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Vicky Robertson
Environment House
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Sent via email: etsconsultation@mfe.govt.nz

Dear Vicky

Reforming the New Zealand Emissions Trading Scheme: Proposed Settings

Firstgas Group Limited (Firstgas) welcomes the opportunity to comment on the consultation document, "*Reforming the New Zealand Emissions Trading Scheme: Proposed Settings*" (consultation document), released in December 2019.

Firstgas is committed to helping New Zealand meet its 2050 emissions reduction targets. We are a signatory to the Climate Leaders Coalition, which requires Firstgas to measure its emissions, set targets to reduce those emissions, and to publicly report our progress against targets. We also believe New Zealand can show greater leadership by using its natural capital and trading advantages to help other countries meet their emissions reduction targets.

Our primary concerns are to ensure the initiatives to transition to a lower emissions economy are well-informed, consider broader impacts to the economy and communities, and that the lowest risk, highest impact initiatives are used to meet New Zealand's 2050 targets. We are part of the existing New Zealand Emissions Trading Scheme (ETS) and believe a well-designed ETS is an important tool to help New Zealand meet its 2050 emissions reduction commitments.

Structure of our submission

Our submission has two parts:

- Part one provides background on Firstgas and our general thoughts on the consultation document and areas we thought deserved more attention
- Part two responds to the specific questions in the consultation document (**Appendix 1**).

Nothing in this submission is commercially sensitive and we are happy for this submission to be posted on the Ministry for the Environment's website.

About Firstgas

First Gas Limited (Firstgas)[1] owns and operates more than 2,500 kilometres of high-pressure gas transmission pipelines and other supporting infrastructure that supplies natural gas from Taranaki to residential, commercial and industrial consumers throughout the North Island. Firstgas also operates more than 4,800 kilometres of gas distribution networks. Through these distribution networks, Firstgas provides gas distribution services to gas retailers who sell gas to more than 60,000 customers across Northland, Waikato, the Central Plateau, Bay of Plenty, Gisborne and Kapiti regions.

Firstgas also owns energy infrastructure assets across New Zealand through our affiliate Gas Services NZ Limited (GSNZ). GSNZ is a separate business with common shareholders that owns the Ahuroa gas storage facility ("Ahuroa" trading as Flexgas) and Rockgas – an LPG business supplying 100,000 customers throughout New Zealand.

In New Zealand, effective large scale energy storage options are limited to hydro storage, predominantly in the South Island, Ahuroa gas storage and the coal stockpile at Huntly Power Station in the North Island. On its own, Ahuroa has a similar energy storage capacity to the sum of all South

[1] For more information on the Firstgas Group, visit www.firstgas.co.nz, www.flexgas.co.nz, and www.rockgas.co.nz

Island hydro storage. We believe Ahuroa will play an important role over the next decades as more intermittent renewable electricity generation is integrated into the electricity market and coal is phased out and when South Island storage capacity is low or unavailable.

Firstgas is investigating opportunities for using our assets in ways that help to reduce New Zealand's carbon emissions. Our gas transmission and distribution networks cover much of the North Island and are ideally placed to support the development, transfer and use of emerging fuels such as hydrogen and/or biogas. In 2020, we will complete feasibility studies into the use of hydrogen in our gas network. This will be followed by a physical trial on part of our network. The feasibility work is part funded by the Provincial Growth Fund and we are working with the National New Energy Development Centre establishment team to understand how our project might fit with the centre's remit.

Firstgas' interest in the discussion document

Our submission is primarily concerned with the assumptions used to inform the interim ETS targets and settings. We acknowledge the desire to accelerate change and support this. However, we think there are practical limits to how much the emissions reduction timeframes can be compressed, and we are concerned that setting ambitious short-term targets to "signal urgency" without input from the Climate Change Commission could be counterproductive to meeting the 2050 targets.

We also refer to the other linked policy processes underway in addition to ETS reform. These are occurring across several Government portfolios and we are concerned about the fragmented policy development, the lack of robust integrated analysis to inform key ETS assumptions, and the rushed nature of the legislative process at the expense of constructive debate. We raise this point here because it is out of scope for this consultation and there have been few forums to raise the "whole of economy" cumulative impact of climate change proposals made by various agencies.[2]

General comments on the discussion document

We provide the following comments on areas not covered by the specific questions in the discussion document.

An enduring New Zealand ETS will need to include international emissions units

Firstgas believes that the New Zealand ETS should include certified international ETS units and we are encouraged by the suggestion that this option may be available in the future.

