

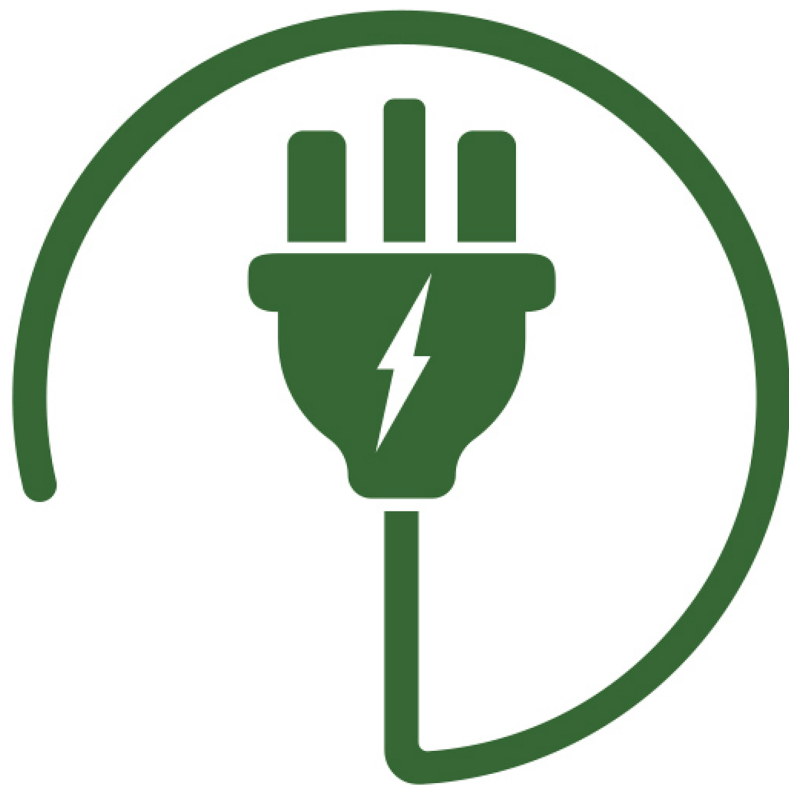
# Introduction



The Levenseat Renewable Energy (LREL) waste treatment facility consists of an advanced materials recovery facility and a combined heat and power plant, designed to recover recyclable material from black waste and maximise diversion from landfill.

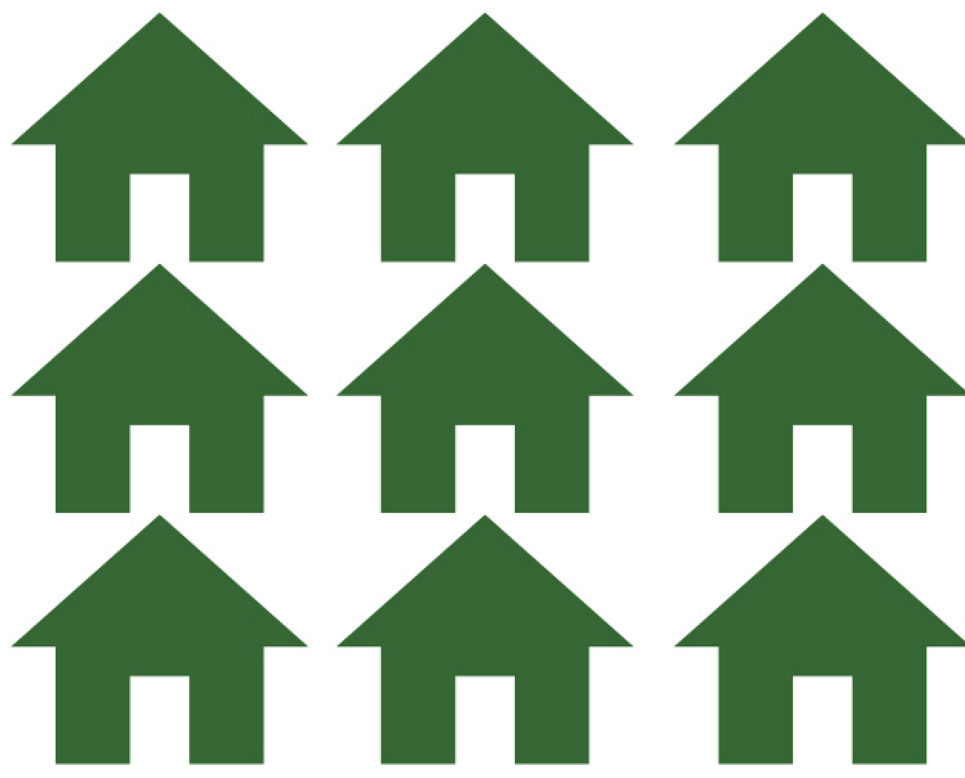
Once all efforts have been made to recover recyclable material from waste streams, the next best option is to recover energy from the remaining waste. This not only means we are recovering value from waste; we are also diverting waste from landfill and helping to contribute to Scotland's renewable energy targets.

