

29 October 2021

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Submission on Advanced Gas Metering Infrastructure - Issues Assessment

- 1. This is Vector Limited's (Vector) submission on the Gas Industry Company's (Gas Industry Co) consultation paper, *Advanced Gas Metering Infrastructure Issues Assessment* (the Issues Assessment Paper), dated 24 September 2021. We acknowledge Gas Industry Co's bilateral engagements with industry participants which informed the development of the Issues Assessment Paper.
- 2. Vector is committed to working with Gas Industry Co, the Technical Advanced Metering Advisory Committee (TArMAC) or its successor body, other industry participants, and our customers to help ensure the benefits of advanced gas metering are unlocked and optimised for the long-term benefit of consumers.
- 3. We agree with Gas Industry Co's conclusions in 2017 that "the advanced gas metering market should be allowed to develop without regulatory intervention, to ensure that innovation is not hampered, while also determining that some minimum standards would be a pragmatic step toward ensuring a common understanding of what market participants want from advanced metering".¹
- 4. In our view, issues that fall under the 'minimum standards umbrella' relate to: 1) ensuring safety, 2) promoting accuracy in measurement, 3) increasing efficiency in market reconciliation, switching and related processes, and 4) changes to the Gas Registry to accommodate advanced gas metering. We encourage Gas Industry Co to re-activate TArMAC or establish a replacement group as soon as possible to consider these issues, in consultation with industry participants. We identify what we believe these issues should be from those identified in the Issues Assessment Paper and provide our reasons in our response to Question 2 below.
- 5. The remaining issues which are mostly market-related are best left to commercial, voluntary, or industry-based arrangements. We believe the benefits from advanced metering are best delivered in a competitive environment where innovation can flourish and benefit consumers, and commercial solutions that meet industry participants' new energy challenges can be developed. New and emerging technologies should be viewed as opportunities for delivering new and improved services to consumers, rather than a regulatory burden.
- 6. The Commerce Commission decided in 2016 against undertaking a Part 4 inquiry into whether gas metering services should be regulated. The Commission's indicative analysis showed that regulation "does not yield sufficiently high benefits when balancing against the cost of an inquiry and any subsequent regulation". The gas metering market remains very small even today and is navigating the transition to a low carbon future where the supply and use of gas are likely to be diminished. We encourage Gas Industry Co to exercise

¹ Q1 of the Issues Assessment Paper

https://comcom.govt.nz/news-and-media/media-releases/2016/commission-will-not-undertake-gas-metering-inquiry



- restraint in imposing greater prescription on gas metering arrangements that could only increase the regulatory burden without overriding consumer benefits.
- 7. We set out below our responses to the questions in the Issues Assessment Paper using the template provided by Gas Industry Co for this consultation.
- 8. No part of this submission is confidential, and we are happy for Gas Industry Co to publish it in its entirety.
- 9. We are happy to further discuss our views with Gas Industry Co, or provide further information supporting this submission. Please contact Luz Rose (Senior Regulatory Partner) at Luz.Rose@vector.co.nz or 04 803 9051 in the first instance.

Yours sincerely

Neil WilliamsGeneral Manager

OnGas & Metering Commercial

Vector's responses to the consultation questions

Advanced Gas Metering Infrastructure – Issues Assessment

Submission prepared by: Vector

Contact in the first instance: Luz Rose (Senior Regulatory Partner), 04 803 9051, Luz.Rose@vector.co.nz

