

5 February 2021

Susan Dunne  
General Manager – Corporate Services  
Gas Industry Company  
Level 8, The Todd Building  
95 Customhouse Quay  
Wellington

Vector Limited  
101 Carlton Gore Rd  
PO BOX 99882  
Auckland 1149  
New Zealand  
+64 9 978 7788 / vector.co.nz

Dear Susan

## Submission on Gas Industry Co's Proposed Work Programme and Levy for FY2022

### Introduction

1. This is Vector Limited's (Vector) submission on the Gas Industry Company's (Gas Industry Co) consultation paper on its proposed *Work Programme and Levy* for FY2022. We acknowledge Gas Industry Co's face-to-face engagement with industry participants on its proposal prior to the release of the consultation paper through the Co-Regulatory Forum on 27 November 2020 in Wellington.
2. Vector broadly agrees with Gas Industry Co's proposed initiatives for FY2022. We particularly support its proposals to establish formal D+1 arrangements, which have implications for the adoption of advanced gas meters and the cost of balancing gas, and initiate work on renewable gas such as hydrogen and biogas. We further support the restraint Gas Industry Co exercised in not proposing more prescriptive arrangements for LPG services which, in our view, would impose additional costs on LPG consumers without significant net benefits. We discuss our views on these issues as part of our responses to the consultation questions below.
3. We commend Gas Industry Co's exercise of fiscal restraint, evidenced by the 2.35% reduction in indicative Total Work Programme Costs for FY2022 relative to FY2021.

### Responses to consultation questions

- Q1:** We seek your input about looming issues on the horizon which will be addressed in current or future work programmes, as mapped in 1.1 above. What other issues should be on our horizon?
- Q2:** Technology changes, changes to market structures, the potential for new renewable infrastructure, and uncertainty over prices will all have an impact on existing facilities, commercial arrangements and regulatory structures and systems.
- a. What changes to regulatory structures and systems do you believe Gas Industry Co should be reviewing?
  - b. What other gas challenges arising from the energy sector transition should Gas Industry Co be assisting industry and Government to prepare for?

### *Emissions reduction*

4. Vector welcomes Gas Industry Co's intention of becoming 'more responsive' to unfolding changes in the wider energy sector and New Zealand's transition to a low emissions

---

creating a new energy future

economy. As a leading technology solutions provider, Vector continues to pursue sustainability by trialling, developing, and providing services that promote energy efficiency and the use of renewable energy. We therefore support Gas Industry Co's proposals to undertake work on renewable gas – including hydrogen and biogas – and advanced gas metering. We note that the Climate Change Commission's *2021 Draft Advice for Consultation* includes a strong focus on green hydrogen and biofuels.

5. We generally support Gas Industry Co's intention, announced on 27 January 2021, of investigating whether current market, commercial, and regulatory settings that provide for gas availability and flexibility are fit for purpose in supporting the transition to a low-emissions future. This follows a request from the Minister of Energy and Resources for such an investigation.
6. More broadly, and as stated in Vector's submission on extending the Electricity Price Review (EPR) recommendations to the gas market, dated 4 December 2020, we suggest that Gas Industry Co coordinate closely with the Climate Change Commission in progressing its initiatives. This would ensure that future regulatory and industry arrangements help industry and consumers prepare for the above transition. We note the Climate Change Commission's recommendation, in its Draft Advice, that no further natural gas heating system installations, gas grid connections, or LPG connections occur after 2025. We note, however, that the Commission does still see a role for natural gas in our energy transition as a low-emissions 'back up fuel'. We are interested in Gas Industry Co's response to these recommendations.

#### *New industry and regulatory arrangements*

7. Consistent with the above view, any proposed changes to gas market and consumer settings should account for changes in the wider energy sector and the interests of consumers. Gas Industry Co's proposed initiatives on hydrogen, biogas, and advanced gas metering will enable new business models and changes in consumer behaviour and expectations.
8. These new initiatives will require Gas Industry Co – as both a co-regulator and industry body – and industry participants to consider how new/non-traditional entrants would be efficiently integrated into the market without imposing onerous costs on industry participants and consumers. This would require considering, among others:
  - a. appropriate changes to the existing rules on downstream reconciliation, switching, and compliance, and regulations on critical contingency management;
  - b. how information about new products and services may be accessed by Gas Industry Co and other market participants; and
  - c. the impact of any regulatory changes on costs to market participants and consumers, including how those costs will be recovered in a fair and efficient manner, and ensuring the benefits exceed the costs.

