



Discussion Paper

**Options for Amending Allocation and
Reconciliation Arrangements in the
New Zealand Gas Industry**

June 2006

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1 Introduction

Purpose

- 1.1 The purpose of this discussion paper is to give stakeholders the opportunity to review and comment on options for developing allocation and reconciliation arrangements in the New Zealand gas industry.
- 1.2 This paper reviews the current arrangements for downstream and upstream allocation and reconciliation, identifies a number of issues with each set of arrangements and outlines some preliminary proposals on the direction in which arrangements should be developed.
- 1.3 Comments are sought on this material and any additional factors that stakeholders feel should be taken into account prior to further work being undertaken to develop the preferred approach for amending allocation and reconciliation arrangements.
- 1.4 This discussion paper is only intended to set out issues, propose possible directions, and seek feedback from stakeholders. The Gas Act requires that, before the Gas Industry Co recommends to the Minister any regulations and/or rules, formal consultation must be carried out including an assessment that incorporates a cost-benefit analysis (see sections 43L and 43N of the Gas Act). This discussion paper is not intended to be that formal consultation.

Background

- 1.5 The Government Policy Statement on Gas Governance (GPS) sets out a number of policy objectives for the gas sector including wholesale and retail competition. In order to assist with those objectives, the GPS also provides for the Gas Industry Company (Gas Industry Co) to propose arrangements (including regulations and rules where appropriate) for effective reconciliation.
- 1.6 The Gas Industry Co has also received correspondence from three industry participants suggesting that there are several problems with the existing arrangements that need to be addressed and seeking a general review of existing allocation and reconciliation arrangements. That correspondence is attached as Appendix C.
- 1.7 In a separate consultation paper¹ the Gas Industry Co suggested that enhancements to allocation and reconciliation arrangements may help to improve the options for customers to switch between suppliers. In submissions received on that paper, some stakeholders indicated there may be benefits from a comprehensive review of existing arrangements for allocation and reconciliation.

¹ The Gas Industry Co has published a consultation paper entitled "Options for Switching Arrangements for the New Zealand Gas Industry" (October 2005).

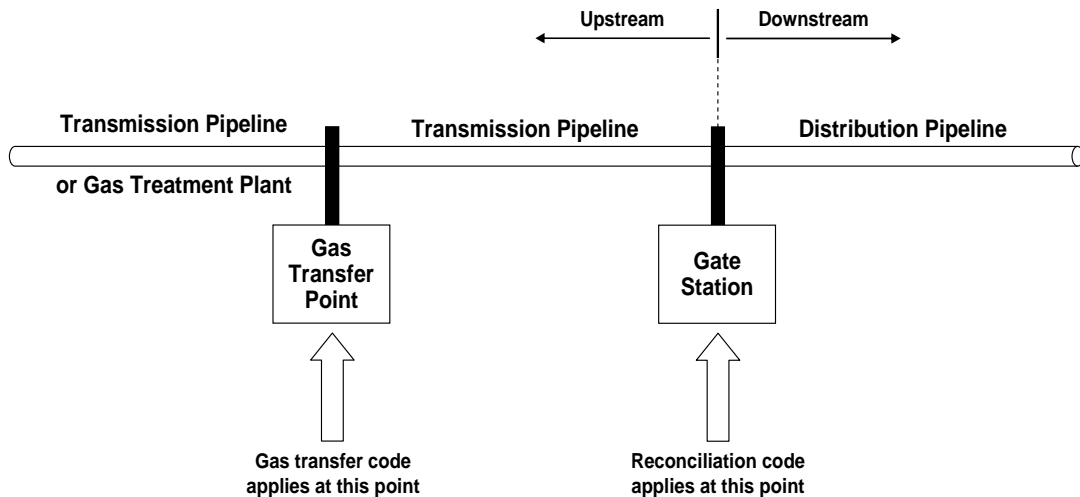
- 1.8 In order to meet the GPS requirements and respond to industry participant requests, the Gas Industry Co established two project teams to assist with this process. These project teams are the Gas Allocation and Reconciliation Team (GART) and the Gas Transfer Code Team (GTCT). Both teams have also sought the views of the Wholesale Markets Working Group (WMWG).