	Question	Vector's response
Q1	Do you agree with the Gas Industry Co's conclusions from the 2017 Review that the advanced gas metering market should be allowed to develop without regulatory intervention, to ensure that innovation is not hampered, while also determining that some minimum standards would be a pragmatic step toward ensuring a common understanding of what market participants want from advanced metering?	Vector agrees that services enabled by advanced gas metering should be allowed to develop without regulatory intervention. We agree that determining some "minimum standards" at this stage of market development would be a pragmatic step towards ensuring a common understanding of what market participants want from advanced gas metering. In our view, issues related to the promotion of safety, accuracy in measurement, and efficiency in market reconciliation and related processes would fall under the 'minimum standards umbrella'. We suggest the re-activation of TArMAC – or the creation of a similar body to replace it – to consider these issues. (For convenience, references to TArMAC in this submission are also references to any similar body that could be established to replace TArMAC.) The Gas Act 1992 provides that before making a recommendation to the Minister for a gas governance regulation, the industry body must: ensure that the objective of the regulation is unlikely to be satisfactorily achieved by any reasonably practicable means other than the making of the regulation (for example, by education, information, or voluntary compliance). ³

³ https://www.legislation.govt.nz/act/public/1992/0124/latest/DLM285974.html, section 43N(1)(c)

	Question	Vector's response
		Consistent with the above, we believe it is critical that regulatory frameworks as well as industry and commercial arrangements continue to evolve. This will help manage the risks and unlock the opportunities from the complex interactions between the operations of the gas market and new technologies that enable the delivery of new and innovative services.
		We therefore encourage Gas Industry Co to exercise restraint in imposing greater prescription on advanced gas metering, which could stifle market competition and the delivery of new and innovative services to gas consumers in a timely manner. The New Zealand gas industry can learn from the harsh lessons from overseas jurisdictions that impose prescriptive arrangements for new technologies, e.g. the cost blowouts and consumer consternation resulting from the mandated deployment of advanced electricity meters in the state of Victoria in Australia, and delays in the regulated rollout of advanced energy meters in the UK. Gas Industry Co can look up to the successful market-led nationwide deployment of advanced electricity meters right here in New Zealand. The gas metering market has moved on since Gas Industry Co's 2017 review into gas metering, with the entry of Firstgas and Intellihub and the introduction of advanced gas meters. It is currently facing great uncertainty around policy settings for the transition to a low carbon future where gas supply and use will be greatly reduced. We urge caution in imposing more prescriptive arrangements that could dampen investment incentives in this market or only increase the regulatory burden without significant net benefits to consumers.
Q2	Do you agree with the above list of identified issues, and Gas Industry Co's priority categorisation of the same? Please identify and explain any issues not identified, and explain your reasons for disagreeing with any of the issues raised or priorities assigned.	Vector does not necessarily agree that all the issues identified for "high priority" and "lower priority" categorisation in the Issues Assessment Paper should be considered further by Gas Industry Co and/or TArMAC. Of the issues identified in the Issues Assessment Paper, we consider the following (or aspects of the following) to fall under the 'minimum standards umbrella' that TArMAC can consider, in consultation with industry participants. • Issue 2 – Minimum data standards and file formats (some aspects)

Question	Vector's response
	Issue 3 – Access to, ownership, use and security of, customer data
	 Issue 4 – Potential process and registry changes (including switching procedures)
	Issue 5 – Downstream Reconciliation Rules
	Issue 17 – Streamlined process for customer requests for consumption data (Electricity Price Review (EPR) Recommendation C3)
	Issue 19 – Remote disconnections and reconnections
	• Issue 20 – D+1.
	For the reasons stated in the covering letter of this submission and our response to Q1, we believe the remaining issues are best left to commercial and/or voluntary arrangements. We discuss our reasons below.
	Issue 1: Costs and benefits to consumers
	The benefits from services enabled by advanced metering are now widely recognised. Vector broadly agrees with the benefits to end consumers and retailers identified in the Issues Assessment Paper, to which benefits to gas distribution networks can also be added.
	In the competitive gas metering market, it is up to retailers to make their business case work for their customers' benefit. Retailers' direct interface with end customers makes them best placed to determine the service offerings enabled by advanced gas meters that could work best for their customers.
	In terms of costs, Vector's advanced metering provider (Vector Metering) does not intend to charge a higher lease fee for advanced gas meters over existing meters where there is no data service. Our customers will therefore only pay for what they get.

