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Carolyn van Leuven
Gas Industry Company
Level 8, The Todd Building
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Dear Carolyn

Submission on the Gas Market Settings Investigation

1. This is Vector Limited's (Vector) submission on the Gas Industry Company's (Gas Industry Co) *Gas Market Settings Investigation Consultation Paper* (the Consultation Paper), released on 21 May 2021. We appreciate Gas Industry Co's engagements with stakeholders on the Gas Market Settings Investigation requested by the Minister of Energy & Resources (the Investigation) through a survey and face-to-face meetings to inform this consultation.

2. Vector broadly agrees with Gas Industry Co's characterisation of the role of gas, gas supply and demand outlook, and commercial outlook for gas in New Zealand as set out in the Consultation Paper. We agree that Gas Industry Co has captured the issues fairly and accurately, in general, in the context of New Zealand's transition to net zero emissions by 2050 (the transition).

3. We support Gas Industry Co's consideration of options proposed by stakeholders to ensure industry participants can plan and invest appropriately for the transition. Proposed options include, among others, increasing information availability, reviewing the regulatory framework for gas pipelines to ensure cost recovery of these long-lived assets, exploring additional gas storage and LNG importation, clarifying the future treatment of green gases, and improving policy predictability.

4. We set out our responses to the consultation questions below using the template provided by Gas Industry Co for this consultation. We provide comments on most of the options/solutions proposed by stakeholders and suggest additional options and next steps that Gas Industry Co can undertake, together with industry participants, to support the objectives of this Investigation.

5. We are happy to discuss any aspects of this submission with Gas Industry Co as it continues with this Investigation. Please contact me at Neil.Williams@vector.co.nz or 09 978 7633.

6. No part of this submission is confidential, and we are happy for Gas Industry Co to publish it in its entirety.

Yours sincerely
For and on behalf of Vector Limited

Neil Williams
GM Market Regulation

Vector's responses to the consultation questions

Gas Market Settings Investigation 2021

Submission prepared by: **Vector**
Contact: Neil Williams (GM Regulation), Neil.Williams@vector.co.nz, 09 978 7633

Question		Vector's comments
Q1	Do you agree with our characterisation of the role of gas in New Zealand?	Vector broadly agrees with Gas Industry Co's characterisation of the role of gas in New Zealand as set out in the Consultation Paper. In our view, gas has an ongoing role to play to support industry and electricity generation during the transition to net zero emissions by 2050. Gas remains a fuel of choice for many homes and businesses and its long-term replacement will have to be carefully worked through to ensure consumers are not disadvantaged. The affordability of gas and electricity is a key component for ensuring a successful transition. Ongoing investment will be required so it is critical to get the gas market, commercial and regulatory settings right.
Q2	Do you have any comments in relation to the gas supply and demand outlook?	Vector considers Gas Industry Co's gas supply and demand outlook to be reasonable. We note that this Investigation is but one aspect of a range of policy responses to ensure that the market, commercial and regulatory settings in the gas sector – and the wider energy sector – are fit for purpose for the transition. As Gas Industry Co itself indicated:

Question		Vector's comments
		It is expected that the policy landscape is uncertain in a time of rapid change and transition, and Gas Industry Company intends that this investigation will play a part, alongside other work, in helping identify what steps could be taken to improve predictability and smooth the transition, while respecting commercial processes.[1]
Q3	Do you agree with our characterisation of the commercial outlook for gas?	Vector agrees with Gas Industry Co's characterisation of the commercial outlook for gas in general. Any preferred options the GIC will pursue following this Investigation should uphold existing commercial arrangements to avoid creating further uncertainty and deterring the required investment for the transition.
Q4	Have we captured the issues fairly and accurately? Have we missed anything?	Vector believes Gas Industry Co has captured the relevant issues fairly and accurately in general. We particularly share some stakeholders' concerns around the ability of fewer and smaller parties to underpin investment for gas supply in the context of declining gas demand. This may result in the development of gas resources upstream becoming less economic, further driving up the price of gas.[2] We agree with the following stakeholder observations that are captured in the Consultation Paper:[3] *Declining demand is also expected to affect the utilisation of new gas production infrastructure, which affects the gas price that is required for this infrastructure to break even. The price of gas transmission and distribution may also need to increase in order for pipeline owners to maintain returns on their asset base.*