We think sole reliance on domestic forestry for local abatement increases the risk of New Zealand not meeting its provisional and longer-term abatement targets. The scale of land-use change to forestry to offset all New Zealand's emissions will invariably damage some regional communities and re-weight the economy as agriculture and other economic land-use activities are displaced. If New Zealand is not prepared to support other forms of sequestration such as carbon capture and underground storage (CCUS), then it is likely New Zealand will need to access abatement options such as CCUS in other countries in the future.

Rather than waiting to see how the new ETS settings bed in, Firstgas recommends accelerating efforts to prepare to introduce credible international ETS units into the New Zealand ETS.

Technology bias and limiting options will slow emissions abatement and concentrate risk

We think the scenarios outlined in the consultation document ignore proven abatement options in favour of options that are either unproven or have unknown consequences. For example, Government appear to have a view that wholesale switching from coal to electricity for process heat is realistic, yet we have not seen any comprehensive integrated (whole of energy system) analysis to demonstrate that this is viable over the short and medium term without gas as a transitional fuel. Further, we think the Government position that gas used in baseload electricity generation and peaking can be replaced by renewable electricity generation and pumped hydro over short timeframes also lacks fundamental analysis.

In theory, we think pumped hydro could make a useful contribution to New Zealand's energy system, but it is not clear if the environmental consent process would even allow a large scale pumped hydro scheme such as what has been suggested for Lake Onslow in Otago[3]. There is no analysis to suggest the scenarios presented can be implemented within a decade or even two decades from a

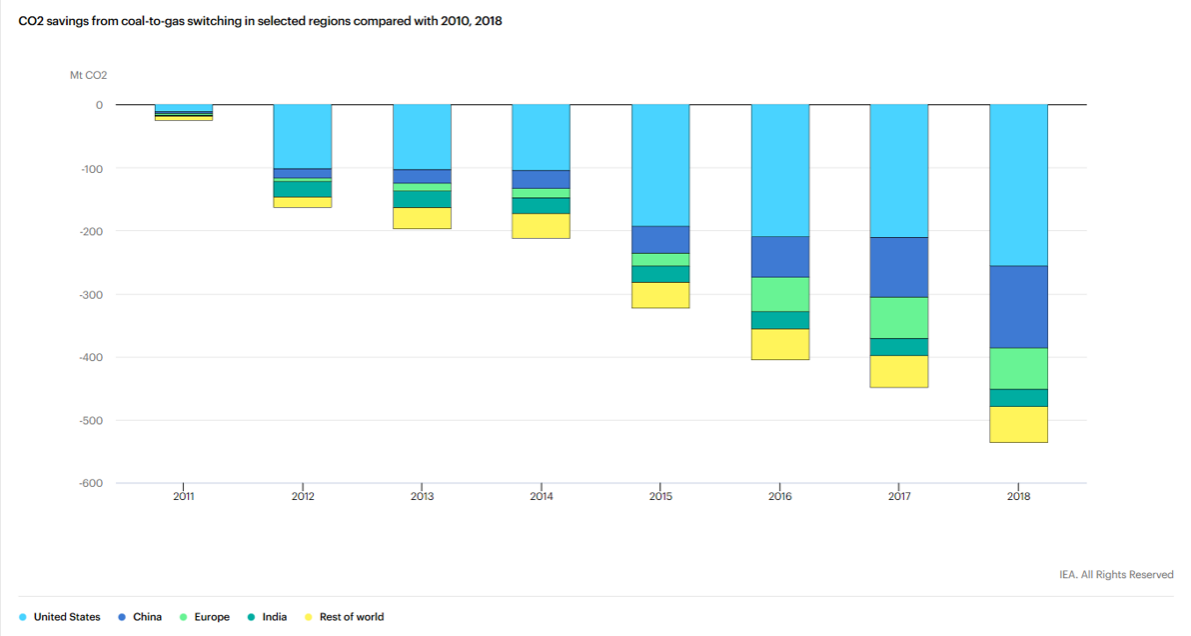
[2] For example, MBIE's work on accelerating of renewables and energy efficiency, the Resources Strategy and the Crown Minerals Act review. MfE's other Emissions Trading Scheme reform consultations, the Urban Development National Policy Statement, and Resource Management Act reform.

[3] https://www.stuff.co.nz/business/114628348/buffering-needed-as-new-zealand-increases-reliance-on-green-energy

practical perspective. We don't think its sensible to undertake significant policy reform where the underlying assumptions are so poorly understood.