## Key Facts



12.5MW

Electricity Generated



Equivalent to the needs of  
25, 000 Homes



215, 000 tonnes

Processing Capacity

## Interesting Facts

The LREL facility is designed to process residual waste, otherwise known as black bin waste, waste that householders have deemed to be unrecyclable, yet we are able to recover and recycle on average 20% of the material received.



84, 000 Aluminium cans recovered



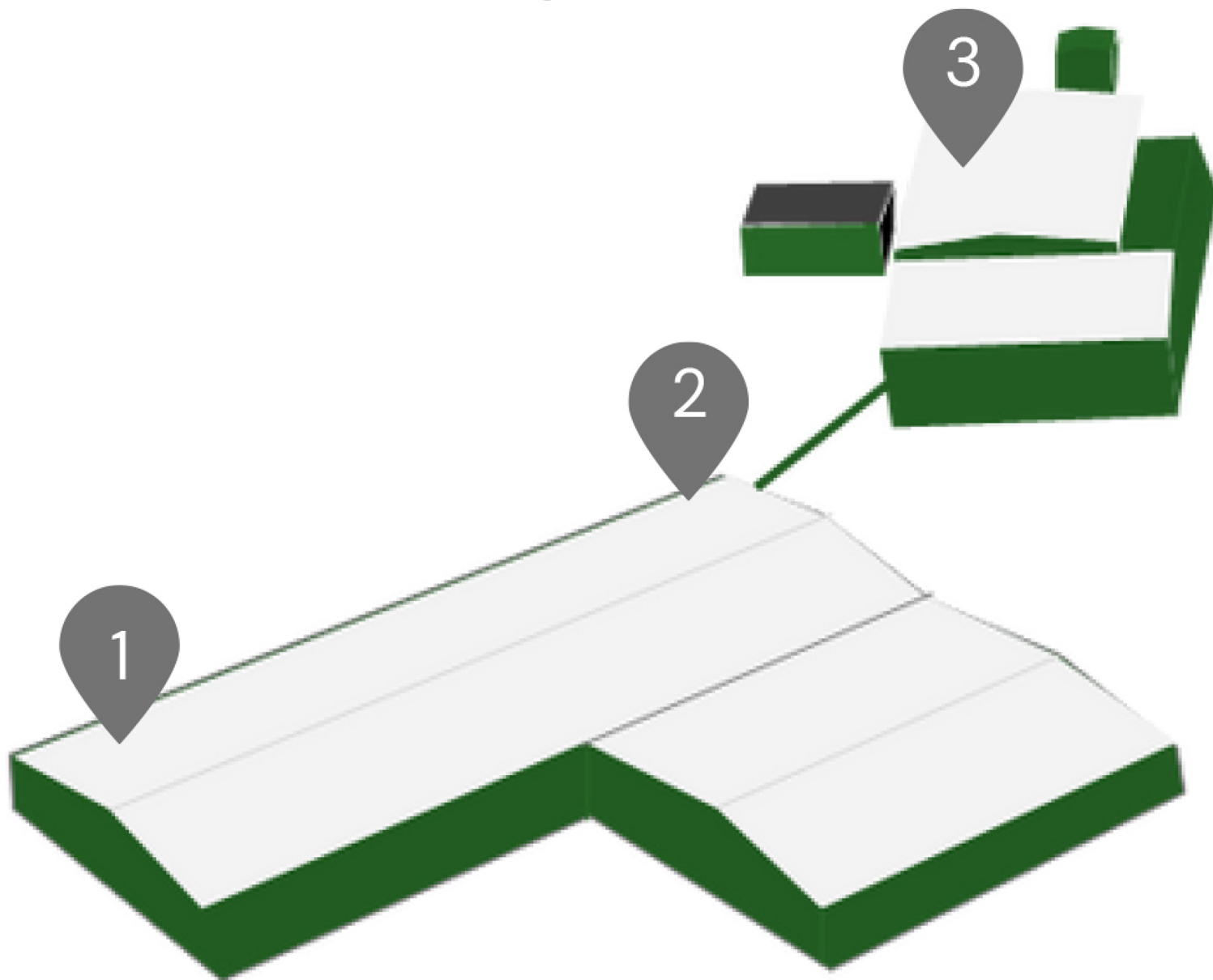
224,875 Plastic bottles recovered

Other materials recovered include WEEE from electrical equipment, organic fines that are sent for composting, and ferrous metals in the form of pots and pans etc.

**Step 1: Recovery of Recyclates**  
Materials such as wood, cardboard, ferrous metals, non-ferrous metals, mixed plastics, and inerts are all recovered and diverted back into the manufacturing or construction industries.

**Step 2: Fuel Preparation**  
The remaining waste is prepared into a fuel known as Refused Deriver Fuel. This fuel is made to a specific, detailed standard to ensure a clean and efficient conversion process and to minimise production of ash and other by-products