[1] Page 10 of the Consultation Paper
[2] Page 40 of the Consultation Paper
[3] *Ibid.*

Question		Vector's comments
		Many stakeholders mentioned the risk that overall delivered gas prices could increase if other parties were to cease operations and that this could spiral over time…delivered gas prices may need to more than double over the period to 2035 in order to compensate new gas infrastructure for a decline in utilisation. This would likely result in an increase in customers choosing to switch away from gas to electricity, or to otherwise reduce their gas consumption, requiring further increases in required prices and tariffs for remaining customers. *As every participant leaves, the remaining parties each have to cover a higher proportion of infrastructure costs, which increases the likelihood of the next participant leaving, and the cost for the remainder.* We discuss our views on the implications of declining demand on gas pipelines below as part of our response to Question 5.
Q5	What are your views on the potential solutions stakeholders have raised? Can you share any more detailed information to help inform us on how feasible or effective they might (or might not) be?	**Information availability** Vector has been consistent in its support for the promotion of greater transparency in the wholesale gas sector. We support Gas Industry Co's ongoing development of an information disclosure regime for this sector, with the disclosure of information on planned and unplanned outages of production and storage facilities as a priority. The disclosure of information that has a material (or potentially material) impact on gas wholesale prices in a symmetric and timely manner promotes market competition and efficiency that benefit consumers. It enables industry participants not only to better understand the immediate risks they are facing but also to make more informed business decisions and plans for the transition. While information disclosure arrangements are being developed, we acknowledge the ongoing voluntary disclosure of outage information by gas producers and storage owner on the Gas Industry Co website. We suggest that the 'language' used in disclosing this information be aligned with that used by the Electricity Authority for disclosing wholesale electricity market information on its website.

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		We support Gas Industry Co's intention of developing an information portal on its website. This will be a one-stop place for parties to access publicly available information, including a guide to assist in the interpretation of this information.[4] Gas Industry Co could consider combining this with Transpower's Planned Outage Coordination Process (POCP) information (see https://pocp.redspider.co.nz/). We further support Gas Industry Co's suggestion to improve timeliness through more frequent and comprehensive release of information on supply and demand imbalances. We agree that this is likely to improve risk management, predictability, and the use of hedging tools. We suggest that this and related information be released through Gas Industry Co's proposed information portal. **Review of the regulatory framework for gas pipelines** Stakeholders have expressed concern that "as parties leave the market…the ones left behind will have to cover a higher and higher proportion of infrastructure costs, which means the next participant will be more likely to leave and costs will increase further for the remainder".[5] Stakeholders also suggested that "the price of gas transmission and distribution will also need to increase in order for pipeline owners to continue to maintain the current return on their assets".[6] The Commerce Act Part 4 regulatory regime is designed on the basis that the gas network is an enduring monopoly, i.e. it will deliver a monopoly service in perpetuity. Changes in policy settings which characterise it as a fixed term or finite life business would fundamentally challenge the applicability of the regulatory regime as it stands. As described in the Consultation Paper, this regime "was established for a mature wholesale gas market with relatively stable demand, at a time when it was not envisaged that the assets may not be able to be fully used."[7]

[4] Page 24 of the Consultation Paper
[5] Page 13 of the Consultation Paper
[6] Page 19 of the Consultation Paper
[7] Page 38 of the Consultation Paper