In the context of conversion away from coal, gas has a proven track record globally (Figure 1) and has the potential to play an important role in meeting New Zealand's 2050 emissions reductions targets. In response to a call for evidence made by the Interim Climate Change Committee, we provided analysis showing that connecting five of the remaining large North Island coal users to natural gas would reduce emissions by around 500,000 tonnes per annum.

Figure 1: CO_2 savings from coal-to-gas switching



We also note that conversion away from coal has benefits in addition to emissions reductions. The Ministry for the Environment recently published a paper "Identifying the social good co-benefits of electrifying process heat"[4]. This paper emphasizes the potential for improvements in air quality and a reduction in the health and safety risks associated with handling coal. While the focus of the paper is electrification, we think the same benefits apply equally to gas.

In summary, we recommend promotion of abatement pathways that are credible and executable over sensible timeframes.

2025 forecast assumptions are unrealistic

Like the recent Ministry of Business, Innovation and Employment (MBIE) discussion paper on the acceleration of renewable energy and energy efficiency[5], the ETS consultation document ignores the importance of natural gas as a transitional fuel in favor of biomass and electrification. We think this is shortsighted and takes an overly simplistic view of what is practically required to reduce emissions without economic shocks.

The Interim Climate Change Commission in its 2019 paper on accelerated electrification[6] has already stated that 100 percent renewable electricity generation is only possible at very high cost, and the International Energy Agency (IEA) has also recently highlighted the important role of gas in the global energy transition.[7] The role of gas in the transition to lower global emissions is generally well understood, and so we are concerned by the view expressed in the discussion document (page 27) that wind and geothermal power stations can be built to displace coal and gas fired generation by 2025 at low to moderate cost. Even with the current broad support for increased renewable energy

[4] https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/identifying-social-good-co-benefits-of-electrifying-process-heat.pdf

[5] https://www.mbie.govt.nz/have-your-say/accelerating-renewable-energy-and-energy-efficiency/

[6] https://www.scoop.co.nz/stories/BU1907/S00437/decision-electricity-and-gas-is-nzs-energy-future.htm

[7] See the IEA's July 2019 publication "The Role of Gas in Today's Energy Transitions" https://www.iea.org/reports/the-role-of-gas-in-todays-energy-transitions#key-findings

generation, we understand some renewable projects are having difficulty obtaining resource consents. These challenges need to be reflected in the modelling that provide the basis for setting the 2025 targets.

There are currently no realistic alternatives to replace the energy storage and energy generation benefits of gas by 2025. Even in the longer term, with a greater proportion of renewables and pumped hydro or batteries, there will still be a need for dense stored energy, that can be released at short notice. Dry, windless hydro conditions occur a few times each decade and New Zealand will need to continue to have a range of reliable options to manage those conditions. We accept that over time new technology solutions may replace gas for electricity generation and process heat, but for now we place high value on the security of supply that gas provides the energy market. Overbuilding wind and geothermal is not a silver bullet. Some geothermal fields have a similar CO_2 emissions profile to gas fields[8], and there are other environmental considerations that may block development of new projects.

The assumptions regarding process heat conversion also ignore the timing and risk that companies face in moving to new technologies and switching fuels. Industrial process and fuel conversions takes significant planning and cost and are rigorously assessed years beforehand. We believe the least risky option for businesses to convert away from coal-fueled processes is to initially reduce emissions via the use of gas. The emissions reduction benefits are well understood globally, and the technology is proven.

Final comments on specific ETS mechanisms

Firstgas supports market-based principles to encourage emissions reductions and we believe some mechanisms will have more of an impact on the success of the New Zealand ETS than others. In particular:

- We believe an effective ETS must demonstrate clear links between carbon budgets and ETS units. We support the approach described in the consultation document
- The ETS should encourage more, rather than fewer abatement options. We think more should be done to expand the range of abatement options. For example, there are potential opportunities for CCUS in New Zealand. Globally, in 2019 more than 25 million tonnes of CO_2 from the power and industrial sectors was permanently stored using CCS[9]
- We think stockpiled ETS units should have an expiry date to increase market liquidity.

In summary, we support the ETS and encourage the Ministry for the Environment to continue to identify and develop mechanisms that provide clear market signals and a wide range of viable abatement options.

