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Submission on Transmission Balancing Options Paper

Introduction and overview

1. On Gas Limited, Vector Gas Contracts Limited and Vector Gas Limited (Vector) together welcome the opportunity to submit on the Gas Industry Company's (GIC) consultation paper, Transmission Balancing Options of December 2008 (Balancing Options).
2. Vector considers that the existing arrangements for balancing gas are not consistent with Part 4A of the Gas Act 1992 and in particular they do not meet the efficiency objective set out in s43ZN. These arrangements have arisen out of a disjointed and incremental background of underlying 'authority,' both contractual and regulatory, including:
 - Part 4A of the Gas Act (which provides for governance of the gas industry), inserted in the Gas Act in October 2004;
 - the establishment of the GIC, as a co-regulator acting as the primary point of contact between the government and industry, in December 2004;
 - numerous guidelines and regulatory exemptions published by the GIC exercising its discretionary powers;
 - successive Government Policy Statements, in particular the New Zealand Energy Strategy in October 2007 and the current gas governance policy statement issued in April 2008;
 - implementation of the Maui pipeline open access regime in October 2005;
 - the promulgation of industry Codes to operate the Maui and Vector pipelines based on contractual arrangements among industry participants;

- a separate contractual regime covering Non-Code participants on the Vector pipelines.

Such a background has inevitably led to the fragmented system that underscores the current situation in relation to gas governance and its inevitable impact on pipeline balancing.

3. The inefficiency of the current regime in combination with other factors, such as the Vector Transmission Code (VTC) expiring in September 2009, undeniably indicates that pipeline balancing is the most significant issue for the gas sector to resolve at this point in time. Hence the GIC's initiative to:

"...take the lead in improving and formalising arrangements for balancing decisions."

is both appreciated and timely.

4. Vector maintains its view that a fundamental and comprehensive redesign of the regime, implemented through regulations is the only way to achieve an effective solution to pipeline balancing. Vector acknowledges the conclusion reached by the GIC that balancing arrangements are unlikely to improve sufficiently, and in a timely manner, through industry agreement, and therefore believes that the threshold for regulations has been reached in terms of s43N(1)(c) of the Gas Act, i.e. 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)."

5. The GIC proposes a hybrid and incremental approach to reform, beginning with contractual changes to be initiated through the Maui Pipeline Operating Code (MPOC) change process and ending with a single balancing agent being established by regulation. Vector considers however that these are competing options, i.e. making contractual changes through the MPOC (and potentially VTC) process and implementing a regulated balancing agent should be considered as separate options. Accordingly, Vector submits that the first question to be answered is which of these two options will give the industry the highest net benefit. The option which is likely to deliver the highest net benefit would then be implemented.
6. In line with the observation in the previous paragraph, Vector is concerned that the GIC is addressing areas of detail before the broader design

parameters of the new regime are established. For example, it appears to Vector that the GIC's focus is on the design of particular options, such as the spot market and allocation approach when more fundamental questions relating to the roles and responsibilities of the agent have not been agreed. We also note that the GIC has not given consideration to all possible design options. For example, the Vector submission of September 2008 proposed that the balancing agent be able to operate a suite of balancing tools and proposed an alternative approach to allocation which does not appear to have been given full consideration. Consistent with the requirements of s43N of the Gas Act, Vector encourages the GIC to identify all reasonable practicable options and to provide a cost/benefit analysis of all such options before moving to implement particular options.

7. This submission, made in response to the GIC's Balancing Options paper, is structured as follows:

- process and priorities;
- problem definition;
- objectives;
- necessary developments;
- core design features;
- cost benefit analysis of design features;
- GIC's proposals; and
- concluding remarks.

Process and Priorities

Q9: Do you agree with the approach proposed?

8. On page 40 of the Balancing Options paper the GIC proposes the following approach to reform:

- establishing an independent balancing agent function involving a daily tendering approach for sourcing balancing gas, possibly developing into a spot market platform;
- an independent review of pipeline tolerances;
- MPOC changes to introduce effective daily balancing, allow for real time balancing costs, and establish a damages regime for over-pressure situations;
- investigating the feasibility of daily allocations options; and
- investigating the feasibility of the extended nominations option.

9. While Vector welcomes the GIC's lead on this issue and agrees with the GIC's conclusion (page 4) that:

"doing nothing and leaving balancing arrangements as they are now is unlikely to be a practical option."