Terminology

- 1.9 In this paper, the term “allocation” will refer to the process of determining (especially at the end of the month) the gas quantities for which individual parties are responsible. “Reconciliation” will refer to processes that follow the (month end) allocation that are designed to verify the reasonableness of estimating methodologies used in the allocation, and to determine whether any issues identified are material and warrant any financial adjustment.
- 1.10 In the electricity sector the term “reconciliation” refers to the whole process that in this paper is called “allocation and reconciliation”. This usage is also sometimes seen in the gas sector.
- 1.11 The Gas Act uses the phrase “reconciling and balancing gas” and the phrase “reconciling market transactions”. The Gas Industry Co considers that this use of the term “reconciling” in the Act refers to the whole process of allocation and reconciliation. Similarly, the Gas Industry Co also considers that the use of the term “reconciliation” in the GPS refers to the whole process of allocating and reconciling gas quantities.
- 1.12 The terms “downstream” and “upstream” are also used in the context of allocation and reconciliation arrangements. In this discussion paper, “downstream allocation” refers to allocation of gas at gas gate stations where the high pressure transmission pipelines interconnect with low pressure distribution pipelines. The allocation determines the quantity of gas delivered by each transmission shipper to the gate station and the quantity of gas for which each retailer on the distribution network is responsible. These arrangements are currently specified in the *Reconciliation Code*².
- 1.13 Distribution networks that have multiple retailers competing on the network and are connected to the Vector Transmission (VT) pipelines must have arrangements in place for allocation and reconciliation that comply with the Reconciliation Code. There are also some distribution networks connected directly to the Maui pipeline, and the Gas Industry Co understands that, where those networks have multiple retailers, the Reconciliation Code is used on those networks for allocation and reconciliation.

² A copy of the Reconciliation Code can be found on the Gas Industry Co’s website http://www.gasindustry.co.nz/Gas_Allocation.html

1.14 “Upstream allocation” refers, in this discussion paper, to allocation of quantities of gas transferred at “gas transfer points” where gas enters the VT pipeline. Gas transfer points are mostly points of interconnection between the Maui and VT pipelines, although the point at which the Kapuni gas treatment plant injects gas into the VT pipeline is also a gas transfer point. Arrangements for “upstream allocation” are currently specified in the *Gas Transfer Code*³.



1.15 This paper draws on much of the terminology contained in the various documents covering allocation and reconciliation in the gas industry. When a term is first used in this paper it is generally described at that point. For convenient reference, the commonly used terms and abbreviations are shown in the following table with a brief description.

Common Term	Description
Allocation agent	The party appointed under an allocation agreement to determine allocated and reconciled quantities of gas at a gas gate station.
Allocation agreement	An agreement between the users of a shared gate station and their appointed allocation agent which sets out the method of allocation and terms of appointment
DDP	Dynamic Deemed Profile – means a deemed profile that changes in accordance with information obtained from TOU metering at one or several sample sites representative of the demand of one or more distribution network delivery points
GART	Gas Allocation and Reconciliation Team

³ A copy of the Gas Transfer Code can be found at http://www.gastransportation.co.nz/transmission/GASTRANSFERCODE_sept05.pdf

Common Term	Description
GTCT	Gas Transfer Code Team
Gas transfer agent	The person named in a gas transfer agreement as the person who will determine the allocation at a gas transfer point
Gas transfer agreement	An agreement between VT shippers and the gas transfer agent at a gas transfer point, which complies with the requirements of the Gas Transfer Code, and sets out rules (or algorithms) for determining the quantity of gas transferred between parties at a gas transfer point, in particular for shippers who have gas transported to that point and shippers who have gas transported from that point.
Gas Transfer Code	The code that establishes a framework for upstream allocation.
Gas transfer point	Any of the points listed in Schedule 1 of the Gas Transfer Code. They are generally points where gas flows into the VT pipelines.
Gate station	The point at which gas flows from a high pressure transmission pipeline into a low pressure distribution pipeline.
ICP	Installation Control Point – the point at which gas leaves a distribution network and enters a customer’s installation.
MPOC	Maui Pipeline Operating Code – available at http://www.mauipipeline.co.nz/extras/pdf/Maui%20Pipeline%20Operating%20Code.pdf
Receipt Point	The location where gas enters a transport system and possession, control or ownership of gas passes from one party to another.
Reconciliation Code	The code that has been established to assist the development of a competitive gas market by providing a uniform process for customer transfers between competing retailers, and allocation and reconciliation of gas quantities between users at Receipt Points into a transmission system or distribution network at which possession, control or ownership of gas passes from one person to another.
RPR	Receipt Point Residual – means the residual throughput at a gate station after deducting TOU and static deemed profile quantities from total gate station quantities.
SDP	Static Deemed Profile - means a pre-determined estimate of the quantity of gas an end user will take on each day, and which for month end allocation purposes defines the daily profile through a particular month

Common Term	Description
TOU metering	Metering that has associated data logging facilities to allow meter readings to be recorded at pre-determined intervals.
TSA	Transmission Services Agreement – an agreement between a transmission pipeline provider and shippers on that pipeline.
VT	Vector Transmission – Vector’s transmission business, formerly owned by NGC
VT pipelines	The transmission pipelines formerly owned by NGC and now owned by Vector.
UFG	Unaccounted For Gas - means the long term difference between the metered quantities of gas entering a transport system at a receipt point and the metered quantities of gas leaving the transport system at a delivery point, expressed as a percentage of the metered quantities of gas entering the transport system at the receipt point.