**Step 3: Energy Recovery**  
Our Power Plant provides an environmentally responsible means of producing reliable baseload electricity. The Plant uses non-recyclable waste as a fuel, reducing our reliance on fossil fuels, the need for landfill and cutting emissions.



\*based on 2020 annual statistics

## Emissions Monitoring

Emissions are monitored directly by our Continuous Emissions Monitoring System (CEMS). This system is fitted inside the stack so it monitors the flue gas before it is released into the atmosphere.

The majority of our emissions are compounds of normal air like steam, oxygen, nitrogen and carbon dioxide. For the very small remainder of emissions, they go through a sophisticated treatment process that ensures emissions remain well below all relevant standards.

In addition to providing information to SEPA for regulatory compliance, the CEMS also allows the Power Plant team to monitor the processes. The data provided by the monitoring systems gives useful feedback on how the processes are operating, thereby allowing the team to safely and efficiently run the plant.

	Permitted levels mg/Nm3	
	Daily	30 min max average
Nitrogen Oxide (NO <sub>x</sub> )	200	400
Carbon Monoxide (CO)	50	100
Sulphur Dioxide (SO <sub>2</sub> )	50	200
Hydrogen Chloride (HCl)	10	60
Ammonia (NH <sub>3</sub> )	10	
Total Organic Carbon (TOC)	10	20
Particulates	10	30