Vector considers that the focus of work at this stage needs to be on the overall design framework for the balancing regime. This process is consistent with the policy design process articulated by the GIC in their Policy Development Information Paper of April 2008, which supports the following steps being followed:

- establish the context and define the problem across the system as a whole;
- develop high level options, including whether a regulatory and non-regulatory solution will be adopted and the roles and responsibilities of any regulatory bodies; and
- set out specific design detail.

10. Much of the Balancing Options paper focuses on the last step in the process; that is specific design details of particular balancing tools such as the balancing gas procurement method or daily allocations approach. However, agreement has not yet been reached on the overall design framework for the regime.

11. Two possible high level approaches are a purely contractual solution, implemented through MPOC and potentially VTC changes, and a comprehensive regulatory solution with a balancing agent playing a central

role, as suggested by Vector. Vector considers that rather than taking the hybrid approach put forward by the GIC, a more effective approach would be to first focus on the two high level options that have been identified, then as necessary consider variations to the preferred option. At this stage, individual elements of the design should only be considered insofar as this is needed to determine the overall structure of an option. As will be discussed later, Vector does not consider that it would be an effective use of resources to make MPOC changes in the interim with the intention of implementing a regulated solution in the future, as proposed by the GIC.

12. Vector considers that a holistic approach to the design of the regime is needed. It appears to Vector that the GIC have considered elements of their proposal in isolation. For example, matters such as the level of tolerances, the number of nomination cycles and the level of penalties are a fundamental part of the regime and cannot be considered separately from the other incentives in the regime. If the regime is not considered in totality there is a risk that the final solution will only address a subset of the identified problems and may create additional issues. Providing a cost effective comprehensive solution to balancing was a key driver behind Vector's September 2008 submission.
13. The GIC acknowledges that a thorough analysis of the Vector proposal has not been undertaken, despite recommending alternative options be developed. Vector notes that s43N of Part 4A of the Gas Act requires that the GIC considers the benefits and costs of each high level option before making a recommendation to the Minister.

Chapter 1: Problem definition

14. Vector agrees with the conclusion reached by the GIC in the Transmission Pipeline Balancing Issues paper (August 2008) that "balancing has a number of economic characteristics which create theoretical concerns of market failure. This theory is reinforced by evidence of significant short comings in the existing balancing arrangements, and limited evidence that the industry will be able to voluntarily identify and agree ways to address these."
15. Vector considers that there is a clear case of market failure in relation to gas balancing. As the GIC acknowledges, under current arrangements the costs of gas balancing are not borne by those who cause the imbalance. Rather, costs are smeared across industry participants as the existing regime does not provide a mechanism for Maui Development Limited (MDL) to recover balancing costs:

- at the time they are incurred; and
 - in a way which allocates costs to causers.
16. This socialisation of costs means that the costs of balancing are effectively externalised onto third parties and results in Shippers and producers making inefficient decisions, such as holding higher than optimal imbalance positions and making an inefficiently low level of investment in capability to manage imbalance positions. This leads to an unduly large number of balancing actions needing to be undertaken. By way of analysis, in the two months from 5 December 2008 to 5 February 2009 MDL made total sales of 230,885 GJ and purchases of 326,035 GJ of balancing gas (operational and secondary). That is a total of 556,920 GJ worth of balancing action on 18,263,136 GJ of injected gas, 3 per cent.
17. As a transmission pipeline welded party Vector incurs balancing costs on behalf of Shippers on the Vector Transmission System. Vector has had limited success in passing these costs onto the Shippers causing the imbalance. Under contractual arrangements parties are prone to raise disputes, thus thwarting attempts to ensure costs are borne by causers until a final determination can be made in respect of the matter.
18. Vector has repeatedly stressed that the problem is unlikely to be resolved effectively through industry agreement and hence that regulatory intervention is required to ensure that the statutory obligation of efficiency in Part 4A of the Gas Act is achieved. Vector believes that the threshold for regulations has been reached in terms of s43N(1)(c) of the Gas Act, namely that:

“the objective of the regulation is unlikely to be satisfactorily achieved by any reasonably practicable means other than the making of the regulation.”

The GIC offers a number of reasons for intervention. We discuss these in turn below.

