Transmission Pipeline Balancing Issues– Analysis of Submissions

November 2008

GAS INDUSTRY COMPANY LIMITED

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About Gas Industry Co

Gas Industry Co was formed to be the co-regulator under the Gas Act.

As such, its role is to:

- recommend arrangements, including rules and regulations where appropriate, which improve:
- the operation of gas markets;
- access to infrastructure; and
- consumer outcomes;
- administer, oversee compliance with, and review such arrangements; and
- report regularly to the Minister of Energy on the performance and present state of the New Zealand gas industry, and the achievement of Government's policy objectives for the gas sector.

Authorship

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1 Introduction

1.1 Background

Pipeline balancing is the management of the inventory of gas in a pipeline, known as linepack. Effective pipeline balancing is essential to the safe and efficient transportation of gas in a pipeline. Balancing of transmission pipelines is therefore a key element of open access.

Efficient balancing arrangements must specify how balancing is to take place, and how balancing costs will be allocated to the pipeline users who cause balancing actions to be taken, rather than being socialised across all pipeline users. In this way, user self-balancing is encouraged and overall balancing costs can be reduced. However, for such incentives to be effective, each user must have the information necessary to determine its balance position, and have options for correcting that position.

Balancing concerns were raised by many parties and became a key feature of the Gas Industry Co June 2006 Transmission Access Review. Since then, Gas Industry Co has monitored balancing behaviour and outcomes and consulted with stakeholders as balancing issues have arisen.

Despite various initiatives, Gas Industry Co considers that some balancing arrangements are unsatisfactory. There is also concern that pipeline owners and users may not be able to contractually resolve changes needed to address balancing issues. In short, there is a risk that the objectives of the Gas Act 1992 (Act) and the objectives and outcomes of the Government Policy Statement on Gas Governance (GPS) may not be achieved due to shortcomings in balancing arrangements.

Gas Industry Co now seeks, in consultation with the industry, to develop and put in place, or assist the industry to put in place, balancing arrangements that further the objectives and outcomes of the Act and GPS.

1.2 Issues Paper on Transmission Pipeline Balancing

In August 2008, Gas Industry Co released an Issues Paper on Transmission Pipeline Balancing (Issues Paper). The Issues Paper followed a structure which;

- gave an introduction to balancing;
- discussed linepack management including balancing tools and responsibilities;

- considered potential market failures and the case for regulatory intervention;
- described balancing arrangements in New Zealand and compared these with balancing principles developed in Europe;
- analysed the issues which are currently preventing effective balancing; and
- grouped and discussed design options in moving toward improved balancing arrangements.

Following publication of the Issues Paper in August 2008, Gas Industry Co called for submissions from interested parties. Submissions closed on 12 September 2008.

This paper outlines the submissions received and identifies common themes from these submissions. Additional consultation will be undertaken prior to, and during, the drafting of an options paper (the Options Paper).

1.3 Structure of this paper

Section		Contents
2.	Overview of submissions	• Submissions received from nine submitters
3.	Issues raised in response to questions in Issues Paper	• Relevance of ERGEG principles • Issues correctly identified
4.	Themes and options	• Discussion of recurring themes and design options
5.	Next steps	• Industry advisory group meetings (TPBAG) • Drafting of Options Paper

2 Submissions received

2.1 List of submitters

Submissions on the August 2008 Issues Paper were received from nine submitters;

- Contact Energy;
- Energy Direct NZ;
- Genesis Energy;
- Maui Development Limited;
- Mighty River Power;
- New Zealand Steel;
- Nova Gas;
- Shell; and
- Vector.

The full text of all submissions is available on the Gas Industry Co website: www.gasindustry.co.nz.

Gas Industry Co thanks those involved in compiling these submissions.

3 Issues raised

This section describes the issues raised in submissions in response to the questions posed in the Issues Paper.

The issues are grouped under the same headings used in the Issues Paper. This section describes what was said in the Issues Paper regarding the principles on which a balancing framework should be built, summarises the submissions, and gives Gas Industry Co's response to the submissions.

