

## MPOC 17 December 2009 Change Request Draft Recommendation

Date issued: May 2010 Submissions close: 4 June 2010





#### **About Gas Industry Co.**

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

Its role is to:

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

#### **Author**

Ian Wilson

## **Contents**

1 Introduction			
1.1 Purpose			
1.2	Background		
1.3	Note on references		
1.4	Invitations for submissions		
2	Approach to evaluation		
2.1	Developing a framework		
2.2	Structuring the change request for evaluation		
3	Criteria for evaluating proposed balancing changes		
3.1	Determining the criteria for evaluating proposed balancing changes		
3.2	Efficiency		
3.3	Cost		
3.4	Governance		
4	Criteria for evaluating proposed non-balancing changes		
5	Proposed balancing changes		
5.1	Back-to-back allocation		
5.2	Peaking		
5.3	Removal of TP Welded Party balancing gas		
5.4 Tariff 3			

9.3	Overall evaluation
9.2	Evaluation of non-balancing aspects of change request
9.1	Evaluation of balancing aspects of change request
9	Overall evaluation
8.3	Other
8.2	Minor and technical
<b>8</b> 8.1	<b>Evaluation of non-balancing changes</b> Maui Legacy arrangements
7.5	dovernance
7.2 7.3	Cost Governance
7.1	Efficiency
7	Evaluation of balancing changes
6.3	Other
6.2	Minor and technical
6.1	Maui Legacy arrangements
6	Proposed non-balancing changes
5.8	'Pay now, dispute later'
5.7	Operator Instructions
5.6	Operation of Balancing Gas market

11	Next Ste	ps	46
Appe	ndix A request	Summary of submissions on change 47	
Appe		Memorandum from MDL in response st for further information	69
Appe	ndix C	Back-to-back examples	71
Appe	ndix D	Information changes	77

1

### Introduction

#### 1.1 Purpose

This paper presents an analysis and draft recommendation on the Maui Pipeline Operating Code (MPOC) change request submitted by Maui Development Limited (MDL) on 17 December 2009 (the December Change Request).

#### 1.2 Background

#### Gas Industry Co's role under the MPOC

Section 29 of the MPOC assigns Gas Industry Company Limited (Gas Industry Co) a role in respect of any proposed amendment to the MPOC (a change request). Gas Industry Co's role is to consult on the change request with the gas industry and determine whether or not to support it. A change request proceeds only where required by law or where Gas Industry Co makes a written recommendation to MDL supporting the change request. MDL has sole discretion to reject a recommendation if it considers the change would materially adversely affect its business, or require MDL to incur a capital expenditure (that may not be recoverable).

Gas Industry Co has agreed a memorandum of understanding (MOU) with MDL describing how its role will be performed. The MOU sets out a process under which Gas Industry Co receives a change request, calls for submissions, issues a draft recommendation, considers further submissions, and finally makes a recommendation to MDL. For further information (including a copy of the MOU) please refer to Gas Industry Co's website at www.gasindustry.co.nz.

Capitalised terms used in this recommendation have the same meaning given to those terms in the MPOC, unless stated otherwise.

#### Current change request and process to date

On 17 December 2009, Gas Industry Co received a change request from MDL. The change request relates mostly to balancing arrangements on the Maui Pipeline. In particular, it proposes replacing current balancing arrangements with a 'back-to-back' arrangement. The proposed arrangement aims

to recover balancing costs from the pipeline users most responsible for those costs being incurred (the 'causers').

Gas Industry Co posted the December Change Request it on its website on 21 December 2009 and invited submissions. Eight submissions were received. These are available on Gas Industry Co's website, and are summarised in Appendix A.

#### Status update paper

In March 2010 Gas Industry Co issued a 'status update'. The update provided a summary of submissions, considered issues related to processing the December Change Request, and sought feedback on these matters.

In summary, the status update noted that Gas Industry Co:

- may find it difficult to approve the whole December Change Request unconditionally, considering its wide scope;
- did not consider that the challenge to the December Change Request by Vector Gas Limited (Vector)
  under the terms of its interconnection agreement with MDL should affect processing of the
  December Change Request;
- did not consider that Gas Industry Co's impending recommendation to the Associate Minister of Energy and Resources that balancing rules be introduced should affect processing of the December Change Request;
- required more time to process the December Change Request than estimated in the indicative timetable it published in January 2010; and
- requested further information from MDL to aid analysis of the change request.

In addition Gas Industry Co asked MDL to offer a forum for more discussion of the change request. MDL agreed and held a workshop on 1 April 2010. Following that workshop, MDL advised attendees it would receive and consider suggestions for minor amendments to the December Change Request. MDL asked that any such amendments be provided by 9 April 2010. MDL would then consider the minor amendments and may incorporate them in an up-dated change request.

In regard to our concern about the difficulty of reaching an unconditional approval of the whole December Change Request, submitters generally considered that Gas Industry Co could only approve, or not approve, a change request. Approval could be conditional only to the extent of correcting minor and technical errors. We have since sought legal advice on this matter and our advisors confirmed the views of most submitters.

#### Minor and technical amendments to change request

On 21 April 2010, MDL circulated a copy of the December Change Request with a several minor and technical amendments. This revised December Change Request is available on Gas Industry Co's website. We have included these further drafting amendments in the evaluation.

#### 1.3 Note on references

This document refers to paragraphs in the existing MPOC and the amended MPOC, which was attached to the December Change Request. These references are in brackets. The context usually makes it clear whether the reference is to the existing or the amended MPOC; if not, the referenced version is stated.

#### 1.4 Invitations for submissions

Gas Industry Co invites submissions on this draft recommendation.

Submissions are due by **5pm on Friday 4 June 2010**. Please note submissions received after this date may not be considered.

We prefer receiving submissions in electronic form (Microsoft Word format and PDF). Submissions may be uploaded on our website at <a href="www.gasindustry.co.nz">www.gasindustry.co.nz</a>. You will need to log in as a user and upload the submission on the consultation page by clicking on the submissions button.

Gas Industry Co will acknowledge receipt of all submissions electronically. If you do not receive electronic acknowledgement of your submission within two business days, please contact Jay Jefferies on 04 472 1800.

Gas Industry Co values openness and transparency and usually places submissions on our website. If you intend to provide confidential information in your submission, please discuss this first with Ian Wilson at Gas Industry Co (04 472 1800).

# Approach to evaluation

#### 2.1 Developing a framework

The December Change Request is extensive. The proposed changes range from 'minor and technical' to changes substantially altering the balance of risk between MPOC parties. The proposed changes also fall into different subject areas with varying degrees of relation to each other. For example, the changes to implement 'back-to-back balancing' are strongly related to the changes in the operation of the balancing gas market, but not so strongly related to the 'pay now ,dispute later' changes, and largely unrelated to the removal of provisions for Maui Legacy Gas arrangements.

The range of subject matter, and the requirement for Gas Industry Co to decide whether to support, or not support, the whole package, requires a rigorous evaluation framework. Our evaluation references the Gas Act 1992 (the Gas Act) objectives, as required by the MOU. We consider the most effective way to evaluate the change request is by:

- dividing the changes into two broad functional areas, balancing and non-balancing;
- establishing relevant criteria for assessing balancing and non-balancing functions;
- considering the effect of the rule change in each of these functional areas and assessing its merits compared with the status-quo; and
- assessing whether there is an overall net benefit from implementing the change request.

#### 2.2 Structuring the change request for evaluation

To ensure each aspect of the change request is appropriately evaluated, we have divided the proposed changes into those that relate to the function of balancing, and those that do not. Each function is further divided into sub-functions, such as 'peaking', 'Tariff 3', and so on.

Table 1 shows how we have structured the change request for the evaluation.

Sections 5 and 6 describe the current and proposed arrangements for balancing and non-balancing sub-functions, and discuss how they compare. Sections 7 and 8 evaluate each sub-function using the evaluation criteria outlined in sections 3 and 4.

Table 1 Structure of change request for evaluation

Function	Sub-function	Proposed MPOC changes (by sections and schedules)
Balancing	Back-to-back allocation	1.1
		4.1 (information)
		6.6 (mismatch)
		8.1 (mismatch)
		11.5–11.9 (mismatch)
		12.5–12.11 (operational imbalances)
		14.1–14.13 (incentives pool)
		15.9 (mismatch)
		18.1 (tolerance)
		19.4 (cash-out price)
		19.6 (cash-out price)
		21.4–21.5 (invoicing)
	Peaking	13.1 deleted
		13.2
		13.4 deleted
		18.13 deleted
		Sch 7
	Removal of Transmission Pipeline	8.1(c)
	Welded Party balancing gas	8.6
		8.17
		8.23
		8.25
		8.27(b)
		9.10 deleted
	Tariff 3	1.1
		19.1
		19.9
		Sch 10

Function	Sub-function	Proposed MPOC changes (by sections and schedules)
	Balancing Operator role and	1.1
	responsibility	3.1–3.5
		23.1
		24.1
		38.2
		Sch 4 s 2.1
	Operation of Balancing Gas	1.1
	market	2.2
		3.2
		3.4
		3.5
		4.4
		22.13
	Operator Instructions	2.18
	'Pay now, dispute later'	2.14
		21.11–21.13
		23.5–23.6
Non-	Maui Legacy arrangements	1.1
balancing		16.5
		17.22(c) deleted
		19.2 deleted
		21.13
		24.2(a)(ii) deleted
		28.4
		28.16 deleted
		29.4(b)(iv) deleted
		38.2
		38.3 deleted
		Sch 4 s 4.2
	Minor and technical	1.1
		2.1
		2.16
		2.17
		4.1–4.2

Function	Sub-function	Proposed MPOC changes (by sections and schedules)
		8.1
		8.2
		8.29
		8.31
		12.14
		13.1 (new numbering)
		14.1
		14.4
		15.1
		15.3
		15.4
		20.3
		21.2
		21.5–21.6
		21.12–21.13
		24.2(h)(i)
		Sch 1 s1.7
		Sch 3 s1
		Sch 4 s 8.1
		Sch 4 s 8.2
		Sch 5
		Sch 8
		Sch 9
		Further drafting amendments received on 21/4/10
		1.1
		3.5(d)(ii)
		4.1
		4.4
		15.9
		18.1(b)
		21.4(d)(v)
		21.4(e)(iii)
		21.6
		29.4(a)

Function	Sub-function	Proposed MPOC changes (by sections and schedules)
		Sch 2
		Sch 3
		Sch 7
		Sch 8
		Sch 9
	Other	2.15
		8.27
		12.1 deleted
		29.5–29.6

3

# Criteria for evaluating proposed balancing changes

# 3.1 Determining the criteria for evaluating proposed balancing changes

#### Criteria used for previous balancing evaluations

In our July 2009 *Transmission Pipeline Balancing Second Options Paper* (the Second Options Paper), Gas Industry Co established a set of evaluation criteria to assess the four options presented in that paper. The criteria were developed as a logical exposition of the Gas Act and Government Policy Statement on Gas Governance (the GPS) objectives in the context of balancing. The criteria were divided into three categories: efficiency, cost, and governance.

Table 2 summarises the evaluation criteria established in the Second Options Paper.

**Table 2 Evaluation criteria** 

Category	Criterion	Meaning
Efficiency	Productive	maximise productive efficiency
	Allocative	maximise allocative efficiency
	Security	maximise security of gas transportation
	User Risks	ensure user risks are reasonable and manageable
Cost	Agreement	minimise cost of agreeing arrangements
	Implementation	minimise cost of implementing arrangements
	Operation	minimise cost of operating arrangements
Governance	Transparency	ensure transparency and non-discrimination

Category	Criterion	Meaning
	Adaptability	ensure arrangements able to adapt to future circumstances
	Enforcement	ensure effective enforcement and dispute resolution
	Balance	ensure balance between stakeholder interests
	Stability	ensure stability of regime

Source: Second Options Paper, p16, table 3.

Most of the December Change Request relates to pipeline balancing. For consistency with previous analyses, we use criteria previously established to evaluate the balancing functions.

#### Applying criteria to the current evaluation

Two options are considered in evaluating the current change request. One is the status quo MPOC arrangements; the other is the MPOC arrangements as modified by the change request. Rather than assessing the absolute performance of each option against the criteria, we assess only the incremental benefit or detriment of introducing the December Change Request. We assign a score representing the anticipated performance change, ranging from -5 (strong detriment) to +5 (strong benefit). The scores within each category are averaged.

Below we describe each criterion in greater detail and explain how it is interpreted in the context of the current change request.

#### 3.2 Efficiency

#### **Productive efficiency**

Gas Industry Co believes balancing arrangements should, over time, result in gas being supplied at least cost. In the context of the change request, least cost would mean the Maui Pipeline is balanced at minimum total cost to all participants.

The analysis considers whether the balancing arrangements contained in the December Change Request have features that will improve productive efficiency. In particular we consider whether the arrangements:

- encourage participation and promote competition in balancing gas supply;
- ensure that balancing gas is purchased only when, and to the extent, necessary;
- allow for purchase from the cheapest source of available balancing gas; and

• maximise the use of inherent Line Pack flexibility, subject to Transmission System Owner (TSO) thresholds.

#### Allocative efficiency

Balancing arrangements are allocatively efficient if they provide the 'right' amount of service to the right users. In the context of the change request, allocative efficiency would be achieved when the following conditions are met:

- for users, the marginal price of the residual balancing service equals the marginal cost to the provider of that service (the Balancing Operator); and
- for the Balancing Operator, the marginal price of balancing gas equals the marginal value of that gas to the supplier.

Allocative efficiency is promoted by arrangements that:

- ensure a common price for all equivalent balancing gas;
- ensure the marginal price for the centralised residual balancing service equals the price for the balancing gas; and
- give users the choice of either self-balancing or using the residual balancing services provided by the Balancing Operator.