Current arrangements for allocation and reconciliation

- 1.16 The current arrangements for downstream allocation and reconciliation are contained in the *Reconciliation Code*. The *Reconciliation Code* is given legal effect through contracts between industry players and in particular through VT’s Transmission Services Agreements (TSAs), through distribution use of system agreements and through allocation agreements.
- 1.17 Part B of the *Reconciliation Code* also sets out arrangements for customer transfers between competing retailers. The Gas Industry Co has established a separate process to review these arrangements, and is currently considering submissions on a previously published consultation paper.⁴ Customer transfer arrangements will not be discussed further in this paper.
- 1.18 The current framework for upstream allocation and reconciliation is contained in the *Gas Transfer Code*. The *Gas Transfer Code* is given legal effect through VT’s Transmission Service Agreements (TSAs) with shippers on the VT pipelines, through the Maui Pipeline Operating Code (MPOC) and through the Gas Transfer Agreements (GTAs) that apply between the relevant parties at each gas transfer point.
- 1.19 Appendix. B serves as a simplified illustration of current industry arrangements for the allocation and reconciliation of gas quantities.

⁴ Footnote 1 refers.

The Work of the Gas Allocation and Reconciliation Team (GART)

1.20 The GART was established to review the current downstream allocation arrangements and to recommend to the Gas Industry Co alternative options to enable industry participants to effectively manage their respective risks.⁵ Membership of GART is shown in the following table:

Name	Organisation
John Candy	Mighty River Power
Rod Crone	Contact Energy
Tony Hooks	Vector Networks
Tracey Kaio	Genesis Energy
Tim Shackleton	Vector Networks
Sue Simons	Powerco
Charles Teichert	Todd Energy

1.21 The GART has assisted the Gas Industry Co to identify potential improvements to downstream allocation and reconciliation arrangements. The Wholesale Market Working Group (WMWG) and the industry's nominated allocation agent (who has a pivotal role in current reconciliation arrangements) have also been involved in discussions on potential improvements. However, no changes to downstream arrangements have yet been made.

The Work of the Gas Transfer Code Team (GTCT)

1.22 The GTCT was established to review the current upstream allocation arrangements and to review how the Gas Transfer Code fits into the operation of the industry and to assist the WMWG and the Gas Industry Co to develop recommendations on what changes should be made. Membership of GTCT is shown in the following table:

Name	Organisation
Paul Hodgson	Vector
Brian McLaughlin	Powerco
Syd Hunt	MultiGas/E-Gas
Rodney Deppe	Todd Energy

⁵ The terms of reference for GART and minutes of meetings are available on the Gas Industry Co's website http://www.gasindustry.co.nz/Gas_Allocation.html

- 1.23 The Gas Industry Co has worked closely with the GTCT and the WMWG to develop a recommended set of revisions to the *Gas Transfer Code*. The Gas Industry Co considered the proposed changes to be “interim” in nature, pending a broader review of upstream allocation arrangements. The changes clarified the objectives of the code and suggested some minor definition changes. Some “good-faith” provisions were also either removed or changed to refer to more objective standards. The principles of error identification and correction were articulated and recommendations on the type of rule for determining transferred quantities were also added.
- 1.24 Mighty River Power formally proposed the changes in accordance with the existing governance provisions for the *Gas Transfer Code*. On 20 January Mighty River Power sent copies of the proposed modifications to all other parties to the Gas Transfer Code. On 1 February 2006, the Gas Industry Co called for submissions on the proposal.
- 1.25 The submissions indicated substantial support for the proposed changes, on the general understanding that further work was still required. However, one major retailer submitted that the Code “... *should remain unchanged until it is agreed that the Code is in fact required.*” A pipeline owner proposed in its submission reasonably extensive further modifications to the Code (these included changing the definition of Delivered Quantity, adding several new pre-conditions to a gas transfer, excluding pass through shippers from Allocation Agreements, and numerous wording changes which would require to be consulted on). However, no changes to upstream arrangements have yet been made.