3.1 The validity of ERGEG principles in evaluating balancing arrangements in New Zealand

What was said in the Issues Paper

In 2006, the European Regulators Group for Electricity and Gas (ERGEG) released 'Guidelines of Good Practise in Gas Balancing', as a framework for evaluating balancing arrangements. Although developed for the European gas markets, there are significant consistencies in terms of what the ERGEG principles and the Gas Act and GPS objectives seek to achieve. In promoting the most efficient use of available time and resources, Gas Industry Co has recommended that the ERGEG principles are adopted as a set of guidelines when considering New Zealand balancing arrangements. Further to this, Gas Industry Co notes that:

- The underlying objectives of the ERGEG guidelines – which contain the principles – are to provide 'guidance on the design of gas balancing mechanisms' that deliver safe, secure, efficient, reliable, and fair outcomes, which are very similar to the Gas Act and GPS objectives.
- Secondly, Gas Industry Co believes that the design principles for gas balancing arrangements are generic. That is, the same principles can apply to balancing on all gas pipelines, irrespective of the characteristics of the associated gas markets.
- Thirdly, the ERGEG principles are applicable to all gas pipelines in the EU, including some pipelines (eg in Portugal and Ireland) with similar characteristics to those in New Zealand.
- Finally, the principles are specific to gas balancing and so will be useful in assessing options to improve balancing arrangements.

A summary of the principles developed by ERGEG is listed below.

Balancing responsibilities - The primary responsibility for balancing should be with users to balance their own inputs and off takes, while the Transmission Service Operator (TSO) retains overall responsibility and a residual role to retain physical balance.

Requirements for balancing rules - Rules should be fair, non-discriminatory and transparent, based on objective criteria and analysis. Rules should reduce the residual role of the TSO, subject to safe operation, and facilitate competition while removing barriers to entry.

Frequency of balance - The balancing period should be established by considering a number of objective criteria ranging from operational capability of the system to information availability. Shippers should not be exposed to risks they cannot manage, and where information is not available, consideration needs to be given to how these risks might be mitigated.

Balancing costs and incentives for the TSO - TSOs should have commercial incentives to ensure balancing actions are efficient, and procure flexibility in a transparent and non-discriminatory manner, using market mechanisms where possible.

Tolerance services - Tolerance levels weaken balancing incentives as they cause socialisation of costs across participants. Where used, tolerance should reflect the technical capability of the system and be reduced over time as the market develops and matures.

Information and transparency - TSOs should provide sufficient, timely information on the balancing status of network users. This should be in a format which is meaningful, quantifiable and easy to use. TSOs may use provisional allocations of imbalance charges to reduce the risk to shippers.

Harmonisation of balancing rules - Rules should be compatible and streamlined across different TSO systems to facilitate gas trade.

Provision of flexibility - Balancing regimes should provide an appropriate mix of risk and incentive for market participants to manage their imbalance positions. Flexibility tools should be available on a non-discriminatory basis and be available for market participants to efficiently manage their risks.

What the submissions said

All submitters believed that there was value in applying most of the ERGEG principles as a framework against which to evaluate balancing arrangements in New Zealand. The ERGEG guidelines were considered to be at a sufficiently high level to provide useful direction on balancing.

A number of parties noted that the guidelines should not be applied as a complete or prescriptive regime and only used as a point of reference. For example, one submission suggested that in the New Zealand context, the greatest emphasis should be given to placing the balancing responsibility with

users and limiting the residual role to ensuring safe and efficient operation of the system, managed by a single Balancing Agent and possibly overseen by Gas Industry Co.

Another submission similarly cautioned against using the ERGEG principles in a 'paint by numbers' way. It noted that, in the absence of the depth and competitiveness which are features of the European market, certain principles may conflict with each other. For example, if the Balancing Agent prices balancing gas at a truly cost-reflective level, there may be little incentive for pipeline users to self balance.

One submission also expressed concern that an evaluation of the New Zealand system against the principles might prompt a fundamental change in direction that would not recognise the investment that has already been made in contracts, information systems, training, and so on.

Another submission suggested that the ERGEG principles could be a useful tool for initial dissection of the topic and as a touchstone for assessing options, but less useful for the narrower question of framing and evaluating options for regulatory intervention. Rather, regulatory interventions needed to be assessed in relation to the Gas Act and GPS objectives.

The overriding theme emerging from discussion of the principles is that they be used with caution and that economic efficiency should remain the touchstone for assessing balancing arrangements.

Gas Industry Co comment

Gas Industry Co is encouraged that most of the principles developed by ERGEG have been considered of use in progressing balancing arrangements in New Zealand.

Gas Industry Co agrees that ERGEG principles should not be used as a rigid prescriptive formula, and notes that this was not the intention. It also agrees that any regulatory intervention needs to be justified in terms of Gas Act and GPS objectives.

In light of submissions, Gas Industry Co will have regard to the ERGEG principles when assessing proposed changes to current balancing arrangements, while remembering that they serve as guidelines only and not a literal solution.