#### *Energy affordability, resilience, and recovery from COVID-19*

9. In connection with Gas Industry Co's consideration of the EPR recommendations, we agree that it also needs to ensure that gas industry participants have the appropriate approaches for supporting customers experiencing energy hardship and energy affordability issues, including those caused or aggravated by COVID-19. We are supportive of a cross-sector, collaborative and data-based investigation of the issue of energy hardship – led by the Hardship Group. This is particularly important in the context of the Climate Change Commission's recommendations on gas and its forecast on the impact of these changes on gas prices and affordability.
10. More timely data generated by advanced gas meters will enable the gas industry to better support industry resilience and economic recovery from COVID-19. This allows service providers to better target their support measures to consumers in hardship, helping ensure

energy affordability, and deliver support for these consumers in a timely manner. The ability of gas consumers to switch from quarterly to monthly or more frequent billing/payment, enabled by advanced gas meters, will also help those in hardship better manage their gas bills and finances.

**Q3:** Do you have any comments on the process for developing Gas Industry Co's Work Programme and Levy?

11. Vector generally agrees with the process for developing Gas Industry Co's Work Programme and Levy. It is a well-established process that is based on the principles of economic efficiency, beneficiary pays, rationality, simplicity, equity, and revenue sufficiency.
12. In the context of its intention of becoming more responsive to the changing energy mix and New Zealand's transition to a low-emissions economy, we suggest that Gas Industry Co consider incorporating and reflecting this transition into the above set of principles. This could also involve incorporating incentives for innovation and emissions reduction in future work programmes and levy proposals.

**Q4:** Reflecting on Gas Industry Co's Sector Coordinating Entity Role in relation to the COVID-19 pandemic, we are interested in your feedback in relation to the following matters relating to both COVID-19 lockdowns (March and August 2020):

- a. Standard of communications from Gas Industry Co (eg was the messaging clear, timely, targeted?)
- b. What went well/what could be improved?
- c. Learnings to take forward/feedback for Gas Industry Co?
- d. Learnings to take forward/feedback we can pass on to MBIE?
- e. Any other comments you would like to add?

13. Vector appreciates Gas Industry Co's sector coordinating entity role during the COVID-19 lockdowns of March and August 2020 and the ongoing pandemic.
14. We particularly appreciate the swift action taken by Gas Industry Co in response to the issues we escalated, which required industry-wide resolution and action by non-industry participants to ensure the continued delivery of essential services.
15. We find the communication from Gas Industry Co on COVID-19 related matters to be clear and sufficiently targeted to enable timely response from industry participants.
16. In relation to the information requests from the Ministry of Business, Innovation and Employment (MBIE), we suggest that MBIE continue to request information on essential gas services through Gas Industry Co as the coordinating entity for the gas sector. Because there are a number of essential services provided by businesses within the Vector Group, there was – particularly at the outset of the first lockdown – some duplication in information requests from the Government. This resulted in us submitting the same information (or a subset of the same information) to more than one government agency or regulator. Clear scoping of each of these different channels within the All of Government Pandemic response will help avoid any duplication in future requests. This will enhance efficiency (including by reducing confusion) and ensure the integrity of the information provided by gas and electricity industry participants.
17. We do note, however, that Vector is – at least for the energy market – a relatively unique case in its provision of multiple/different energy services and value streams. It was important

that the Government consulted closely with the industry and requested information, particularly from essential service providers, during the lockdowns, which was a positive experience for us. We remain happy to support such processes in the future as we continue to respond to Covid-19.

