

# Lilydale Food Waste to Energy

Community Update | January 2024

## Construction starting

We're building a new food waste to energy facility in Lilydale. The site will produce renewable energy to power itself and our sewage treatment plant, with excess energy exported to the power grid. We'll start constructing the facility, a new private access road and a new traffic light intersection on Maroondah Highway in the coming weeks. The works will take approximately 2 years.



**Diverting organic waste from landfill**



**Reducing greenhouse gas pollution**



**Producing renewable energy**



Image: map and site layout of the food waste to energy facility

# What is 'food waste to energy' and how does it work?

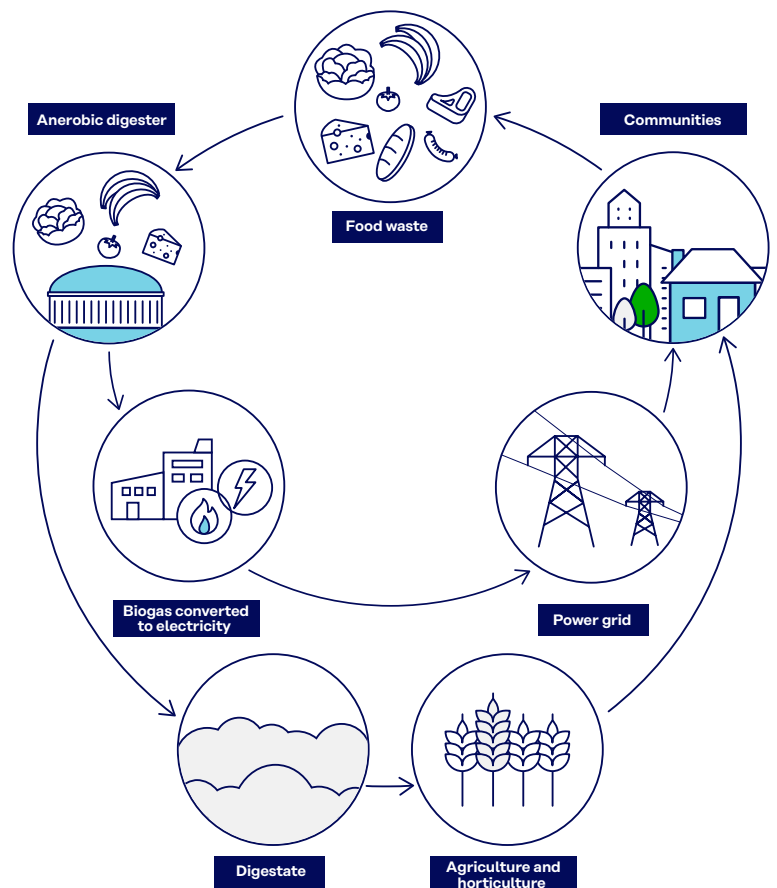


Watch a short  
one minute video

Food waste to energy facilities turn commercial food waste into renewable energy. They use a natural process called 'anaerobic digestion', which is similar to the way a human body breaks down food.

Approved commercial suppliers deliver spoiled food waste to our facility in trucks. It gets fed into a sealed tank called a 'digester'. Like a human stomach, bacteria inside the digester breaks down the waste, generating a mixture of gases known as 'biogas'. The biogas is then cleaned to remove impurities.

The facility won't use a gasifier or incinerator to burn food waste. Instead, the biogas is used to fuel an engine which generates electricity. Some energy is used to power our facility and the neighbouring Lilydale Sewage Treatment Plant, and additional renewable energy is fed back to the power grid.



## Why do we need this?

We're tackling climate change and finding new ways to generate our own clean energy to power our water and wastewater infrastructure.

Our food waste to energy facilities produce renewable energy, helping us reduce our carbon emissions and energy costs – taking pressure off customer bills.

## Did you know?

Food waste to energy facilities are relatively new for Australia but they are a 'tried and true' circular solution to waste and energy production that's been used overseas for decades. There were around 20,000 biogas plants in Europe in 2020 according to the European Biogas Association. They're also used widely in China and the US.

# What to expect in the coming months

## New crossing point on Yarra Rail Trail

One of our first jobs is to install a new, safe crossing point on the Yarra Rail Trail. It will be very similar to the existing crossing point at Nelson Road in Lilydale.