Question	Vector's response
	Issue 2: Minimum data standards and file formats
	In general, we prefer that data standards be allowed to evolve and developed through industry-based approaches so as not to stifle innovation. We do not agree that there is a need to develop a standard construct for advanced gas metering services and a minimum dataset. Standardising file formats for a technology that is only being introduced at a mass scale will stand in the way of market competition and innovation. We agree with the sentiment that 'as long as the desired information is available, it can be reported in any format required by each retailer'.
	We do not agree with the mandatory implementation of specific data formats, transmission method, and timeframe for exchange, particularly for new and emerging services. What we want to see encouraged is the use of common design principles, common design standards, and common security standards that enable data providers and access seekers (including smaller parties and new market entrants) to benefit from interoperability and efficiency gains without limiting innovation.
	As indicated above, we suggest that standards relating to safety, measurement, and market reconciliation and related processes be referred to TArMAC for consideration, in conjunction with industry participants.
	Issue 3: Access to, ownership, use and security of, customer data
	We suggest that TArMAC consider customer data issues, including issues around data access, ownership, use and security.
	At present, electricity consumers can access their consumption data, for example, via an app developed by their retailer. We expect gas consumers using advanced meters to have a similar level of access to their consumption information.
	For gas distribution businesses, having a better line of sight across gas consumption can help them plan and make more informed choices about investments in their long-lived pipeline assets. These choices could have significant implications for their transition to a low carbon future.

Question	Vector's response
	Data is also key to understanding the role of gas in supporting customers experiencing energy hardship. As Gas Industry Co noted during its consultation on extending the Electricity Price Review recommendations to the gas sector, the role of gas in energy hardship is not well understood. We are supportive of a cross sector, collaborative, databased investigation of this issue.
	Issue 4: Potential process and registry changes (including switching procedures)
	Potential changes to the Gas Registry to efficiently integrate services enabled by advanced gas meters into the market are another set of issues that TArMAC should consider as a matter of priority.
	For example, an advanced meter should be considered a ToU meter in the Gas Registry. The existing ToU definition needs to be broadened to indicate whether the device corrects for temperature only, pressure only, both pressure and temperature, or does not correct and records actual volume only.
	We agree with Rod Crone Consulting's suggestion in its 2017 Review of Advanced Metering Technology that the Gas Registry distinguish between communicating and non-communicating meters. ⁴ While an advanced meter may be installed with communications, the communications may not work, or may have initially worked but signal was lost or became intermittent. A code could indicate whether communications exist which will alert the retailer of the potential need for manual meter reading.
	Additional metering provider codes may also be required in the Gas Registry. This will inform metering providers and other parties (including retailers) whether a metering installation is fitted with a legacy or advanced meter.
	We do not believe there is significant benefit from including the meter make and model in the Gas Registry. Vector Metering provides metering services in different volume capacities using various meter types. The meter make and model are not necessarily

⁴ https://www.gasindustry.co.nz/work-programmes/gas-metering/gas-metering-review/document/5509, page 16

Question	Vector's response
	reflective of the age of the ICP as Vector Metering circulates equipment across sites either through planned maintenance activities or the reuse of removed assets – provided they remain fit for use.
	A switching issue that could be considered by TArMAC is the recovery of any remaining value of a metering asset which a displaced metering provider has invested in.
	Issue 5: Downstream Reconciliation Rules
	Vector considers that potential changes to the <i>Gas (Downstream Reconciliation) Rules</i> 2008 and other relevant rules and regulations should be considered by TArMAC and/or the Daily Allocation Working Group (DAWG) as a matter of priority.
	The introduction of advanced gas metering will require Gas Industry Co – as a co-regulator and industry body – and industry participants to consider how new and 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:
	 appropriate changes to the existing rules on downstream reconciliation, switching, compliance, and other relevant rules and regulations;
	 how information about new products and services may be accessed by Gas Industry Co and other market participants; and
	 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 significantly exceed the costs.
	Issue 6: Alignment of GMSAs
	Vector does not believe that alignment of Gas Market Service Agreements (GMSAs) are required, particularly at this stage of market development. We see no purpose in standardisation with no apparent, or very minimal, benefits but could do great harm to innovation.