Transmission Service Operators (TSOs) lack of incentive to compromise

19. Vector disagrees with the GIC’s statements that the tension (in reaching agreement of balancing arrangements) is “difficult to resolve by negotiation because there are no incentives on pipeline owners to

compromise¹” or because “TSOs are interested in the effectiveness of the balancing market, but not necessarily its efficiency.²” In Vector’s view it is the diverse interests of all participants, and in particular the fact that the accurate allocation of balancing costs will create new liabilities for users, Shippers and producers, which has made industry agreement hard to reach and provides the strongest rationale for a regulatory approach over an industry approach. Additionally, Vector considers that its participation in this process has been focused on seeking efficient outcomes and hence finds the second comment from the GIC somewhat perplexing.

Lack of sufficient information available to users

20. The GIC states that intervention is justified on the basis that users lack sufficient information with which to make balancing decisions. Although Vector considers that in certain cases central provision of information will be the least cost, Vector considers that under the current arrangements the fundamental problem is that users lack the incentives to both invest in using the information currently available and in improving information through system improvements, such as better forecasting capability. Vector notes that it is not just pipeline users that suffer from imperfect information. Pipeline owners are in a similar position with regards to unaccounted for gas (UFG), which is more difficult to forecast than customer demand. It is important that the regime provides the right incentives for all participants to make relevant investments by ensuring that risks are allocated to those best able to manage the risk.

Lack of least cost balancing tools

21. The GIC also considers that intervention is justified as the “tools available to pipeline users and operators are unlikely to achieve balancing at least cost.” Vector agrees that the current contractual arrangements do not promote efficient solutions and hence do not minimise balancing costs. The current arrangements were established to enable open access, rather than efficient balancing. The perceived lack of least cost balancing tools is more an accident of history and an indication that open access was the priority at that time rather than an indication that “TSOs will have no incentive to minimise balancing costs.³” It would be difficult for a TSO to amend the current contractual arrangements, without regulatory intervention, to achieve more efficient balancing as any allocation creates winners and losers.

¹ Gas Industry Company, *Transmission Balancing Options Paper*. December 2008, pg. 3.

² Gas Industry Company, *Transmission Balancing Options Paper*. December 2008, pg. 3.

³ Gas Industry Company, *Transmission Balancing Options Paper*. December 2008, pg. 3.

Chapter 2: Objectives

Q1: Do you consider that the objectives identified in section 2 are appropriate for the analysis of balancing options?

Key Principles for Balancing

22. Vector supports assessment of balancing arrangements against the overarching principles in Part 4A of the Gas Act and the Gas Policy Statement and notes that safety and efficiency will be crucial elements of the balancing regime. Importantly, Vector believes that the overall objective should be cast in terms of ensuring the *physical* balance of the system, which is not necessarily the same as each party holding a balanced position.
23. Vector agrees with the first principle put forward by the GIC in that it is important that balancing arrangements are designed to achieve physical balance at least overall cost; that is the approach minimises the sum of implementation and efficiency costs. Vector considers that the key factors to consider in ensuring that arrangements achieve least cost balancing are that firstly, the regime sends the correct signals to causers as to the actual cost of balancing so that they can make cost effective decisions and secondly, it provides cost effective balancing tools which are appropriate for the size of the New Zealand gas market. In some cases the balancing tools necessary to achieve this objective will require investment by industry participants, rather than a central body.
24. Vector considers that the second principle that “users should be able to manage risks⁴” needs some clarification. Clearly, means of managing risk need to be developed. However, given the delay in information from the mass market, balancing risks will never be completely eliminated, hence Vector notes that the focus should be on the *cost effective* management of risk. Vector considers that focusing on a cost effective approach to risk management will be the best way to ensure that industry participants are not exposed to “undue risk,” in the wording previously used by the GIC.⁵ Centralised or regulatory responses to managing risk, such as providing centralised information on aggregate balances or providing tolerances (which may take account different information levels available to parties), will be the most cost effective solution at times. However, in other cases it will be more cost effective for industry participants to invest in risk management tools, such as forecasting tools, themselves. The regime needs to create the right incentives for this investment to take place. This

⁴ Gas Industry Company, *Transmission Balancing Options Paper*, December 2008, pg. 8.

⁵ Gas Industry Company, *Transmission Pipeline Issues Paper*, August 2008, pg. 16.

will send the right signals to Shippers on the true costs and benefits of supplying customers with gas.

25. This leads into our concern that the GIC has placed too much weight on the need for retailers to manage or eliminate risk and too little weight on minimising the costs of physical balance. For example, the main focus of the paper is on design of a spot market and daily allocations options, in order to “contribute to retailers’ ability to hedge the risks associated with balancing.”⁶ Vector’s submission of September 2008 proposed that a suite of balancing tools would be most effective in achieving physical balance.

