Response to the Climate Change Commission advice

An alternative approach to achieve the same ends

The Gas Association of NZ (GANZ) supports the emissions reductions goals set out in the Climate Change Commission's draft advice.

However, we oppose the Commission's recommendation to eliminate the use of gas for building heat[1] in homes and businesses.

Doing so, in our view, will have major and long-term implications for homeowners and businesses throughout New Zealand, implications that we consider to be totally unnecessary and that could work against the goal of reducing emissions.

The feedback from gas industry customers on the recommendation, received by GANZ members, has been overwhelmingly opposed. Consumers want to continue to use gas and want the gas industry to make that possible by decarbonising gas – and this can be achieved with technology already available.

Instead of a ban, we propose the gas industry be given the opportunity to transition away from supplying existing carbon-based fossil fuels and further develop the technologies that will facilitate the supply of renewable and carbon-zero energy sources such as biogas and hydrogen.

Carbon-zero gas supply: What's possible?

The technology exists now to supply a carbon-zero gas mix through the current natural gas network. This is already happening in Europe, supported by government policies that require a shift away from fossil fuels.

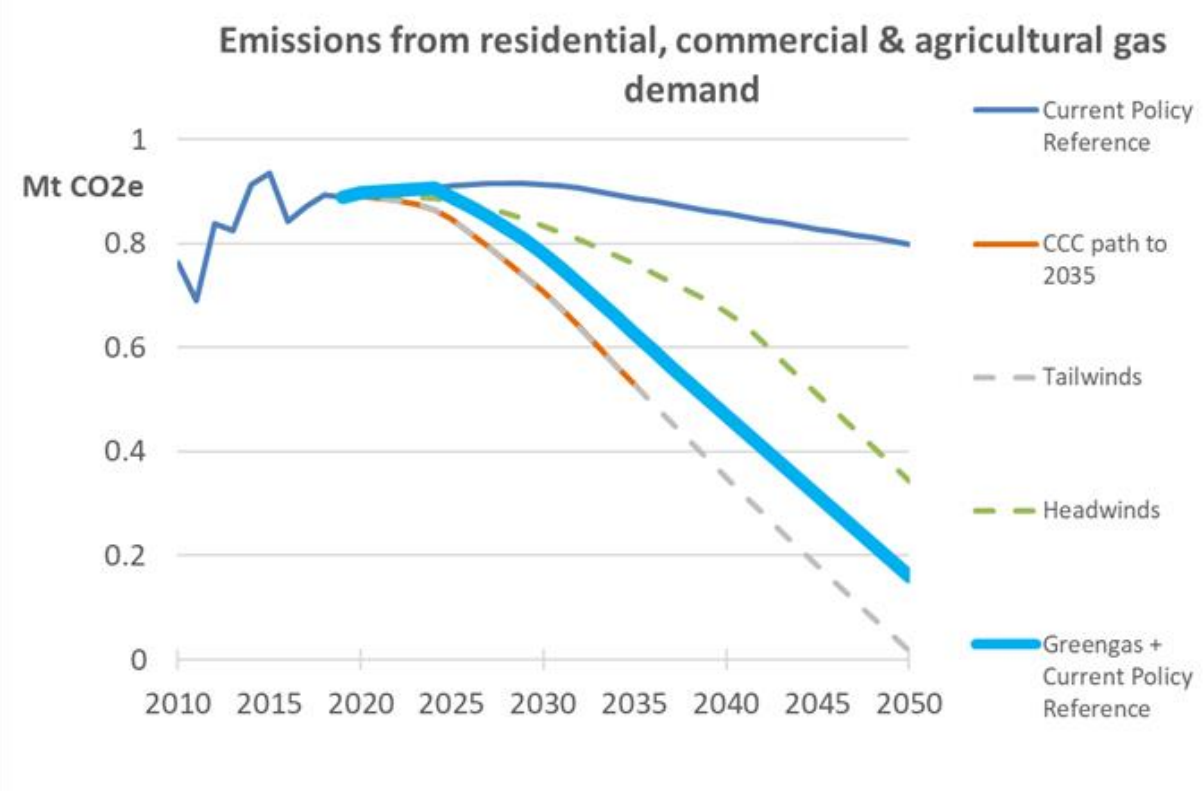
Having said that, the economics of these options in New Zealand need to be better understood. The industry is undertaking work in this area and would accelerate this work given appropriate signals through Government policy.

In terms of a hydrogen-only supply, one industry feasibility study indicates the natural gas network could be fully converted to hydrogen by 2050. The submission from Firstgas Group provides details of this transition, which would see blending of hydrogen into gas networks from 2030—within the time period covered by the Commission's carbon budgets.