3.2 Issues with current balancing arrangements

What was said in the Issues Paper

In considering issues with balancing arrangements in New Zealand, Gas Industry Co has had regard to;

- discussions from the Transmission Pipeline Balancing Advisory Group (TPBAG) established and chaired by Gas Industry Co, which comprises industry experts;

- the ERGEG principles (as discussed above); and
- other relevant information, such as Australian solutions to balancing issues.

Consolidated issues with current balancing arrangements can be grouped under the following headings, a full discussion on each can be found in the Issues Paper:

- **Poor governance**: existing balancing provisions are unclear or hard to enforce and it is hard to gain agreement on changes needed.
- **Role of Balancing Agent unclear**: security of supply obligations on the Balancing Agent are unclear.
- **Poor information on balancing status**: users - especially mass market retailers – have poor information on current imbalances.
- **Multi-day balancing and pricing period**: whilst nominally one day, the balancing period historically extends over several days, due to ILON provisions and pricing lags.
- **Poor transparency**: it is unclear to users how balancing costs are incurred and how prices are set.
- **Poor allocation of positive imbalance costs**: charges to users for positive imbalances are much less than the costs that these imbalances create.
- **Competing Balancing Agents**: there is potential for the two Balancing Agents to be in conflict and add to balancing costs and complexity.
- **High transaction costs**: the complexity of balancing arrangements may give rise to unnecessarily high transaction costs.
- **Inappropriate tolerances**: tolerances may be too high in aggregate (compared with linepack limits) and not allocated to those who value them most.

What the submissions said

In general, submitters agreed that most of the relevant issues (listed above) were raised in the discussion paper. Prioritisation of these issues was a recurring theme of submissions and was considered to be one of the most important considerations when developing options. The majority of submitters highlighted poor information regarding balancing status and poor transparency as the major issues.

A lack of tools to support balancing the pipelines, such as the lack of a wholesale short-term gas market or gas storage facilities from which gas can be accessed at short notice, was noted as a significant constraint on effective balancing. The impact of operational imbalance (OI) on one pipeline imposing balancing costs on another pipeline was also raised, resulting in socialisation of costs and an inefficient outcome.

One submission also considered that the lack of communications standards was inhibiting the development of IT systems to more effectively manage imbalances.

There is a perceived lack of clarity regarding when pipeline users were making balancing adjustments. In particular, a single nomination may be for both balancing gas (to correct previous imbalance positions) and for demand gas (to meet current demand). There was concern over how this uncertainty would be dealt with by pipeline operators in setting their operational balancing targets and calling for balancing gas. This issue is related to the wider issue of the availability of information for users to manage their individual balance positions.

One additional issue raised is a claim that the Maui Pipeline Operating Code (MPOC) change request process discourages the evolution of balancing arrangements.

Gas Industry Co comment

Clearly defining the key issues is essential to ensure that options and further analysis can be properly advanced. Submitters' opinions on the relevance and scope of particular issues has been widespread, however, all submitters have expressed some level of agreement that the issues raised in the Issues Paper are useful as a basis for progressing work on balancing arrangements. Also, Gas Industry Co acknowledges users' common concerns over the availability of timely information on individual balance positions, and the need for a set of tools to manage those positions.

On the matter of balancing status information, Gas Industry Co is following Genesis Energy's proposal for daily allocation of delivery quantities at shared gas gates with interest. This is one option for addressing the balancing status information aspect of balancing, but others will be considered in the forthcoming Options Paper.

On the matter of balancing tools, it is hoped that the voluntary short-term gas-trading platform being developed by Gas Industry Co will be of use. Gas Industry Co also notes that Contact Energy Limited has procured and is in the process of developing a gas storage facility, which Gas Industry Co anticipates will provide additional flexibility in the future.

The issue of imbalances on one pipeline impacting on another pipeline's balancing costs will be addressed in the context of whether a single Balancing Agent is preferable to the current arrangement.

In relation to concerns about existing MPOC and VTC change processes, Gas Industry Co notes that a change request regarding the change request process itself may be the best avenue for addressing this issue.

Gas Industry Co also acknowledges submitters' views on the importance of prioritising issues.

4 Design elements and balancing regime options

What was said in the Issues Paper

In its deliberations, the TPBAG went beyond identifying issues and considered alternatives to improve current balancing arrangements. In particular, it discussed a number of possible solutions. The Issues Paper identified key design elements and called for comments on whether the correct elements were being considered and if these fitted with industry ideas about the direction in which balancing arrangements should advance.