#### Security

Balancing ensures Line Pack remains within the limits necessary to support an uninterrupted transport service. If Line Pack is outside these limits, deliveries or receipts may need to be curtailed. In the context of the change request this means ensuring thresholds for balancing actions are set to:

- ensure transport is secure whenever Line Pack is within these thresholds; and
- minimise the number of times Line Pack is outside of these thresholds.

A natural tension exists between productive efficiency and security. A Balancing Operator may improve security by reducing the thresholds or by being quicker to purchase balancing gas. But this adds to costs and reduces productive efficiency.

#### **User risks**

Imposing balancing costs creates risks for users because the quantity and price of imbalances are uncertain. Higher risks might lead to reduced profitability and potentially the exit—or delayed entrance—of some market players. To the extent that smaller participants face proportionately greater

risks, this could reduce competition. Higher risks might also lead to higher retail margins and hence higher retail prices.

In the context of the change request risks might be reduced through:

- improved self-balancing;
- ensuring balancing gas is sourced from an open market that maximises available capacity;
- arrangements allowing balancing prices to be moderated or costs socialised (for example, through price caps or user tolerances);
- ensuring a common price to balancing gas providers and users, so that a user with balancing gas can self-hedge by offering that gas to the Balancing Operator; and
- providing timely information to users on individual and aggregate imbalances.

#### 3.3 **Cost**

The direct cost of balancing is discussed above under the productive efficiency criteria. Here we consider overhead and transaction costs. They are considered in three categories: agreement cost, implementation cost, and operating cost.

#### Agreement cost

In previous balancing work we have considered the cost of:

- deciding which features to include in an option;
- developing the policy for implementing the features; and
- implementing the policy.

In relation to this change request, costs for the first two are sunk costs and therefore irrelevant. The only ongoing agreement cost is that of processing change requests, and the additional cost of consulting on standard operating procedures (SOPs) (section 2.18 of the amended MPOC).

#### Implementation cost

Implementation costs include direct and indirect costs. Direct costs are related mainly to IT development, development of SOPs and to possible re-organisation of balancing-related staff and resources. Indirect costs are related to the time needed to implement the changes. Costs incurred by the Balancing Operator, by TSOs, and by users must all be considered.

Implementation costs depend on the degree of change from the existing arrangements and the implications of this change for IT systems. In previous balancing work, we have broken down this criterion into sub-categories. In the context of the change request, we consider it is necessary to consider only:

- OATIS related costs;
- other IT costs;
- development of SOPs; and
- costs of organisational change.

#### **Operating cost**

Operating cost refers only to the overheads associated with the balancing arrangements and not the direct cost of the balancing gas itself (which is covered by productive efficiency).

In the context of the change request, operating costs also include the transaction costs associated with balancing. Transaction costs include users' trading and analysis processes for offering balancing gas and managing balancing risks; and the Balancing Operator's trading and settlement processes. The amount of these costs—other things being equal—depends on the complexity of the balancing arrangements. It is therefore necessary to consider:

- the complexity of the balancing mechanisms; and
- the organisational separation of balancing and transport.

#### 3.4 Governance

Governance has been a persistent concern in Gas Industry Co's analysis of balancing arrangements. As noted in previous papers, our responsibility is to be confident balancing is not only efficient, but also that governance arrangements provide stability and longevity.

#### Transparency and non-discrimination

Transparency requires all stakeholders (particularly users and TSOs) to understand the actions of the Balancing Operator and their resulting balancing charges and risks.

Transparency reveals discrimination: for example, where the Balancing Operator buys balancing gas from an affiliate although cheaper gas is available from a non-affiliate. However, transparency would not necessarily prevent the design of the balancing arrangements being discriminatory.

In the context of the change request we need to consider:

- transparency of operation; and
- transparency of design.

#### Adaptability

As circumstances change, and understanding of balancing issues improves, there may be a need or desire to reform and amend the implemented balancing arrangements. The adaptability of the arrangements relate mainly to governance: that is, how proposed changes are assessed, agreed, and implemented. In the context of the change request we need to consider:

- how changes are implemented;
- how changes are developed; and
- how deadlocks are broken.

#### **Enforcement**

The rights and obligations of all parties to the balancing arrangements—the Balancing Operator, users, and TSOs—must be properly enforced. Enforcement requires monitoring of activities to identify breaches and impose sanctions that discourage non-compliance.

The arrangements should allow for quick resolution of disputed breaches, at a cost proportionate to the cost of the breach. Vexatious or immaterial disputes should be discouraged.

In the context of the change request we need to consider the appropriateness of monitoring and enforcement.

#### **Balance**

Balance requires the balancing arrangements to recognise the interests of all stakeholders: for example, in change and enforcement processes and the exercising of discretion in related decisions. Where stakeholders' interests conflict, balance is particularly important by ensuring costs and benefits are allocated fairly and efficiently.

#### **Stability**

Changes to the balancing arrangements may be costly and disruptive. To the extent changes are driven by parties external to the industry (such as regulators or government), they increase the perceived level of regulatory or sovereign risk. This perceived risk can increase the cost or decrease the amount of investment in gas supply. Thus stability, and perceived stability, is important in encouraging efficient investment and reducing the costs of operation.

4

# Criteria for evaluating proposed non-balancing changes

In the previous section we explained why the evaluation criteria for the options in Gas Industry Co's balancing workstream were appropriate for evaluating the balancing aspects of the December Change Request. The criteria provide a rigorous framework, tailored to balancing issues and consistent with previous work. For the non-balancing changes we revert to the broader objectives of the Gas Act and GPS.

The objectives specified in section 43ZN of the Gas Act are to:

- ensure gas is delivered to existing and new customers in a safe, efficient and reliable manner (which is the principal objective);
- facilitate and promote the ongoing supply of gas to meet New Zealand's energy needs by providing access to essential infrastructure and competitive market arrangements;
- minimise barriers to competition;
- maintain and advance incentives for investment in gas processing facilities, transmission, and distribution;
- ensure delivered gas costs and prices are subjected to sustained downward pressure;
- ensure risk relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties; and
- maintain consistency with the Government's gas safety regime.

The GPS reiterates the objectives set out in section 43ZN of the Gas Act and includes further objectives to ensure:

- gas is delivered to existing and new customers in a fair and environmentally sustainable manner;
- energy and other resources used to deliver gas to consumers are used efficiently;

- competition is facilitated in upstream and downstream gas markets by minimising barriers to access to essential infrastructure to the long-term benefit of end users;
- the full costs of producing and transporting gas are signalled to consumers;
- the quality of gas services where those services include a trade-off between quality and price, as far as possible, reflect customers' preferences; and
- the gas sector contributes to achieving the Government's climate change objectives as set out in the New Zealand Energy Strategy (or any other document the Minister of Energy and Resources may specify from time to time) by minimising gas losses and promoting demand-side management and energy efficiency.

In addition, the GPS seeks to achieve several outcomes, including provision of access to transmission pipelines on reasonable terms. We believe this outcome is also relevant to the current evaluation; however, we acknowledge the MOU does not specifically require it to be considered.

# 5

## **Proposed balancing changes**

A complete overview of the MPOC balancing regime can be found in section 2.2 of Gas Industry Co's *Transmission Pipeline Balancing Research Paper*, April 2008, available from Gas Industry Co's website. In this section we assume the reader is familiar with the broad operation of the MPOC. We discuss in detail only those features relevant to each of the functional areas analysed below.

#### 5.1 Back-to-back allocation

#### **Current arrangements**

The current arrangements require each Welded Party to use reasonable endeavours to manage gas flow so that Running Operational Imbalance (ROI) tends towards zero over a reasonable period of time (12.9).

MDL acts as a Reasonable and Prudent Operator (RPO) to maintain total Line Pack sufficient to deliver approved nominations and to provide flexibility to the posted Daily Operational Imbalance Limits (DOIL) and Peaking and Contingency Volumes (18.1).

Where a Welded Party's ROI exceeds its Running Operational Imbalance Limit (ROIL) at a Welded Point, MDL may, at its sole discretion, give an Imbalance Limit Overrun Notice (ILON) to that Welded Party (12.10).

After the ILON notice period MDL may, at its sole discretion, cash-out some or all of any remaining excess ROI (12.11).

Each Shipper must ensure its nominated receipts and deliveries balance (8.2) and are given in good faith (8.3). OATIS does not accept Shipper nominations that do not balance. Where a Shipper does have a Mismatch (for example, where MDL modifies Scheduled Quantities in response to a contingent event) MDL allows from one to seven days for the Mismatch to be removed (11.5) or it will be cashedout (11.6). A Shipper can nominate (11.7) or trade (11.9) to remove its Mismatch.

The Incentives Pool provides a system of liquidated damages (14.1), which is the sole and exclusive remedy for any inability to take full Scheduled Quantity on a day (14.5). Welded Parties incur liability

to the Incentives Pool to the extent flow exceeds Peaking Limits (13.3) or daily imbalance depletes Line Pack in excess of the DOIL (12.7).

A Welded Party may be unable to take its Scheduled Quantity or may be curtailed because of another Welded Party being outside tolerance. In this case, the Welded Party may make a claim on the Incentives Pool at the daily incentive price (12.16).

The Balancing Agent may make a claim on the Incentives Pool, within limits, to meet the costs of buying balancing gas (14.4).

Welded Parties indemnify MDL for direct costs incurred by the Balancing Agent outside of its supply arrangements to replace any ROI outside of tolerance (12.13(c)).

Where a Welded Party is interrupted because, for example, MDL is performing maintenance, or a Force Majeure Event occurs (15.1 and 15.2), and Contingency Volume is used, the user is responsible for correcting any resulting imbalance or Mismatch 'as soon as reasonably practicable' (15.9).

In relation to corrections, under current arrangements the initial metered quantities from SCADA are marked as unvalidated when posted on OATIS and quantities are adjusted when the metered quantities are validated. Cash-out normally occurs after the validation of numbers. Cash-Out Quantities are adjusted for metering errors subsequently discovered (section 16.7).

#### **Proposed arrangements**

Under the proposed amendments, Welded Parties are still required to use reasonable endeavours to manage gas flow. But the obligation to tend ROI towards zero now applies at all times rather than 'over a reasonable period of time' (12.7).

As before, MDL acts as a RPO to maintain total Line Pack sufficient to deliver approved nominations (18.1).

The concepts of ROIL and Accumulated Excess Operational Imbalance (AEOI) are removed. Instead, a Welded Party is cashed out if it has ROI at the end of a day in which balancing gas was bought or sold and the ROI contributed to the need to take the balancing action. Such cash-outs occur only when balancing actions have been taken (12.8).

The concept of Shipper Mismatch notices is removed. Instead, where a Shipper has Mismatch at the end of a day it is automatically cashed-out by MDL at the Mismatch Price.

Cash-Out Quantities are final and no changes are made as a result of post-facto adjustments (including metering or data validation errors) (12.5).

Where a Welded Party is interrupted because, for example, MDL is performing maintenance, or a Force Majeure Event occurs (15.1 and 15.2), and Contingency Volume is used, the user's resulting imbalance or Mismatch is dealt with according to the arrangements (15.9).

One of MDL's proposed 'Balancing Principles' is a requirement for the Balancing Operator, as MDL's agent, to buy and sell gas to maintain Line Pack to provide transmission services, manage unaccounted for gas (UFG), and purchase compressor fuel (3.2). This is separate from the requirement to buy and sell gas to balance aggregate Welded Parties ROI, and not included in the definition of Balancing Gas. Where there is insufficient ROI to cash-out the quantity of Balancing Gas the cost of this residual gas is claimed from the Incentives Pool (14), although MDL retains title to the residual gas. The proposal does not address how this residual gas is accounted for, but it appears that it would remain in the pipeline.

In relation to corrections, the proposed section 12.5 states that Cash-Out Quantities would not be adjusted for data validation, meter error correction, or other post facto adjustments.

#### Discussion

Under the current balancing arrangements a user can cause (wholly or in part) a balancing action to be taken, but avoid the cost of that action. Where a Welded Party's ROI exceeds tolerance levels (currently set at the DOIL), MDL may issue an ILON to notify the Welded Party to return or take away the excess gas within a certain time. ILONs are issued on the day following an excess imbalance and generally allow a further day to correct the position. The Welded Party can then correct its imbalance and avoid the cost of any balancing action to which it contributed. Having corrected the Welded Party's original imbalance, the Balancing Operator may need to take further action in the opposite direction when that Welded Party later corrects its position.

Under current balancing arrangements, a Welded Party may be cashed out when there is no balancing action; or when the balancing action is caused mainly by another factor, such as UFG. Where there is no underlying balancing action the Balancing Operator must later settle the cashed out gas through additional balancing transactions or cash-outs at a later time. Cashing out users where there is no underlying balancing action is a penalty regime that is inconsistent with the purpose of cash-out and creates inefficient price signals. The result is more balancing gas transactions and cash-out transactions than needed, and user behaviour governed by penalties unrelated to real costs.

In contrast the proposed arrangements are likely to result in costs being more accurately targeted at causers, resulting in behaviour that would minimise balancing costs. We consider no-notice cash-out is a necessary component of efficient balancing.

However, we are concerned the treatment of operational gas leaves scope for inefficient or poorly executed operating instructions, which may reduce any productive efficiency gains. For example, the

proposal does not explain (or set principles for) how the Balancing Operator determines when and how much gas to buy and sell gas for pipeline operations, distinct from Balancing Gas. These matters are determined in an SOP and according to MDL in accordance with operational balancing agreement principles (see Appendix B).

Similarly, the thresholds for balancing actions are set in an SOP, at MDL's discretion.