2 Submission Requirements

- 2.1 The Gas Industry Co invites submissions on this discussion document, preferably including answers to the specific questions in Appendix A, by **5:00 pm on Friday, 21 July 2006**. Please note that submissions received after this date may not be able to be considered.
- 2.2 The Gas Industry Co prefers to receive submissions in electronic form (Microsoft Word format and pdf) and to receive one hard copy of the electronic version. The electronic version should be emailed with the phrase “Options for Amending Allocation and Reconciliation Arrangements in the New Zealand Gas Industry” in the subject header to info@gasindustry.co.nz and one hard copy of the submission should be posted to the address below:

Gas Industry Company Limited
Level 9, State Insurance Tower
1 Willis Street
PO Box 10 646
Wellington
New Zealand
Attention: Paul Mitchell, Senior Adviser – Retail & Distribution

Tel: +64 4 494 2466
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- 2.3 The Gas Industry Co will acknowledge receipt of all submissions electronically. Please contact Paul Mitchell if you do not receive electronic acknowledgement of your submission within two business days.
- 2.4 The Gas Industry Co values openness and transparency with submissions generally being made available to the public on the Gas Industry Co’s website. Where respondents intend to provide confidential information as part of their submissions, we ask that you discuss this with the Gas Industry Co prior to lodging your formal submission.

3 Regulatory Context

The Gas Act

- 3.1 Section 43F of the Gas Act empowers the Minister to make recommendations on regulations or rules in respect of reconciling gas quantities and market transactions. With respect to wholesale markets the Act specifies:

“43F. Gas governance regulations for wholesale market, processing facilities, transmission, and distribution of gas—

(1) The Governor-General may, by Order in Council made on the recommendation of the Minister in accordance with sections 43I to 43P, make regulations for all or any of the purposes in subsection (2).

(2) The purposes are—

(a) providing for the establishment and operation of wholesale markets for gas, including for—

(i) protocols and standards for reconciling and balancing gas:

(ii) clearing, settling, and reconciling market transactions:

(iii) the provision and disclosure of data and other market information:

...”

- 3.2 Thus the Gas Act establishes the possibility that regulations or rules⁶ could be used to establish reconciliation arrangements (that is, allocation and reconciliation arrangements in the terminology used in this paper).

The Government Policy Statement

- 3.3 The GPS sets out a number of policy objectives for the gas sector including important objectives about wholesale and retail competition. In particular, the GPS indicates that:

“Industry-led solutions

9. The Government expects the industry body to develop and submit to the Minister of Energy for approval proposed arrangements, including regulations and rules where appropriate, providing for effective industry arrangements in the following areas.

⁶ Section 43Q provides that the Minister may make a rule for all or any of the purposes for which a gas governance regulation may be made.

Wholesale Markets and Processing

- The development of protocols and standards applying to wholesale gas trading, including quality standards, balancing and reconciliation.
- 3.4 The GPS outlines the Government's expectations that effective arrangements for reconciliation (that is, allocation and reconciliation arrangements in the terminology used in this paper) will be developed. It also outlines how the Gas Industry Co is expected to go about implementing those arrangements. In particular it envisages the Gas Industry Co seeking approval for any proposed arrangements, whether they take the form of voluntary industry protocols, multilateral contracts, codes given legal effect by pipeline companies, or by regulations and rules.
- 3.5 The choice of delivery mechanism is an important one for allocation and reconciliation arrangements. Delivery mechanisms are addressed in section 10 of this discussion document.

4 Current Arrangements for Downstream Allocation and Reconciliation

Why is downstream allocation and reconciliation necessary?

