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ENDS Report 381, October 2006, pp 17-18

SUBJECT

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First MBT diversion rates revealed

Mechanical-biological treatment can reduce the biodegradable content of waste sent to landfill by over 80%, according to New Earth Solutions. The company is the first to test its diversion rate using the Environment Agency's approved methodology.

Under the landfill allowance trading scheme (LATS), local authorities have to significantly cut the amount of biodegradable waste they send to landfill. Many have turned to MBT to achieve this - the treatment of waste by mechanical and biological processes to produce either a refuse-derived fuel or compostable material.

However, there has been uncertainty over the diversion rates that can be achieved if the outputs are sent to landfill.

The Agency only issued guidance on monitoring MBT processes in August 2005 ([ENDS Report 367, p 41](#)), and this contrasted greatly with the testing regime put forward in its original consultation ([ENDS Report 359, pp 40-41](#)).

Several projects have fallen by the wayside because of the uncertainty ([ENDS Report 375, pp 18-19](#)). "Nobody knew what the rate would be," said Dominic Hogg of consultancy Eunomia. "Even DEFRA thought it could be as low as 50%."

In September, Dorset-based New Earth Solutions became the first company to publish the results of tests using the guidance.

Its process can divert over 80% of the biodegradable content of black bag waste from landfill, the company says.

Several batches of black bag waste from Bournemouth Borough Council were put through New Earth's facility in Canford, Poole, for the tests. After being mechanically sorted, it was composted for six weeks.

Consultancy the Organic Resource Agency carried out biological tests on the inputs and outputs to measure the diversion rate. These were done in liaison with the Environment Agency and DEFRA to ensure the guidance was followed.

The company has not actually gone through the formal approval process for LATS. However, according to Hugh Bolson of ORA, the final results should not differ unless the configuration of the plant is changed.

Following the tests, New Earth signed a five-year waste disposal contract with Bournemouth. The contract is initially for 10,000 tonnes of waste per year, but this will be scaled-up to 70,000 tonnes in line with the council's LATS targets.

New Earth intends to use the output in land restoration projects, but the high diversion rate means it could be landfilled and the council would still meet its targets.

According to Terry Coleman of the Agency, "a number" of other waste companies are undertaking tests on their own MBT plants to ascertain diversion rates.

Four other waste companies currently operate plants in the UK - Biffa in Leicester, Premier Waste Management in County Durham, Shanks in east London and Viridor in Sutton.

ORA is also known to be conducting tests on plants in Germany.

According to New Earth's contract director Peter Mills, the results call into question why local authorities are still looking at incineration to meet LATS targets - whether through sending their waste direct to energy-from-waste plants or using MBT to make a refuse-derived fuel.

"We've developed a system that produces high rates of diversion without requiring thermal treatment," he said. "We're not against thermal treatment, but given planning problems it will take a local authority five or six years to get an energy-from-waste plant up and running and that isn't viable."

Dr Hogg agrees. "People don't seem to think MBT's a good idea if all it does is stabilise waste for landfill, but it can help meet LATS targets and have a low climate change impact."

In May, Friends of the Earth published a report by Eunomia on the climate change impacts of treating residual waste (ENDS Report 376, p 7 ►). It found that MBT processes producing stabilised waste for landfill had a lower impact than those producing RDF for incineration.

It called for lower rates of landfill tax for biostabilised material to encourage this disposal route.

"Local authorities don't want to pay £100 per tonne to landfill material," said Dr Hogg. "Why is the government penalising councils who want to send stabilised waste to landfill when it produces less methane?"

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