#### 5.2 Peaking

#### **Current arrangements**

The current arrangements require each Welded Party to act as an RPO to flow gas within its Peaking Limits, unless it has MDL consent to exceed these for operational reasons (13.2). Exceeding the Peaking Limit creates an exposure to an Incentives Pool Claim (13.3). There is relief for Force Majeure Events, contingent events, and maintenance (13.4).

The Peaking Limits apply to hourly deliveries. Currently the limits must be the maximum that is reasonably practical (13.1), and no less than 150% of hourly Scheduled Quantity for producers and 125% for off takes, or a fixed gigajoule amount (sch 7).

#### **Proposed arrangements**

The proposed arrangements reduce the Peaking Limits to a fixed percentage of Hourly Scheduled Quantities (HSQ) (sch 7) without any obligation to maximise the tolerance (deleted 13.1). The Peaking Limits are zero where there is an Operational Flow Order (1.1). There would be no relief from Force Majeure Events or contingent events (deleted 13.4).

The proposal also separates the Transmission Pipeline (TP) Welded Points of Rotowaro, Pokuru, and Pirongia, to treat them in the same way as other Welded Points.

#### Discussion

Under the proposed change the cost of any call Balancing Gas not allocated to ROI would be recovered through the Incentives Pool. Parties who peak beyond the (revised) limits are exposed to Incentives Pool Claims, as currently. Although the changes are likely to increase the exposure to such claims, the claims would be limited to occasions where balancing actions are taken.

Gas Industry Co accepts peaking can contribute to the need to take balancing actions, but using the Incentives Pool to create an exposure to balancing costs is a problematic approach. It creates a situation where some balancing cost can be passed to users without a corresponding transfer of title. Such a situation 'muddies the waters' when tracking the title of gas. Also, the Incentives Pool allocates costs only when Line Pack is depleted; it does not allocate costs resulting from too much Line Pack.

Regarding the separating of the TP Welded Points, we accept this is a simplification, and a move towards more consistency.

The reduction in tolerance is consistent with the removal of tolerance from ROI. It is not an allocative or productive efficiency issue if the Balancing Operator fully utilises Line Pack flexibility when purchasing Balancing Gas.

The reduction in Peaking Limit after an Operational Flow Order exposes a Welded Party to balancing gas if it uses the Peaking Limit to avoid complying with an instruction to reduce flow during a contingent event. The loss of specific Force Majeure Event rights appears to align peaking with the end-of-day ROI obligations.

#### 5.3 Removal of TP Welded Party balancing gas

#### **Current arrangements**

Under the current arrangements a TP Welded Party (currently Vector) may use the Maui Pipeline for transmitting balancing gas. This transmission of balancing gas has priority use of Maui Pipeline capacity over other gas. Furthermore, once balancing gas nominations are approved, they cannot be displaced by other Intra-Day Nominations. Nominations for balancing gas can also be made retrospectively.

#### **Proposed arrangements**

The proposed arrangements remove all Vector's rights to transmission of balancing gas. In addition all Approved Nominations are subject to Intra-Day Nomination cycles and could be displaced by holders of Authorised Quantities (AQ).

#### Discussion

Under the proposal, any transmission of balancing gas through the Maui Pipeline to or from a TP Welded Point needs to be under the terms of a standard transmission services agreement with MDL. Transmission of balancing gas has no special treatment. If Vector wished to secure priority treatment for the transport of balancing gas on the Maui Pipeline it would need to do so by securing AQ rights. However, this would not allow Vector to make nominations outside the Maui Pipeline Intra-Day Cycles.

The implications are that Vector's ability to operate an independent balancing market is reduced. MDL does not specifically acknowledge that Vector may use the BGX to balance its pipelines or address the participation of Vector pipeline connected balancing gas suppliers.

In response to questions from Gas Industry Co on this matter (Appendix B) MDL stated:

MPOC currently includes special provisions in section 8 and 9 which allows the TP Welded Party to balance the interconnected pipelines, by making nominations outside the usual nominations and approval cycles. The "Post Intra-Day Cycle" nomination functionality is inconsistent with the back-to-back balancing mechanism provided for in the proposed amendments in section 12, and (if it were retained) would provide a TP Welded Party with an unjustifiable benefit and advantage as compared with other Welded Parties. Given that Vector has never used the Post Intra-Day Cycle functionality since the beginning of the open access arrangements on the Maui Pipeline and that certain provisions of the VTC indicate that it would be very difficult for Vector to use this functionality to effectively balance the inter-connected pipelines, it is difficult justify the retention of these special provisions.

The proposed amendments to sections 8.23, 8.25 and 8.27 respectively are a direct consequence of the removal of the special balancing gas provisions.

Because Vector has never made a nomination for balancing gas, it is difficult to assess what value the ability to make a nomination might have; or how that value might change as a consequence of the December Change Request. However the proposed changes will close off an option that Vector would otherwise have to manage its own pipeline balance in the future.

#### 5.4 Tariff 3

#### **Current arrangements**

At present, MDL has two tariffs. Tariff 1 is a gigajoule per kilometre charge designed to recover a return on MDL investments. Tariff 2 is a charge per gigajoule designed to recover operating expenses. Tariff 2 includes operating costs, fuel gas costs, and balancing gas costs (Sch.10).

#### **Proposed arrangements**

MDL proposes adding a new tariff, Tariff 3. The new tariff is to recover all the Balancing Operator's direct costs of buying and selling Balancing Gas not recovered from back-to-back cash-outs or the Incentives Pool. The Balancing Operator is required to publish the costs it seeks to recover through the tariff on the balancing gas exchange (BGX). Tariff 3 separates residual balancing gas costs from other operational costs recovered through Tariff 2. Consequential amendments to Tariff 2 are made to reflect the exclusion of the Balancing Operator's costs (1.1 and sch 10). MDL proposes determining the new tariff monthly.

#### Discussion

Gas Industry Co recognises that introducing a tariff specific to balancing costs makes transparent the effectiveness of the mechanism to allocate cost to causers. However, we find the proposed definition for Tariff 3 in section 1.1 of the amended MPOC vague because it allows for the recovery of 'certain balancing costs, as posted on MDL IX from time to time'.

We asked MDL what other costs it might seek to recover apart from costs not recovered through back-to-back and Incentives Pool arrangements. MDL responded that balancing costs included in Tariff 3 are:

- costs not recovered under the primary and secondary allocation and collection mechanisms;
- costs of disputes; and
- costs of unpaid amounts.

(MDL's response is included in Appendix B.)

MDL also indicated it has been impossible to budget for balancing costs. Introducing Tariff 3 should improve the calculation and collection of balancing costs. We note the tariff also includes the cost of auditing BGX transactions (3.5 (e)).

#### 5.5 Balancing Operator role and responsibility

#### **Current arrangements**

MDL appoints the Balancing Agent from time to time to manage Line Pack (1.1).

Despite any other provision, MDL, Shippers and Welded Parties are required to act as RPOs. MDL shall provide transmission services (2.4) and is also required to:

- receive, transmit and deliver approved nominations (2.5(b));
- maintain certain pressures (2.20 and 18.2); and
- use reasonable endeavours to provide Maui Pipeline capacity consistent with its capacity forecast (2.5(e)).

MDL does not provide storage services, other than to maintain a Contingency Volume (2.8).

#### **Proposed arrangements**

The proposed amendments require MDL to appoint the Balancing Operator as its agent to manage Line Pack (3.1).

As MDL's agent, the Balancing Operator's role includes buying and selling Gas for normal pipeline operations (maintaining Line Pack, UFG, and fuel gas). The Balancing Operator also buys and sells Balancing Gas and enters into Cash-out Transactions to manage Line Pack caused by Welded Point Gas flows that vary from the HSQ and Operational Imbalances (3.2). The Balancing Operator invoices Shippers for amounts due, and performs any other activities assigned to it under SOPs.

The proposed amendments specify MDL's role in relation to the Balancing Operator's functions. MDL is required to:

- publish details of Balancing Operator's transactions (3.3);
- act as Shipper when the Balancing Operator buys and sells Gas for normal pipeline operations (using the Payback Point as the Delivery or Receipt Point for the nominated amounts) (3.4);
- instruct the Balancing Operator to act as an RPO at all times; and
- instruct the Balancing Operator to use reasonable endeavours to buy and sell Balancing Gas according to a set of principles described in 3.5(a).

MDL must also publish standard terms and conditions for Balancing Gas Puts and Calls on the BGX. The terms and conditions must provide for the following (3.5(b)):

- the passing of title;
- timeframes and procedures for notifying:
  - o requests for Balancing Gas Puts or Calls and the price of such transaction; and
  - o acceptance of Balancing Gas Puts and Calls;
- invoicing and payment procedures for Balancing Gas Puts and Calls;
- liability for failing to perform obligations in respect of Balancing Gas Puts and Calls under terms and conditions; and
- publication of any non-standard terms utilised.

MDL instructs the Balancing Operator to provide certain information on the public page of the BGX. This information is about balancing gas transactions and the Balancing Operator's expenditure and income accounts. The accounts are audited annually and the final audit report is made available on BGX. The cost of the audit is recovered through Tariff 3 (3.5(d) and (e)). The Balancing Operator is required to undertake its functions at arm's length, without prejudice to any buyer or seller (3.5(a)(iii)).

#### Discussion

The proposed arrangements seek to clarify that the Balancing Operator is to perform its functions for the Maui Pipeline as an agent of MDL. The additional provisions describing the Balancing Operator's role and responsibilities are a significant improvement from the status quo.

#### 5.6 Operation of Balancing Gas market

#### **Current arrangements**

The current arrangements do not specify what form a balancing market should take. However, the cash-out price must reflect the Balancing Operator's costs in buying and selling balancing gas. If a liquid gas market develops, the cash-out prices will reflect the buy and sell spot prices in that market. MDL undertakes, as pipeline operator, not to seek profit or loss from buying or selling balancing gas, or settling Mismatches or ROI (11.10).

The current arrangements do not specify how operational gas such as UFG will be dealt with. Nor do they set maximum or minimum prices for the purchase and sale of balancing gas.

#### **Proposed arrangements**

The proposed arrangements include a set of 'principles', which are contained in section 3 of the amended MPOC

- The Balancing Operator separates gas for balancing Welded Party imbalances from gas for pipeline operations (3.2).
- Transactions are published (3.3).
- Balancing Gas is bought or sold at the Payback Point (3.4 and 3.5(a)(ii)).
- The Balancing Operator acts as a RPO (3.5).
- The Balancing Operator uses reasonable endeavours to buy and sell Balancing Gas at least cost, at arms length and under disclosed terms (3.5).
- MDL consults on operating procedures (3.5 and 2.18).
- Information is transparent audited (3.5).

In addition the ROI cash-out price is based on the average balancing market price on the day.

The Mismatch cash-out price is to 'reflect the Balancing Operator's costs in accessing and disposing of Gas', as per the current arrangement. However, MDL's obligation to not seek a profit or loss from trading such gas is deleted.

#### Discussion

Relative to the current MPOC, the proposed changes increase MDL's obligations to the balancing market. The only reduced obligation is to not seek profit or loss on Mismatch cash-out, although the commitment to reflect costs remains.

The proposal is silent on whether the Balancing Operator can buy or sell gas only within certain price limits.

#### 5.7 Operator Instructions

#### **Current arrangements**

The current arrangements require MDL to publish written instructions to operators if the instructions are material and relate to parameters such as capacity and Line Pack, or the exercise of discretion that is delegated to the operator. Written responses from the operator must also be published. (2.17).

#### **Proposed arrangements**

The proposed arrangements include an obligation on MDL to consult on the contents of any SOPs except in an emergency (2.18).

#### Discussion

By allowing for consultation on SOPs, the proposal increases user participation in the development of balancing arrangements. While consultation does not ensure improved operating instructions, it allows users to express their views and potentially influence the content of balancing instructions.

#### 5.8 'Pay now, dispute later'

#### **Current arrangements**

The current arrangements acknowledge that the operations of interconnected pipelines and the Maui Pipeline need to be compatible. The TP Welded Party must be able to recover all its costs and liabilities from the Shipper who caused the costs to be incurred (2.13).

If a dispute arises, the current arrangements require the party pay the undisputed amount of the invoice (21.11).

Parties are required to continue performing their respective MPOC obligations pending resolution of any dispute (23.5).

#### **Proposed arrangements**

The proposed addition to section 2.14 (the current section 2.13), adds a proviso that nothing in the clause '...abrogates, renders conditional, limits or reduces a TP Welded Party's liability in relation to any other provision set out in its ICA [interconnection agreement] or this Operating Code'.

The proposed change to section 21.11 requires full payment of a disputed invoice.

#### **Discussion**

In its Application for the December Change Request, under 'Summary of proposed amendments', MDL states:

The proposed amendment to section 2.13–2.16 strengthens the "pay now, dispute later" principles which MDL considers to be already provided for under the MPOC. (p5, Rationale for Proposed Change)

And, in relation to section 21 changes:

The proposed amendment for disputing Invoiced amounts to reflect "pay now, dispute later" principles is to provide a greater incentive on the disputing parties to actively engage in the dispute resolution process and provide for greater efficiency in relation to the resolution of the underlying dispute.

(p12, Rationale for Proposed Change)

And, in relation to section 23 changes:

The proposed amendments are relatively minor to reflect the pay now dispute later principle. (p12, Rationale for Proposed Change)

The current section 21.11 suggests the original principle applying to MPOC was that disputed amounts could be withheld. The change to section 21.11 provides for MDL to be paid all amounts it invoices, regardless of any dispute. The proposal changes the principle to one of 'pay now, dispute later'.

The change appears to be unnecessary because section 21.3 allows for interest to be charged on disputed amounts. But MDL's stated intention is to motivate more active dispute resolution. Gas Industry Co understands there have been several disputes between MDL and Vector about balancing charges. We surmise MDL believes Vector has lacked incentive to recover invoices in dispute between Vector and its Shippers (or lacked incentive to ensure its arrangements allow for the recovery of those costs).

