

Waste to energy project

Melton Recycled Water Plant

COMMITTED
TO REDUCING
EMISSIONS

Western Water has committed to building an organic food waste facility at Melton Recycled Water Plant to generate additional biogas for renewable energy use on site.

Melton Waste to Energy Facility

In February, Western Water's Board approved construction of a Waste to Energy Facility at Melton Recycled Water Plant (RWP) - subject to final Government approval.

The Melton Waste to Energy Facility will treat liquid organic waste - like fats, oils & greases - from local industry through its wastewater treatment processes, generating renewable energy in the form of biogas to help power the plant.

This innovative project delivers many sustainable benefits to the local region including:

- potentially reducing landfill
- recovering resources
- generating biogas, and
- reducing greenhouse gas emissions at the site.

When will the facility be operational?

Following final Government approvals, construction of the waste to energy facility will commence in mid-2020. It is expected to be in operation in early 2021.

What is organic food waste?

Organic food waste comes from natural products and mainly consists of animal and plant waste.

The best organic food waste materials identified for treatment at Melton RWP are:

- fats, oils and greases (FOG)
- liquified food waste, and
- waste by-products from food and beverage manufacturing.

Who will supply the organic waste?

Several local suppliers have been identified to provide the liquid organic waste suitable for treatment at Melton.

They include large food manufacturing and hospitality businesses.

Will there be any impacts on properties near the RWP?

The facility will meet strict requirements set by the Environmental Protection Authority to ensure there are no negative impacts on neighbours or the environment.

Any odour generated by the additional organic waste treatment will be contained within the plant's buffer zones.

There is likely to be a very small increase in road traffic to the RWP - i.e. 1-2 trucks per day at most - during the construction period and once the facility is operating.



KEY FACTS

The Melton Waste to Energy Facility has been approved for construction in 2020.

The facility offers a range of sustainable benefits including:

- reducing food waste to landfill
- local resource recovery
- creating additional biogas for energy, and
- decreasing Western Water's greenhouse gas emissions.

Find out more by:

- visiting the website
- contacting the project manager
- subscribing to updates, and
- registering for a plant tour.

What is biogas?

Biogas - also known as methane - is produced from the fermentation of organic material. This takes place during the process known as anaerobic digestion which is already in use at Melton RWP to treat wastewater.

The biogas produced can then be captured and used for electricity (and potentially heating) through Melton's biogas cogeneration facility.

Other by-products

Some solid materials remain after the digestion process at the RWP. They are also able to be reused.

These include biosolids - which can be reused as an agricultural fertiliser.

Why is Western Water investing in the waste to energy facility?

Western Water is committed to reducing its greenhouse gas emissions.

Biogas generation is an existing component of the wastewater treatment process at Melton. Increasing biogas production will reduce our reliance on fossil fuels.

Resource recovery is an important focus for the Government and liquid organic waste is an ideal resource for treatment at the RWP.

The new digester at Melton RWP was designed to meet the needs of the growing population for the next 15 years. As a result, it currently has ample spare capacity for treatment of other wastestreams.

The facility will create a new revenue stream for Western Water, helping keep the costs of our services down for all customers.

More information

- Visit WesternWater.com.au
- Register to receive project updates and/or to take part in a tour of the plant in 2020 by emailing nicole.cooper@westernwater.com.au
- Contact the project manager, Luke Wilson, on 9218 55505

Melton RWP projects

As the local population continues to grow, the Melton RWP will treat increasing volumes of wastewater. We'll also invest more to make our services as sustainable as possible.

Following are some of the Melton RWP projects that are helping us meet these challenges:

- new anaerobic digester to treat wastewater volumes for the next 15 years
- the new waste to energy facility and a new solar array to generate renewable energy
- a new recycled water pipeline interconnecting Melton and Bacchus Marsh RWPs to move volumes to match demand
- a new recycled water storage and pump station at Melton RWP to service demand from new customers
- planning for a new recycled water scheme in Parwan-Balling to reuse recycled water, and
- ongoing treatment of biosolids for reuse.

How the food waste to energy facility will work