EREG Principles

26. The GIC has previously consulted on the applicability of the European Regulators Group for Electricity and Gas (EREG) principles, and refers to these principles throughout the paper. In Vector’s view the EREG principles (as amended in our previous submission) provide a more useful and comprehensive framework than the two higher level principles suggested by the GIC on page 8 of the Balancing Options Paper. In our view, the principles provide more specificity as to the design parameters of efficient least cost balancing arrangements. Drawing on the EREG principles, some key principles which Vector considers are a necessary part of the evaluation framework are:

- Efficient and clear allocation of responsibilities:
 - a) users have the primary responsibility for balancing inputs and off-takes;
 - b) producers have an obligation to match nominations and injections;
 - c) a body is needed to take responsibility for the efficient and economic operation of the system; and
 - d) the TSO should retain responsibility for the safe operation of the system.
- Cost-reflective balancing pricing:
 - a) balancing charges must be cost reflective such that, in aggregate, participants face incentives to efficiently balance the system;
 - b) flexibility should be procured using market based mechanisms where possible;
 - c) balancing and operational costs should be charged to causers; and
 - d) any costs that cannot be targeted should be allocated back to users in a non-discriminatory manner.

- Cost-effectiveness/fit-for purpose:
 - a) balancing tools should be cost effective given the size and nature of the market.
- Transparency and non-discrimination:
 - a) balancing rules should be designed in a fair, non-discriminatory and transparent manner, based on objective criteria and analysis;
 - b) flexibility should be procured in a transparent and non-discriminatory manner; and
 - c) information should be provided on the balancing status of network users in a well-timed, reliable and cost effective way.
- Compatibility with operational requirements:
 - a) daily balancing is preferred; and
 - b) flexibility services should reflect the underlying technical characteristics of the transmission service.
- Risk management:
 - a) risks should be allocated to the party best able to manage the risk;
 - b) cost effective tools to manage risks should be available.

Chapter 3: Necessary Developments

Q2 and Q3: Do you agree that it is necessary to review tolerances described in section 3.1? Do you agree that it is necessary to consider changes to the MPOC as described in section 3.2?

Short term changes to the MPOC are not an efficient use of resources

27. As discussed earlier, Vector considers that at this stage in the policy process a decision needs to be made on the high level design framework which is to apply to balancing, rather than only addressing certain elements of the regime in an *ad hoc* manner, in order to produce a 'solution.' Vector considers that the two main competing models are a contractual approach implemented through changes to the MPOC and perhaps the VTC, or an integrated regulatory solution which includes a single balancing agent.
28. Vector has consistently expressed the view that of the two models the best approach would be to focus on the design of a comprehensive regulatory solution, to which a single balancing agent would be central. Vector does not support the approach suggested by the GIC of implementing changes through the MPOC change process as a short term interim solution until a

⁶ Gas Industry Company, *Transmission Balancing Options Paper*. December 2008, pg. 8.

balancing agent is established. The reasons we hold this view are as follows:

- First, the MPOC changes suggested will not be necessary in the long term if the single balancing agent model is to be pursued. This is because if a single balancing agent were to operate the MPOC and VTC balancing provisions would need to be rescinded. This is acknowledged by the GIC on page 26, 28 and 31 of the Balancing Options paper, for example the comment that aspects of the GIC proposal include “the balancing agent allocating costs to users and the ILON, OBA and BPP processes being removed from the existing codes and replaced by new arrangements managed by the Balancing Agent.” In Vector’s opinion expending resources on making changes through the MPOC process when the ultimate goal is for the balancing agent to manage the new arrangements would result in a lengthier and more costly process and would delay other benefits being achieved in the short term. For example, the initial MPOC change process that was established as a potential solution to balancing was the removal of the Legacy rights from the MPOC. This took well over 12 months to implement and left a number of other issues to be resolved in order for balancing arrangements to prevent the socialisation of balancing costs. Vector would like to see the GIC set out a timeframe in which a comprehensive regulatory solution could be implemented if focus were placed, and resource dedicated, to this solution and not to MPOC changes and the like.
- Second, the GIC has placed no weight on the fact that the current arrangements are voluntary. For example, Vector’s acceptance of the OBA regime (and the consequent need to operate a mechanism like the balancing and peaking pool (BPP)) was linked to the facilitation of open access. Three and a half years into the arrangements, having participated in a number of disputes and recently having had Shippers reject a call for an overdraft on the BPP to avoid Vector (as TSO) paying balancing costs Shippers are not prepared to pay (either at all or in a timely fashion), Vector is assessing its withdrawal from the OBA. This withdrawal would necessitate the development of a different solution as an interim measure until a regulated solution is implemented. Hence, timely progress on the regulated solution is beneficial for all industry participants.
- Vector also considers that the MPOC changes proposed by the GIC are likely to increase risks for Vector. In particular, a greater incidence of cash-outs without improvements to Vector’s ability to

recover those cash-out costs from Shippers may result in Vector (as a TSO) bearing a high level of balancing costs.