- 4.1 Downstream allocation identifies the quantities of gas delivered by each transmission shipper who ships gas to a gate station and the quantities received at that gate station by each retailer who delivers gas to customers on the distribution system downstream of the gate station.
- 4.2 It is useful to note that the parties that ship gas across the transmission system to a particular gate station are usually the same parties who retail gas downstream of that gate station. No shipper transfers gas to multiple parties at any gate stations (currently, this takes place only at the defined gas transfer points), so an allocation of gas to retailers on a distribution system also determines the allocation to transmission shippers at the gate station.
- 4.3 The allocation to each retailer (and each shipper) is based on a range of information, including meter readings for customers on the network and retailers' estimates (or "forecasts") of usage by particular customers or customer groups on the network. The allocation calculation also relies on obtaining information about which retailer is serving each customer.
- 4.4 The methodology for determining an allocation is necessarily complex. Allowance must be made for the fact that all customer meters on the network cannot be read simultaneously at the end of each allocation period. This means that some estimation is necessary to identify how much gas has been used by a customer during the relevant period. Allowance must also be made for changes in distribution system linepack, own-use gas consumption by the distribution business, and unaccounted-for gas (UFG). UFG includes leakage on the distribution system, metering errors, errors in the estimates of customer usage, registration errors, and theft.
- 4.5 Allocation information is also used for determining the amount of gas that each transmission shipper (i.e. each retailer) on the VT system is required to pay for transmission services. Vector's transmission charges include a charge for shipping more gas over a period of a day than the amount of capacity the shipper has previously reserved for that day. Vector also holds shippers accountable for daily mismatch⁷, as part of its regime for balancing its pipelines. These daily charges are only possible if information is available about the daily allocation of gas to each shipper each day at each gate station.
- 4.6 Retailers do not typically use allocation information in their invoices to customers. Retailers typically prepare invoices for their customers based on information obtained from customer meters and estimates of usage where actual reads have not been

⁷ That is, the shipper's aggregate injections of gas on a day into the transmission pipeline minus the shipper's aggregate off-take of gas on that day from the pipeline.

obtained. Also, distribution networks do not use the output of the allocation process for their invoices to retailers. Retailers typically provide to distributors the same information that they provide to the allocation agent as an input into the allocation process. Distributors use that information for invoicing retailers.

- 4.7 The Gas Industry Co understands that some Gas Transfer Agreements use information from the downstream allocation to determine how much gas is transferred between parties at a gas transfer point (i.e. an upstream point where gas is injected into the VT pipelines). In this case, the downstream allocation may affect the quantities and amount that wholesale gas buyers pay to wholesale gas suppliers under their gas supply agreements.
- 4.8 Downstream allocation will not affect transmission charging on the Maui pipeline, except in respect of legacy arrangements where nominations can be set to equal the aggregate of downstream allocations.
- 4.9 A further use for allocation information is to enable industry participants to manage their commercial positions. Allocation information can be used for this purpose only if it is published shortly after the end of each day. For example, if a retailer is able to use daily allocation information available on the next day to identify that they have recently shipped, and are likely to continue to ship, more than their reserved capacity on the transmission network (thereby incurring overrun charges), they may take steps to acquire additional reserved capacity or have their overrun authorised so that those overrun charges are reduced.

Global and difference methods in practice

The New Zealand gas industry currently has 124 gas gate stations. Of these, 93 require allocation and/or reconciliation functions to be performed as there is more than one retailer supplying gas on the distribution network downstream of the gate station. These gate stations supply distribution networks owned and operated by Vector (56)⁸, Powerco (32) and GasNet (5).

At present Genesis Energy is the retailer with the greatest level of incumbency (50), followed by Contact Energy (20), Wanganui Gas (3) and NGC Retail (2). Additionally, 10 gate stations are not shared with a further 8 gate stations adopting the global method of allocation or having no incumbent retailer identified.

Different allocation services

- 4.10 The Reconciliation Code provides for a “month end allocation service”, which makes daily allocations for that month available by the fifth working day after the end of the month. This enables invoices (e.g. VT’s transmission invoices) to be posted shortly afterwards.

⁸ Of these 56 gas gates, 44 were previously owned by NGC.

- 4.11 A day end information service may also be provided if the relevant parties request and pay for that service.
- 4.12 In some cases, the parties taking gas from a gate station may only require energy totals reconciled by month (rather than for every day in the month). The Reconciliation Code therefore also provides for a month end monthly energy allocation service.

Legal structure

- 4.13 The current arrangements for downstream allocation and reconciliation are contained in the *Reconciliation Code*. The *Reconciliation Code* is given legal effect through:
- VT's TSAs with transmission shippers require that, where two or more shippers ship gas to the same gate station, they must be parties to an allocation agreement (which complies with the Reconciliation Code) applying on the downstream distribution network;⁹
 - distribution use of system agreements (between distribution companies and retailers on that network) where two or more retailers sell gas on the network must be parties to an allocation agreement applying to the network; and
 - multilateral allocation agreements between parties sharing the gate station (transmission shippers and retailers) and the party they choose as the allocation agent at that gate station.
- 4.14 The standard VT TSA¹⁰ defines "allocation agreement" as follows:
- "Allocation Agreement means an agreement which complies with the Reconciliation Code, between all persons who receive Gas at or deliver Gas to the same [transmission] Delivery Point [i.e. receipt point into a distribution network] and the Allocation Agent named in that agreement, which sets out the methodology to be used by the Allocation Agent to apportion quantities of Gas delivered at the Delivery Point between such persons, as well as the terms of appointment of the Allocation Agent, as amended from time to time in accordance with its terms" [comments added].
- 4.15 The standard VT TSA provides that allocation agreements must comply with the Reconciliation Code. The Reconciliation Code does not specify the methodology for allocation but does outline two major options and various sub-options from which the parties may choose if they wish. The Reconciliation Code also sets out process requirements such as a timetable for information flows.