**Q5:** Do you consider there to be any items that should be included in Gas Industry Co's intended Work Programme for FY2022? If so, please describe the work required and how that work achieves the outcomes sought under the Gas Act and GPS.

18. While we do not believe any other items need to be included in Gas Industry Co's proposed Work Programme for FY2022, we provide comments below on specific work programmes and make suggestions for improvement.

Formal D+1 system and advanced gas metering

19. Vector strongly supports the integration of the pilot D+1 processes into the *Gas Downstream Reconciliation Rules*. While we understand that this work has been delayed pending changes to the transmission code, the importance of providing more timely data – enabled by daily allocations – has become more urgent with the introduction of advanced gas meters and the increased price volatility in the market.

20. As a first step, we suggest that Gas Industry Co immediately re-activate the Downstream Allocation Working Group (DAWG) or establish a new group, comprising stakeholder representatives, to provide advice and help facilitate the gas industry's transition to advanced metering.

21. In our view, issues that need to be considered by Gas Industry Co, potentially in conjunction with the DAWG, in implementing a formal D+1 system include, among others:

- a. reviewing AG1 and AG2 meters and start moving AG2 meters to AG1 on a phased basis, or consider establishing a separate allocation group for advanced gas meters;
- b. determining who is going to implement D+1, e.g. the Allocation Agent;
- c. building into the Allocation Agent service agreement, which expires on 31 December 2021, the necessary provisions to accommodate data generated by advanced gas meters;
- d. identifying additional information relating to advanced gas meters that needs to be captured in the Gas Registry;
- e. developing the appropriate provisions relating to advanced gas meters in the *Gas Downstream Reconciliation Rules* (e.g. reporting requirements), the *Gas Switching Rules*, and other relevant rules and regulations for the gas sector; and
- f. identifying any necessary updates to Gas Industry Co's *Gas Measurement and Procedures Document* and *Gas Quality Requirements and Procedures Document*. On a related matter, we seek clarity whether Gas Industry Co intends to undertake further work on gas quality to help ensure parties (e.g. retailers) can provide documentation that the gas delivered to them meets the gas specification.

22. Potential improvements to the D+1 allocation outcomes, following the review of the above points, will provide more accurate data that helps promote competitive market outcomes. It will also result in fairer outcomes for shippers that are adversely impacted by fluctuations in allocation results from D+1 allocations to interim allocations. The impact of these fluctuations on shippers is magnified by the gas price volatility that has been a feature of the market since 2018. The increased cost of gas balancing is having, and will have, adverse cost impact on downstream gas users and could erode the confidence of gas traders and consumers in the gas market.

### Information disclosure

23. We support Gas Industry Co's proposal to initiate the following projects as part of the development of information disclosure arrangements for the wholesale gas sector:
  - a. a Statement of Proposal for the disclosure of gas production and storage facility outage information;
  - b. a paper on gas contract price and volume information to assess whether a weighted average gas price would provide valuable insight into gas market prices; and
  - c. a paper on major gas user outage information to assess whether this information should be disclosed publicly.
24. Consistent with our proposal in previous submissions to adopt a 'staged approach' in progressing this workstream, we agree that work on the disclosure of planned and unplanned gas outage information should be prioritised. Given widespread industry agreement on the importance of timely and symmetric access to outage information, prioritising this information will deliver immediate benefits at low cost, i.e. it is a 'low hanging fruit'. This ensures that the information disclosure workstream will not be 'bogged down' by potentially contentious issues associated with other types of information, e.g. information on volumes and prices.
25. We acknowledge the ongoing voluntary disclosure of outage information by gas producers and storage owner via the Gas Industry Co website. This has delivered improvements in the notification of outages and is a step in the right direction in promoting transparency of outage information. Its voluntary nature enabled its implementation in an expeditious manner.
26. For the longer term, we support Gas Industry Co's draft recommendation for the implementation of gas production and storage facility outage information disclosure within a framework of regulations and/or rules under the *Gas Act 1992*. We agree this would ensure uniformity in the quality and timing of future outage disclosures. We intend to make a submission on Gas Industry Co's *Draft Statement of Proposal: Gas Production and Storage Facility Outage Information*, dated 16 December 2020.
27. We encourage Gas Industry Co to continue to work closely with the Electricity Authority on improving thermal fuel information disclosure arrangements. This would ensure alignment across sectors, avoiding gaps and duplication and unnecessary costs for participants in both industries and ultimately, consumers. For example, linking the websites of both regulators would allow interested parties to easily find energy market information.