Question		Vector's comments
		A key question at a time when demand for gas is forecasted to decline is how to recover the residual asset value and maintain the gas pipeline network. There is a need to ensure there are incentives for continued investment in the gas network at a level consistent with minimum operational requirements (including health and safety) in the context of policy settings which signal it does not have a future. Any regulatory pathway that is pursued needs to resolve the recovery of capital from a forward-looking perspective and for assets that may be stranded. For instance, how does the regulated pipeline business get a return on investment based on Government policy decisions in the medium term? At a strategic level, there is a need to align the purpose and principle of regulation with a transition away from gas. In our view, options to support capital recovery are not mutually exclusive, i.e. it could be a mix of changes to regulatory settings and some type of compensation. As part of finding solutions for the above issues, we encourage Gas Industry Co to work closely with the Commerce Commission, affected businesses, and consumers on the impact of any regulatory changes on existing arrangements. It should also work closely with the Ministry of Business, Innovation & Employment on any legislative changes that will be required to enable changes to Part 4 of the Commerce Act. **Gas storage** We support Gas Industry Co considering options around upstream gas storage to promote flexibility and security of supply. We would support a regulated approach as a backstop where any storage options would not deliver the flexibility required, including access and cost allocation arrangements. Discussions on gas storage should include addressing the actual problem that New Zealand has been facing for several years now which is an 'energy shortage'. The importation of large quantities of coal in recent times is a symptom of this. Whereas

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		the importation of coal adds new fuel into the energy system, gas storage results in a time shift of (existing) fuel that is already in the country. When there is a prolonged energy constraint (gas, hydro, etc), the ability to 'restock the cupboard' becomes more difficult. This appears to be relevant in the case of the Ahuroa gas storage in that despite recent work to add compression, the facility is constrained from extracting to its capacity due to low stock levels. In this situation, what is required is an injection of new energy into the system to deal with the issue in a much shorter period – to avoid a prolonged period of uncertainty and high prices. **Importation of LNG** In terms of injecting a new source of energy into the economy, the importation of LNG is worth including into the mix. The recent agreement between Methanex and Genesis, which Gas Industry Co supported, is a great example of parties working together to achieve a commercial outcome that goes towards solving the energy shortage, albeit via reducing demand rather than increasing supply. Selling gas to Methanex is effectively/similar to exporting gas. Methanex 'takes the swing' to match supply and demand. Furthermore, if one views Methanex as the enabler of gas exploration in New Zealand, incentives should be provided that would enable Methanex to remain in the country and provide the flexible energy solution(s) that New Zealand is looking for. Having this flexibility that can be tapped from the country's largest gas user, when necessary, is important as demand for gas for electricity generation becomes more intermittent with the transition to more renewable and variable energy. It would be useful for the GIC to monitor and report on the development of flexibility contracts. Risks associated with infrastructure build for LNG could be significant and are unlikely to be managed by existing market participants. The potential for a significant decline in demand should be taken into account in considering this

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		option, alongside expected carbon price increases and the future of regulatory arrangements for gas transmission and distribution. **Green gases** We support Gas Industry Co's proposal to undertake work on renewable gas – including hydrogen and biofuels – and smart gas metering that will enable new business models and changes in consumer behaviour and expectations that will support the transition. We note several participants' observation that: *…the existing gas transmission and distribution infrastructure will be a critical component to supplying reticulated 'green' gases in future – which will improve their affordability and avoid truck movements, providing a safer and more environmentally friendly method of transporting low carbon energy.*[8] Our view (in Question 5) on the need for incentives for continued investment and maintenance of gas pipelines is also made in the context of the development and emergence of new low emission fuels. There is a need to preserve optionality as gas demand declines and opportunities to grow markets for new fuels emerge so consumers can transition to other fuel options at least cost and/or innovative ways, e.g. green gas + solar PV. New and emerging markets will initially be small but the gains to be made from promoting access and competition from new fuels (including through potential regulation) should not be underestimated. It is important that any regulation around new fuels does not stifle innovation or increase costs to industry or consumers. **Policy predictability** There is a clear message from stakeholders that policy predictability is required to ensure that industry participants can plan and invest appropriately. At present,