⁹ Note that the MPOC contains no similar provisions for shippers on the Maui pipeline. This reflects the fact that the Maui pipeline has a flow-on-nominations regime for charging shippers, and an operational balancing regime for balancing the pipelines.

¹⁰ See <http://www.gastransportation.co.nz/transmission/051129-884522.pdf>, dated December 2005.

- 4.16 Although VT is not party to allocation agreements, it has an interest in ensuring that it receives allocation information in a timely fashion for invoicing purposes. It also has an obligation to supply some information as an input into the allocation process. These rights and obligations are contained in VT's TSAs with shippers.

Single allocation agent in practice

- 4.17 The Gas Industry Co understands that a single party (Tom Tetenburg and Associates Limited) currently provides all downstream allocation and reconciliation services to the New Zealand gas industry.
- 4.18 Allocation agreements must name an allocation agent. That agent acts as a service provider to the shippers and retailers by calculating the allocations based on information provided by downstream retailers. The allocation agent is a party to the allocation agreement and must be approved by all users of a network to become the appointed allocation agent. Where unanimous agreement cannot be reached to this effect, responsibility for undertaking these functions rest with the network owner.

Global and difference methods for allocation

- 4.19 The Reconciliation Code outlines some options for reconciliation methodologies, and notes that the main methodology decision for the parties to an allocation agreement is whether to adopt the "global" or "difference" method of allocation. By way of example, the global method and the difference method of allocation are set out in an appendix to the Reconciliation Code. The choice of allocation methodology to be applied to all parties sharing the gate station is a matter for the defined incumbent retailer, although the Reconciliation Code provides for the allocation agent to determine the methodology if those parties cannot agree.
- 4.20 The global method requires all parties to provide to the Allocation Agent metered daily quantities or estimated daily quantities (or monthly quantities from which daily estimates can be derived by the Allocation Agent) relating to all installation control points (ICPs). The estimated component of the quantities across all retailers is then scaled up or down so that the total for all customer connections (after adjustment for UFG which is applied against groups 5 & 6 only) equals the quantity metered at the gate station.
- 4.21 Under the "difference" method, the allocated quantities of the incumbent retailer will be calculated by difference between the gate station metered quantity and the aggregate quantities of the other parties after adjustment for UFG. Non-incumbent retailers submit consumption volumes at a gas gate, the published UFG is then scaled across the entire gas gate consumption and the residual UFG is allocated to the incumbent retailer.
- 4.22 Further discussion of allocation methodologies requires some background on allocation groups and profiles.

Allocation groups

4.23 The Reconciliation Code divides end users into six “allocation groups” for the purposes of calculating the allocation. The groups are shown in [Table 1](#).

Table 1: Allocation groups

Allocn Group	Availability of metering information	Sites covered
1	TOU metering with telemetry	All sites above 10 TJ per annum, plus some smaller sites
2	TOU metering without telemetry	All sites above 10 TJ per annum, plus some smaller sites
3 and 4	Meters read at or close to month end	All sites above 250 GJ per annum (except those in allocation groups 1 or 2), plus some smaller sites
5 and 6	Meters read other than month end	Sites less than 250 GJ per annum.

4.24 Groups 3 and 4 are distinguished from each other by whether the site has an approved static deemed profile (SDP) associated with it. Group 3 sites have SDPs. Group 4 sites do not. An SDP is a pre-determined estimate of the quantity of gas an end user will take on each day. For the month end daily allocation service, the SDP can be used to convert the figure for monthly usage (obtained from the meter reading) into estimates of usage for each separate day in the month.

4.25 Groups 5 and 6 are distinguished by whether the site has an approved dynamic deemed profile (DDP) associated with it. Group 5 sites have sample DDPs. A DDP is a deemed profile which changes in accordance with information obtained from TOU metering at one or several sample sites representative of the demand of one or more distribution network delivery points.

4.26 The information sources used to determine allocated quantities will be different for each allocation group and for each of the allocation services as shown in [Table 2](#).