Contact details

If you have any questions regarding this submission or would like to meet with Firstgas to discuss opportunities for optimising the use of natural gas on our networks, please contact me on [redacted] or via email at [redacted]

Yours sincerely

Josh Adams
Transmission Commercial and Ahuroa Business Case Support

[8] https://nzgeothermal.org.nz/app/uploads/2019/11/Katie-McLean.pdf

[9] https://www.globalccsinstitute.com/wp-content/uploads/2019/12/GCC_GLOBAL_STATUS_REPORT_2019.pdf

APPENDIX 1: RESPONSES TO CONSULTATION QUESTIONS

Question	Response
1. Do you agree with the proposal to set a provisional emissions budget of 354 Mt $CO_{2\text{-}e}$ for the 2021 –25 period? If not, why not? Please include your views on: • Using a straight-line approach towards the 2050 target • The considerations that were included in proposing the provisional emissions budget.	We note that this is the first time budgets have been set and the headline number must start somewhere. Only time will tell if 354 Mt is the right number. However, as highlighted in the first part of our submission, we think it is probably overly optimistic because the underlying assumptions are unrealistic. We appreciate the intention is to be ambitious and to "signal urgency" but we think it would be more sensible to consider what can be realistically achieved by 2025. The straight-line approach appears reasonable.
2. Do you support the decisions made regarding the technical volume adjustment decisions? If not, why not?	Firstgas supports the technical volume adjustment decisions. We think it's important to retain the flexibility that the option to make technical volume adjustments provides.
3. Are there other adjustments that need to be considered?	N/A
4. Do you agree with the proposal to address the NZ ETS unit stockpile by reducing the annual volume of NZUs available for auction? If not, why not?	Reducing the auction volume is one way to adjust and manage the stockpile. However, we think the nature of the stockpile needs a better understanding before reducing auction volumes. For example, forestry owners may be withholding some units to cover ETS liabilities associated with harvesting at the end of each growing cycle. If this is the case, reducing auction volumes may not address the perceived issue. On this basis we think stockpiled NZUs would naturally clear themselves if they had an expiry date. The Government is correct in its position that NZUs should be procured 6 to 36 months before use. We are also aware that some parties have historic units, purchased at much lower prices. These may ultimately slow the pace of change in some sectors and can provide a competitive advantage or barrier to entry. One possible solution is to ensure that NZUs obtained more than 36 months ago should be used within 5 years.
5. Do you agree with 27 million NZUs being removed from auction volume between 2021–25? If not, why not?	Please see our answer to question 4.
6. Do you agree with the steps and calculations taken to reach the proposed annual auction volumes?	We refer to our earlier point in question 4 that the stockpile assumptions need to be understood before calculating the auction volumes.
7. Do you support the proposal to auction 80 million NZUs over the 2021–25 period plus 2 million NZUs for auctioning trial in 2020? If not, why not? Please include your views on the process for adjusting auction volumes.	We think the auctioning trial is a sensible approach to test the market. As above, whether the auction volume is appropriate or not will depend on whether the assumptions made about the stockpile are correct.
8. Do you agree with the proposal to set an auction reserve price floor at $20 for 2020–25? If not, why not?	We agree with the price floor and believe this will give foresters and emitters certainty.
9. Do you agree with the proposal to increase the fixed price option to $35 for obligations arising from activities over 2020?	We note that the proposal to increase the fixed price option to $35 was made 12 days before the start of the new emissions year. The short timeframe meant that businesses had little time to plan and adjust budgets. The resulting percentage increase in immediate abatement costs will be very high for some businesses. We also note that this now presents an arbitrage opportunity for existing traders. We recommend that any future changes to key market settings consider the immediate impact on businesses. Changes should be planned and announced in a way that minimise market volatility.

Question	Response
10. Do you agree with the proposal to set the price ceiling trigger of the cost containment reserve at $50 for the 2020–25 period? If not, why not?	We think the ceiling trigger of $50 for the cost containment reserve will encourage a skewed market. We would expect the market to generally price up to or close to the cost containment reserve trigger.
11. Do you agree with the proposed annual cost containment reserve volumes to be released if the price ceiling trigger is hit? If not, why not?	We do not think the proposal provides enough certainty that prices won't go well above $50 and that the reserve volumes will be sufficient to reduce prices.
12. Do you agree with the proposed approach for release of NZ ETS settings information? If not, why not?	Yes, we agree with the proposed approach for the release of New Zealand ETS settings information.
13. Do you have any further comments?	Please see the comments in Part One of this submission.