Question Vector's response	
Question	Vocior 3 response
	We do not believe it is appropriate for Gas Industry Co to focus on developing a 'one-size-fits-all' GMSA for emerging services. This could diminish opportunities for developing points of difference (e.g. in product and service offerings) between various providers. It could result in prolonged negotiations that would delay further deployment. We note that Australian regulators have departed from centrally set arrangements to commercially negotiated agreements, having learned the harsh lessons of cost overruns and consumer backlash from the regulated/mandated approach to the deployment of advanced electricity meters in the state of Victoria.
	In our view, the findings of Rod Crone Consulting's review of GMSAs in 2017 remain relevant. The report from that review notes that:
	Given the material alignment of core terms, and noting the Vector AMS template and Powerco standard GMSAs include terms, service definitions and performance standards expected in today's market for gas metering services, it does not appear necessary or desirable for Gas Industry Co to prescribe more standardised arrangements through development of a model GMSA, benchmark terms or contracting principles. In any event, standardisation of non-core terms, service definitions and performance standards, reduces the opportunity for service differentiation which promotes competition. ⁵
	It is reasonable to expect that retailers prefer a 'single supplier arrangement' for advanced metering as they will only want to have one, not two or three data collection arrangements. We cannot, however, discount the emergence of new business models in the energy sector that provide further benefits to consumers.
	Vector Metering has a template GMSA that serves as a starting point for negotiation with retailers. We recognise that this template will need to be updated to reflect future developments, and we consider it inappropriate and imprudent to attempt to future proof the template GMSA.

⁵ https://www.gasindustry.co.nz/work-programmes/gas-metering/gas-metering-review/document/5510, page 5

Question	Vector's response
Question	Vector's response We cannot say for certain whether future GMSAs for advanced metering will broadly align between providers – that is the nature of innovation. While the GMSAs will need to comply with technical standards (e.g. for safety and measurement), we prefer and expect new and innovative arrangements to emerge from commercial negotiations. A more prescriptive approach would also increase the regulatory burden. It would require greater monitoring by Gas Industry Co of compliance with benchmark terms, increasing costs for the industry and consumers. In a rapidly evolving market, it is in consumers' interest that service providers focus on providing innovative and improved products/services to consumers rather than on complying with new regulatory requirements. Issue 7: GMSA payment provisions Vector believes that GMSA payment provisions are a matter for commercial arrangements for the same reasons stated in our response to Issue 6: Alignment of GMSAs. Issue 8: AGMI redundancy risk Vector does not recommend that Gas Industry Co consider AGMI redundancy risks further. In a competitive metering market, meter owners take investment risks and suffer from the consequences of bad business decisions or technology choices, not consumers or taxpayers. Issue 9: Centralised data provider
	Vector does not support the establishment of a centralised data provider or centralised data store/repository. What we support is the development of application programming interfaces (APIs) that enable greater data access and authorised sharing, and interoperability between market participants. Flexible arrangements, such as the use of APIs, better enable innovation than a centralised approach.

