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Resource Markets Policy
Ministry of Business, Innovation & Employment
Wellington

VECTOR LIMITED
101 CARLTON GORE ROAD
PO BOX 99882
AUCKLAND 1149
NEW ZEALAND
+64 9 978 7788 / VECTOR.CO.NZ

By email: Resource.Markets.Policy@mbie.govt.nz

Submission on MBIE's Options for Amending the Gas Act 1992

Introduction

1. This is Vector Limited's (Vector) submission on the Ministry of Business, Innovation & Employment's (MBIE) *Discussion document – Options for amending the Gas Act 1992*, issued for consultation in May 2019.
2. Vector continues to pursue its vision of *creating a new energy future* by taking actions to combat, and adapt to, climate change and its impacts. As a leading technology solutions provider, we continue to develop innovative and energy efficient services that promote the use of renewable energy. We therefore welcome this consultation, which aims to facilitate the emergence of new technologies and alternative fuels that reduce emissions, promote transparency, and provide better incentives for regulatory compliance in New Zealand's gas sector.
3. We set out below our responses to the consultation questions.
4. No part of this submission is confidential. Vector's contact person for this submission is:

Luz Rose
Senior Regulatory Specialist
Luz.Rose@vector.co.nz
Tel: 04 803 9051

Emerging challenges for the Gas Act 1992

Question 1: *What emerging technologies or alternative fuel sources are likely to be covered by the Act's definition of "Gas"?*

5. Vector agrees with MBIE's assessment of hydrogen, and potentially biogas, as emerging technologies and alternative gaseous fuels in New Zealand. We note that the Gas Act 1992 ("the Gas Act") explicitly includes biogas in the definition of "gas". The same should be considered for hydrogen.
6. Amendments to the Gas Act should ensure that it remains fit for purpose, is sufficiently flexible to accommodate emerging technologies and alternative fuels, and removes barriers to their introduction in New Zealand.

Question 2: *What aspect(s) of the Act could be a barrier to the uptake of emerging technologies or alternative fuels?*

Question 3: *What aspects should be amended or changed to facilitate the emergence of new technologies and alternative fuels?*

Question 4: *How will your business be impacted if changes to the Act are not made in the short term (e.g. two to three years)?*

7. Changes to the Gas Act that facilitate the development of the appropriate standards for emerging technologies and alternative fuels will facilitate their introduction and commercial application in New Zealand. These would include standards for hydrogen and biogas relating to safety, gas quality, product, blending, etc. The implementation of these standards should be consistent across all types of gas. We further discuss our views on standards in our response to Question 5 below.
8. As far as business impact is concerned, we consider that the development of an information disclosure regime in the wholesale gas sector (covering upstream parties, e.g. producers), particularly for planned and unplanned outages, will deliver immediate benefits at low cost. It will enable gas market participants to make more informed decisions that contribute to improving market efficiency for the benefit of consumers. We further discuss our views on upstream information disclosure in our response to Questions 8 - 9 below.

Question 5: *Does the Act cause any issues with complying with any requirements under other legislation?*

Question 6: *Are you or your organisation involved in the development or deployment of emerging technologies or alternative fuels?*

Question 7: *Are you interested in being contacted as MBIE develops a longer-term programme of regulatory work around the development of emerging technologies and alternative fuels relating to the Act?*

Compliance with other legislative and regulatory requirements

9. In response to Question 5, the substitution of natural gas with hydrogen could have implications for compliance with other legislation and regulations, including the Gas Safety and Measurement Regulations 2010. For example, it could have an impact on the accuracy of ultrasonic meters, which can potentially affect the accuracy of market reconciliation processes.
10. There may be a risk associated with ultrasonic meters due to variations in gas composition, e.g. meters could become inaccurate as they are 'tuned' for New Zealand natural gas composition. The introduction of hydrogen or biogas through changes in the Gas Act may necessitate a change to the New Zealand Standard and/or quality requirements relating to gas composition and odourisation (e.g. ensuring that hydrogen can be detected).
11. In addition, changes to specifications that fall outside of the current acceptable range may raise issues around the efficient and safe operation of equipment and appliances.
12. We understand that ultrasonic meters can operate with hydrogen substitution; however, the maximum quantity that would be acceptable remains to be confirmed. MBIE indicates that 15% is likely to be the highest permissible hydrogen substitution due to its adverse effects on transmission and distribution steel pipes, which can have implications for the lives of these assets. However, MBIE notes that this is not an issue with polyethylene piping. We suggest that MBIE consider the impact of hydrogen on other non-polyethylene components in gas networks and gas metering systems (which may be susceptible to higher levels of hydrogen because these systems - whether connected to steel or polyethylene networks - include steel components).
13. The introduction of hydrogen to the market could also have implications for the use of ultrasonic meters across different types of gases. For example, we understand that natural gas ultrasonic meters cannot be used for LPG.

14. MBIE notes that there are two primary types of biogas in New Zealand - sludge gas and landfill gas. Landfill gas can contain corrosive elements that could affect gas metering systems. Any gas injection therefore needs to be closely monitored to ensure it remains within approved specifications. This should also apply for natural gas where there are limits set on the levels of sulphur, heavier hydrocarbons, etc.