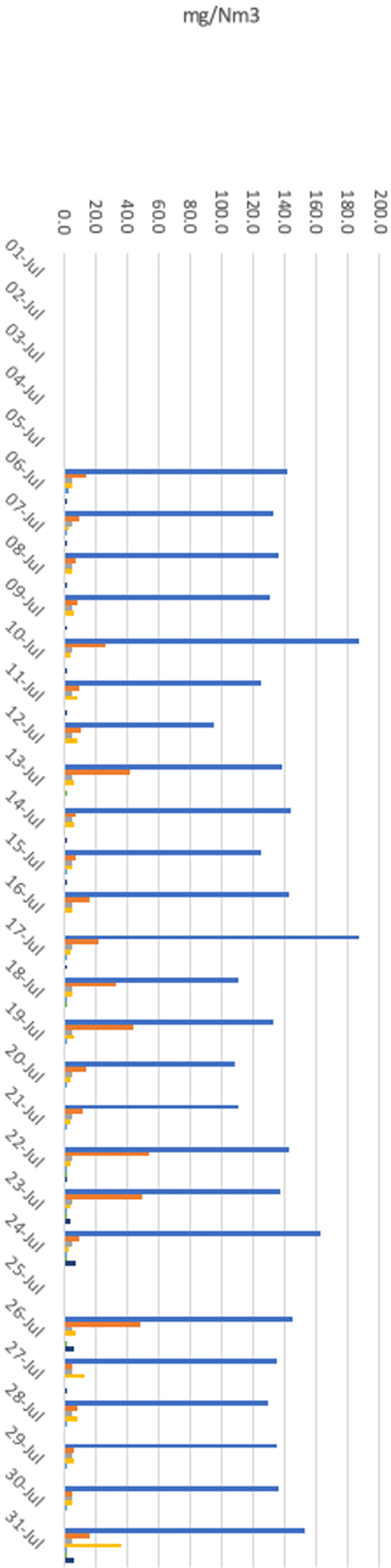
Please see below for this months report

Learn more at [www.lrel.co.uk](http://www.lrel.co.uk)



# JULY 2024 DAILY AVERAGE CEMS REPORT

30-minute Average Maximums



	01-Jul	02-Jul	03-Jul	04-Jul	05-Jul	06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul
NOx 30m Max	0.0	0.0	0.0	0.0	0.0	141.1	132.6	135.7	130.8	187.1	125.1	195.2	138.8	143.8	125.3	142.4	187.3	111.0	132.7	108.8	10.2	143.0	136.0	162.3	0.0	145.5	134.8	129.1	135.1	136.2	152.8
CO 30m Max	0.0	0.0	0.0	0.0	0.0	14.4	10.1	7.1	8.3	26.6	9.3	11.1	42.1	7.2	7.0	16.4	22.4	33.2	44.3	13.8	12.1	53.6	49.7	10.1	0.0	48.4	5.3	8.8	5.9	5.4	16.9
SO2 30m Max	0.0	0.0	0.0	0.0	0.0	5.4	5.5	5.4	5.4	5.8	5.5	5.3	5.2	5.5	5.6	5.5	5.6	5.3	5.4	5.4	5.5	5.7	5.8	5.3	0.0	5.5	5.8	5.5	5.5	5.5	5.3
HCl 30m Max	0.0	0.0	0.0	0.0	0.0	5.2	3.1	4.8	6.1	3.8	8.2	8.8	6.4	6.4	5.6	5.7	4.4	5.7	6.5	3.9	4.0	4.2	4.1	3.2	0.0	7.2	12.5	8.8	6.3	5.4	36.5
NH3 30m Max	0.0	0.0	0.0	0.0	0.0	3.1	2.1	0.9	0.9	0.9	1.2	0.9	0.9	0.7	1.7	1.0	1.6	1.7	1.7	2.2	2.1	2.1	1.8	1.7	0.0	1.1	1.2	2.1	1.6	2.4	2.3
TOC 30m Max	0.0	0.0	0.0	0.0	0.0	1.2	0.9	0.9	1.0	1.3	0.9	0.9	1.4	1.2	0.9	0.9	1.2	1.6	1.2	1.1	1.0	1.6	1.9	1.5	0.0	2.0	1.0	1.0	1.0	1.0	1.5
Particulate Matter 30m Max	0.0	0.0	0.0	0.0	0.0	2.3	1.5	1.6	1.4	1.5	1.5	1.2	1.2	1.9	1.5	1.3	1.4	1.2	1.3	1.3	1.3	2.1	4.1	7.0	0.0	6.2	1.7	1.2	1.2	1.2	6.0



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