

# About Energy from Waste

Energy from Waste (EfW) is a technology that sees post-recycling, residual waste burned at high temperatures under carefully controlled conditions to generate heat, steam and electricity.

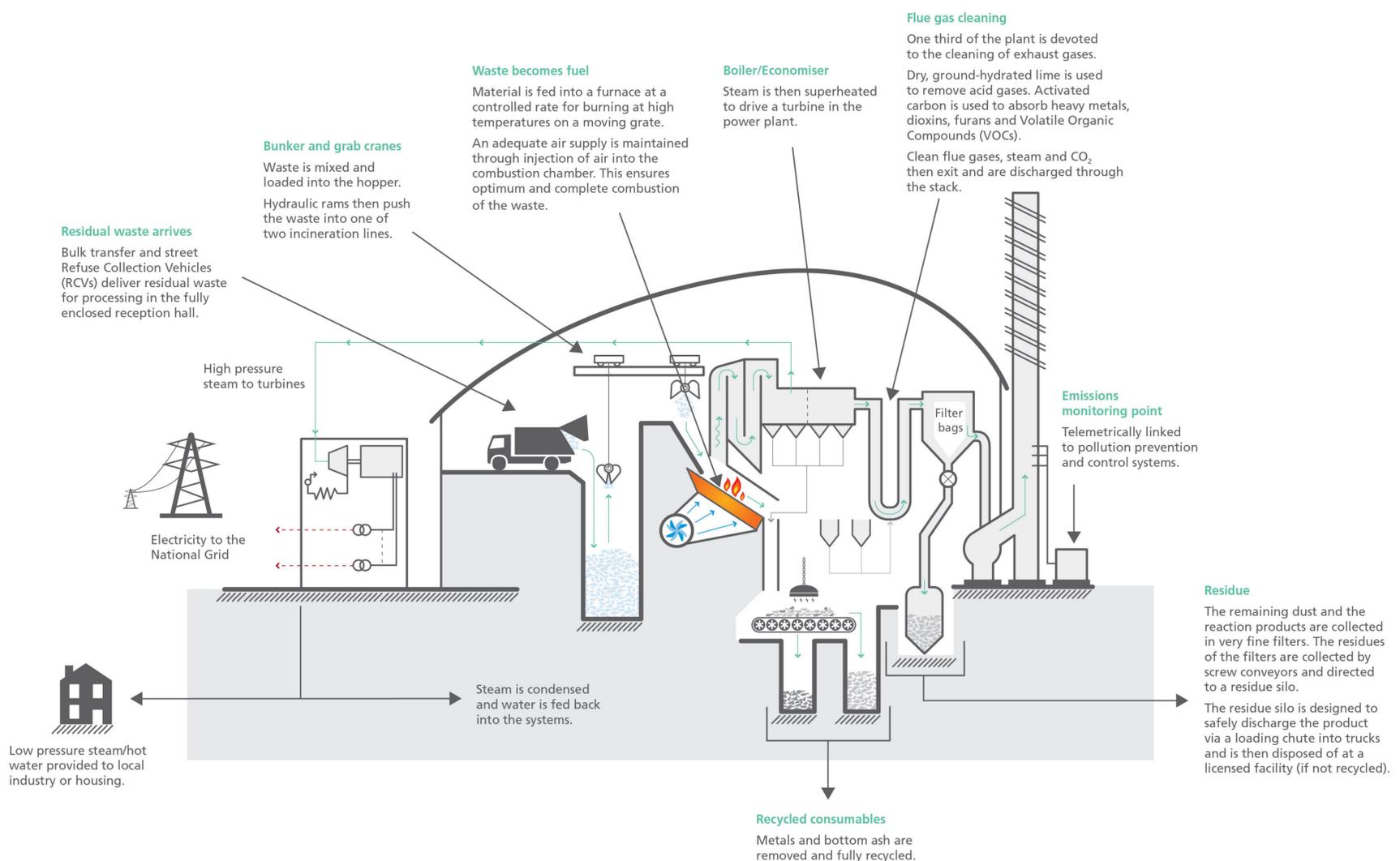
The process also produces Incinerator Bottom Ash (IBA), which will be recycled for use as aggregate material in the construction industry, and Air Pollution Control Residue (APCR), which will be treated at a licensed facility whilst longer-term recycling options are explored.

