

20 May 2022

transformingrecycling@mfe.govt.nz

By website: <https://consult.environment.govt.nz/waste/transforming-recycling/>

Tēnā koutou e te rangatira mā o Te Manatū Mō Te Taiao

Te Panoni i te hangarua – Transforming Recycling

Gas NZ supports the Ministry for the Environment's (MfE's) phased proposals to make kerbside food scraps collection available in urban areas and for businesses to separate their food waste.

Gas NZ is an industry organisation, representing the LPG Association (LPGA) and the Gas Association of New Zealand (GANZ). Our vision is that renewable gases are a material part of our future energy system, providing energy choices and a cleaner future for all New Zealanders.

Our members' fundamental goal is to develop a biogas and renewable LPG Industry. Gas NZ member, Firstgas (In partnership with Ecogas) already has a biogas project underway in Reporoa.

Further to [2021 research](#) by Worleys we are also pursuing a pathway for decarbonising LPG through renewable DME (rDME). 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 as DME but is made from renewable feedstock, including soft waste.

The conversion process uses waste such as dairy manure, broken down through anaerobic digestion, producing biogas which can be further processed into both rDME and rLPG, and according to the research, provides a viable pathway for decarbonising LPG in New Zealand.

One of our challenges in developing biogas and rDME facilities is ensuring sufficient feedstock - ideally sourced close to the processing to ensure lowest possible carbon footprint. Long term security of feedstock is critical for commercial viability of these plants. Government's proposed food waste collection will help address this and encourage investment in biogases, ultimately enabling faster transition to a circular economy.

As a complementary policy, we recommend MfE consider a Renewable Gas Mandate requiring procurement targets and goals for renewable LPG, renewable gas, and hydrogen, through to 2050. We have raised this previously in our response to the Ministry's emissions reduction consultation 'Te hau mārohi ki anamata'. We feel it is worth restating in this context, as the policy could incentivise compliance in a collection regime by demonstrating some of the uses for the waste. Increased security of feedstock for renewable gas would also stimulate investment for anaerobic digestion plants.

The industry has invested in feasibility studies and pilot projects that support the viability of phasing in renewable LPG and gases into existing New Zealand energy networks. With the right policy settings in place, the industry can start to introduce low emissions alternatives by 2025 and scale up significantly by the end of the decade.

There are substantial opportunities for the circular economy in the 'waste' feedstock needed for renewable LPG and gas, while at the same time providing regional prospects for industry, local communities, iwi, and Māori businesses, to be part of a carbon zero future.

A joint study by Beca, Firstgas Group and Fonterra reveals renewable gas is a viable, untapped solution to decarbonising New Zealand's residential natural gas network right now. [The report](#), released in July 2021, concluded that 4% of New Zealand's energy-related emissions could be avoided with biogas upgraded into renewable gas. This could be produced using existing and available organic waste like food waste from your kitchens or farm waste like cow manure.

According to the Gas Infrastructure Working Group, gas pipelines supply over 760,000 residential gas consumers (residents not connections). In addition, over 19,000 businesses such as restaurants and hotels use natural gas. Separating waste at collection, and a renewable gas mandate, would facilitate a renewable gas market and provide a low carbon energy choice that would allow hundreds of thousand New Zealanders, who love gas today to continue to benefit from gas in the future.

Our comments to the consultation questions are provided in **Attachment 1**.

Our submission is supported by the Bioenergy Association. We would welcome the opportunity to meet with MFE to discuss our submission in more detail, should officials consider it helpful.

Ngā mihi maioha

A handwritten signature in black ink, appearing to be 'Janet Carson', written in a cursive style.

Janet Carson

Chief Executive

Gas NZ (representing the LPG and Gas Associations of New Zealand)

ANSWERS TO SPECIFIC QUESTIONS

Proposal 2: All urban populations should have kerbside food scraps collection

Q41: Do you agree that food and garden waste should be diverted from landfills?

We agree. Lack of consistent and reliable supply of feedstock is a barrier to anaerobic facilities being built and accordingly to biogas being produced at scale.

Q42: Do you agree that all councils should offer a weekly kerbside food scraps collection to divert as many food scraps as possible from landfills?

Yes.

Q43: Do you agree that these collections should be mandatory in urban areas (defined as towns with a population of 1000 plus) and in any smaller settlements where there are existing kerbside collections?

We agree. The existence of kerbside recycling collections in towns with less than 1000 people appears to be a less important factor than proximity to a larger urban area. Proximity to a larger urban area is a better indicator that an anaerobic digestion facility (or other waste-processing facility) will have sufficient scale to be worthwhile.

Q44: Do you think councils should play a role in increasing the diversion of household garden waste from landfills? If so, what are the most effective ways for councils to divert garden waste?

Yes. Councils should promote home composting and make it affordable for people to drop-off green waste at transfer stations and/or encouraging a user pays green waste bin.

Q45: We propose a phased approach to the rollout of kerbside food scraps collections. The timeframes will depend on whether new processing facilities are needed. Do you agree with a phased approach?