### Hydrogen and biogas

28. In relation to its proposed work on hydrogen, we welcome Gas Industry Co's intention to:
  - a. monitor and support the potential use of hydrogen and biogas in transmission and distribution pipelines;
  - b. review arrangements in other international jurisdictions in preparation for the updating of any rules and regulations; and
  - c. update any rules and regulations needed to support hydrogen and biogas transmission and distribution.
29. We note that, in addition to its impact on pipelines, hydrogen also has potential impact on gas meters and appliances. The substitution of natural gas with hydrogen could have implications for compliance with the relevant legislation and regulations, including the *Gas Safety and Measurement Regulations*. For example, it could have an impact on the accuracy of ultrasonic meters, which can potentially affect the accuracy of market reconciliation processes.



30. 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 and biogas 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).
31. 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.
32. We understand that ultrasonic meters can operate with hydrogen substitution; however, the maximum quantity that would be acceptable remains to be confirmed. MBIE's discussion paper on *Options for Amending the Gas Act 1992*, issued in May 2019, 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. In our submission to MBIE, we suggested 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.
33. 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.
34. In the above discussion paper, MBIE noted the 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.
35. We also support Gas Industry Co's intention to assess whether there is an opportunity for a green gas certification scheme for hydrogen and biogas, akin to the New Zealand Energy Certificate System. This would allow gas consumers to purchase certificates from renewable producers and make claims based on those certificates.

**Q6:** Do you consider there to be any items that should be excluded in Gas Industry Co's intended Work Programme for FY2022? Please provide reasons for your response.

36. Vector supports Gas Industry Co's exclusion of any regulatory work on the LPG market or LPG services for FY2022, as reflected in its proposal. As concluded by Gas Industry Co's own review of retail competition in the LPG market in 2018:<sup>1</sup>

Gas Industry Co has not identified...any barriers to entry in the LPG market; that is, any costs or impediments that are not faced by all LPG retailers. There do not appear to be economies of scale in the distribution of LPG, and the industry has evolved ways to rationalise the LPG delivery infrastructure, potentially allowing competition by retailers who would otherwise be unable to compete in the market.

LPG retailers do face costs in terms of LPG bottles, bullets, and reticulated systems, but these costs are faced by all retailers, not just new entrants. There is an industry protocol for the return of LPG bottles, which may help to minimise the number of bottles (and therefore the cost) that an LPG retailer needs to own in order to service its customers. There are no equivalent protocols for LPG bullets or access to reticulated systems, but Gas Industry Co does not perceive that there is a need or a justification for such arrangements, and, further, there would be practical difficulties with putting such arrangements in place.

<sup>1</sup> <https://www.gasindustry.co.nz/publications/landing-pages/gic-reports/document/6317>, Conclusions

Taking all these factors into account, Gas Industry Co does not consider that there are any aspects of the retail LPG market that need to be addressed at this time.

37. In addition, we do not consider any proposal to extend Powerswitch to reticulated and bottled LPG to be warranted. This could require LPG services to be captured in the Gas Registry and will likely impose additional costs without apparent net benefits for consumers. In the relatively small LPG market, pricing is already transparent and non-complex, and customers can already easily 'switch' between numerous providers. As indicated in Vector's submission on expanding the EPR recommendations to the gas market:<sup>2</sup>

The value that could be gained for bottled LPG gas customers through Powerswitch is... marginal and the cost of maintaining this platform would be borne by customers. We recommend against any initiative which could make bottled LPG...less affordable for price sensitive customers.

