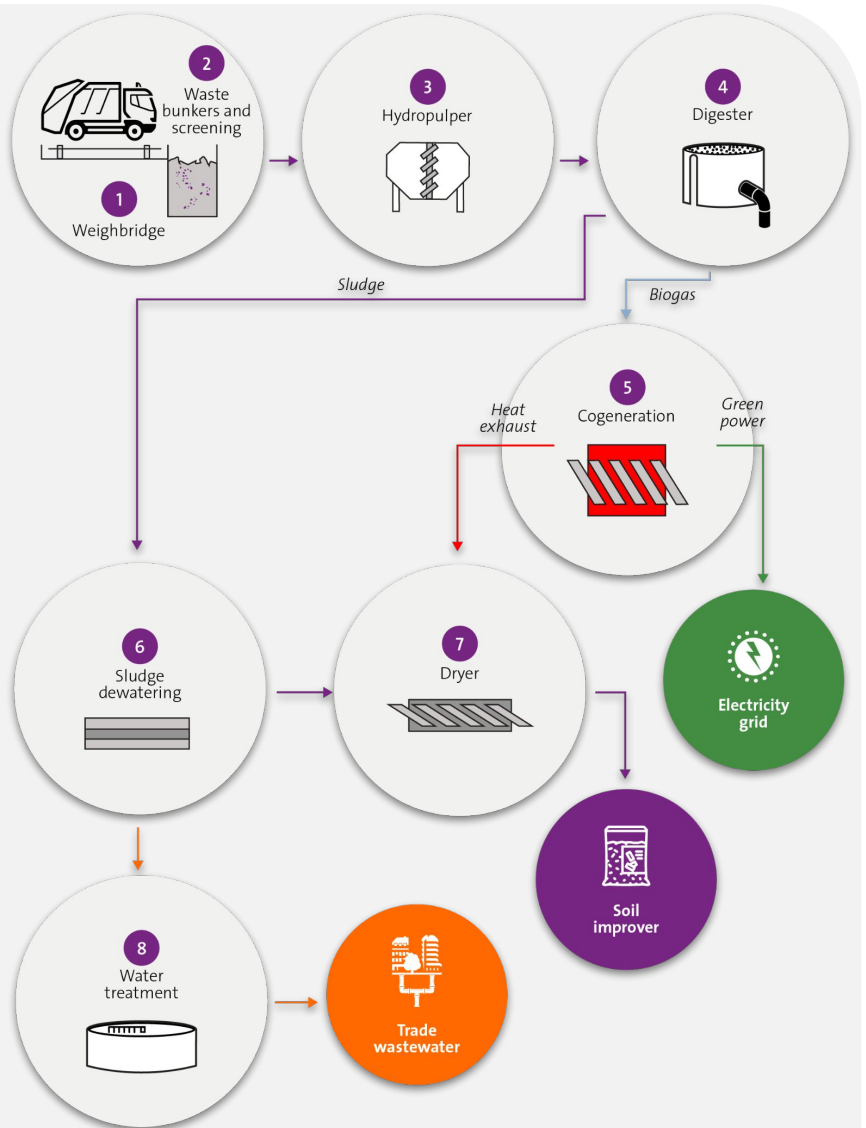
In 2024, the EarthPower facility underwent major technological upgrades to optimise its processing capabilities, increasing its feedstock capacity to **62,500 tonnes of food waste**, which can generate enough electricity to **power 4,000 homes**..

EarthPower’s innovative technology

At the heart of the EarthPower plant are two advanced anaerobic digesters inside which bacteria breaks down food materials to produce a biogas, which is then captured and used to fuel cogeneration engines, producing green electricity. This process is comparable to natural gas, instead using a sustainable energy source in its place.

This electricity produced at EarthPower is sold to the grid for distribution to domestic, commercial, and industrial clients. The facility runs self-sufficiently using its own electricity and gas production to power itself before distributing the excess to the energy grid.

A byproduct of the anaerobic digestion process is a nutrient-rich sludge, which is dried using heat from the cogeneration engines, granulated, then sold into the agricultural and horticultural markets as quality soil improver.



| The benefits




Sustainable and cost-effective waste management

EarthPower’s solution offers customers a sustainable alternative to landfilling, helping to lower their GHG emissions at a lower cost compared to most food waste competitors.

Innovative, green energy production

By processing food waste, EarthPower recovers resources that would have otherwise been lost to landfilling, and creates new value through the generation of green energy which reduces community reliance on fossil fuels, as well as producing a nutrient-rich byproduct - meaning everything that can be recovered, is.

www.veolia.com/anz/earthpower

 REGIONS & CITIES	 PLANET	 WOMEN & MEN
<p>Supporting NSW’s resource recovery objectives.</p> <p>Offering alternative waste management for major food retailers.</p> <p>Supplying local communities with renewable electricity.</p>	<p>Offers a sustainable alternative to landfilling and fossil fuelled energy.</p> <p>Reduces customer GHG emissions.</p> <p>Reduces community carbon footprint.</p>	<p>Business, community and school sustainability education programs.</p>

1. [Global Waste Index 2022. Sensoneo](#)
 2. [Reducing Australia’s food waste. Department of Climate Change, Energy, the Environment and Water](#)