6

### **Proposed non-balancing changes**

#### 6.1 Maui Legacy arrangements

#### **Current arrangements**

Despite no longer being used, several legacy gas clauses remain in the MPOC.

#### **Proposed arrangements**

MDL proposes to remove all remaining references to legacy gas provisions, including references to Maui Legacy Gas, the Maui Gas Contract (MGC), and the Methanex 20/20 Agreement.

#### Discussion

Before the introduction of open access arrangements on 1 October 2005, the Maui Pipeline was subject to the requirements of the MGC. The MGC was a contract that bundled the services of gas supply, transmission, and balancing. The preferential rights of parties to the MGC were preserved when the pipeline was opened to use by third parties.

On 20 June 2008, MDL submitted a change request to Gas Industry Co that sought to delete the parts of the MPOC relating to Maui Legacy Gas. The request indicated these grandfathering provisions were no longer needed and Maui Legacy Gas would be treated the same as other gas transported on the pipeline.

The December Change Request proposes to remove all remaining references to legacy contracts. Most of these changes are minor, such as the definitions of Buyer, Crown, Methanex 20/20 Agreement, Settlement and Umbrella Agreement, and User Contract being removed from section 1.1 and elsewhere.

Some references are more significant, such as:

• the removal of section 17.22, in which MDL indemnified the Maui Mining Companies for any liability resulting from non-specification gas being delivered to holders of Maui Legacy Contracts; and

• removal of the right of legacy arrangements to re-open invoices.

We consider that the changes contribute to minimising barriers to competition.

#### 6.2 Minor and technical

Several minor and technical amendments are proposed throughout the December Change Request. These range from typographical errors to amending references to clauses. Such changes improve readability and assist users in understanding the MPOC. We believe these changes do not adversely affect parties' existing rights and obligations under the MPOC. Gas Industry Co considers these changes to be straight forward and w do not evaluate them in detail.

#### 6.3 Other

Proposed changes that do not readily fit into the non-balancing functions above have been classified as 'other'. These changes are as follows.

- Under section 2.15 (current section 2.14) MDL no longer indemnifies TP Welded Parties for any damage resulting from it accepting a nomination to a TP Welded Point from a Shipper who does not have a gas transfer agreement or a valid transmission services agreement with that TP Welded Party.
- Section 8.27 changes the order of curtailment to allow nominations within a Shipper's AQ to be the last nominations to be curtailed.
- Section 12.1, which required each Welded Party to match physical flows to Scheduled Quantities but acknowledged that in practice an exact match this would not be possible and that the sole consequences of not achieving a match are set out in section 12, is deleted.
- The addition of Section 29.5 and 29.6, which allow for Change Requests to provide for transitional provisions.

## **Evaluation of balancing changes**

#### 7.1 Efficiency

#### **Productive efficiency**

Under the proposed arrangements, TSOs meet the cost of operational gas and would recover this through their transport tariffs, like other operating costs. The cost and title of Balancing Gas is assigned to causers as far as possible. However, the Balancing Operator must decide which gas is operational. We believe this decision needs to be as transparent as possible, otherwise the Balancing Operator has a great deal of discretion as to what costs are assigned to causers.

The proposal seeks to recover the cost of any residual unallocated Call Balancing Gas to Welded Parties with an end-of-day ROI from the Incentives Pool. We note this amount of unallocated gas is likely to be small. But the effect of operational gas such as UFG on Incentives Pool positions may undermine the cost-to-causers principle. We are also concerned MDL will retain title to any unallocated call gas even after receiving its cost from the Incentives Pool. Such an arrangement would 'muddy the waters' of gas title tracking.

However, we acknowledge these concerns also exist with the current arrangements. Currently, Welded Parties can be cashed out regardless of whether operational causes contribute to an imbalance or whether a balancing action was taken. Therefore, while the proposed arrangements could be improved, they do represent a substantial improvement over the status quo.

We score the proposed balancing changes +3 for productive efficiency.

#### Allocative efficiency

The time lag inherent in the ILON process deprives users of efficient price signals. In contrast the back-to-back arrangement results, in most cases, in users' balancing decisions being guided by market prices.

Section 12.11 of the existing MPOC allows MDL to cash out a Welded Party who has not responded to an ILON notice. The price of this cash-out is the Positive Mismatch Price or the Negative Mismatch Price. The price must have been posted on the MDL information exchange (MDL IX) at least seven days

before and calculated according to an operating instruction. In addition the cash-out does not need to have an underlying balancing action. Therefore a cash-out might not match to a balancing action or its cost and have a carry-over effect. Because price signals and cash-out quantities are unlikely to reflect the cost of balancing, behaviour based on cash-outs is not allocatively efficient.

In contrast, the proposed arrangements try to complete transactions when they occur by fully cashing out the balancing action and passing on its costs at the end of the day. This is likely to be more allocatively efficient.

Gas Industry Co notes that while the proposed arrangements are an improvement, they are not as efficient as they could be. We are concerned the provision of operational gas, such as compressor fuel and UFG, are covered by an operating instruction rather than in the code.

The amended MPOC does not correct Cash-Out Quantities for data validation, meter error correction, or other post facto adjustments (section 12.5). This appears unfair, especially if these errors are material. Gas Industry Co asked MDL for more information on the likely cost and frequency of making such corrections.

In response, MDL noted the current MPOC does not allow for the adjustment of quantities apart from Metering error and a specified and minor delay in obtaining validated numbers (MDL's response is in Appendix B). MDL considers that not adjusting for corrections is a necessary consequence of the Operational Balancing Agreement (OBA) principles and the required standards of Metering on the Maui Pipeline. As a result, quantities on the Maui Pipeline are allocated daily and altered (on a once-only basis) in limited and strictly defined circumstances.

Correcting Cash-Out Quantities, and associated transactions, for Metering error requires reconciling and accounting for the corrections (physically and financially). MDL considers the benefits to MDL and Welded Parties of making these corrections are overwhelmed by the associated costs, processes, and complexities.

MDL considers its proposed approach provides certainty for all users. Once a cash-out has occurred, it changes the imbalance position at the relevant Welded Point, which is cashed out at the end of the Day. Welded Parties will seek to manage their positions based on Operational Imbalance information, which takes into account the Cash-Out Quantities.

MDL believes retrospective adjustments to Cash-Out Quantities are inconsistent with providing certainty for users, changes the information Welded Parties use to manage their positions, and can lead to disputes. In addition unravelling cash-outs is complicated and time consuming because a change to one can alter all subsequent cash-outs and the associated title transfers.

We accept the complexity of correcting cash-outs may be significant; however, we consider correction may be necessary for large Metering errors or in the case of manifest error or fraud. We consider the

cost of correcting Metering errors could be minor in comparison to the value of the corrections. MDL has not provided any numerical information on the frequency of such Metering errors, or the cost of correcting them.

Another aspect of the proposed change that appears to be unfair is the ability for MDL to release Contingency Volume and create Mismatch, causing an immediate cash-out regardless of underlying need. There is little time for a user to remove Mismatch, resulting in MDL selling gas at a price it determines. The proposal is silent on how MDL accounts for the cash-out. MDL has indicated it will not release contingency Line Pack. However, the MPOC retains MDL's right to release Contingency Volumes and sometimes it is efficient for the Contingency Volume to be used.

We score the proposed balancing changes +3 for allocative efficiency.

#### **Security**

The proposed changes provide for consultation on SOPs, allowing users to express their views on the thresholds for balancing actions. This provision is an improvement to security over the current MPOC. However, MDL is responsible for setting the SOPs. Therefore the overall effect on security is considered neutral.

We score the proposed balancing changes 0 for security.

#### User risks

Under current arrangements, a balancing action might not have occurred on the day a Welded Party is cashed out. Under the proposed arrangements a Welded Party can be more confident it is cashed out only when a balancing action occurs and it has contributed to the need for that action. Users receive balancing 'costs' only when a balancing action has been taken; however, less cost is socialised and therefore individuals face greater volatility in balancing cost. This concern is particularly acute because balancing market transactions have no price caps.

Under the current arrangements, a user has some tolerance before being cashed out, which requires MDL to assign some Line Pack flexibility to that user. Under the proposed arrangements, the tolerance is uncertain but is inherent in the Line Pack flexibility, which is being used to the benefit of all users.

Under the proposed amendments, MDL would provide users with more information to manage their positions. Appendix D is a summary of the changes to MDL's obligations to disclose information.

The current arrangements give users one day's notice of the cash-out price. The proposed arrangements give no notice of the cash-out price. This is more efficient because the market price signals to users whether to invest in self-balancing, and removes socialisation of costs; however, the proposed arrangements do not give users tools to manage this new price risk. The proposed

arrangements use daily average pricing for cash-out, not marginal pricing per balancing transaction. Average pricing means users are unable to manage cash-out price risk by participating in the BGX.

The proposal gives no notice of a cash-out price, no ability to hedge the price, and has no limits on BGX prices. These conditions together mean a user could be cashed out for any market clearing price without warning the price is high. Some users cannot fully balance because of lack of information (for example, users supplying to the mass market). These users could face an unacceptable cost risk. This result is theoretically possible under the current situation—it might occur where the price is changed to a very high amount at seven days' notice. Some parties have little practical ability to manage the cash-out risk. The proposed arrangement, however, makes the issue more extreme.

In relation to Tariff 3, MDL partly justifies its introduction by citing the impossibility of budgeting for balancing costs. We do not understand why it should be assumed that users are better able to budget for that cost. Although the proposed introduction of Tariff 3 provides some added transparency, that transparency should be available from the Independent Auditor's report, which will be available on the BGX (4.4). The introduction of the tariff does not alter the incidence of costs, or create new costs (other than the cost of preparing it and invoicing it), but it shifts the responsibility for managing the volatility of those costs from MDL to its users, without any rationale. We also consider that the definition of Tariff 3 in section 1.1 is vague and could be improved by stating exactly what MDL would seek to recover through it.

We score the proposed balancing changes –1 for user risk.

#### **7.2** Cost

#### Agreement cost

The industry has faced continuing costs from the debate on how to manage balancing. However, the only cost applicable to this analysis is the difference in future costs between the operation of an unchanged MPOC and an MPOC modified by the December Change Request. The costs of reaching agreement (such as preparing this change request and running the consultation process) are largely sunk or now committed. The only uncommitted agreement costs arising from the decision are the additional costs of consultation on SOPs under the proposed section 2.18.

We score the proposed balancing changes –1 for agreement cost.

#### Implementation cost

The December Change Request alters how MDL manages balancing and may involve some restructuring of business processes. However, we understand MDL plans to continue to use the BGX, which will require relatively few changes. The costs of implementation are likely to be dominated by OATIS changes associated with removal of ILONs, changing intra-day nomination cycle priorities, and

cash-out of ROI and Mismatch. Significant costs might be associated with the additional obligation in 3.5(d)(iii) to provide real time metering at all Welded Points.

MDL has not given a cost estimate for OATIS changes; however, we anticipate costs could be significant, particularly testing any changes of curtailment priority associated with the changes to intra-day nomination cycles (8.27).

We score the proposed balancing changes -2 for implementation cost.

#### Operating cost

After implementation, the operating cost associated with the balancing market and cash-out processes will change for the Balancing Operator and users; however, we consider the change in costs will be minor. For the Balancing Operator the process for buying and selling balancing gas is the same as the status quo. Improvements in the regime mean potentially fewer balancing actions. Users have the same obligation to balance, albeit with greater incentives because of the back-to-back arrangements. These greater incentives could potentially increase investment in information systems and operations (this is covered in productive and allocative efficiency). Therefore, overall affect on the operating cost is likely to be neutral.

We score the proposed balancing changes 0 for operating cost.

#### 7.3 Governance

#### Transparency and non-discrimination

The December Change Request proposes new obligations to disclose information, audit information (3.5(e)), and consult on any SOPs (2.18). We provide a summary of the proposed additional obligations for providing information in Appendix D. The proposed changes in section 3 also provide greater clarity on the role of the Balancing Operator. This includes an obligation on the Balancing Operator to buy and sell gas at arm's length (3.5(a)(iii)). This obligation is similar to the arm's length operating commitment in Schedule 4, section 8.1, but is specific to the operation of the BGX. These are all significant improvements.

Gas Industry Co considers the recognition of the difference between operational gas and Balancing Gas is also an improvement. However we are disappointed there is little transparency on how the Balancing Operator makes this separation in practice.

Therefore the December Change Request proposes significant improvements to transparency.

We score the proposed balancing changes +3 for transparency.

#### Adaptability

The December Change Request leaves the MPOC change request process largely unchanged. It clarifies that a change request may allow for transitional provisions.

We consider the December Change Request results in a slight improvement to adaptability.

We score the proposed balancing changes +1 for adaptability.

#### **Enforcement**

The December Change Request leaves the dispute resolution process in section 23 unaltered, but does introduce a 'pay now, dispute later' regime. The change has little economic effect because interest is currently payable on disputed amounts, but it alters the incentives for Maui Pipeline users to manage disputes. Vector particularly has increased incentive to promptly resolve balancing related disputes it may have with its Shippers, or introduce a similar 'pay now, dispute later' regime.

The additional obligations to audit the Balancing Operator also provide some improvement to enforcement.

We consider that, overall, the proposed change would somewhat improve enforceability.

We score the proposed balancing changes +1 for enforcement.

#### **Balance**

The introduction of Tariff 3 benefits MDL, but at the increased risk of pipeline users.

The deletion of Vector's preferential rights to transport gas may disadvantage it, although we acknowledge Vector has never used the facility.

