Bioenergy Association responds to environmental concerns

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Last week Carbon News published an article [see below] outlining the concerns of a coalition of zero waste and regenerative farming groups about the potential for biogas development to lock in unsustainable farming practices. Today the Bioenergy Association's executive officer Brian Cox responds.

A recent item in Carbon News questioned how biogas production from residual organic wastes would ensure that agriculture land would be managed sustainably when digestate from the anaerobic digestion process is used as a bio-fertiliser.

Like all material used on land it must be manufactured and used appropriately.

Agriculture, food processing and municipal waste water treatment all produce a residue which can be processed into a safe product suitable for beneficial use on land. The NZ Biosolid Guidelines are recognised by territorial authorities as setting the quality standards for safe use on land.

Anaerobic digestion (AD), composting and vermiculture are all recognised recycling processes for taking organic waste, which would otherwise go to landfill. These processes produce complying soil enhancers. The choice of the most suitable process depends on the type and amount of organic waste, its location and a market demand for the potential products. Different wastes may be more suited for either AD, composting or vermiculture. Anaerobic digestion has an advantage in that it can also produce high value biogas and can be highly controlled so that the liquid residues (digestate) can consistently meet adequate specification for safe fertiliser product. The AD technology has been widely applied around the world. It has, over the last three decades, advanced to a state where the amount of fugitive emissions can be offset by the potential of its products to displace fossil-fuel derived products.

With these proven technologies the large quantities of agricultural and municipal waste, which currently goes to landfill, can be avoided or recycled into energy and bio-fertiliser.

The Bioenergy Association believes that with a strong integrated programme of work across the organic waste sector; promoting reduction; adoption of circular economy principles to business, public sector and agriculture sectors; and encouragement for separation of waste at source, that communities could achieve a goal of zero organic waste to landfill by 2030. This however will require a more active Waste Strategy that includes recycling of organic waste into energy, biofertiliser and other products.

Biogas proposals risk locking in unsustainable agriculture: groups claim

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Proposals in a recent biogas report, part-funded by the Energy Efficiency and Conservation Authority (EECA), risks locking in agricultural practices that harm the country's soils and waters and contribute to climate change, a coalition of zero waste and regenerative horticulture groups say.

The report, <u>Biogas and Biomethane in NZ - Unlocking New Zealand's Renewable Natural Gas</u> <u>Potential</u>, was co-produced by Firstgas Group, Beca and Fonterra with funding from EECA. When the report was released last week, Emeritus Professor Ralph Sims, a former IPCC lead author, told Carbon News the report was welcome and showed "there is good potential to expand biogas production and use to offset demand for coal and natural gas."

But the groups criticising the report – which include the likes of the Zero Waste Network, The Rubbish Trip, For the Love of Bees, and the Urban Farmers Alliance – say the anaerobic digestion (AD) technology being promoted will entrench unsustainable industrial farming methods.

"The biogas report makes various claims about the 'green' credentials of AD and its by-products," says Liam Prince of The Rubbish Trip. "But these benefits are largely assessed against the unsustainable status quo we have now, rather than other practices that could potentially provide far greater emissions reductions and environmental benefits."

He says the report fails to properly explain the downsides of this technology and makes no substantial comparisons with other approaches to reducing, diverting and processing organic waste.

The economic viability of AD is dependent on the digestate used by the agriculture sector as a fertiliser.

"The proposition that nitrogen-rich digestate be used at scale as a fertiliser demonstrates the presumption underlying this report that current destructive industrial agricultural practices will continue. But these practices are degrading our soils, polluting our waterways, contaminating drinking water, and contributing to climate change," Prince says

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