Question	Vector's response
	The development and day-to-day maintenance of a centralised data provider/store and associated compliance costs, particularly for a small market, are likely to be very costly. There are risks of over-building and asset stranding (i.e. sunk costs), and consumers could pay for what they do not need or desire. Competitive gas metering businesses, which collect and process data from their own meters, have made and are making significant investments in IT systems to do these tasks. A centralised data provider would unnecessarily duplicate some of these functions which will increase costs for industry participants and consumers.
	A centralised data provider would also undermine metering competition, 'squeezing out' other providers by virtue of its appointment to the role. Retailers are charged by metering service providers an annual fee for the provision of meter data; the meter is effectively installed for free. Moving the data-related functions to a regulated monopoly or centralised entity will curtail competition between metering businesses, impacting competitive outcomes (price) and effectively 'downgrading' the value of these businesses. This represents a serious sovereign risk for contestable metering businesses and undermines the competitive metering framework in New Zealand.
	Importantly, a centralised data provider would stifle innovation. Contestable metering providers are responsive to their customers' needs. In electricity metering, customers/retailers have requested bespoke services for meter data delivery, e.g. intraday delivery, which leverage their data functions. It would not be cost effective to provide these sorts of services if the metering providers were confined to a role of only installing and maintaining advanced meters.
	A centralised approach is not conducive to an energy future of decentralised services, e.g. peer-to-peer trading, Consumer Data Right, etc. The proposed model for the energy Consumer Data Right in Australia has shifted from the "Australian Energy Market Operator (AEMO) gateway model" towards a more decentralised peer-to-peer model (akin to Open Banking). This was driven by the need for more interoperability and extensibility of energy data within and across sectors.

Question	Vector's response
	Issue 10: Advanced meter displacement
	Where the deployment of advanced gas meters is market-led, and as indicated in our response to Issue 8, it is metering service providers who take investment risks and the costs of any bad business decisions, not consumers or taxpayers. We therefore consider that any further consideration of this issue by Gas Industry Co is unwarranted.
	Issue 11: Open access AGMI systems
	Vector does not view open access AGMI systems as warranting further consideration by Gas Industry Co. Data standards should be allowed to evolve and develop through industry-based approaches, rather than through prescription, so as not to stifle innovation. Greater data access and interoperability could be enabled, for example, by using APIs.
	Issue 12: Technology standards
	The uptake of and transition to new technologies are driven by market outcomes and positive consumer outcomes, rather than by regulatory or technical prescription. It is important for new technologies to be tested or installed to meet the changing requirements of the industry and consumers, rather than stifled through greater prescription. We therefore do not see the need for Gas Industry Co to consider technology or technical standards further (except for those relating to safety, measurement, and market reconciliation and related processes that we suggest TArMAC should consider).
	Mandating technology standards is likely to impose the following limits and costs:
	 Market competition is limited by locking out existing and potential market participants who are not currently using the required technology standards or who believe that better standards or technologies are available or could become available. This effectively becomes a barrier to market entry that could stifle market competition and innovation.

Question	Vector's response
Question	Where barriers to entry are created, consumers will not benefit from lower cost service provision or the choice of better services that meet their specific needs. Mandating technology standards makes service providers compliance or regulator focused, rather than focusing on introducing new offerings to the market in a timely manner. This does not provide strong incentives for market participants to become effective competitors and innovators that keep striving to meet rising consumer expectations. Mandating specific technology standards before they are used (or widely used) creates the risk of 'gold plating' services. This generates unnecessary costs for consumers who do not want or need some of the mandated functionalities.
	 In the future, new technical functionalities may not be able to be delivered using today's technology. It would not benefit consumers if market participants do not have ample flexibility to upgrade or alter technical specifications in a timely manner. This could lead to outcomes where the delivery of services is not keeping pace with technological changes or what consumers value. Mandating technology standards is likely to increase the regulatory burden (for both regulators and industry participants), increase costs for consumers, require substantial resources, and usually takes time.
	Issue 13: GMS ownership and works Vector does not consider an assessment by Gas Industry Co of GMS ownership and works, which are owned by competitive metering providers, to be warranted. Advanced meters in the electricity sector in New Zealand were successfully deployed by competitive providers — a model emulated by multiple Australian jurisdictions. Changing this ownership model, e.g. monopoly ownership by distribution networks, would be a step backwards.