We consider that the overall effect on Balance is slightly in favour of MDL.

We score the proposed balancing changes –1 for balance.

#### **Stability**

Current balancing arrangements involve a high level of cost misallocation. Misallocation occurs either through charging costs to the wrong user, or socialising costs in situations where the ILON process has permitted the causer to avoid responsibility. As the arrangement is inherently unfair and inefficient, it must also be unstable.

As noted earlier, in the section on allocative efficiency, Gas Industry Co does not believe the proposed back-to-back arrangements are ideal. The examples in Appendix C illustrate some of their

shortcomings. Also, the effectiveness of the arrangements reduce if operating instructions are unclear, or the Balancing Operator exercises poor judgement. The arrangements can also involve significant inequity through the Incentives Pool Claims, release of Contingency Volume (with cashed out Mismatch) and through the potentially uncapped cash-out price.

However we consider back-to-back arrangements to be significantly more efficient than the status quo, and therefore likely to more stable. Some of the concerns may be dealt with by SOPs.

We score the proposed balancing changes 2 for stability.

8

# **Evaluation of non-balancing changes**

#### 8.1 Maui Legacy arrangements

As noted in Section 6.1, we consider the removal of references to legacy arrangements simplifies and improves the transparency of the MPOC. In relation to the evaluation criteria set out in Section 5, we consider that, by eliminating the areas of special treatment for legacy parties, competition should be improved.

#### 8.2 Minor and technical

As discussed in Section 6.2, we believe the minor and technical amendments do not adversely affect parties' existing rights and obligations under the MPOC, or have any significant effect on Gas Act objectives.

#### 8.3 Other

#### Liability when valid agreements are not in place

Under the proposed changes MDL no longer accepts liability for the consequences of accepting nominations to TP Welded Points from Shippers who do not have Gas Transfer Agreements and TP Welded Party transmission services agreements with that TP Welded Party (2.15). Without this protection, there does not appear to be any safeguard to prevent parties without such agreements making nominations on the Maui Pipeline into or out of the Vector pipelines. We are uncertain of the materiality of this change, which makes it difficult to assess against the Gas Act objectives. However, it seems unrelated to balancing and more related to the interconnection arrangements between MDL and Vector. For this reason, we are disappointed it has been bundled with the other elements of this change request. If, after consultation, we find the issues arising from this element of the change request are significant we may need to reject the entire change request.

#### **Curtailment priority**

We believe the Section 8.27 change, which places Approved Nominations within Shippers' AQ holdings at the end of the curtailment queue, contributes to the proper and efficient treatment of risks related to security of supply. Putting AQ at the end of the curtailment queue is consistent with the Gas Act objective of ensuring risks relating to security of supply are properly and efficiently managed. However, we are concerned how OATIS costs that might be incurred in implementing this ranking of AQ Approved Nominations are recovered. If the full costs of transporting gas are to be signalled to consumers, the costs of implementing AQ Approved Nomination priority should be recovered from parties buying AQ, and not all users.

#### **Welded Party flow to nominations**

The current MPOC requires Welded Parties to flow nominated quantities on a Day, with the sole consequences of not doing so set out in section 12. We consider that section 12.7 similarly acknowledges that flow and nominations will not exactly match, but consider that deleting the acknowledgement of the sole consequences of this marginally increases uncertainty for Welded Parties.

#### **Transitional provisions**

In the December Change Request, under 'Summary of proposed amendments', MDL states:

The proposed amendment seeks to provide for a transitional process to introduce MPOC amendments resulting from a Change Request, if needed.

(p12, Rationale for Proposed Change)

Gas Industry Co considers this change marginally improves efficiency by providing more certainty, and so contributes to risks being properly and efficiently managed by the parties.

9

### **Overall evaluation**

#### 9.1 Evaluation of balancing aspects of change request

Table 3 presents Gas Industry Co's evaluation of the balancing aspects of the December Change Request. At this stage we have not considered what relative weightings should apply between efficiency, cost, and governance. The relative score and weighting on the user risk category is important to the conclusion and Gas Industry Co would like to hear submitters' opinions on relative weightings.

**Table 3 Evaluation of December Change Request** 

Evaluation of December Change Request			
category	Criterion	Summary	Marginal Benefit of December Change Request +5=strong benefit -5=strong detriment
Efficiency	Productive	Current arrangements:	+3
		<ul> <li>permit a user to avoid cost by balancing its own position after causing a balancing action;</li> </ul>	
		allow cash-out without an underlying balancing action; and	
		both of the above could result in additional transactions being taken, over the efficient level.	
		The December Change Request:	
		proposes no-notice cash-out, which should ensure balancing actions occur less often (providing operating instructions handle operational gas, mismatch and thresholds for balancing actions efficiently); but	
		we are concerned the treatment of operational gas is not specified, leaving scope for suboptimal arrangements.	

Evaluation of December Change Request			
category	Criterion	Summary	Marginal Benefit of December Change Request +5=strong benefit -5=strong detriment
	Allocative	Current arrangements:	+3
		<ul> <li>use forecast cash-out prices that are unlikely to reflect market prices, so balancing decisions are not based on relevant prices.</li> </ul>	
		The December Change Request:	
		<ul> <li>mandates pay-as-bid clearing, and back-to-back average price cash-outs, allowing balancing decisions to be based on market prices; but</li> </ul>	
		<ul> <li>we do not believe the arrangements are as efficient as marginal price clearing and cash-out; however, they are a significant improvement on current arrangements.</li> </ul>	
	Security	Current arrangements:	0
		<ul> <li>set the conditions for access in an SOP, outside the code.</li> </ul>	
		The December Change Request:	
		<ul> <li>also gives MDL discretion on setting SOPs, although after consultation.</li> </ul>	
		Therefore the effect on security is considered neutral.	
	User risks	Current arrangements:	-1
		<ul> <li>permit significant socialisation of costs because the ILON process allows the causer an opportunity to avoid costs.</li> </ul>	
		The December Change Request:	
		<ul> <li>provides for cash-outs to occur only on days when there is a balancing action; contributing imbalances are cashed out without notice, potentially reducing the frequency of cash-out; but</li> </ul>	
		<ul> <li>while the ILON process provides some warning of prices, pay-as-bid clearing, and average price cash- outs does not permit hedging. This combined with no price cap significantly increases user price risk. In addition the removal of tolerances without a commitment to make Line Pack flexibility available to the Balancing Operator increases the risk further.</li> </ul>	
Average ma	rginal efficiency	benefit from December Change Request	+1.2

Evaluation of December Change Request			
category	Criterion	Summary	Marginal Benefit of December Change Request +5=strong benefit -5=strong detriment
Cost	Agreement	Both current and proposed arrangements involve agreement cost when change requests are processed. However, the change request introduces additional costs of consultation when SOPs are changed.	-1
	Implementation	The change request fundamentally changes the intra- day nomination cycles with both OATIS changes and potential business changes for users.	-2
	Operating	No material change.	0
Average marg	ginal cost benefit	from December Change Request	-1.0
Governance	Transparency	The December Change Request:	+3
	and non- discrimination	• introduces new obligations to disclose information;	
		allows for audit of Balancing Gas transactions;	
		allows for consultation on SOPs; and	
		<ul> <li>distinguishes between operational gas and Balancing Gas.</li> </ul>	
	Adaptability	The December Change Request:	+1
		<ul> <li>clarifies that change requests can allow for transitional provisions; and</li> </ul>	
		• introduces new commitments to consult on SOPs.	
	Enforcement	The December Change Request introduces a pay now, dispute later regime that may slightly increase the pressure to resolve disputes.	+1
	Balance	The December Change Request does not significantly change balance between TSO and users. However, it may swing the credit recovery balance between MDL and Vector.	-1
	Stability	The December Change Request improves several factors of regime design that may improve stability; however, it also incorporates some unreasonable provisions that may be unsustainable.	2
Average marg	ginal governance l	penefit from December Change Request	+1.2

#### 9.2 Evaluation of non-balancing aspects of change request

For the non-balancing aspects of the change request Gas Industry Co has no concerns about the changes related to Maui legacy arrangements or the minor and technical changes. We assess both against the Gas Act objectives as being improvements.

However, we do have concerns about some of the 'other' changes, as discussed below.

The liability changes in section 2.15 may reduce the incentives for MDL to align with the Vector regime and cause problems with alignment of the two regimes over time. We wish to assess submissions on this matter before reaching a final decision.

#### 9.3 Overall evaluation

Gas Industry Co's contractual role under the MPOC requires it to evaluate whether proposed changes will provide a net benefit, with reference to the existing MPOC. This contrasts with Gas Industry Co's role under the Gas Act, which requires the consideration of all practicable options before making a recommendation to the Minister. It is important to understand that Gas Industry Co cannot reject a change request because it believes there may be a better alternative. Our scope to recommend modifications to the change request is limited to minor and technical matters.

Overall, Gas Industry Co believes the balancing aspects of the change request provide a net benefit. Current balancing arrangements involve a high degree of cost socialisation, poor price signalling, charges not directly related to underlying transaction costs, and poor accountability for costs and title. All of these matters are improved by the change request.

One aspect of the December Change Request that Gas Industry Co has found particularly difficult to assess is the extent to which the proposed changes affect user risks. In particular we are concerned about the introduction of back-to-back cash-out without also introducing price caps or giving users the ability to hedge price risk (by the use of marginal pricing). The move to no-notice cash-out increases the exposure of individual users to single balancing actions, which may occur at very high prices. Without price caps on balancing transactions and with no ability to hedge price risk, this risk is uncapped. It may take only one extreme price for a balancing transaction to materially damage a user financially. We encourage submitters to give their views on this issue.

Regarding the non-balancing aspects of the change request, the bundling of subject matter that is only tenuously related to the main issue being considered makes the overall analysis difficult to perform and present coherently. In future, we would like submitters to identify more clearly the outcomes the change request is intended to achieve, and to limit the content of their change request to that matter. We will be considering how the MOU might be amended to achieve this.

However, we found the non-balancing changes, proposing the removal of references to legacy arrangements and making minor and technical corrections, to be non-contentious. The changes we

assigned to the 'Other' category were also mostly straightforward to assess. However, we did find one change in the 'Other' category to be challenging. This was the change of the liability arrangements in section 2.15 (current section 2.14). We are concerned the liability changes may reduce the incentives for MDL to work with Vector to ensure their regimes align.

Overall, we considered the proposed changes would provide a net benefit, and therefore support the December Change Request.

# 1 Draft recommendation

Gas Industry Co supports the December Change Request.

# Next Steps

The next steps are outlined in table 4 below.

#### Table 4 Next steps

Item	Date
Close of submissions on draft recommendation	4 June 2010
Gas Industry Co makes recommendation to MDL	2 July 2010

# Appendix A Summary of submissions on change request

Submitter	Comments
Contact Energy Limited	Contact, in principle, supports the development of changes that address balancing issues. However, while it supports parts of the December Change Request, it does not support others. It believes that a number of the changes discussed in the Industry Code Development process <sup>1</sup> were not acknowledged in the December Change Request. It considers that MDL should withdraw the proposed change until it is discussed with users. It also stated 12 main areas of concern including:
	• That no attempt was made to address the coordination of balancing across the Maui and Vector transmission system;
	The appointment of a single balancing agent would not be possible if the change request is implemented;
	The operation of the balancing market could be changed at any time by MDL;
	There is no certainty that the balancing market is open to users of the Vector system;
	There is no improvement made of the balancing tools available to users;
	Circumstances in which MDL would undertake balancing activity not specified;
	The removal of the mismatch provisions, reduction in tolerances, requirement to balance on an hourly basis removes flexibility available to users without explanation and perhaps unnecessarily;
	The removal of relief from the obligation to balancing during a force majeure event;
	The balancing operator is allocated a minor role and MDL would remain responsible for balancing;
	Provisions for unaccounted for gas (UFG) lack detail and transparency;
	The retention of the incentive pool mechanisms based on daily imbalance but with cash-out of operation imbalance based on running imbalance will be unworkable; and
	The removal of Gas Industry Co's independent overview of change requests is inappropriate.
Evonik Degussa Peroxide Limited	Evonik did not comment directly on the December Change Request, but comments on Gas Industry Co's proposed rules as noted below:

<sup>&</sup>lt;sup>1</sup> Information on the ICD process, including the ICD MOU is available on Gas Industry Co's website: <a href="http://www.gasindustry.co.nz/work-programme/transmission-pipeline-balancing?tab=1511">http://www.gasindustry.co.nz/work-programme/transmission-pipeline-balancing?tab=1511</a>

Submitter	Comments
	Proposed rules increase cost of gas to end users.
	Current system is working well under 'self regulation'.
	Suggest that as TSOs are financially exposed by gas imbalances, exposure is short term and that cost recovery of imbalances is built into the fixed costs of transmission.
	End users need flexibility as cannot predict every scenario and the proposed rules will add cost with no value added.
	Current IT technology needs upgrading to real time before variation tolerances can be reduced or more restrictive balancing penalties applied.
	It also suggests a 'gas bank' is adopted where suppliers make up for any imbalances through gas supply adjustments, not through buying / selling. Gas will become the 'currency'.
Genesis Energy Limited	Genesis commended MDL on its initiative but concluded that the December Change Request requires more work. It supports the scope and purpose of the proposed amendments but notes nine main issues; one of those issues was that the proposed amendments do not seem to fully and clearly delineate between MDL's functions and the Balancing Operator's functions as an agent. It plans to engage directly with MDL and other major Shippers on further development of the proposed changes. It also notes that:
	The Accumulated Excessive Operational Imbalance (AEOI) concept should be retained and that this should form the basis of the cash-out quantity calculation.
	• It is unclear where any Running Operational Imbalance (ROI) pertaining to the Balancing Operator or MDL is determined and included in the allocation of cash-out quantities.
	• There are still provisions allowing the Balancing Operator to make claims on the Incentives Pool. This should be removed and replaced by the concept discussed in the ICD forum where any balancing gas that is not allocated via a cash-out transaction is allocated on the basis of any incentive pool debits (with title transfer). In the absence of any residual balancing gas on a day (or any claim by a welded party), incentive pool debits should have no effect.
	• It is unclear what the limit or basis of the pro rata allocation for Incentives Pool claims is (section 14.2(b)).
	• It is unclear why tolerances should be reduced to zero for all Welded Points when an Operational Flow Order (OFO) issued. In any event, it should be 100% of the Hourly Scheduled Quantity (HSQ) rather than 0%.
	The purpose of tariff 3 is unclear given that it is allocated on the same basis as tariff 2.
	The timing of notifications under section three and four should be reviewed.
	Shipper mismatch should be treated in the same way as ROI (AEOI) cash-out. Mismatch should not be cashed-out automatically.

