Waste food could fuel emissions cuts. says report

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NEW ZEALAND could slice thousands of tonnes off its greenhouse gas emissions by turning industrial food waste into fertiliser and energy, says a new report.

It could even make the treatment of industrial waste water a carbon sink.

The report, commissioned from Dr Alžběta Boušková by the Bioenergy Association with funding from the Government's Energy Efficiency and Conservation Authority, says that without action, emissions from the food sector will increase.

But using anaerobic digestion to turn waste into fertiliser and energy could cut emissions by 106,000 tonnes by 2030 and 207,000 tonnes by 2050.

Boušková says a combination of high carbon prices, public pressure and higher charges for natural gas and for sending industrial waste to landfill could lead to substantial changes in the way the dairy, meat, pulp and paper and winemaking industries treat their waste.



Dr Alžběta Boušková

BETTER TREATMENT

And by treating organic waste as a resource and using it to produce biogas to replace fossil-fuel heat and electricity, the industrial wastewater treatment sector could become carbon-negative, she says.

"When treated in well-designed anaerobic digesters, the organic matter can be more or less quantitatively converted to biogas and utilised as renewable source of energy," she said.

"This can be done by improving treatment and gas-capture efficiency of existing anaerobic treatment ponds at processors' sites, capture of primary sludge and transfer to municipal co-digestion plants or by implementation of new industrial wastewater digestion facilities."

Digestate, a liquid effluent produced when nutrients in raw wastewater are digested anaerobically, is an "environmentally sound" alternative to mineral fertilisers and returns nutrients to the land, she says.

Bioenergy in the news

FIRST STEP

Bioenery Association chief executive Brian Cox says the report shows the Government should be targeting waste in the food-processing sector as the first step in its drive to make New Zealand carbon-neutral by 2050.

"Using food processing wastes as a source of energy for the manufacturing plant is so obvious that it is no wonder more and more food manufacturers are starting to install equipment that turns waste into energy," he said.



Brian Cox

"It is a no-brainer that using waste to produce energy and reduce greenhouse gas emissions also reduces manufacturing costs."

The association will hold a webinar on the issue tomorrow.

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