Question	Vector's response
	Issue 14: Advanced metering consumer education
	Consumer education could facilitate greater understanding of the benefits of services enabled by advanced meters, and eventually greater uptake. We believe retailers, who have the direct relationships with end customers, are best placed to provide the necessary information to improve consumer awareness. Industry associations such as GasNZ (formerly the Gas Association of New Zealand and the LPG Association of New Zealand) could also perform this role.
	Issue 15: Market competition
	While noting that Gas Industry Co already considers market competition to be a "lower priority" issue, Vector does not see the need for further work by Gas Industry Co on this area at all.
	Vector Metering currently offers new gas metering services on gas distribution networks owned by Vector, Powerco and Firstgas.
	Other metering service providers can deliver services on Vector's gas distribution network. Vector's network allows any metering provider to have its name added to the list of available providers, from which the retailer nominates a metering provider.
	As indicated in the covering letter of this submission, the Commerce Commission's preliminary assessment of the gas metering market in 2017 concluded that regulating this market "does not yield sufficiently high benefits when balancing against the cost of an inquiry and any subsequent regulation".
	Gas Industry Co's own Gas Metering Review in 2017, while stating that developing a set of minimum standards for advanced metering would help ensure consistent collection and treatment of metering data, envisaged that the standards would not be regulated requirements. ⁷

https://comcom.govt.nz/news-and-media/media-releases/2016/commission-will-not-undertake-gas-metering-inquiry
 https://www.gasindustry.co.nz/work-programmes/gas-metering/gas-metering-review/document/5706, page 4

Question	Vector's response
	We believe the above findings still hold today, and consider that arguments against regulation are stronger now, given the following considerations:
	 Regulation could disincentivise further movements in the gas metering market. The entry of new gas metering providers (Firstgas and Intellihub) and displacement of meters by other parties are expected to change the dynamics of the gas metering market.
	 The deployment of advanced gas meters which can enable innovation and differentiation of services, and potential provision of advanced metering by other parties, should not be stifled by regulation.
	 The gas metering market remains very small even today; it is a challenger industry.
	 New Zealand's transition to a low carbon future implies reductions in gas supply and consumption over time, and potential contraction of the size of the already very small gas metering market. The benefits from any future regulation will not be expected to significantly override the costs.
	Issue 16: Preferred Supplier Provisions in legacy GMSAs
	Vector does not believe preferred supplier provisions have any significant impact on the gas metering market. These provisions do not restrain retailers from using other metering providers.
	The metering provider does not have visibility of ICPs (while still in the network system) until such time that the metering provider is selected by the retailer.
	Issue 17: Streamlined process for customer requests for consumption data (EPR Recommendation C3)
	Vector notes that Gas Industry Co has made a recommendation to the Minister of Energy

Question	Vector's response
	and Resources to extend this EPR recommendation to the gas sector. ⁸ We further note that electricity consumers can already request access to their consumption data. We suggest that the design and implementation of a streamlined process for customer requests for consumption data in the gas market be referred to TArMAC in the first instance.
	Issue 18: Ensure distributors have access to smart meter data on reasonable terms (EPR Recommendation E3)
	The provision of data on reasonable terms has the potential to add benefit to gas distributors and ultimately to consumers. For example, data on pressure and flow helps gas distributors improve their network models and avoid duplicating similar equipment that they need to install at various locations (much smaller coverage). Depending on the type of data, it may also provide improved customer notifications during outages.
	We would support incentives for gas distribution businesses to procure data, for example, by providing them with allowances under the Commerce Act Part 4 regime. Metering service providers need greater certainty to make the appropriate investments and develop the right services for gas distribution networks.
	Issue 19: Remote disconnections and reconnections
	We consider that issues around remote disconnections and reconnections are more appropriately considered as part of a wider discussion on switching. These issues could be considered by TArMAC, including how remote reading enabled by advanced gas meters works with switching.
	<u>Issue 20: D+1</u>
	Vector considers D+1 to be highly relevant in the context of the introduction of advanced metering in the gas market. D+1 should be considered urgently by the DAWG, in close coordination with TArMAC.