Design details cannot be considered in isolation

29. Once the high level design framework has been agreed it would be appropriate to move on to develop specific design features. Vector considers that a holistic approach, in light of the overall objective of ensuring least cost physical balance of the system, needs to be taken for the design of a new regime.
30. For example, the GIC asks “do you agree that it is necessary to review tolerances.” In Vector’s opinion tolerances are an integral part of the design of a balancing regime and cannot be considered in isolation. Whether tolerances are necessary and how they are defined needs to be considered in light of factors such as information available to parties, the number of nominations cycles available and the availability of balancing tools. This seems to be acknowledged in the Balancing Options paper on page 28 where the GIC states that a step in designing the spot market will be a “review of tolerances in light of the additional risk management offered by the market”. In our previous submission we proposed assigning tolerances to the line pack rather than to specific parties but allowing the benefit of this flexibility to flow through to Shippers to small stations first. The desirability of this proposal depended on several other features of the proposed regime, such as the allocation of costs and title to large stations first. Hence, whilst Vector acknowledges that tolerances will need to be considered in designing a balancing regime, Vector does not support reviewing tolerances as a separate work-stream in isolation to designing the overall regime. Further, we note that tolerances have been examined fairly recently as part of the Maui over-pressurisation forum.
31. In addition, we note that the changes proposed by the GIC will not address all of the problems identified. For example, under the proposal Shippers will still have incentives to create imbalances at particular times of the day (i.e. by putting conservative nominations in for the first cycle). Other mechanisms, such as an additional nomination cycle, need to be considered. The obligations on producers were also an important element of the Vector proposal, as physical balance requires that injections match actual offtakes. Further, changes in behaviour are only likely to occur if there are stronger obligations on Shippers through improved enforcement mechanisms; it is unclear in the GIC’s paper how enforcement will be strengthened. The above is not intended to be an exhaustive list but to highlight that it is important to consider the regime *in toto* in order to design a comprehensive solution.

32. Vector also does not agree that a damages regime for over-pressure situations will necessarily provide appropriate incentives. In particular, an inability to inject at a given pressure may be caused by inadequate investment by producers in compressors. Allowing them to recoup damages in such a case would not provide the correct investment incentives. In fact it may lead to lower pipeline operating pressure and therefore less capacity available to Shippers.
33. In summary, Vector considers that the GIC should focus on the design of a comprehensive regulatory solution to balancing rather than focusing resources in the short term to make changes through the MPOC change process.

Chapters 4 and 5: Core Design Features

Q4: Do you agree that the primary balancing obligation should remain with pipelines users?

34. Vector strongly agrees that Shippers should have the primary responsibility to balance inputs and offtakes, consistent with the causer pays principle. Vector also considers that producers need to have an obligation to balance injections and aggregate nominations at a particular injection point.

Q5: Do you agree that there should be a single independent balancing agent?

35. Vector strongly agrees that TSOs should retain responsibility for the safe operation of the system, and hence be able to take actions to manage line pack when line pack limits are exceeded. Further, Vector agrees that a single balancing agent should be responsible for the efficient operation of the system, providing balancing mechanisms to ensure the correct commercial incentives. Vector considers that the approach suggested in figure 3 on page 18 of the Balancing Options paper, of defining line pack ranges within which the balancing agent and TSO can operate, is likely to be workable. A number of more detailed issues, such as arrangements to operate compressors, will need to be worked through to accurately define these roles.
36. Vector considers that the forward work program should focus on defining the regulatory roles and responsibilities of the single balancing agent. There are several areas where greater clarity is needed.