Whilst there is only one supplier for each LPG retic[ulated network], it is possible for North Island customers to switch to reticulated natural gas, and in Christchurch there are multiple retics running side by side. Customers could also switch to bottled LPG. However, there is an opportunity to drive greater competition and switching for reticulated LPG customers by providing open access to individual retics irrespective of ownership. This could drive greater competition between LPG gas retics. When it comes to switching from one form of reticulated gas to another (i.e., from LPG to natural gas in the North Island) this is costly for customers as appliances need to be changed...

Whilst we support the intention to promote competition the above factors need to be carefully considered when it comes to encourage switching within the gas market, and we believe that opening access between retics irrespective of ownership is a sound way of driving switching and competition among an existing customer group.

There are fundamental differences in the competition dynamics experienced by an LPG consumer wanting to switch...supplier and an electricity consumer wanting to switch electricity retailers.

#### Very low switching costs

The presence of multiple LPG suppliers provides consumers with various switching options. For example, consumers of 9kg cylinders who are not satisfied with the quality of the supplier's product or service can 'vote with their feet' at very little or no extra cost, e.g. by walking to any of the nearby petrol stations or swap outlets.

The low value and portability of LPG cylinders make them easy to replace from either the consumer's or supplier's perspective; cylinders are more like a "good" than a "service".

For 45kg cylinders, when a customer wishes to switch, the new bottle supplier removes the cylinders provided by the previous supplier, minimising inconvenience to the customer.

#### Transparent prices

The cost of replacing or refilling a cylinder is transparent, if not pre-determined. In the case of 9kg cylinder purchases, payment is made instantaneously at the retailer's shop, petrol station, or online.

The presence of multiple bottled LPG suppliers puts downward competitive pressure on prices and for prices to converge. Consumers are faced with a single price point or standard price range for a particular product. Any upward deviation from that price is likely

---

<sup>2</sup> <https://www.gasindustry.co.nz/assets/Consultations/Uploads/Vector-submission-on-Extending-the-Electricity-Price-Reviews-Rec.pdf>, pages 3-5

to reflect the additional cost of transporting the cylinder(s) to remote locations, which is the case with the purchase of any other good. On the other hand, nothing prevents consumers from negotiating for special terms, e.g. lower price for bulk purchases.

Bottled LPG consumers face transparent competitive prices from multiple suppliers. Bottled LPG pricing is more straightforward than for reticulated electricity and gas. It is instantaneously accessible, i.e. understanding your LPG bill does not require an understanding of how many kWh you consume...or what plan/tariff you are on.

The price of a 9kg is available, if not displayed, at retail outlets. The price of refilling a 45kg cylinder is readily available from retailers (akin to pre-paid pricing). Consumers do not have to wait for a month to know the actual amount of their bill, avoiding 'bill shocks'.

Transparent and straightforward prices enable LPG consumers to more easily compare terms across suppliers and switch to those whose terms would best suit their needs and pricing preferences. [This] reduces information asymmetry between suppliers and consumers, lowering costs to consumers in their search for better deals. It also enables suppliers to more easily compare their prices to those of their competitors, and provides them with the incentive to offer promotional terms...or match their competitors' offerings, if not provide better terms.

**Q7:** Gas Industry Co is particularly interested in industry comment on the forecast gas volumes – do stakeholders consider the projection reasonable? If not, what would they consider an appropriate gas volume estimate to be?

38. [No comment.]

**Q8:** Do you have any comment on the proposed levy rates for FY2022?

39. We consider Gas Industry Co's proposed wholesale levy of 1.1445c/GJ and retail levy of \$5.28/ICP for FY2022, representing 2.51% and 2.33% increases over the FY201 levies, respectively, to be reasonable. This is in the context of the reduction in the proposed total work programme cost of \$114,815 for FY2022 (a 2.35% reduction from the FY2022 cost) and the declining trend in total work programme costs over the past five financial years.

### Concluding comments

40. We are happy to discuss any aspects of this submission with Gas Industry Co, particularly about its new initiatives. Please contact Luz Rose (Senior Regulatory Partner) at [Luz.Rose@vector.co.nz](mailto:Luz.Rose@vector.co.nz) or 04 803 9051 in the first instance.

41. 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