Balancing Agent

There is, and will continue to be, a need for a residual Balancing Agent. Even if pipeline users had sufficient information and incentives to manage their imbalance to zero, this would lead to inefficient outcomes or significant performance risk. This is because the marginal cost involved in reaching a zero balance position would rapidly outweigh the benefit once a certain equilibrium level of balance had been passed. It may also be that pipeline users simply have insufficient time, information, or means of balancing. In these situations there is a need for a residual balancing role.

There is an issue as to whether there should only be one Balancing Agent across all transmission pipelines rather than the two currently operating. Arguments for only having one Balancing Agent include lower balancing gas costs due to the larger scale of procurement, lower overhead costs, and more efficient information flows.

Competition among Balancing Agents could result in potential market inefficiencies. For example, it is possible both Balancing Agents could seek to resolve the same imbalance and therefore over correct a position. Users may also have to choose which balancing market to offer their flexibility into, removing the efficiency gains of pooling residual flexibility. Two markets for balancing flexibility would lead to reduced liquidity and potentially result in users not receiving the true market price for flexibility on a day. This would make it more difficult for a user to efficiently hedge against cash out price and manage their price risk. Also, because Balancing Agents would be competing for limited resources the additional overheads may erode away any benefit that limited competition produced.

Balancing zones

There are effectively two balancing zones in New Zealand at present, the Maui and the Vector pipelines. There are also six allocation zones, five on the Vector pipeline and one for the Maui pipeline. There are potential inefficiencies in having multiple balancing zones, largely due to transaction costs. If there were only one balancing zone there may be increases in efficiency, however the use of allocation zones to more accurately allocate costs to causers may be a valid approach.

The optimal approach requires careful consideration of the commercial and technical boundaries of the New Zealand gas transmission context.

Balancing period

The optimal balancing period for a system involves a trade-off between allowing users to share the flexibility provided by the inherent physical flexibility of the system, and holding users individually accountable for their imbalances.

At present, both the Maui and Vector systems nominally operate daily balancing regimes. There is a tension between the preference of pipeline operators, who would prefer to operate the pipeline within narrow linepack limits, and those of pipeline users, who wish to make full use of any inherent flexibility that is available. At some point in the future, it may be desirable to review the balancing period against objective criteria, but there is general acceptance that daily balancing is adequate for the time being.

Incentives on pipeline users

Price signals are the main mechanism to incentivise users to stay in balance, or voluntarily go out of balance at times to assist aggregate system imbalance. Getting the pricing right is essential to efficient balancing. Too low (or having costs excessively socialised) and the incentive to stay in balance is weak; too high and market participants will invest more than is efficient in flexibility resources, thus failing the Act's objective of having efficient outcomes. There are a number of different tools discussed in the Issues Paper that are used to provide price incentives to pipeline users. In short these are:

- the mechanism by which balancing gas is procured and by which balancing gas prices are determined;
- a liquidated damages regime which provides a pool of funds for users materially damaged by the actions of others and supplied by those parties who have caused damage to occur;
- imbalance prices and the methodology used for determining how these should be set;
- trading of imbalance positions; and
- appropriate tolerances, within which users must balance.

Information for pipeline users

Clear and reliable information for making appropriate decisions relating to balancing should be available. This should include information on:

- balancing prices;
- users' own imbalance position; and
- the imbalance position of other users and the pipeline.

Incentives on residual Balancing Agent

The residual Balancing Agent should:

- not have, or carefully manage, conflicts of interests from having affiliates in the upstream or downstream markets;
- have incentives to minimise the cost of balancing, and
- have incentives to choose the method for procuring balancing resources that encourages efficient use of capacity and flexibility.

Harmonisation

If, due to commercial or technical requirements, there is more than one residual Balancing Agent, balancing arrangements should allow for harmonisation between different balancing regimes to promote price discovery and efficient use of resources. Whether this is achieved contractually or through regulatory intervention, new balancing regimes and arrangements should seek to achieve harmonisation.

Governance

It is desirable that balancing arrangements should be developed using a transparent process, in an objective and non-discriminatory manner, and in consultation with all interested parties. To be useful, the governance regime must also be compatible with the wider strategy for transmission access.

The majority of submissions agreed that, at some level, the correct design elements were raised in the Issues Paper. Each submission promoted specific design elements that the submitter considered important. The submissions on design elements are discussed under several broad headings below.