Submitter	Comments
Greymouth Gas New Zealand Limited	Greymouth does not consider that the December Change Request is appropriate or that it should be supported. It suggests that the proposed amendments do not provide the right mix of balancing penalties and tools. It is concerned that the application:
	breaches several objectives of the Gas Act;
	<ul> <li>does not reflect what was agreed in the ICD process Memorandum of Understanding (ICD MOU);</li> </ul>
	• seeks to codify MDL's objectives without discussion with industry aimed at resolving key balancing issues first;
	is inconsistent with Gas Industry Co's proposed balancing rules; and
	will increase costs to customers.
	It notes also that the removal of tolerances and Peaking Limits, coupled with a reduction in daily limits and the adoption of 'back-to-back' cash-outs, means there will be no 'wins' for Shippers, Welded Parties, or customers. Greymouth believes that Gas Industry Co should 'strike it out' because of inadequate prior discussion between MDL and its users, and that the ICD process should continue. Greymouth also provided a number of specific comments on aspects of the December Change Request.
	Section 1: Definitions
	Greymouth does not support the following changes to section 1.1 of the MPOC:
	Removal of the definition of 'Imbalance Limit Overrun Notice':
	• The change must be in parallel with Vector providing its Shippers with gas gate information on non-Business days so that industry does not 'fly blind' during weekends and public holidays when self-balancing; and
	Removing ILONs and not providing Vector Shippers with access to gas gate data is inefficient.
	Removal of the definition 'Accumulate Excess Operational Imbalance'.
	Removal of the definition of 'Running Operational Imbalances Limits'.
	New definition of 'cash-out quantity':
	Support the minimisation, but not the removal of tolerances;
	• Industry resolution on what level of tolerances and mix of balancing penalties and tools is efficient;
	Open to removal of tolerances at Transmission Pipeline (TP) Welded Points but not at non-TP Welded Points; and
	• Does not comply with Gas Act section calling for gas costs and prices to be subject to sustained downwards pressure.

Submitter	Comments
	Change in definition of 'Daily Operational Imbalance'.
	Do not support retention of Daily Operational Imbalance Limits and charges;
	<ul> <li>Do not support move to 3% of Scheduled Quantity (SQ) as provides no flexibility for industry to deal with day+1 customer undertakes and overtakes; and</li> </ul>
	Request industry resolution on this issue.
	Change in definition of 'Excess Daily Imbalance'.
	Change in definition of 'Incentives Pool Debit':
	Change in definition of 'Operational Balancing Agreement'.
	Change in definition of 'Peaking Limit':
	• Question whether it's right for an RPO to reduce a peaking limit to 0% of the HSQ if an OFO has been issued; and
	Disagree with some changes in schedule 7.
	Change in definition of 'Running Operational Imbalance':
	If balancing is daily and ROI data is posted on a daily basis then why does ROI need to be calculated on an hourly basis; and
	What cost does this involve and what is the benefit?
	New definition of Tariff 3:
	Ignores the matching principle and is not fair;
	• If Tariff 3 applies, industry would effectively subsidise the Balancing Operator even though the industry may / will not use the service. The additional cost for industry could be excessive and economically inefficient;
	• Tariff 3 should incentivise users to avoid balancing transactions and the proposed definitions provides no incentive as balancing charges are base on throughput of gas;
	• If the price is per GJ then users will add this as a direct cost onto the price of gas that consumers pay;
	All balancing costs should be in proportion to a user's contribution to the need for the Balancing Operator to buy/sell balancing gas; and

Submitter	Comments
	The recovery of 'certain' balancing costs is too vague.
	New definition of UFG:
	Because UFG is a new documented concept to MDL it should be more detailed (e.g. as per the Vector Transmission Code (VTC)).
	Greymouth supports:
	<ul> <li>other proposed changes to section 1.1 of the MPOC as long as they retain references to Running Operational Imbalance Limits.</li> </ul>
	the proposed changes to section 1.2 of the MPOC.
	Section 2: Pipeline Services
	• Greymouth considers that the new section 2.14(the addition of the pay-now dispute-later clause) may not add value considering Vector's historical stance on the issue.
	Does not support:
	<ul> <li>old section 2.14, which is the new section 2.15, because this removes MDL's indemnification to TP Welded Parties as a result of a breach by MDL and instead adds that MDL will not be liable to TP Welded Parties for breaches by a Shipper.</li> </ul>
	• new section 2.18 of the MPOC because it's too limited. The intent does reflect parts of schedule 1, III of the ICD MOU from the ICD process but section 2.18 and section 29 of the MPOC do not appear to include the key component of schedule 1, III that procedures will allow for all users of the relevant transmission system to request changes and to participate in consultation.
	The ability of users to initiate change requests is an essential governance feature of an efficient market.
	Greymouth supports other proposed changes to section 2 of the MPOC.
	Section 3: Balancing Principles
	Supports the removal of the section 3, 'Maui Legacy Contracts'.
	Does not support:
	The new section 3 titled 'Balancing Principles'.
	The new section as it describes how MDL will solely appoint a Balancing Operator.

Submitter	Comments
	Proposed new section 3.2 of the MPOC because it sets the Balancing Operator's role much wider than the MoU and rules envisage.
	Section 3.2(b) as it is irrelevant why the linepack breaches or may breach the thresholds.
	Section 3.2(c), which seeks to only invoice Shippers, and considers that Tariff 3 is inappropriate.
	• Section 3.2(d) as why should users fund the Balancing Operator to undertake potentially business-as-usual functions like buying fuel gas.
	• Is concerned about the potential commercial interpretations of the words 'operator' and 'agent' and that the application opens the door for both a Balancing Operator and Balancing Agent.
	Section 3.1 says that MDL will set the Balancing Operator on such terms as MDL determines but this is not in accordance with the ICD MOU which states that managing line pack should be in accordance with SOPs.
	• Finds it unacceptable that without knowing the balancing plan, there is scope for the Balancing Operator to pass on the costs of fuel gas, UFG etc as cash-outs.
	Section 4: MDL IX
	Does not support the removal of information including, but not limited to, ROILs because they believe some tolerance should remain and stay published.
	Section 12: Operational Imbalances
	Does not support the proposed removal of the old section 12.1 as it removes the wording that parties acknowledge that exact balancing at a Welded Point is not possible.
	• Does not support the proposed addition of new section 12.5 as it removes re-calculation of cash-out quantities as a result of errors. Greymouth suggests cash-out amendments are made or that there is a time period whereby changes can be made and that MDL has to use best endeavours to investigate and put through potential changes if they materially change cash-out quantities.
	• Greymouth does not support the retention of Daily Operational Imbalances or Excess Daily Imbalances as it makes the system inflexible if every excess is invoiced.
	It is inequitable to remove tolerances and reduce peaking limits and embed and reduce daily movement limits and implement back-to-back cash-outs.
	• Changing the Daily Limit to 3% of SQ is unacceptable. The incentive should be to allow parties the ability to self-balance at all times, with ultimate exposure determined by a party's excess contributing to running imbalance.

Submitter	Comments
	Argue that if Daily Limits were reduced to 3% of SQ then it would breach section 43ZN of the Gas Act.
	• A 3% rate is extremely inflexible. The current 3TJ limit provides a minimum amount of flexibility and anything tighter will likely see costs passed through.
	Overall Greymouth Gas does not support any of the proposed changes to section 12 as these should be assessed in aggregate.
	Section 13: Peaking
	Greymouth does not support the changes to the Peaking Limit itself or in the definitions.
	Section 14: Incentives Pool
	Greymouth Gas does not support the over-riding proposed changes in section 14.
	• Does support the intent of the proposed changes in section 14.6, namely that the Balancing Operator can access the Incentives Pool if they're out of pocket on the day.
	• Do not support the wording of the proposed changes in section 14.6 because Incentives Pool Debits should exclude Daily Imbalance breaches.
	• Access to the Incentives Pool should be for the GJ quantum needed to cover the short-fall of cash-outs on a particular day only and peaking charges should only apply on days when there is <100% cost recovery from cash-outs.
	Section 15: Interruptions
	• Greymouth Gas supports the proposed changes in section 15 but note a potential interplay problem with section 15.9 which says that MDL may use the Contingency Volume to assist e.g. a Welded Party during a force majeure event.
	• Key to this section will be how the balancing plan allows MDL to do such a thing, given the Balancing Agent will have an arms-length independent decision making process. Greymouth Gas suggests it is addressed in the balancing plan.
	Section 17: Gas specifications
	Greymouth Gas supports the proposed changes.
	Section 18: Maintenance
	• Do not support the deletion of section 18.3 because they consider it an over-reaction to solving the issues associated with balancing.
	Section 19: Fees

Submitter	Comments
	Does not support change to section 19.1.
	• If Tariff 3 is passed onto Shippers in proportion to their percentage of nominations, then parties good at balancing will subsidise those who are not.
	• Argues it is inefficient from Pareto perspective as some will be better off while some will be worse off.
	<ul> <li>Want to see Tariff 3 passed on in proportion to a Shipper, Welded Party or TSO's contribution to the need for the Balancing Agent Operator to take balancing action.</li> </ul>
	• If proposed amendments to section 19.1 applied, it would create disincentives for parties bad at balancing to improve their performance. If a matching funding model was applied then incentives will be right as a party will be subject to cash-outs and their % share of operating and capex costs depending on how much they were cashed-out.
	<ul> <li>Gas Industry Co has failed to provide a Net Present Value (NPV) analysis indicating that the whole balancing work stream has a positive NPV.</li> </ul>
	• Greymouth Gas supports use of 'average pricing' not 'marginal pricing' as marginal pricing will add extra cost which would not be needed if peaking is to cover the shortfall in funds received from cash-outs.
	Section 20: Prudential Requirements
	Supports the changes to section 20.
	Section 21: Invoicing and Payment
	<ul> <li>Does not support changes to section 21.2(b). The proposed change implies that Welded Parties will start being invoiced for any hourly peaking and any Excess Daily Imbalance regardless of whether there was a cash-out or not.</li> </ul>
	Consider it inefficient and inequitable because:
	• \$ penalties introduced with no GJ compensation;
	• Introduces a different balancing framework outside the Balancing Plan/Agent;
	<ul> <li>Welded Parties will be penalised during normal pipeline operations when they do no contribute to the need for balancing actions to take place;</li> </ul>
	• Increased costs to Welded Parties will increase costs to Shippers and increase prices to end customers;
	• Current interpretation and precedent is to invoice Welded Parties if call Balancing Gas has been purchased by the Balancing Agent;
	• Reduces the ability of Welded Parties and Shippers to self-manage balancing positions, taking away pipeline flexibility

Submitter	Comments
	and is weighted in favour of MDL;
	<ul> <li>Vector would be disadvantaged because of the quantum of potential Incentive Pool Debits and the increased change of downstream Shipper disgruntlement and disputes; and</li> </ul>
	• The Incentives Pool Trustee will end up with large amounts of money, offset only slightly by the Balancing Agent/Operator claims to the Incentive Pool to cover shortfall in money received from cash-outs.
	• Considers section 21.2(b) to breach s43ZN(b)(iv) and s43ZN(a) of the Gas Act.
	<ul> <li>Production Inefficiency would exist because production not achieved at its lowest cost and allocative inefficiency would exist as losers lose more than benefit gain as the unnecessary penalties Shippers will pay will sit in the trust account gathering interest.</li> </ul>
	• Does not support proposed changes to section 21.4(e)(i) which calls for any breaches of Peaking Limits and ROI to be provided as information.
	<ul> <li>Note a problem with proposed change to section 21.6 that 'each Shipper and Welded Party shall pay to MDL and the Incentives Pool Trustee the aggregate amount stated in the relevant Monthly Invoice'. Believe that a party should not pay the aggregate amount to both MDL and the Trustee as this is double-payment and the Incentive Pool is operated as Trust so why should all payments go to MDL's Nominated Bank Account. This gives MDL access to funds it should have no access to.</li> </ul>
	• Note inconsistency between proposed changes to section 21.4(e)(iv) and section 21.4(f)(ii) with 21.4(e) structured as Welded Party receiving an invoice and 21.4(f) structured as MDL giving an invoice. Makes no mention of the Incentives Pool Trustee giving an invoice.
	Clause 21.2 could be tightened to reflect that each month invoices are issued pertaining to the prior month.
	Section 22: Termination
	Supports the proposed changes in section 22.
	Section 23: Dispute Resolution
	Does not support changes to section 23.5 pertaining to pay-now, dispute later.
	Concern arises because of uncertainty regarding Vector's position on this issue at the conclusion of the ICD process.
	The wording in the MPOC (and VTC) needs to allow for the immediate correction of agreed material mistakes.
	<ul> <li>Concern with section 8.13(b)(iii) of the VTC which does not provide any mechanism for Shippers to prove/disprove contributions towards Incentive Pool debit (peaking) that is imposed on Vector and passed onto Shippers. If Shippers going to be liable for costs, then Shippers should have the ability to manage their exposure to peaking at TP Welded</li> </ul>