37. For example, clarification is needed of whether the balancing agent is intended to have a purely facilitative role (operating a spot market) or whether it will have tools available to undertake a range of balancing actions itself. Apart from the proposal that the balancing agent operate a spot market, it is unclear to Vector what tools the GIC considers should be available to the balancing agent. The GIC expresses a strong preference for a spot market but on page 27 of the Balancing Options paper but suggest that “the balancing agent *may* have other options to procure gas, such as the NZGE or standing flexibility contracts” and on page 35 states that “if a party did prefer to offer flexibility on a term contract, then the balancing agent could enter into such a contract.” As part of the forward process, Vector considers that the full range of balancing tools needs to be considered and assessed and recommends that the GIC clearly state what tools it prefers the balancing agent to operate. Another area where more clarity is needed is around the performance of additional roles, such as the allocation of costs and enforcement of any damages provisions. For example, page 37 of the paper suggests that allocation of imbalances might be provided by a party other than the balancing agent. In Vector’s view this would not be cost effective.
38. Vector agrees with the GIC on page 20 of the Balancing Options paper that a single agent has a number of efficiency benefits over multiple balancing agents. Vector notes that the single balancing agent approach has been accepted in other jurisdictions. For example, the short term trading market (STTM) which is to operate in South Australia and New South Wales from June 2010 will use a single gas market operator, which will also have responsibility to balance gas.
39. Vector has previously submitted that the balancing agent would be best defined as a service provider reporting to the GIC. This is an issue of detail that need not be determined at this stage. However, when the role is defined it is our submission that the role be contestable. While balancing is not a core responsibility of TSOs, and hence there is no reason why TSOs *must* provide this service, there is also no reason why an affiliate of a TSO should not be able to bid to provide the service. It is unclear to Vector exactly what level of independence the GIC would require between TSOs and the balancing agent. There are a number of mechanisms currently available which ensure that TSOs do not cross-subsidise competitive activities. Further, if the balancing agent is to be a service provider to the GIC, an appropriate monitoring regime is required no matter who the service provider is to ensure that costs are incurred efficiently.

40. Finally, Vector reiterates that a balancing agent is only one part of the solution to balancing – namely the balancing agent provides a mechanism to undertake the operational side of balancing such as providing procurement mechanisms and determining the allocation of costs. As we have stressed in this submission, in designing an overall balancing regime several other features need to be considered, such as the number of nominations cycles, tolerance thresholds (if any), information tools and enforcement mechanisms.

Chapter 6 and 7: Cost/benefit analysis and design features

Overall Approach

41. Vector considers that there are significant inefficiencies inherent in the current regime and believes that a more cost reflective causer pays regime has the potential to deliver significant benefits through a reduction in the number of required balancing transactions. This would be due to factors such as:
- stronger incentives to balance through better cost allocation and stronger obligations;
 - improved use of information and forecasting by mass-market retailers;
 - improved information on which to make balancing decisions;
 - improved nominating by Shippers to reflect downstream demand;
 - reduced duplication of transactions by TSOs and Shippers by ensuring balancing occurs on the day;
 - reduced co-ordination costs from having multiple balancing agents; and
 - improved profiling of supply and demand by improving the nominations system.
42. The extent to which these benefits can be realised will depend on the particular design details of the regime. Hence, the expected level of benefit needs to be assessed for each different proposal. It is not clear to Vector on what basis the GIC makes the assertion that balancing transactions may halve under their proposal, particularly as important elements of the proposal have not been decided.
43. Similarly, the costs associated with the chosen approach will depend on the specific design elements underlying the approach. The GIC suggests that a single balancing agent may impose about the same level of on-going cost on the industry as current arrangements but could have a start up cost of around \$2m. However, further definition of the functions the

agent will perform and the particular tools it would operate are needed before the costs of different options can be determined. For example, the level of staffing cost and required system development will depend on the functions and tools the agent has.

44. Vector considers that a cost/benefit analysis, consistent with s43N of the Gas Act, should be undertaken of each of the different options in order to determine which overall proposal maximises net benefits. Different options for the balancing agent could be developed (Vector has already provided one in its September 2008 submission) and the costs and benefits of each estimated. For example, a balancing agent which only operates a spot market will have different costs and benefits associated with it by comparison to a balancing agent which has a range of balancing tools available and undertakes other functions.

Chapter 7: GIC proposals

Q6: Do you agree with the assessment of the procurement option?