⁸ https://www.gasindustry.co.nz/work-programmes/electricity-price-review/consultation-2/document/7228, page 19

Question	Vector's response
	As indicated in our submission on Gas Industry Co's Work Programme and Levy for FY2022, dated 5 February 2021:
	Vector strongly supports the integration of the pilot D+1 processes into the <i>Gas Downstream Reconciliation Rules</i> . 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. ⁹
	As further indicated in our February 2021 submission:
	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;
	 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.10

https://blob-static.vector.co.nz/blob/vector/media/vector2021/vector-submission-gic-fy2022-work-programme-and-levy.pdf, paragraph 19 lbid., paragraph 21

Question	Vector's response
	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. 11
	The DAWG is progressing a number of the above issues, following its meetings in August and September 2021. Vector would, however, urge Gas Industry Co to include the above AGMI issues as part of the DAWG's work programme. The resolution of these issues will have an impact on, and will require changes to, the Gas Downstream Reconciliation Rules. Given Gas Industry Co's proposal is to send an updated version of these Rules to the Minister of Energy and Resources in the second quarter of 2022, we believe it will be more efficient to include the resolution to all of the above issues in a single Rules update.
	Issue 21: Multiple trading relationships
	Vector agrees with Gas Industry Co that multiple trading relationships (MTR), which provide a customer with the option to contract with more than one supplier at a premise, are not relevant for the purposes of this consultation.
	We note that MTR for the electricity sector is still being trialled by Ara Ake in an 'off market' environment, in conjunction with the Electricity Authority.
	Issue 22: Critical Contingency Regulations
	Vector agrees with Gas Industry Co that the Gas Critical Contingency Management Regulations (CCM Regulations) are not relevant for the purposes of this consultation.

¹¹ https://blob-static.vector.co.nz/blob/vector/media/vector2021/vector-submission-gic-fy2022-work-programme-and-levy.pdf, paragraph 22

Question		Vector's response
		As noted in the Issues Assessment Paper, residential consumers are not covered under the CCM Regulations, and hence, cannot be directed to curtail under these Regulations.
Q3	Is the TArMAC group the appropriate working group to work with Gas Industry Co to develop solutions for AGMI issues identified through this workstream?	Yes, Vector believes the TArMAC generally remains an appropriate working group to develop solutions for AGMI issues. We suggest that Gas Industry Co re-activate TArMAC as soon as possible to consider the issues falling under the 'minimum standards umbrella' identified in our response to Q2.
Q4	Do the objectives of the TArMAC group need to be revised (extended or reduced) and if so, how?	Vector considers that the objectives of TArMAC, as set out on the Gas Industry Co website and reproduced below, remain broadly appropriate and relevant. We suggest that this statement and/or TArMAC's terms of reference be refreshed to reflect the issues falling under the 'minimum standards umbrella' identified in our response to Q2. The objectives of the TArMAC are to develop a set of minimum standards that will allow for the consistent collection and treatment of advanced metering data; and to identify any registry changes or rules amendments needed to accommodate the uptake of advanced metering.
Q5	Does the TArMAC group membership need to be revised and if so how (noting (a) the efflux of time since its establishment in 2017 and (b) any changes to its objectives necessary to address issues identified through this workstream)?	Vector proposes that the TArMAC membership, which has not changed since 2017, be refreshed and that Gas Industry Co make a call for nominations as a matter of priority. Vector's metering service provider (Vector Metering) would be highly interested in becoming a member of a refreshed TArMAC (or any successor body), given its significant role in the ongoing deployment of the first advanced gas meters in New Zealand. As suggested in our response to Q4, TArMAC's current objectives and/or terms of reference, while still largely relevant, could be refreshed to reflect the issues we identify in our response to Q2 that need to be given attention by this group.