Submitter	Comments
	Points.
	• Though not related, the VTC issue is good example of how all balancing penalties and balancing tools till flow onto Shippers and Welded Parties on the MDL system, then Shippers on the Vector system. Greymouth Gas considers it necessary to resolve this before any blanket pay-now, dispute later provisions are brought into the MPOC.
	For this above reason, Greymouth Gas does not support the proposed amendment
	Section 24: Confidentiality
	Support the proposed changes.
	Section 27: Force majeure
	Supports the proposed changes.
	Section 28: Liabilities and Indemnities
	Supports the proposed changes.
	Section 29: Modifications to MPOC
	• Supports the proposed changes but note the Change Request lacks transitional provisions which are essential for a request of this magnitude.
	Section 38: Privity of Contract
	Does not support the proposed amendments in section 38 because the marked-up version of clause 38.2 of the MPOC adds in further concepts about conferring rights upon the Incentive Pool Trustee.
	• Greymouth Gas understands that there is no explicit Privity of Contract between Welded Parties and the Incentives Pool Trustee at present and their interpretation is that the proposed amendments seek to make such a contractual relationship explicit.
	• Concerned that embedding the Incentives Pool concept within the MPOC is the opposite of what MDL was proposing during the ICD process.
	• Retention of the Incentives Pool concept should be made jointly between MDL and Vector and in consultation with users as an overall package of tools and penalties pertaining to a best practice balancing environment.
	Part of the pack should include an assessment about:
	Whether the current tools from the Incentives Pool should be retained and how;

Submitter	Comments
	Whether it is more efficient for the Single Balancing Agent to perform all tasks;
	• The level and impact of disputes that could linger if pass-through Incentive Pool arrangements were to remain;
	Whether there is alignment with the purpose of the rules, namely 'to achieve an efficient, unified balancing arrangement for managing imbalance'
	Whether there is alignment with s43ZN(a) of the Gas Act.
	Schedule 39: Consumer Guarantees Act Exclusion
	Supports the proposed changes.
	Schedule 1: Technical Requirements for Welded Points and Stations
	Supports the proposed changes.
	Schedule 3: Welded Party Agreement Form
	Supports the proposed changes.
	Schedule 4: Confidentiality Protocols
	Supports the proposed changes.
	Schedule 5: IT requirements
	Supports the proposed changes.
	Schedule 7: DOIL and Peaking Limits
	Does not support the proposed changes, specifically they do not support the removal of tolerances.
Methanex New Zealand Limited	Methanex noted its support for a continuation of the ICD process and proposed that the best approach would be for MDL to explain it to affected parties at a workshop.
	• In addition to these general comments, Methanex made several comments on specific areas of the change request including that:
	• it conditionally supports the pipeline owner appointing the Balancing Operator as there should be a requirement that balancing agent be subjected to a periodic review by Gas Industry Co to assess whether an independent balancing agent is necessary.
	• it considers it unreasonable that cash-out quantities are final as adjustments should be required in the event of

Submitter	Comments
	materially incorrect information.
	• SOPs should be subject to a change request procedure no different to the process used for industry code rule changes.
	• MDL should explain why the reductions in tolerances do not excessively reduce flexibility and impose unwarranted balancing costs on participants.
Mighty River Power Limited	MRP noted that the proposed changes are extensive and expressed disappointment that only some aspects of the ICD MOU adopted. MRP considers it important that such changes are not made in isolation but as part of an overall development plan for balancing both Vector and Maui Pipelines. It suggested that the December Change Request be delayed until the Associate Minister has considered Gas Industry Co's proposed balancing rules. MRP made several other comments noted below.
	• It would like a cost-benefit analysis conducted to justify the claim that after a Balancing Operator is appointed it is not expected that costs to Shippers will increase as a result of the new tariff.
	• combining the introduction of a Balancing Operator together with a move to back to back daily balancing constitute a significant change in pipeline balancing operations
	• Better quality information allowing Shippers to effectively manage their balancing gas risks is required. Therefore MRP will only support the introduction of back to back balancing if a change is coordinated with the introduction of a daily allocation process for customers in downstream allocation groups 4-6.
	• MRP would only support the change to the tolerance regime in section 12 once their concerns with the operation of the Balancing Gas Exchange (BGX) relating to access to supplying and purchasing gas at the BGX is resolved.
	MRP supports the proposed changes to Peaking and the Incentives Pool.
	• It will only support the introduction of Tariff 3 when their concerns regarding the proposed changes to sections 3, 11 and 12 have been address and resolved to the industry's satisfaction.
	MRP does not support the deletion of the right to relief from peaking charges during a force majeure event due to unscheduled maintenance.
	• It will only support the proposed changes to sections 21 and 23 to a 'pay now dispute later' arrangement as part of an integrated package of measures. This arrangement should only be implemented once an agreement has been made to refer disputes to an agreed industry expert of the Gas Industry Co's Rulings Panel.
	MRP supports the proposed amendment to provide for transitional provisions in section 29.
Vector Limited	Vector noted that the proposed change would materially adversely affect its business. Further, it noted that an integrated set of measures across both pipelines was necessary to allow the participants to manage their exposure to balancing costs, and the proposed change did not allow for this. Also MDL's wide discretion on SOP changes could lead to greater disparity between the operations of the transmission systems. The changes did not open up the balancing market to

Submitter	Comments
	producers on the Vector Transmission system, nor provide a comprehensive 'tool-kit' to assist users to self-balance. Vector also pointed to a number of specific areas of the December Change Request that it considers require further work in order for back-to-back balancing to be implemented correctly.
	Section 1
	AEOI
	Prefer the retention of AEOI and only provide a tolerance to a Welded Party on its imbalance created on the day.
	Balancing Gas
	'Balancing Gas' definition needs to be aligned with the Balancing Principles in section 3.
	Balancing Gas Call / Put
	<ul> <li>Clarification is required on the definition of Balancing Gas Call as the definition excludes cash-out transactions and any operational Balancing Gas.</li> </ul>
	Similarly the definition 'Balancing Gas Put' needs expanding.
	Cash-out quantity
	• Clarification is needed on the definition 'cash-out quantity' as there is confusion with its relationship with the definition of ROI. Also there is no removal of TSO imbalance from the cash-out quantity so Welded Parties who are cashed-out will wear a proportion of MDL's imbalance costs.
	Unclear from the definition of cash-out quantity whether it is MDL's intention to include small stations.
	Cash-out transactions
	The definition only covers Welded Parties, so it is unclear how Shippers will be invoiced for their Mismatch.
	Excess Daily Imbalance
	One of the fundamental flaws of the MPOC was that daily and hourly imbalances only worked in one direction and not in both, diminishing the impact of parking gas on the pipeline. The definition of Excess Daily Imbalance still only deals with the depletion of linepack.
	Force Majeure
	The definition Force Majeure treats the approach to critical contingencies differently to

Submitter	Comments
	Removal of Mismatch Notice etc
	On the removal of Mismatch Notice, MDL has removed all tools available to a Shipper to self-balance when MDL decides to allocate linepack during a contingency event. The tools should be reinstated if MDL proposes to keep Mismatch otherwise the whole concept should be removed.
	Peaking Limit
	• For 'Peaking Limit' the current definition can apply to hours that have already passed. The 0% tolerance should only apply for hours remaining in the day.
	Running Operational Imbalance
	• Running Operational Imbalance definition provides for hourly rather than daily calculation. The balancing period should remain daily until proposed balancing regime changes are implemented and operational for a period of time.
	UFG
	• Definition of UFG gives MDL discretion. The discretion should have objective parameters around it or it should be a specified method for determining UFG as per the VTC.
	Section 2
	Transmission Pipelines
	It is difficult to relate this change to the 'back to back' balancing regime.
	Removal of indemnity for Welded Party
	The reason for the removal of MDL's indemnity to Vector for a Shipper breach is unclear and commercially unacceptable.
	Section 3
	Normal Pipeline operations
	As MDL's agent, the Balancing Operator should be obliged to carry out its role in an efficient and transparent way.
	• It is not clear how the Balancing Operator will distinguish between UFG as part of a Balancing Gas transaction and ensure it doesn't become an Incentives Pool Claim.

Submitter	Comments
	Buying and selling balancing gas
	• Question whether the reference to Operational Imbalance as Operational Imbalance is just a daily imbalance.
	Assume subparagraph (i) applies to on the day flows, and subparagraph (ii) applies before the day flows.
	Reasonable endeavours
	• The Balancing Operator should be required to comply with the Balancing Principles as opposed to the lower test of using reasonable endeavours to do so.
	Balancing Gas Call / Put
	When read with their definitions the reference to these terms is circular.
	• May be a double meaning with this clause as 'Balancing Gas calls are bought since this gas is then sold to the Welded Point.
	Real time information for all Welded Points
	May not be feasible for small stations.
	Costs of metering small stations will need careful consideration.
	Section 4
	Tariff 3
	• Publication of Tariff should be within 3 business days after the month end. This will ensure industry certainty.
	Operational Imbalance for each Welded Point
	• Should be limited to large stations on a daily basis, otherwise SCADA will need to be installed at all stations.
	• Moving the Maui regime to hourly would potentially have limited impact on improvements to balancing without the Vector regime also moving to hourly, which is not feasible.
	Running Operational Imbalance for each Welded Point
	As above (Operational Imbalance for each Welded Point).
	• It is unclear how this will work with ROI now being hourly eg what quantity will be used for cash-out transaction?

Submitter	Comments
	Cash-out quantities
	Unclear why these cannot be published within an hour of transaction.
	Unfinished drafting
	Drafting appears incomplete for 'Frequency of Posting' for all items at the end of the Table.
	General
	• The times for nominations should be by way of Schedule, which can be easily revised through the normal change request process.
	Section 8
	Removal of TP Welded Party rights for balancing Gas
	Does not appear to support the purpose of the 'back to back' balancing regime.
	Intra-Day Cycles
	• Changing the priorities of nominations is a significant move away from the position that no approved nomination is able to be bumped by another Shipper during nomination cycles.
	Unclear how this change supports the purpose of the 'back to back' balancing regime.
	Priority for Balancing Gas seems appropriate to support the purposes of a 'back to back' balancing regime.
	Section 9
	Post Intra-Day Cycle
	• Inappropriate and commercially unacceptable for Vector's rights to be removed prior to a comprehensive balancing solution within the framework of regulation.
	Section 11
	Shipper Mismatch
	Does not consider it fair for Shippers which are forced into Mismatch to be cashed-out without access to tools for self-balancing.
	Change may have significant OATIS costs so Vector proposes that the costs are carefully considered before

Submitter	Comments
	proceeding with the change.
	Section 12.
	Running Operational Imbalance
	Provision needs aligning with the definition of that term in section 1.1.
	No changes to cash-out quantities
	• Provision does not allow for gross errors by the Balancing Operator. The provision should make it clear that it only applies to quantities and not costs or allocation.
	Provision has implications depending on what data is used to calculate cash-out quantities.
	Suggest that cash-outs should be based on validated data.
	Removal of Daily Operational Imbalance Limit(and general)
	• While the Incentive Pool is the mechanism for claiming Balancing Gas it does not deal with transfer of title for Gas. This is not in line with the purpose of the 'back to back' balancing regime.
	• As title of the Gas is not transferred, the Balancing Operator will still need to take subsequent action. The costs of that action will be socialised under Tariff 3.
	'At all times'
	The ROI is a fixed number so it cannot 'tend to zero at all times'.
	As the imbalance is 'running' a reasonable period of time needs to be included.
	Cash-out quantity transferring from Balancing Operator to Welded Party at midnight
	Does not take into account NZ Standard Time.
	'Forced' Operational Imbalances
	Provision will require a VTC Change Request which Shippers will need to agree to.
	'Forced' Operational Imbalances
	Affects Vector's rights as a Shipper. Vector does not agree to waiving this right.

Submitter	Comments
	Section 13
	General
	All provisions of section 13 should make it clean when changes to the respective obligations will occur.
	Removal of Welded Parties protection to obligations
	Affects Vector's rights as a Welded Party and has downstream impacts on its Shippers. Vector does not agree to waive this right.
	Section 14
	Incentives Pool
	The inclusion of the Incentive Pool for claiming Balancing Costs could increase overall costs to the industry for balancing.
	• Propose that an alternative solution be to first cash-out parties on their running positions and if there is any remaining balancing gas to be allocated this is done on their daily position.
	This same principle could be applied to Peaking as the third mechanism to recover balancing costs if it was unable to be allocated to either running or daily positions.
	Removal of negligence
	Removal of the term 'negligence' and the phrase 'as a trustee' limits the Incentive Pool Trustee's liability.
	Vector finds this unacceptable and it does not appear to be related to the purpose of the 'back to back' balancing regime.
	Balancing Gas Call quantities
	Cash-out transactions are already excluded, providing for it again is unnecessary.
	Unclear what quantity is being used to cash-out Shippers.
	Welded Party's remedy
	This limitation to a Welded Party's remedy against MDL is unjustified.
	Section 15

Submitter	Comments
	'relevant provisions of this Operating Code'
	Relevant provisions need to be identified.
	Section 16
	Standards in place on 1 Jan 2005
	These standards must be published so that all parties are aware of their content.
	Section 18
	Daily Operational Imbalance Limit
	As DOILs still exist, MDL will need to provide linepack to meet this flexibility.
	Maintenance Limits
	This provision should not be removed.
	Section 21
	Invoicing
	Change does not seem to include invoicing of Shippers by the Incentives Pool Trustee.
	Invoicing and Payment
	These provisions should be compatible with the VTC in terms of section 2.14 of the MPOC.
	Pay now dispute later
	A comprehensive balancing solution within a regulatory framework is required before this provision would be acceptable.
	Needs to be compatible with the VTC in terms of section 2.14 of the MPOC.
	Section 23
	Dispute Resolution
	TSAs and ICAs should only be with MDL to ensure all rights and obligations are directly between Shipper / Welded

Submitter	Comments
	Party and MDL.
	Timing
	Disputes should be raised as soon as possible irrespective of whether an invoice is paid or not.
	Section 29
	Additional matters in Change Request
	Unclear how this change supports the purpose of the 'back to back' balancing regime.
	Removal of 'and'
	Small change significantly alters the intent of the benchmark for Change Request approval.
	Cumulative requirement currently in the Gas Industry Co's support and the other requirements in paragraph (b) should remain.
	Section 38
	Privity of Contract
	As a separate legal entity, the Incentive Pool Trustee should be a signatory to each Welded Party's ICA with MDL.
	Schedule 5
	Website address
	The correct web address for OATIS is <u>www.oatis.co.nz</u>
	Schedule 7
	Ngatimaru Road
	This needs to be defined as Ngatimaru Road (Receipt) and Ngatimaru Road (Delivery).
	Schedule 10
	Tariff 3
	Tariff should be explicit whether the cost goes for UFG.