We agree. Anaerobic facilities are capital-intensive so have been designed for high utilisation (little spare capacity). Therefore, new or expanded facilities will almost always be required. Ambitious yet sensible phasing is critical to success. Secure sources of feedstocks for such facilities underpins their business cases, so clear timeframes to coordinate collection and investment decisions will be of critical importance.

Q46: Do you agree that councils with access to suitable existing infrastructure should have until 2025 to deliver food scraps collections?

Yes.

Q47: Do you agree that councils without existing infrastructure should have until 2030 to deliver food scraps collections? This is easily achievable, though the same coordination challenges described in questions 45 apply. A waste separation policy would provide an incentive to have appropriate infrastructure available as quick as possible.

Q48: Are there any facilities, in addition to those listed below, that have current capacity and resource consent to take household food scraps?

None that we are aware of.

Proposal 3: Reporting on household kerbside collections offered by the private sector

Q52: Do you agree that it is important to understand how well kerbside collections are working?

Yes. Data is vital for planning and future design and actions.

Q53: Do you agree with the proposal that the private sector should also report on their household kerbside collections so that the overall performance of kerbside services in the region can be understood?

Yes. We need a full understanding of waste sources, its composition and quantities.

Q54 Do you agree that the information should be published online for transparency?

Yes. All participants in the waste recycling sector need to have good reliable information to access feedstock for renewable gas.

Proposal 4: Setting targets/ performance standards for councils

Q56. Should kerbside recycling services have to achieve a minimum performance standard (eg, collect at least a specified percentage of recyclable materials in the household waste stream)?

Targets should be set which are progressively increased over a considered timeframe.

Q58 We propose that territorial authorities have until 2030 to achieve the minimum performance standard, at which time the rate will be reviewed. Do you agree?

Yes. The recycling technologies such as composting, anaerobic digestion or supply as an animal feed are already available but lacking the incentive which these proposed policies would provide.

Proposal 6: All urban populations should have access to kerbside dry recycling

Q64 Should all councils offer household kerbside recycling services?

Yes. Councils should be the responsible agencies although they may contract out to others to undertake specific activities

Q66 Do you agree that councils without any council-funded kerbside recycling collections should implement these collections within two years of their next Waste Management and Minimisation Plan?

Yes. Support should be available to councils to assist them achieve the desired targets within the timeline.

Q68: Should commercial businesses be expected to divert food waste from landfills as part of reducing their emissions?

We agree. It needs to be factored into a cost running a business, just as waste collection is currently.

Q69: Should all commercial businesses be diverting food waste from landfills by 2030?

Yes.

Q70: Should separation be phased in, depending on access to suitable processing facilities (eg composting or anaerobic digestion)?

Yes, phasing is important to take account of availability of services and so as not to undermine the objective of the programme. It would be counter-productive to require separation only for the waste to be mixed again further down the chain.

Q71: Should businesses that produce food have a shorter lead-in time than businesses that do not?

No. Any phase in should be related to the availability, or of recycling facilities, including composting, anaerobic digestion and supply as an animal feed.

Q72: Should any businesses be exempt? If so, which ones?

All businesses should be required to participate.

Q73: What support should be provided to help businesses reduce their food waste?

Any change should be accompanied by a communications campaign to ensure that all New Zealanders are aware of

the shift and what's required. Many people are still confused over various plastic types suitable for recycling - the requirement and definition of food waste should be unequivocal, and clearly communicated.







COMPLEMENTARY POLICY: SETTING A RENEWABLE GAS MANDATE

We recommend that as a complementary policy to the transforming recycling the government consider setting a renewable gas mandate (including renewable gas, renewable LPG and hydrogen). A regulatory framework that includes a renewable gas mandate could incentivise compliance in a collection regime by demonstrating some of the uses for the waste. It would also stimulate investment for processing the waste into renewable gases.

Adopting a similar mandate for gas as has been proposed for transport fuels aligns with government’s response to a comparable set of circumstances to address hard to abate emissions, and challenging economics of low emissions alternatives even with a relatively high carbon price.

It would provide certainty to market participants on the need for renewable gases and a lead in time where participants would be incentivised to innovate now in preparation.

The mandate could be phased in, starting with a focus on home and businesses heating, water and cooking, and would see escalating quantities required from 2025 to 2050. We also recommend the mandate allow for scaling up of renewable gas for commercial gas users, for example for process heat and gas for electricity generation.

The benefits of a renewable gas and LPG mandate for a proportion of gas and LPG used in building heating, cooking and hot water to come from renewable (non-fossil fuel) sources.	
	Incentivise waste collection and provide a commercial proposition for the waste collected
	High certainty of CO ₂ reductions
	Continues the diversity in energy distribution channels that New Zealand needs and New Zealanders want
	Retains value in existing networks and household plumbing systems
	Preserves public commitment to decarbonisation by enabling consumer choice of appliances
	Retains a viable gas industry to service needs of ‘hard to abate’ emissions (electricity, process heat)