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Media Release

Decarbonising LPG for a greener New Zealand

Renewable dimethyl ether (rDME) is a clear option for decarbonising LPG in New Zealand according to research released today by the New Zealand LPG Association (LPGA).

Outlining how New Zealand could transition to renewable LPG alternatives by 2035, the report '[Exploring short term renewable LPG/DME production for NZ](#)', was prepared for the LPGA by energy and engineering consultants, Worley.

Vice President of the LPGA, Albert de Geest says the main finding is that there is a clear option for decarbonising LPG in New Zealand, by way of second generation rDME, utilising waste.

"The report signposts where we need to be putting our effort as a sector, to get cleaner, quickest," he says.

"DME is a methanol derivative, which can be used directly as a liquid fuel or blended with LPG as an LPG substitute. Renewable DME has the same use but is made from renewable feedstock such as dairy manure.

"The second generation conversion technologies, using waste such as dairy manure, broken down through anaerobic digestion, producing biogas to be further processed into rDME and rLPG, provides a viable pathway for New Zealand.

"With several rDME plants emerging globally we have examples to learn from and adapt to our environment, and it is this pathway that is most feasible in New Zealand in the short term.

"We expect to have a pilot project established within the next few years" says de Geest.

LPG is relied on by many New Zealanders. With natural gas unable to reach the South Island, and parts of the North Island, LPG provides essential energy for heating and cooking for homes and businesses.

Gas NZ Chief Executive, Janet Carson says to get more renewable projects beyond concept stage, a regulatory environment that includes renewable gases is needed.

"There are numerous opportunities to advance work to support renewable gases, starting with inclusion in the Carbon Emissions Reduction plan and the National Energy Strategy, and by extending the biofuels mandate for transport to apply to renewable gases."

The report is part two of a two stage research project. The pair of reports are the first time New Zealand has undertaken focussed research on what the pathway to renewable LPG would look like in New Zealand.

The first report “Pathway to 70 / 100% renewable LPG” released in March 2021, looked at the overall approach to decarbonising the New Zealand LPG sector. Its findings were optimistic with early research showing that achieving significant decarbonisation of the LPG sector was credible and within reach.

“We had initially expected to find a clearer pathway for renewable LPG (rLPG) itself, however the technology for producing rDME is significantly more developed than the process for rLPG and accordingly has more immediate potential in New Zealand,” Carson says.

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Editor Note: Gas NZ represents both the LPG Association and Gas Associations of New Zealand. Gas NZ is committed to a net zero carbon future and it’s vision is that renewable gases (including bio-LPG, biogas and hydrogen gas) are a material part of our energy system.

Please see attached, Worley report [“Exploring short term renewable LPG/DME production for NZ”](#). The first report “Pathway to 70 / 100% renewable LPG” can be found [here](#).

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