Submitter	Comments
	Unclear whether TSO imbalance is covered under Tariff 3.

# Appendix B Memorandum from MDL in response to request for further information

### Appendix C Back-to-back examples

The following examples present a simple model of how Gas Industry Co understands the back-to-back balancing regime proposed in the December Change Request would operate under various scenarios.

For simplicity we assume only two Welded Points.

#### **Example 1: simple scenario**

This simple scenario assumes there is no impact on Line Pack from the operation of the pipeline. The other examples cover more realistic scenarios where there are multiple influences on Line Pack at one time.

Assume the Line Pack is low by 6,000 GJ made up of:

- Running Operational Imbalance (ROI) at Welded Point A (WPA) of -4000 GJ
- ROI at Welded Point B (WPB) of -2000 GJ

The Balancing Operator receives offers to provide Balancing Gas of:

- Offer A = 3000 GJ at \$8/GJ
- Offer B = 6000 GJ at \$14/GJ
- Offer C = 3000 GJ at \$40/GJ

The Balancing Operator calls Balancing Gas to manage Line Pack to the 'midpoint' (in doing so it will cash-out all ROI). It accepts offer A and half of offer B, totalling 6000 GJ, at a total cost of \$66,000. The Mean Call Price is therefore \$11/GJ (\$66,000 / 6000GJ).

- WPA is cashed out (buys from Balancing Operator) 4000 GJ at \$11/GJ and pays \$44,000.
- WPB is cashed out (buys from Balancing Operator) 2000 GJ at \$11/GJ and pays \$22,000.

The net result for each party arising from the transaction is:

- Balancing Operator pays out and receives \$66,000, ie net zero dollars.
- Balancing Operator purchases and sells 6000 GJ, ie net zero gas title.
- Offerer A sells 3000 GJ at \$8/GJ.
- Offerer B sells 3000 GJ at \$14/GJ.

- WPA purchases 4000 GJ at \$11/GJ.
- WPB purchases 2000 GJ at \$11/GJ.

If the Balancing Operator had made use of the Line Pack flexibility and reduced the Balancing Gas Call quantity the results would be different. For example, assuming the Balancing Operator accepted 4000 GJ of call gas then the result would have been:

- Offerer A sells 3000 GJ at \$8/GJ.
- Offerer B sells 1000 GJ at \$14/GJ.
- WPA purchases 2667 GJ at \$9.50/GJ.
- WPB purchases 1333 GJ at \$9.50/GJ.
- Balancing Operator pays out and receives \$38,000, ie net zero dollars.
- Balancing Operator purchases and sells 4000 GJ, ie net zero gas title.

The December Change Request does not state if the Balancing Operator manages Line Pack to a midpoint, matches to the Balancing Operator's guess at aggregate ROI, or manages Line Pack on some other basis.

Gas Industry Co believes it is most efficient for the Balancing Operator to minimise the quantity of Balancing Gas purchased, especially because Line Pack might recover without intervention. Any decision to purchase more Balancing Gas than the minimum affects the imbalance quantity and allocation at the next decision point and could result in cross subsidisation between days.

#### Example 2: less balancing gas than user imbalance

This scenario assumes multiple drivers of an imbalance (the usual situation) and the Balancing Operator purchases less Balancing Gas than the total end-of-day ROI.

Assume the Line Pack is low by 10,000 GJ made up of:

- ROI at WPA of -4000 GJ
- ROI at WPB of -2000 GJ
- operational use netting –4000 GJ

The operational use could be because of:

• Unaccounted For Gas (UFG) (which is unknown at the time a balancing action is taken);

- changes in imbalance during the day relative to the end-of-day ROI position;
- residual Balancing Gas not cashed out from previous days (see example 3);
- Mismatch between compressor fuel supply and use;
- unresolved Mismatch; or
- a combination of factors.

Usually several factors influence the gap between actual and acceptable Line Pack at any one time. Some of these are unknown at the time of deciding what quantity of Balancing Gas should be bought or sold. It is unclear from the December Change Request how operational gas is dealt with (see 3.2(a) and definition of Balancing Gas Call and Balancing Gas Put). The proposal seems to assume the Balancing Operator determines how much operational gas MDL requires, before taking a balancing action.

As in example 1, assume the Balancing Operator receives offers to provide Balancing Gas of:

- Offer A = 3000 GJ at \$8/GJ
- Offer B = 6000 GJ at \$14/GJ
- Offer C = 3000 GJ at \$40/GJ

The Balancing Operator calls Balancing Gas. It accepts offer A for 3000 GJ at \$24,000. The Mean Call Price is therefore \$8/GJ.

- WPA is cashed out (buys from Balancing Operator) 2000 GJ at \$8/GJ and pays \$16,000
- WPB is cashed out (buys from Balancing Operator) 1000 GJ at \$8/GJ and pays \$8,000

The net position of the parties is:

- Offerer A sells 3000 GJ at \$8/GJ.
- WPA purchases 2000 GJ at a total price of \$8/GJ.
- WPB purchases 1000 GJ at a total price of \$8/GJ.
- Balancing Operator pays and receives \$24,000, ie net zero dollars.
- Balancing Operator purchases and sells 3000 GJ, ie net zero gas title.

Whether this transaction is back-to-back depends on how much operational gas was bought. This operational transaction affects Line Pack and influences the quantity and timing of the purchase of

Balancing Gas. The user would find it difficult to dispute any decision on operational gas because it is likely to be taken on the basis of instructions in an SOP.

#### Example 3: more balancing gas than user imbalance

This scenario assumes a more realistic situation—there are multiple drivers of imbalance and the Balancing Operator purchases more Balancing Gas than the total end-of-day ROI.

As in example 2, assume the Line Pack is low by 10,000 GJ made up of:

- ROI at WPA of –4000 GJ
- ROI at WPB of -2000 GJ
- operational use netting –4000 GJ (see discussion in example 2)

As in example 2, the Balancing Operator receives offers to provide Balancing Gas of:

- Offer A = 3000 GJ at \$8/GJ
- Offer B = 6000 GJ at \$14/GJ
- Offer C = 3000 GJ at \$40/GJ

The Balancing Operator calls Balancing Gas and accepts offers A and B totalling 9000 GJ, at a total cost of 108,000 (ie  $8 \times 3000 + 14 \times 6000$ ). The Mean Call Price is therefore 12/GJ (ie 108k / 9000).

- WPA is cashed out (buys from Balancing Operator) 4000 GJ at \$12/GJ and pays \$48,000
- WPB is cashed out (buys from Balancing Operator) 2000 GJ at \$12/GJ and pays \$24,000

The Balancing Operator has therefore cashed out 6000 GJ at \$72,000 (ie \$48k + \$24k), and is left with 3000 GJ and a net cost of \$36,000 (\$108k - \$72k). The Balancing Operator would then claim the \$36,000 from the Incentives Pool.

Assume the Daily Operational Limit is 3% of Scheduled Quantity and:

- WPA has a Scheduled Quantity of 30,000 or Incentives Pool Debit of 3100
- WPB has a Scheduled Quantity of 20,000 or Incentives Pool Debit of 1400
- The Incentives Pool Debit Price is therefore \$8/GJ (\$36000 / (3100 + 1400))
- WPA pays Balancing Operator a further \$24,800 (ie \$8 x 3100).
- WPB pays Balancing Operator a further \$11,200 (ie \$8 x 1400).

The net position of the parties after the transaction is:

- Offerer A sells 3000 GJ at \$8/GJ.
- Offerer B sells 6000 GJ at \$14/GJ.
- WPA purchases 4000 GJ at a total price of \$18.20/GJ (ie \$48k + \$24.8k).
- WPB purchases 2000 GJ at a total price of \$17.60/GJ (ie \$24k + \$11.2k).
- Balancing Operator pays and receives \$108,000, ie net zero dollars.
- Balancing Operator purchases 9000 GJ and sells 6000 GJ gaining 3000 GJ (at zero cost).

The Balancing Operator has 3000 GJ of gas left in the pipeline. This residual gas may affect future balancing actions if it is not removed. It is unclear in the December Change Request how the residual gas would be managed. It is free to the TSO/Balancing Operator and if sold the revenue is presumably retained by one of those parties.

The result is not back-to-back with costs to causers.

#### **Example 4: Mismatch**

Assume a contingent event occurs resulting in a producer losing supply. The producer reduces its Scheduled Quantity from 200,000 to 160,000 GJ, a reduction of 40,000 GJ (under section 15.2 of the MPOC).

The Maui operator decides to release a Contingency Volume by way of Mismatch (ie the Scheduled Quantity at the producer's Welded Point is reduced, but the linked downstream Scheduled Quantities are not reduced to the same extent).

MDL assesses the Negative Mismatch Price as \$15/GJ.

Shippers try to reduce their Mismatch during the remainder of the day, after they are notified of their Mismatch. However, because of limited time and tools for managing Mismatch, Shippers have little ability to control their positions.

At the end of the day:

- Shipper A has 20,000 GJ negative Mismatch which is cashed out for \$300,000.
- Shipper B has 10,000 GJ negative Mismatch which is cashed out for \$150,000.
- MDL has low Line Pack of 30,000 GJ (effectively a reduced Contingency Volume) and \$450,000 cash to resolve the problem.

In this scenario the result is not back-to-back allocation of costs to causer because Shippers had little control, and were forced to buy put gas at a posted price without an underlying physical need to take a balancing action.

It is possible that MDL may complete subsequent Balancing Gas Calls because of the now low Line Pack while it is organising to purchase replacement contingency gas.

#### **Example 5: operational gas**

The December Change Request does not state the timings and standards for the Balancing Operator to manage Line Pack fluctuations because of UFG, compressors, unresolved previous residual Balancing Gas, and unresolved Mismatch cash-out (see 3.2(a)). Therefore an example to show whether this is back-to-back would be difficult to achieve. Further, it is unknown whether MDL would be allocated the full costs of its actions or whether some of these costs would be allocated to Welded Parties. Example 3 illustrates that MDL could gain gas in some scenarios.

## **Appendix D Information changes**

This analysis summarises the effect of the proposed change to Section 4.1 of the MPOC.

	Information item
Information previously restricted to users but which would become available on the public section of OATIS	Daily Operational Imbalance Limit for each Welded Point
	Operational Imbalance for each Welded Point
	Peaking Limits
	Running Operational Imbalance for each Welded Point
	Provisional Cycle Scheduled Quantity at each Welded Point
	Changed Provisional Cycle Scheduled Quantity at each Welded Point
	Intra-Day Cycle changes to Scheduled Quantities at each Welded Point
Information not	Available on MDL IX:
currently included in section 4.1 but which	Cash-Out Quantities
would become available	Cash-Out Quantities for each Welded Point
	Balancing Gas Calls/Puts, Mean Call/Put price, Excess Daily Imbalance at each Welded Point, Gas flows exceeding Peaking Limits at each Welded Point
	Addition of Tariff 3
	Balancing Operator will publish on the BGX:
	Standard Terms and Conditions governing Balancing Gas Calls/Puts
	Cash-Out Transactions
	Price stack for Balancing Gas Calls/Puts for each nomination cycle
	Real time metering information for all Welded Points
	Balancing Gas Calls/Puts entered into by the Balancing Operator for each Transmission Day
	A monthly update of the Balancing Operator's expenditure and income along with recovery of costs in accordance with the procedures outlined in the Operating Code
	Independent Auditor's report

	Information item
Information currently included in section 4.1 but which would no longer be available	Deletion of restricted information:
	Mismatch Period
	Mismatch Payback Limit
	Running Operational Imbalance Limits (Positive and Negative) for each Welded     Point
	Scheduled Quantities at each Welded Point for the following day
	Imbalance Limit Overrun Notice pursuant to section 12.10
	Peaking in excess of Peaking Limits
	<ul> <li>Any quantity of gas used for settling any or all of the Accumulated Excess Operational Imbalance pursuant to section 12.11</li> </ul>
	Deletion of public information:
	National Gas Outage Contingency Plan
	Throughput charges
	Mismatches available for trading
	<ul> <li>Any written material instructions issued by MDL to either the Commercial Operator, Technical Operator or System Operator in relation to the setting of Negative Mismatch Price, Positive Mismatch Price, Mismatch Period, Mismatch Payback Limit, Daily Operational Imbalance Limit, Peaking Limit, Peaking Tolerance and Running Operational Imbalance Limits</li> </ul>
	Records and accounts and Independent Auditor's report of the Incentives Pool Account