45. Balancing arrangements need to be designed to ensure the physical balance of the gas pipeline at least cost. In Vector's opinion, as a balancing spot market will only provide for a secondary market to trade gas it will not always be sufficient to provide cost effective physical balance. It is for this reason that in our previous submission we suggested that the balancing agent have a suite of options available to it to provide physical balance.
46. Although Vector considers that a spot market is worth exploring and may well be worth establishing in the long term, more thought needs to be given to the design detail and a thorough cost/benefit analysis undertaken, taking account of direct and indirect costs, of the approach before a decision is made to implement.
47. Vector is concerned that a spot market could have relatively high transaction costs for the small New Zealand gas market. The GIC needs to think carefully about the data and system requirements of a spot market and ensure that any proposal is fit for purpose. A costly spot market would impose relatively high costs on small retailers who have limited trading capability and do not currently trade in the electricity market. As these retailers will not reap the benefit of economies of scale there is a risk of creating barriers to entry into the market.
48. It is likely that only a relatively low key approach, such as an electronic bulletin board, would be cost effective for the New Zealand market. Such

an approach would require improvements in the level and transparency of existing information. The GIC also needs to consider the relationship between the NZGE and any imbalance trading platform. We note that the STTM in Australia will integrate these trading platforms. However, as only a pilot of the NZGE is due to be completed in 2010, this option would not be immediately available.

49. A further potential downside of a spot market operating alone is that, given the limited number of parties able to provide the physical supply of gas or storage on demand, there would be substantial scope for larger players to exercise market power by acting as price-setters and raising prices to their advantage. We note that data published by MDL on the operation of the secondary market at present shows a wide variation in balancing gas prices depending on who is available to offer flexibility at the time, potentially indicating price setting behaviour. This implies that the spot market alone may not be sufficient to provide an efficient solution and other approaches to balancing gas are needed to reduce market power and provide a reliable supply of flexibility.
50. The GIC considers that an advantage of the spot market is that it encourages investment in flexibility, as pricing is based on marginal cost. However, in our view investment in flexibility is often a by-product of other investments and improvements in balancing performance (which reduce the requirement to procure flexibility) will primarily arise through greater investment by Shippers in forecasting and information systems.
51. Hence, Vector considers that the balancing agent must have a range of balancing tools in order to provide for the cost effective physical balance. Tools such as moving gas between zones and the use of compressors, and the mechanisms needed to pay for them, need to be considered in defining the functions of the agent.
52. It is also important that the balancing agent be able to hold a portfolio of long term contracts. Vector asks that the GIC clarify whether it intends for this to be one of the tools available to the agent. Long term contracts may be required to provide for fixed capacity or to ensure that a supply of physical balancing gas is available in all circumstances. Vector understands that in Australia, the STTM market operator will have the ability to acquire capacity in order to balance gas.
53. The disadvantages of long term contracts cited on page 26 and 33 seem to be based on a number of assumptions which do not necessarily hold. For example, flexibility would not necessarily be locked up and spare capacity unusable under the long term contract approach if these sources of

capacity could be offered for sale in the daily secondary market as well. Again, users who cannot make long terms commitments will not be disadvantaged by the existence of long term contracts if a daily market also exists. Multiple sets of bilateral terms are not necessarily less transparent but may be less standard. This would however allow differentiation of risk – i.e. users may pay a higher price for a secure contract which is less risky than hoping there is flexibility on the day.

54. In summary, in Vector's view a suite of balancing tools is needed to provide cost effective physical balance of the system. A spot market alone is unlikely to be sufficient to achieve physical balance. Vector considers that an assessment of the costs and benefits of each option, in terms of achieving cost effective physical balance, needs to be undertaken as one of the first components of the balancing work program. The driver for each option should be whether it will deliver a balancing proposal that will best achieve the statutory requirement of efficiency.

Q7: Do you agree with the assessment of the daily allocation option?

55. Vector recognises that mass market retailers are unable to accurately determine their imbalances in real time and that the arrangements for allocation must take this into account. This is not to say that estimation processes cannot be improved, however at some point there will be a balance between the extra cost to Shippers and the benefits from improved estimation.
56. The solution Vector proposed in its previous submission was to allocate balancing costs to Shippers to large stations first, allowing the pipeline flexibility to flow through to mass market retailers. In Vector's view this approach provides a solution to the problem that mass market retailers have less ability to manage imbalance positions and provides strong incentives on Shippers to large stations to balance. If this approach resulted in a significant reduction in balancing transactions from improved performance by Shippers to large stations, Vector does not consider developing an algorithm for mass market allocation would be justified. The GIC should assess the level of improvement that could be expected from Shippers to large stations before developing detailed solutions. Vector questions why the GIC has not given full consideration to its proposed approach to allocation (e.g. the proposal is not even considered as an option for analysis on page 29). In line with GIC policy, this proposal needs to be given equal weighting to other options, and an attempt be made to estimate net benefits before the proposal is rejected.