Table 2: Information sources for each allocation group

Allocn Group	Day end estimated daily energy information service	Month end daily energy allocation service	Month end monthly energy allocation service
1	Actual quantity	Actual quantity	Actual quantity
2	RPR ¹¹ split (or SDP if more representative)	Actual quantity	Actual quantity
3	SDP	SDP x actual quantity	Actual quantity
4	RPR split	RPR ¹¹ deemed profile x actual quantity	Actual quantity
5	RPR split	Sample DDP x estimated quantity	Estimated quantity
6	RPR split	RPR ¹¹ deemed profile x estimated quantity	Estimated quantity

Month end daily energy allocation service

- 4.27 For the month end daily allocation service, all retailers provide the following data to the allocation agent by 8am on the third business day after the end of the month:
- a) Daily energy quantities for each customer in groups 1 and 2, as measured by the TOU meters;
 - b) Daily energy quantities for each customer in group 3, as measured by the monthly meter reading made at or near the end of the month multiplied by the static deemed profile applying to that customer;
 - c) Actual month energy quantity for each customer in group 4 as measured by the monthly meter reading made at or near the end of the month. The allocation agent will apply a RPR residual profile to determine daily quantities for these customers;
 - d) The estimated aggregate daily energy quantity, summed across all that retailer's group 5 customers downstream from a particular gate station, and calculated by estimating aggregate *monthly* energy use¹² and applying a sample dynamic deemed profile. The number of group 5 customers is also provided.
 - e) The estimated aggregate monthly energy quantity, summed across all that retailer's group 6 customers downstream from a particular gate station, calculated

¹¹ Receipt point residual (RPR) means the residual throughput of a distribution network receipt point after deducting TOU and SDP quantities from total receipt point quantities.

¹² The estimate of the aggregate monthly energy quantity is determined by the retailer's modelling of demand from that group, and takes into account meter readings made during the month

using the retailer's modelling of demand for that group, and taking into account meter readings made during the month. The number of group 6 customers is also provided. The allocation agent will apply a RPR residual profile to determine aggregate daily energy quantities for this group.

4.28 The allocation agent completes the allocation in accordance with the allocation agreement by 8am on the fourth business day following the end of the month.

4.29 Where the difference method is applicable, the allocation agent:

- establishes the daily quantities for group 1-3 and 5 sites;
- calculates the RPR profile;
- applies the RPR profile to groups 4 and 6; and
- establishes daily quantities for each retailer at the receipt point.

4.30 Where the global method is applicable, the allocation agent:

- establishes the daily quantities for group 1-3 and 5 sites;
- calculates the RPR profile;
- scales the estimated quantities so that the total delivery point quantities after scaling of estimates and addition of UFG allowance equals the total receipt point quantities;
- applies the RPR profile to groups 4 and 6; and
- establishes daily quantities for each retailer at the receipt point.

Allocation of distribution system unaccounted-for gas (UFG)

4.31 The Reconciliation Code provides principles for allocating distribution system unaccounted for gas (UFG).

"13.1 Principles: The principles for UFG are:

- UFG is to be allocated on an equitable basis in accordance with the methods and quantum prescribed in transport system owners' [i.e. distributors'] use of system agreements or Information Memoranda;*
- Transport system owners must either take responsibility for UFG or declare what allowance Shippers and the Allocation Agent must make for UFG; and*
- Transport system owners are responsible in the first instance for investigating all abnormal UFG variations."*

4.32 Distributor use of system agreements (between network providers and network users can be expected to deal with UFG issues.¹³ As an example, NGC Distribution (prior to its acquisition by Vector) treated UFG as follows in its *Distribution System Information Memorandum* (October 2005).

“5.14. Unaccounted-for Gas

Unaccounted for gas (UFG) is the difference between the metered quantities of gas entering a Distribution System at Receipt Points and the metered quantities of gas exiting the system at Delivery Points.

Several factors contribute to UFG on a Distribution System:

- *GMS accuracy limits at Receipt and Delivery Points;*
- *Estimated readings (i.e. not all GMS are read every month);*
- *Gas lost through system leakage and third party damage;*
- *Un-metered gas used during operations; and*
- *Stolen gas.*

NGC does not buy gas to compensate for UFG. Each Network User will be advised of the rolling 12 month UFG performance for each Distribution System, ahead of each Contract Year, so that it can allow for the effect of UFG in its upstream Gas Sale Agreement.”¹⁴

4.33 Distributors generally provide to retailers information about UFG loss factors, calculated from historical delivery point meter data on the network. These loss factors are typically used to allocate expected levels of UFG to retailers on the distribution network by scaling up metered quantities at delivery points (i.e. consumer sites) to equivalent gas gate station quantities.