The point is that the gas industry has the ability and the desire to transition to a carbon-zero gas supply. It just needs to be given the opportunity – and time – to do so.

[1] This includes space and water heating and cooking.

The transition to a low-carbon gas supply for residential, commercial and agricultural consumers is illustrated below, with the phasing in of biogas from 2025, and hydrogen from 2030.



The benefits

Supporting a transition to carbon-zero gases has numerous advantages:

- It likely enables New Zealand to achieve our climate goals at a lower cost to consumers.
- It preserves and continues to make use of an existing network infrastructure valued at over $2 billion.
- It saves homeowners having to make expensive changes to their existing home plumbing and water heating, and cooking appliances and systems. An average cost of building renovations of $5,000 per property would add a further $2billion to transition costs (above the network stranding costs mentioned above).
- It enhances consumer choice.
- It removes the same burdens from, and provides the same advantages to, thousands of small businesses around New Zealand.
- It incentives our industry to invest more and faster in renewable technologies that will generate long-term benefits for New Zealand on a variety of fronts, such as in the management of organic waste and in the production of renewable electricity.
- It provides for enhanced energy security and system resilience.

The risks

We acknowledge that any policy proposal to eliminate emissions from buildings will have risks. The main risks that we see to supporting the increased use of carbon-zero gases are:

- The economics and supply chains for carbon-zero gases in New Zealand are largely untested. While interest in biogas and hydrogen are clearly growing, these are likely to cost more than fossil fuel gases – at least initially.
- Locking consumers into ongoing carbon emissions through investments in gas connections and appliances if carbon-zero gas cannot be delivered. Avoiding decisions that lock-in future

emissions appears to be the Commission's main reason for the proposed ban on new gas connections and forced gas appliance replacements.

We consider both of these risks can be mitigated through the design of policies that support the use of carbon-zero gases. The policy should put in place regular monitoring of the relative costs of fossil fuel gas and carbon-zero gas to ensure transparency of impacts. The policy should also help to facilitate carbon-zero gas certificates that enable gas users to express their willingness to pay to voluntarily reduce their emissions from natural gas use.

The policy should also set clear expectations for increasing production of carbon-zero gases at set time intervals. This will allow the Commission to review progress with introducing carbon-zero fuels into the mix, and inform future policy recommendations if progress has failed to meet expectations.

The technology

The technology already exists to support this shift towards carbon-zero gases. Industry-wide efforts to make the transition will now be accelerated and we propose dates and timelines be set by which the natural gas industry must meet certain emission milestones.

The Beca report attached to the Firstgas Group submission indicates that around 18 PJ of biogas could be injected into gas pipelines (both from existing landfill capture systems and new anaerobic digestion schemes). This is a significant circular economy opportunity to recycle the energy content of existing organic waste streams at a scale that is great than the entire natural gas demand used for building heat.

The hydrogen opportunity really has no limit on scale but a 100% hydrogen future requires more change in network materials and end use appliances than biogas. The deployment of hydrogen technologies is a global pursuit – and pipeline injection is part of the national hydrogen strategy in the Netherlands, Germany, France, Australia, South Korea, and Japan. To make hydrogen a reality in New Zealand will require years of investment and clear policy direction is therefore essential for the development of this industry.

Recommendation

GANZ supports the proposal outlined in the Firstgas Group submission to the Commission. Rather than the wording in the Commission's Recommendation 9c, we propose the following:

Set an obligation for a proportion of gas used in building heating to come from renewable (non-fossil fuel) sources. This obligation should be sufficient to supply new building heat added to gas networks from 2025 and should increase over time.

An appropriate regulatory environment

We appreciate that an appropriate regulatory environment will be necessary to monitor, manage and police the gas industry as it transitions to, and ultimately supplies, renewable sources of energy.

GANZ supports the regulatory environment as proposed by the LPG Association in its submission to the Commission. This would see the GIC being given formal regulatory powers over the renewable gas obligation scheme – with appropriate enforcement powers and cost oversight.

About GANZ

GANZ represents companies and organisations in the gas sector involved in the transportation of gas. The full members are: Nova Energy, Powerco, GasNet, Vector, First Gas. Gas Equipment Suppliers (GES) has a group membership, and there are a number of associate members.

The Association's objective is to facilitate a safe, effective and sustainable industry. It is a proactive forum that identifies, discusses and resolves issues impacting on the health and sustainable development of the industry.

GANZ's prime focus is on the safety and technical aspects of the natural gas industry.

Stewart Dickson

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