As part of its contract with Prosiect Gwyrdd, Viridor is committed to recycling 100% of the IBA from Trident Park for the most sustainable solution and to help the authorities meet higher recycling targets.

Viridor is also exploring opportunities for finding ways to re-use the APCR to maximise the recycling rate for Prosiect Gwyrdd still further.

Viridor is committed to recycling 100% of the IBA from Trident Park

## A Typical Energy from Waste Process



# About Energy from Waste Q&A

## Is Energy from Waste safe?

There are around 20 EfW facilities already operating in the UK and hundreds more across Europe. All the plants operate under the Waste Incineration Directive with tight controls on emission limits and are monitored by the Environment Agency.

We are not aware of any peer-reviewed studies that conclusively link adverse health outcomes to EfW emissions. A 2004 Defra report concluded that there are “no convincing links between EfW plant emission and adverse effects on public health”.

## What is APCR and how is it captured and treated?

Air Pollution Control Residue (APCR) is predominantly fly ash that results from the combustion process, in addition to the lime and activated carbon that is used as part of the air pollution control process.

The APCR is captured in filter bags and sent for safe treatment at an appropriately licensed facility. Viridor is already looking at project to find a recycling solution for the residues.

## Does Prosiect Gwyrdd have any control over the facility?

Prosiect Gwyrdd does have control over the facility through a performance management framework that enables the Partnership to monitor the day-to-day requirements of the contract.

Environment Agency Wales will ensure that Viridor complies with all relevant legislation and their environmental permit.

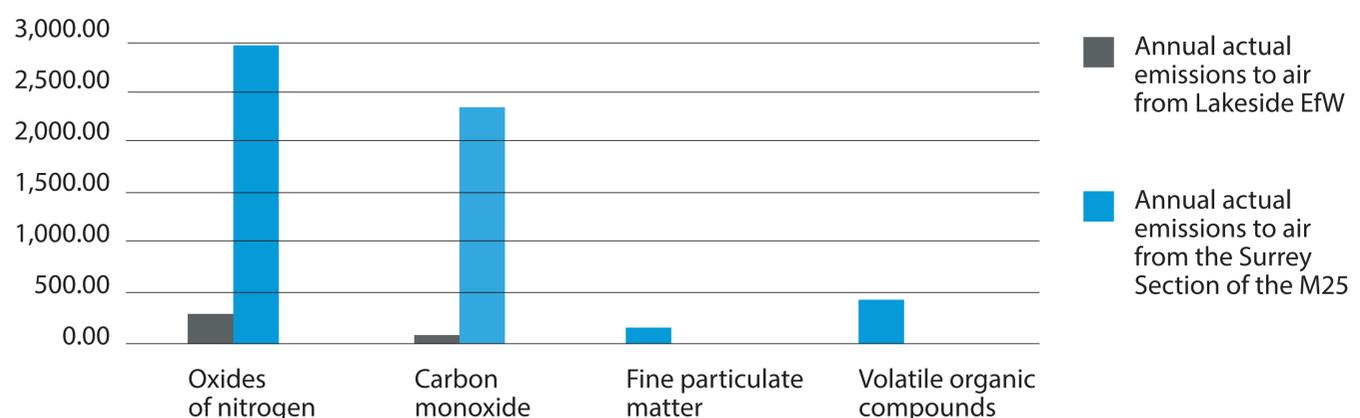
These control measures will be monitored by a contract manager on behalf of the five local authorities.

## Is there an environmental benefit from sending residual waste to energy from waste compared to landfill?

There is a significant environmental benefit. Burying biodegradable waste in landfill produces methane and methane as a green house gas is 23 times more potent than Carbon dioxide and is one of the main contributing factors to climate change.

## A typical comparison of emissions from Viridor’s Lakeside EfW facility and traffic on a 56 mile section of the M25

### Tonnes emitted per year



Substance	Actual Emissions from Lakeside EfW (tonnes per annum)	Permitted Emissions from Lakeside EfW (tonnes per annum)	Surrey Section of the M25 (tonnes per annum)	Actual EfW emissions as a percentage of the Surrey Section of the M25
Oxides of nitrogen (NOx)	306	416	2,987	10.3%
Carbon Monoxide (CO)	24	104	2,330	1.0%
Fine Particulate Matter (PM10)	2.73	21	78	3.5%
Volatile Organic Compounds (VOCs)	4	21	366	1.0%