Development or deployment of emerging technologies or alternative fuels

15. In response to Question 6, Vector continues to pursue sustainability by developing and providing services that promote energy efficiency and the use of renewable energy that contribute to emissions reduction. These include, among others, electric vehicle (EV) charging services, grid-scale and residential batteries, solar PV, home energy solutions, and advanced or 'smart' metering.
16. We are introducing distributed energy resources (DER) and trialling Internet of Things (IoT) technologies and innovative pricing models. These will provide consumers with greater control over their energy consumption and costs, and enable them to better contribute to the decarbonisation of the New Zealand economy.
17. Our Auckland car pool fleet has been totally converted to EVs or EV hybrids. We have installed solar panels on the roofs of our head office and some substations. We have created a trial area for LED lighting at our head office in Auckland, upgraded our Hamilton office lighting to LED, and will do the same for our Christchurch office this year.
18. We are monitoring the use of hydrogen and fuel cells as potential new technology options our electricity and gas distribution customers may adopt.

MBIE's longer-term programme of regulatory work on emerging technologies and alternative fuels

19. Vector would be interested in being contacted by MBIE as it develops a regulatory programme around the development of emerging technologies and alternative fuels. We expect such programme to include the development of the appropriate New Zealand standards for these technologies and fuels.

Information disclosure

Question 8: *What concerns do you have about the flow and availability of information available to you or your organisation regarding situations that may affect the price and/or availability of gas supply?*

Question 9: *Do you support the inclusion of an additional regulation/rule making power in the Act to require broader disclosure of information from the gas industry?*

20. Vector supports the inclusion of an additional regulation/rule making power in the Gas Act to require broader disclosure of information in the wholesale gas sector (covering upstream parties such as gas producers). We support the development of a cost-effective information disclosure regime that promotes transparency, efficiency, and confidence in this sector.
21. In our submission on the Gas Industry Company's (GIC) consultation on the development of an information disclosure regime for the wholesale gas sector, we proposed progressing this workstream in two stages.
22. The first stage should be focused on the disclosure of information on planned and unplanned outages as a matter of priority. Prioritising this information will deliver immediate benefits at low cost. Feedback from the GIC's workshop on options for information disclosure in the wholesale gas sector in March 2019 indicated that there is already widespread stakeholder recognition of the importance of timely and symmetric access to outage information.

23. We believe the above approach will help avoid the GIC workstream being delayed by potentially contentious issues associated with other types of information, such as information on volumes and prices. Such information can be considered during the second stage of the workstream.
24. In addition, we proposed the inclusion of gas quality in any proposed information disclosure regime, specifically the requirement for the timely notifications of excursions from gas specification standards (NZS 5442).

Penalties under the Gas Act 1992

Question 10: *What concerns do you have about the current penalty regime for gas governance arrangements provided for by the Act?*

Question 11: *Are there other factors, such as contractual arrangements between parties, that mitigate any concerns about the penalties regime?*

25. As indicated in our response to Questions 8 - 9, the GIC is currently consulting on the development of an information disclosure regime for the wholesale gas sector. We suggest that MBIE take the outcomes of this consultation into account when considering measures to mitigate any concerns about the penalties regime under the Gas Act.

Question 12: *Aside from the penalties for breaching gas governance arrangements, are there any other penalties under the Act that you consider are not fit-for-purpose?*

Question 13: *Do you consider it still appropriate for the Gas Rulings Panel to only have one member if the penalties are increased to higher levels?*

Question 14: *Do you support the addition of daily or volumetric penalties to the Act to enhance the flexibility of penalties available? What would be an appropriate minimum or maximum rate, if any?*

26. At present, alleged breaches being referred to the Rulings Panel are very rare. There are not enough issues to challenge the appropriateness of a one-member Rulings Panel. As such, we have no issues with retaining the existing composition of the Rulings Panel, subject to a reassessment, say, in three to five years.
27. We support the addition of daily or volumetric penalties to the Gas Act to enhance the flexibility as well as the proportionality of available penalties.

Question 15: *Are there circumstances where the Act should impose a criminal offence on either industry participants or on non-industry participants? What are these?*

28. [No comment.]

Question 16: *Do you support the addition of a civil pecuniary fine as an additional penalty to improve the effectiveness of the penalties regime. If not, why not?*

29. We support the addition of an appropriate civil pecuniary fine that may be used to apply to non-industry participants (i.e. large gas users). We understand MBIE's intention is to enable the GIC to recommend governance arrangements containing penalties for non-industry participants that are not criminal offences, and allow for greater alignment between the penalty regimes for industry participants and non-industry participants.

Question 17: *What are your views of expanding the definition of industry participant to include all large gas users (e.g. any user averaging over a certain level of consumption per day)? If so, what would be an appropriate threshold?*

30. Our view is that the same penalty regime should apply to consumers whether or not they are “industry participants”, i.e. it should also cover all large gas users subject to an appropriate threshold. There is no practical difference in the way a consumer uses gas and responds to regulatory incentives regardless of where they purchase gas - from retailers, wholesalers, producers, etc. We understand that MBIE’s intention is for small consumers (i.e. consuming less than 10TJ a day) to still be subject to the penalty (under section 43T), and residential consumers would remain excluded.
31. We prefer Option 2 (introducing a new penalty for non-industry participants) over Option 3 (expanding the definition of “industry participant” to include all large gas users). Option 3 could have unintended consequences; for example, by creating confusion around the definition of “consumers” as it relates to other legislation or regulations.

Concluding comment

32. We are happy to discuss any aspects of this submission with MBIE officials.

Yours sincerely
For and on behalf of Vector Limited

A handwritten signature in blue ink, appearing to read "Richard Sharp".

Richard Sharp
Head of Regulatory and Pricing