57. Based on the process that was undertaken to determine the new downstream allocations, Vector considers that the proposed daily allocation approach would be complex and potentially costly to implement. More work needs to be done to cost this proposal, including determining required system changes for businesses. Some issues we have identified, that need to be addressed are:

- historical usage would need to be amended whenever customers switch suppliers, which would potentially require the development of interfaces with the Registry and Allocation Systems. However, past analysis on integrating these systems has shown such an approach to be prohibitively costly;
- it is unclear how downstream retailers would be incentivised to improve their demand forecasting;
- it is unclear how corrections to the daily allocations, metering data and downstream allocations will be handled;
- as the daily allocations are not based on actual imbalances it is unclear how these allocations will be washed up or traded;
- additional wash-up processes are likely to be needed to meet changes in downstream allocations from initial, interim through to final;
- a 'simple' algorithm is likely to be controversial, adding to consultation costs;
- it is unclear how UFG will be calculated and allocated; and
- it is unclear how the cost of the daily allocation system will be paid for by the parties generating the uncertainty and who receive the benefit i.e. retailers selling to non-TOU customers.

Q8: Do you agree with the preliminary assessment of the extended nominations options?

58. As continually noted, Vector does not consider that the GIC has given proper consideration to the Vector proposal. Vector considers that the majority of the Balancing Options paper points to a number of solutions the GIC would like to progress despite its acknowledgement on page 39 that "further analysis of the [Vector] proposal is required." In Vector's view it is inappropriate to make an initial conclusion to discount a proposal before it has been fully considered. Vector is also surprised to see the GIC characterise the option as the "extended nominations" option, as nominations are only one aspect of the option.

59. Vector does not consider that the concerns raised by the GIC on pages 38 and 39 of the Balancing Options paper are well-founded. For example,

- the paper provides no information on the basis on which to conclude that OATIS changes would be costly and take considerable time. Further analysis should be undertaken before making such a statement;
 - the Vector proposal was intended to be a comprehensive approach to balancing. Vector considers that the incremental approach proposed by the GIC is more likely to result in unintended consequences and increased implementation costs;
 - as stated in Vector's September 2008 submission, no specific tools were proposed to enable mass market participants to manage their positions as this was considered a second order consideration. It was envisaged that such tools could be developed as the model was further specified, for example it would not be inconsistent with the Vector proposal to provide an electronic bulletin board providing information on aggregate imbalances and even to allow these to be traded;
 - Vector considers that the issue of real time validation of nominations is a point of detail that can be worked through at a later stage;
 - Vector considers that the different treatment of large and small stations provides efficiency benefits as those with the best information have the strongest incentive to balance. Equity is a subjective concept, in Vector's view it is fair to treat large and small stations differently when they face different costs and risks; and finally
 - the GIC provides very little explanation as to why it rejects certain parts of the Vector proposal, such as penalties, and provides no alternative to address identified problems, such as Shipper's inability to pass on balancing costs.
60. Vector put forward a comprehensive, integrated proposal to the GIC in an attempt to resolve the significant inefficiencies in the current system. This was not without incurring significant costs, especially management time. The GIC risks deterring industry participants from investing genuine thought and effort and if such proposals are not given appropriate scrutiny and consideration.

Concluding Remarks

61. As stressed in this submission, Vector considers that a high level decision needs to be made as to the overall design framework for the new regime. If the approach is to implement a single balancing agent, resource should focus on the roles and responsibilities of this agent with particular design elements chosen by considering the regime as a whole. Although Vector recognises that the GIC may not accept all elements of our proposal, Vector considers that it provides a good starting point to consider how an integrated regulatory solution could operate. Further, the particular

design elements of any final solution should be determined by reference to solid cost/benefit analysis.

62. As balancing is the single most important component in the GIC's FY2010 budget, the importance of maintaining an 'open mind' on the best industry solution cannot be over-emphasised. Accordingly, Vector urges the GIC to reconsider its balancing proposal in total as part of its further analysis.
63. Vector is happy to discuss this submission in more detail and would welcome the opportunity to give a presentation to the GIC on the detail of our proposal. If you have any queries please contact Paul.hodgson@vector.co.nz on 803 9019, in the first instance.

Kind regards

A handwritten signature in black ink, appearing to read 'Nathan Strong', written in a cursive style.

Nathan Strong
Manager Regulatory Affairs