Biogas could meet 20% of NZ's needs by 2050

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A JOINT study by engineering consultancy Beca, Firstgas and Fonterra claims renewable gas could replace close to 20% of New Zealand's total gas usage by 2050.

The report, Biogas and Bio-Methane in New Zealand, says 4% of the country's energy related emissions could be avoided by upgrading biogas to renewable gas.

The report says renewable gas could be generated from both food waste and manure from cow sheds.

It's far from the first report to investigate the potential of biogas to cut New Zealand's emissions.

An Otago Centre for Sustainability report, released at the beginning of last year, said of the major livestock categories in New Zealand only dairy cows have excreta stored in any quantity.

It estimated stored excreta made up between 5-20% of total effluent depending on the farming system being used. The primary source of dairy farm effluent is milking sheds.

The report concluded: "Bio-digestion and capture of methane from anaerobic ponds is an established technology but the economics are challenging with small herd sizes."

Paul Goodeve, Firstgas Group CE said there was a need for collaboration between industry and local and central government to develop policy and remove barriers for biogas to reach its full potential.

He said renewable gas was compatible with existing gas infrastructure and wouldn't require the replacement of appliances.

Eleanor Grant, Beca's Industrial Sustainability Lead and co-author of the report said their findings indicate that implementation of wide-scale anaerobic digestion in New Zealand could produce enough renewable gas to supply all residential users and three quarters of commercial gas users with carbon free fuel, equivalent to taking 415,000 petrol cars off our roads.

"Our joint study is the evidence needed to prove that renewable gas is a very real solution to decarbonising New Zealand and one that could realistically be having an impact by 2030.

"About 10% of this renewable gas can be produced, cleaned and sold economically today using readily available feedstocks, based on current gas sale prices. A further 30-40% would become available in coming decades as natural gas prices increase, driven by Emission Trading Scheme price rises and natural gas scarcity," Grant said.

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