4.1 Incremental change or single overhaul

What the submissions said

One submission proposed a single overhaul solution for balancing arrangements in the form of a regulatory package. The submission includes an overview of how this would operate, the main points

of which are discussed below. Cost effectiveness was cited as a reason for considering a sweeping, regulatory governed change (as compared to a process of incremental changes which possibly lead to inconsistent outcomes).

Key points of the single overhaul proposal are that:

- Core elements of current balancing arrangements are flawed. The key problem is the inadequate incentives on pipeline network users to efficiently balance their injections with their off-takes.
- Gas Industry Co should only focus on development of regulatory solutions going forward, and that Gas Industry Co is only required to consider options which are reasonably practicable. Due to time and cost implications of attempting to reach industry wide consensus, regulation is viewed as the only practicable alternative.
- ERGEG principles should be used to provide guidance, with the greatest emphasis on principle 1, that balancing responsibility should rest with the users.
- TSOs should have a residual role for safety reasons.
- Costs associated with a balancing action are allocated by the Balancing Agent to shippers who caused the imbalance, firstly to shippers supplying large stations and then to shippers supplying small stations.
- Daily penalties will be charged to large stations for both positive and negative imbalances outside a daily limit. This will not apply to small stations due to less information being available to this group.

Other submitters doubted that fundamental change is justified. Rather, some submitters suggested that there should be targeted incremental improvements to existing arrangements to allow for the most pressing issues, with clear and targeted outcomes, to be addressed at an early stage. This was based in part on the belief that a single overhaul might take too long to implement and may give rise to new issues when implemented. Cost effectiveness was also used as an argument for incremental change because of the ability to spread regime change costs over time.

One submission suggested that an appropriate development of balancing arrangements would best be achieved through:

- code change requests, directed towards resolving such matters as poor access to balancing tools (it is claimed that MDL offers balancing tools which Vector is unable to use because of the impact this would have on its shippers), misleading notifications (because balancing gas and flow gas are not distinguished), poor information on balancing status, unclear role of the Balancing Agent, etc.;
- industry arrangements, aimed at such matters as improving communication standards; and

- regulatory intervention, specifically targeting such matters as poor governance, the number of balancing regimes, competition between Balancing Agents, code change processes, and so on.

It was suggested the changes that could be achieved through the code change processes (the first category) should have the highest priority, and that Gas Industry Co could best assist by facilitating industry working groups to implement the provision of daily balancing information.

Another submission suggested that, given the wide range of issues, focusing on priorities would be a means of avoiding getting bogged down. It proposed that the top two priorities should be improving the information on balancing status and reviewing the Balancing Agent role to consider if a single agent is justified.

A further submitter agreed that daily demand allocation should be a top priority, but that it needed to be matched with the development of a hedging market along the lines of that described in Appendix C of the Issues Paper.

Gas Industry Co comment

Gas Industry Co has sympathy with both the incremental and single overhaul approaches, however more work needs to be done to consider the wider implications of each approach and the likely costs and benefits.

Although a single overhaul may solve many issues, the risk is that it may create as many new issues. If these issues are addressed through regulation, amending the regulations to adjust for any new issues that arise may take a significant amount of time.

However, the incremental change approach may also require elements of regulation. The prioritisation of interventions is also an important aspect of the incremental approach potentially leading to increased complexity, as one intervention may overlap with the next. This could increase costs due to an increased number of consultations.

Gas Industry Co will continue to work with industry participants to refine the options. All that can be said at this stage is that all reasonably practicable options require further analysis before they can be fairly compared against one another.

4.2 Method of governance arrangement

What the submissions said

Two submissions state that the optimal approach to resolving the issues with the current arrangements is through the established change request process in the MPOC and Vector Transmission Code (VTC). This requires some level of industry agreement in order for changes to be

made effectively and in a timely manner. This raises the issue identified earlier of whether there is a need for amendments to the change request processes to improve the fairness and efficiency.

All other submitters who commented on this issue were in favour of some degree of regulatory intervention to improve balancing arrangements. This implies an underlying belief that industry consensus will be difficult to achieve, or that the code change processes will not result in timely or sufficiently extensive reform.

Gas Industry Co comment

As outlined above, there is a spectrum of governance options under which balancing arrangements could be progressed, ranging from industry agreement to regulation. Gas Industry Co notes that an industry-based balancing solution being developed and successfully implemented under the existing code change process is possible, and Gas Industry Co would welcome such a solution. However given the strong desire for effective and efficient improvements to balancing, and the previous difficulties in reaching consensus among industry participants it seems likely that some level of regulatory intervention is likely to be necessary.

