



# Waste management

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## A Victorian solution

Victoria is facing a waste crisis. Faced with a number of landfills closing in the next 5-10 years, and the fastest rising population in Australia, Victoria needs a solution for the amount of waste being generated.

Lowering the levels of waste generated, and increasing the amount of waste that is being recycled is crucial to meeting this challenge.

Evidence from the countries which have decreased the amount of waste being sent to landfill demonstrates that a significant Energy from Waste (EfW) industry is needed in addition to an effective recycling industry. This is the case in leading countries such as Germany, Sweden, and Denmark.

The EfW plant at Maryvale would be the first of its kind in Victoria. It would divert approximately 650,000 tonnes of non-hazardous residual waste each year from Victorian landfills.

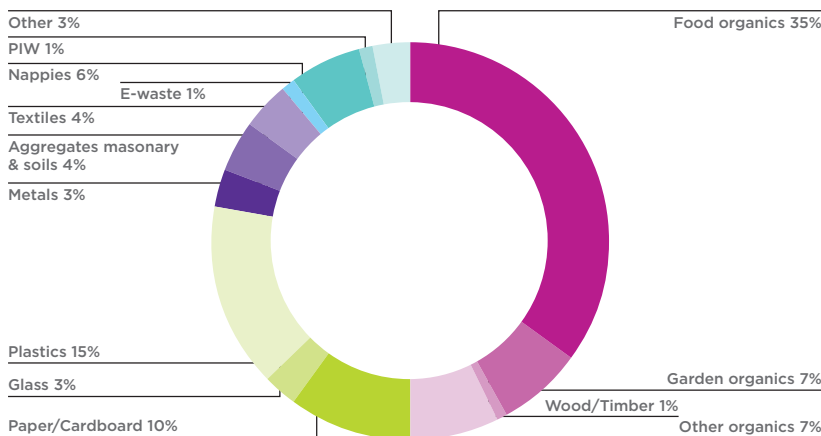
An effective Energy from Waste industry is the missing link in Victoria's waste hierarchy. Recycling Victoria - A New Economy identifies EfW as an essential element for circular economies.



## What waste will be used in the facility?

Approximately 50 per cent of the waste used will be from residual (household) waste from municipal councils, most households would refer to this as their 'red bin waste'. This waste is referred to as

municipal solid waste, or MSW, and is suitable for thermal energy recovery due to its organic content (e.g. food organics, garden organics, wood / timber, paper/cardboard). The following pie chart outlines the typical breakdown of household waste.



The remaining 50 per cent of the waste used will be from commercial and industrial sources, collected from shops and industries. This waste is referred to as Commercial & Industrial waste, or C&I waste, and is similar to non-hazardous MSW.



## What waste will not be used in the facility?

The following types of waste **will not** be used:

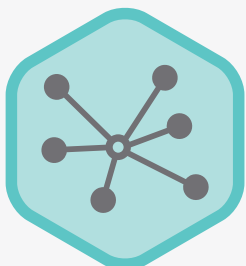
- Prescribed industrial waste or hazardous waste
- Construction and demolition (C&D) waste including asbestos
- Household recycling (yellow bin) and industrial recycling



## A sustainable solution for by-products

The Energy from Waste process produces by-products. Some can be recovered and recycled:

- Metals are recovered from the waste stream and directed to scrap recycling.
- Inert bottom ash can be reused for roads or runways or mixed with cement to produce stackable building blocks, as is the case in Europe.
- Fly ash and flue gas treatment residues are carefully managed and disposed of in suitable engineered landfills. Countries in Europe have developed technologies to manufacture aggregates safe for use in construction.



## Where will the waste come from?

There is sufficient waste within Gippsland and Melbourne to supply the required amount of feedstock to the Energy from Waste facility for over 20 years.

To deliver a 225 MW thermal Energy from Waste plant requires an estimated 650,000 tpa of residual waste. At this size the plant has sufficient economies of scale to minimise the cost of waste treatment for the community.

Diverting residual waste from landfill promotes a more sustainable approach to managing Victoria's waste and recovers the last remaining value from waste which is energy.

To be financially viable, long-term waste supply contracts are required. If secured this will provide the required investment security for the establishment of an EfW facility, delivering long term economic benefits to the region through local employment, flow-on investment, and skills development.