

# Melbourne Energy & Resource Centre and Your Health

## Are there health risks with waste-to-energy?

Cleanaway knows people in the community are worried about possible health risks from the new Melbourne Energy & Resource Centre (MERC). These health concerns are mostly about air emissions, noise, and how waste is handled.

Today, waste-to-energy plants are required to meet very stringent emission standards and requirements from independent regulators, including the Environment Protection Authority (EPA) Victoria.

Cleanaway is working with independent experts to carefully assess the potential health risks associated with the proposed facility to meet all the requirements. To date, the assessments given to regulators (including the EPA) demonstrate that the MERC technology and facility design will not negatively impact the health of the surrounding community.



## How are health risks assessed?

Waste-to-energy facilities release air emissions through a tall chimney, called a stack. These air emissions are required to be safe by Victorian laws and environmental standards.

Emissions that come out of this type of facility is reduced to safe levels using several approaches:

- Waste is burned at a high enough temperature and under optimal conditions to destroy most of the pollutants including PFAS and to minimise the formation of others – like nitrogen dioxide and dioxins.
- The facility includes air pollution control equipment to remove pollutants before discharging into the air through the stack.
- The stack is designed to maximise mixing in the atmosphere due to the height, temperature and speed of the air as it leaves the stack.

Once released from the stack, the air emissions mix into the atmosphere and only very low levels reach ground level where people are present. The pollutants in these air emissions are ones that are already present in the food, water and air in our daily lives through things like vehicle emissions, wood fired heaters, BBQs and household products.

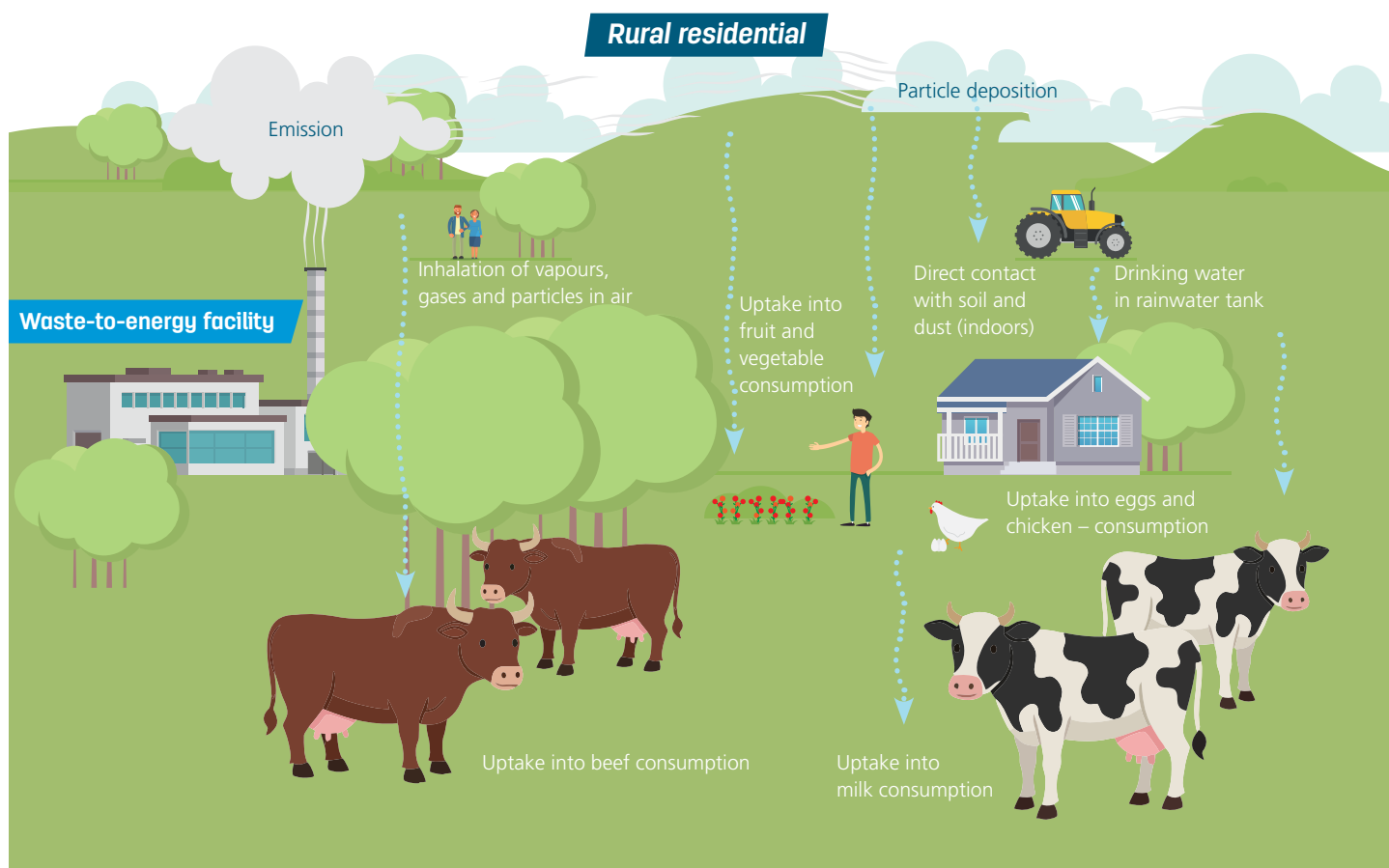
To ensure that air emissions from waste-to-energy facilities are safe a Human Health Risk Assessment must be undertaken. This assessment follows guidelines and risk thresholds developed by experts at the Environmental Health Standing Committee (enHealth) and the EPA Victoria.

The Human Health Risk Assessment looks at several ways people might be exposed to air emissions from the facility, including:

- Breathing in gases and particles in the air.
- Touching soil and dust.
- Drinking water from rainwater tanks.
- Eating food grown locally, like fruits, vegetables, beef, milk, and eggs.

This assessment makes sure that emissions are at very low levels and that any exposure is at levels that are safe to people's health.

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This image shows how a Human Health Risk Assessment works to make sure people are not exposed to harmful levels of contaminants. It looks at risks from eating fruit, vegetables, eggs, and dairy, as well as from breathing air or coming into contact with soil and dust.

## How is community health protected?

During the Development Licence Application assessment phase, the EPA undertakes a comprehensive review of the health risks for each proposed waste-to-energy facility. This includes a review of the location, size, technology, and design of the facility.

Only facilities with safe levels of human health and environmental risks are given EPA approval.

Best practice international examples of similar waste-to-energy facilities are used to guide the assessment and approval process.

If approval is provided by the EPA, the following will be applied during operation of the facility:

- The EPA will require the facility to monitor air emissions during operation to ensure these are within safe levels.
- Strict emission limits and 24/7 monitoring will be set for certain chemicals and their release from the facility.
- If emissions released from the facility exceed the set limits, the facility must shut down until it fixes the issue.



Find out more or contact us at: 03 9021 0603

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