[8] Page 19 of the Consultation Paper

Question		Vector's comments
		policy uncertainty is not helpful and undermines investment. This needs to improve through clearer options on how continued upstream investment could be incentivised or stimulated. We note that key policy decisions remain to be made in relation to the transition to net zero emissions, including the Government's response to the Climate Change Commission's Final Advice. While we acknowledge that the transition requires a range of policy responses, it is important that current responses are well coordinated across policy agencies and regulators to ensure consistency, avoid unintended consequences, and increase overall certainty. There have been recent examples of Government agencies including climate change related legislative changes ahead of the Government's response to the Climate Change Commission's Final Advice. This Gas Industry Co Investigation is intended to promote flexibility so that the energy sector can smoothly navigate through the transition. This could be counteracted by other policies, such as the required replacement of assets and additional consenting activities, which impose additional costs on businesses and limit flexibility. We support the development of a New Zealand Energy Strategy that would provide a framework for the above required consistency and greater certainty on the role of low carbon gas in the transition.
Q6	Are there any other potential solutions?	**Other existing infrastructure options** Vector suggests that Gas Industry Co also fully explore other existing infrastructure options, including: • gas storage in unused pipelines; and/or • modifying the way certain sections of the gas transmission system operate to provide storage.

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		Whilst the above options are on a different scale to the Ahuroa gas storage facility, any options to unlock storage will have benefit to gas users and may be able to be implemented at a much lower cost. Existing gas pipeline infrastructure could also be used to enable the transition to a low emissions economy, e.g. supplying reticulated green gases in the future.
Q7	Do you agree that there is potential in a set of solutions linked to providing greater confidence to support the required investment in gas supply and flexibility, and that there is unlikely to be a single solution?	Vector agrees that there is potential in a set of solutions that would provide greater confidence to support the required investment in gas supply and flexibility. In the rapidly evolving energy sector, we agree that there is unlikely to be a single solution. We suggest that Gas Industry Co retain optionality for the industry by remaining open to various options or a combination of options. Any preferred options should be subject to robust cost-benefit assessment and uphold existing contractual arrangements.
Q8	What are the most important next steps to ensure that gas can support security of supply in the electricity market and that major gas users have sufficient certainty/transparency about gas supply for their operations during the transition?	Some of the steps Gas Industry Co can consider, in conjunction with industry participants, to help ensure gas can support security of supply in the electricity market and certainty of supply during the transition could include: • Accelerating Gas Industry Co's wholesale gas market information work stream – This can easily be prioritised (a 'low hanging fruit'), including finalising arrangements for the disclosure of gas production and storage outage information. Information disclosure that is slow to evolve makes markets volatile. As supply declines (and scarcity increases), forward information (e.g. on the deliverability of gas from particular fields) will become more valuable to ensure a well-functioning market and more informed business planning and investment decisions; • Providing analysis of the options proposed by stakeholders that are set out

Question		Vector's comments
		in the Consultation Paper to inform Gas Industry Co's future work programme - Further analysis is required to define the relevant issues and determine feasible, and eventually preferred, solutions. For example, Gas Industry Co could provide an indication on what it will do with the LNG study it commissioned as part of this Investigation; • Issuing more frequent updates on long-term gas supply and demand scenarios, e.g. annually rather than every two to three years; • Progressing Gas Industry Co's work on renewable green gas certificates and developing options for a contractual framework for green gases; • Supporting and incentivising other feasible options such as the Methanex deal; • Considering other infrastructure options, such as those identified in our response to Question 6; • Providing input into the Government's proposed New Zealand Energy Strategy, including the role of low carbon gas in the transition; and • Retaining optionality in the consideration of various options in the context of a rapidly evolving environment.