As a matter of clarification, Gas Industry Co notes that it is possible for distinct parts of balancing arrangements to be regulated, there is no requirement for an 'all or nothing' approach.

4.3 Daily Allocation

What the submissions said

Another recurrent theme of submissions was the need for daily allocation of gas in place of the current monthly allocation at Vector Welded Points. The need for better information on imbalances was raised by most other submitters, and identified as a high priority in four submissions.

Daily allocation is promoted as a means of providing shippers on the Vector pipeline with certainty over their balance positions each day and thus allowing for daily corrections to those positions. Currently each Vector shipper has to estimate the degree to which it is contributing to the imbalance at interconnection points with the Maui pipeline. Shippers only know their mismatch position after month-end reconciliations take place.

Gas Industry Co comment

Gas Industry Co recognises the depth of support for this as an option to improve balancing. However, there are substantial data quality, data processing, institutional, and cost recovery difficulties to introducing a D+1 allocation. The proposal therefore requires further investigation.

4.4 Balancing procurement market

What the submissions said

The development of a balancing procurement market allowing for Welded Parties and shippers to hedge their position and cap their price risk was alluded to in a number of submissions. Such a market would allow parties who do not have flexible gas contracts to access flexibility when required. Flexibility would effectively be pooled and then bought and sold as a commodity. This would differ from the short-term gas-trading platform being developed separately by Gas Industry Co.

Gas Industry Co comment

Gas Industry Co considers the development of a hedging market to be a practical option. Very little change would be required to existing arrangements to introduce a voluntary balancing procurement market, which could co-exist alongside other tools to improve balancing arrangements. The ability to hedge price risk would incentivise parties to participate in this market even if involvement was voluntary. This option will be fully examined and considered further in the Options Paper.

4.5 Other design elements

What the submissions said

A number of other design elements were highlighted in submissions. Some are existing characteristics of balancing arrangements requiring attention and some are new features. Many of these would be addressed in the development of the broader balancing arrangements mentioned above, however they are worth mentioning as they align with the ERGEG guidelines and the issues identified by TPBAG.

Poor access to balancing tools - Shippers and pipeline owners have insufficient options available to stay in balance or manage their positions.

Inappropriate tolerances - Vector allocates the tolerances at its Maui pipeline interconnection points in proportion to the mismatch of its shippers. It is argued that this effectively rewards those who manage their balance positions poorly.

Trading and cashout of imbalance positions - Ex post trading is ineffective since balancing costs have already crystallised and the incentive to trade is therefore weak.

Automatic same day cash out of OI positions on the Maui pipeline - This is suggested as a corrective measure to ensure costs are accurately and quickly assigned to those who cause balancing actions to be taken.

Single balancing function - This was recognised as having the potential to reduce complexity, reduce overhead costs, clarify responsibilities, increase scale, and provide greater buying power. However, some concern was raised about the possible concentration of market power in the single Balancing Agent. Several submissions stressed the importance of keeping the actual balancing function contestable.

Role for residual Balancing Agent - Most submissions recognised that the complete removal of the residual Balancing Agent function would not be desirable or efficient.

Poor information on balancing status - This issue is discussed under the daily allocation theme above. Poor information on balancing status is highlighted as a major flaw in current arrangements in that shippers are unable to assess their risk position or take effective balancing action. Some submissions also promoted the profiling of non-time of use customers to more accurately ascertain balance positions before month end.

Participation in the balancing market - One submission suggested that producers and large users connected to the Vector pipeline were effectively excluded from the balancing market since the Maui Balancing Agent would only deal with Maui pipeline Welded Parties. This reduced competition, and was therefore inefficient.

5 Next steps

Transmission Pipeline Balancing Advisory Group

Gas Industry Co will continue to work with TPBAG, which comprises technical experts from the industry who can provide advice to Gas Industry Co on the technical and commercial aspects of balancing arrangements.

TPBAG will provide a forum to discuss balancing design options and frameworks. The group will not be a substitute for wider industry consultation or Gas Industry Co's other consultation responsibilities.

Options paper

With the assistance of the TPBAG, an Options Paper will be developed for release early in 2009. The Options Paper will detail specific options comprising a range of approaches to pipeline balancing, including options for priorities of changes. The Options Paper will only consider options which are reasonably practicable.

For the benefit of the industry, the Options Paper will be broad enough in scope to consider any reasonably practicable alternative, yet also provide sufficient detail and examination of proposed options to ensure it moves beyond being another discussion of principles and guidelines for balancing.