A new fence will make it safer for cyclists and pedestrians by prompting them to check both directions before crossing the newly established private access road. Trucks will use the road to access the facility while it's being constructed and to deliver food waste afterwards.

Signage along the trail will let you know what to expect while we're constructing this crossing.

## A new traffic intersection on Maroondah Highway

The most noticeable change will be new traffic lights at the intersection of Maroondah Highway and Ingram Road.

The new intersection will allow vehicles to pass safely along a new private access road. Boral Coldstream Quarry trucks will also use the lights, providing a much safer option for all road users, and removing the current danger when trucks are turning right onto Maroondah Highway, towards Lilydale.

Coldstream locals – including those attending the primary school and adjacent sports oval – will also benefit from the new traffic lights. Turning from Ingram Road onto the Maroondah Highway will be safer.

We'll do our best to keep you moving and minimise delays while we're building the intersection. We'll provide more information and signage before these works begin to minimise disruption to locals and visitors passing through the area.

## We'll be planting lots of trees

In 2020, we asked the community how we could improve the look of the facility. You told us you want lots of trees and screening, to blend the facility into the local environment as much as possible.

We're working closely with Yarra Ranges Council and we'll plant around 1,600 trees with the help of local schools next winter. We've carefully selected trees that are indigenous to the area. In 3 years, after the trees have established, we'll be back to plant additional shrubs and understory.

Most of the planting will be along the west side of the Yarra Rail Trail. This will screen the facility, provide shade for path users in summer, and enrich the local environment and support wildlife in the area.

## Extra vehicles and traffic

During the first half of 2024, before we build the new access track, we'll need to drive our construction vehicles through Lilydale, along Maroondah Highway, Anderson Street and Nelson Road. We'll avoid peak school traffic times for your safety and to keep you moving.

*Image: artist's impression of trees along rail trail*



# FAQs

## When will you be working?

While we're constructing over the next two years, our normal working hours will be from Monday to Saturday between 7 am and 5 pm. We may need to work outside of these times occasionally.

## How will you manage any odour?

Our facility will operate under strict Environment Protection Authority Victoria (EPA) odour control requirements and we'll monitor the air quality with artificial 'noses'.

We've designed the plant to make sure the air quality is always acceptable for the local community. Trucks will enter a 'negative pressure' shed with high-speed shutters to unload waste, and the digester tanks are fully sealed and fitted with modern odour control technology. This means you shouldn't notice odours.

Unlike rubbish tips or composting facilities, waste will not be stored or processed outside.

## Can I send my household waste or compost to the facility?

No. Our facility is for commercial customers and we'll receive food waste from pre-approved suppliers.

Yarra Ranges Council has a new Food Organics and Green Organics (FOGO) collection service you can use for household food and green waste. For information about this service visit [yarraranges.vic.gov.au/fogo](http://yarraranges.vic.gov.au/fogo).

## What will it look like?

The facility will include tanks that hold and process waste, a large shed to receive waste and engines that use the biogas to produce electricity. You can see an artist's impression on the front page of this update.

## The facility will:



Power itself and the neighbouring sewage treatment plant, and feed excess renewable energy into the grid.



Divert about 55,000 tonnes of food waste from landfill every year.



Reduce greenhouse gas emissions by up to 24,700 CO<sub>2</sub>-eq tonnes every year – the equivalent of taking 25,300 cars off the road.



Generate 39,000 kilowatt hours of renewable electricity per day – that's around 35% of Yarra Valley Water's energy needs or enough to power the equivalent of more than 2,200 Victorian households.

## More information

 [yvw.com.au/lilydaleWTE](http://yvw.com.au/lilydaleWTE)

 [lilydaleWTE@yvw.com.au](mailto:lilydaleWTE@yvw.com.au)

 **03 9872 1564**

 **TTY Voice Calls** 13 36 77

 **Speak and Listen** 1300 555 727

### For free language assistance

العربية 1300 914 361

廣東話 1300 921 362

Ελληνικά 1300 931 364

普通话 1300 927 363

For all other languages call our interpreter service on **03 9046 4173**



### Acknowledgement of Country

Yarra Valley Water proudly acknowledges the Traditional Owners/Custodians of the land and water on which we rely and operate.

We pay our deepest respects to their Elders past, present and emerging. We acknowledge the continued cultural, social and spiritual connections that Aboriginal and Torres Strait Islander peoples have with the lands and waterways, and recognise and value their care and protection for thousands of generations.