4.34 The use of loss factors allows expected levels of UFG to be allocated fairly to all retailers. However, if the difference method of allocation is being used, variations in UFG (above or below the level used to calculate the UFG factors) will be allocated to the incumbent retailer only.

Reconciliation

4.35 The month end daily allocations rely on various estimates made by retailers. In particular, the allocation agent relies on aggregate estimates of monthly energy use for customers in groups 5 and 6.

¹³ The Reconciliation Code provides that distributors have obligations in relation to UFG (see the quotation of paragraphs 13.1 (b) and (c) above), but these obligations are not mentioned in the draft standard *Interconnection Agreement for Delivery Point*, published in late 2005 by NGC prior to its acquisition by Vector. If the UFG obligations are not incorporated into transmission interconnection contracts, then distribution network users will expect them to be incorporated into the distribution use of system agreements.

¹⁴ It appears that the NGC *Distribution System Information Memorandum* contains no provisions for investigating abnormal UFG variations.

- 4.36 An annual reconciliation, carried out by the allocation agent in October each year, is intended to verify the reasonableness of the estimating methodology and resulting estimates used in any allocation during the previous 12 months. The reconciliation will determine if an alternative estimating methodology needs to be used to provide more accurate estimates.
- 4.37 By 8am of the 4th business day after the end of each month, each retailer (other than the incumbent retailer where allocation is by difference) provides to the allocation agent the delivery point energy quantities calculated from actual meter reads taken during the month just ended, in total for allocation groups 3-4 and 5-6, and by gate station. Retailers provide actual consumption data to the allocation agent for groups 1-2 at ICP level.
- 4.38 The allocation agent verifies the reasonableness of the estimating methodology and resulting estimates used in previous allocations by comparing the moving annual total of the actual metered quantities with the moving annual sum of delivery point quantities used for allocation (which will include actual and estimated quantities).
- 4.39 If the allocation agent (acting reasonably and after consultation with the affected parties and upstream gas transfer agent if required) considers that application of quantities based on actual reads (instead of estimated quantities) would have resulted in a materially different overall financial result in respect of any of the affected parties, then the allocation agent will pass the relevant information on to the appropriate people (e.g. retailers, shippers, VT) to enable the financial position to be rectified. The term “wash up” is often used to refer to a reconciliation that results in financial adjustments being made.
- 4.40 The Reconciliation Code also provides for additional reconciliations to take place during the year:
- “14.3 The Allocation Agent may perform additional reconciliations from time to time to verify the reasonableness of estimates produced using any new estimating methodology. It is not intended that reconciliation be performed monthly. However when more frequent reconciliation is required due to a change in estimation method, then the process outlined for annual reconciliation should be used for the applicable period.”
- 4.41 The Gas Industry Co understands that these additional reconciliations do in fact tend to be carried out regularly and on an ad-hoc basis. As noted above (paragraph 4.37), retailers must provide the information required for a reconciliation by 8am of the 4th business day after the end of each month. Monthly reconciliation helps to pick up anomalies in allocations at an earlier stage. Some parties have previously suggested that the provision of information could be extended to possibly the 7th business day after the end of each month to improve the quality of original consumption data provided to the allocation agent.

Other adjustments to allocations

- 4.42 Although retailers are supposed to provide information to the allocation agent for the month end daily allocation service as described above (paragraph 4.27), in practice

some of that information may not be able to be supplied by the required time. An example is where the retailer is required to provide information on daily or monthly meter readings for a site, but the meter at that site is not able to be read in time. In these cases, the allocation agent will use an estimated amount to ensure the allocation process is not delayed.

- 4.43 If the meter reading information from a site becomes available at a later date, the actual energy consumption at the site may be quite different from the earlier estimate. If the allocation agent considers that application of quantities based on actual meter readings (instead of estimated quantities) would have resulted in a materially different overall financial result for the affected parties, then the allocation agent will pass the relevant information on to the appropriate parties to enable the financial position to be rectified.
- 4.44 A similar adjustment to an allocation can arise where meter errors are discovered after an allocation is completed.
- 4.45 Parties may also request an audit of an allocation, and allocations may be revised following the results of the audit. Allocations are not normally revised as the result of an audit if they were performed more than 18 months prior to the request for the audit.

Governance

- 4.46 The Reconciliation Code provides for a National Allocation Group, which has a key governance role under the code. The Code defines the National Allocation Group as the committee of signatories to the New Zealand Gas Pipeline Access Code.
- 4.47 The Code provides for the Chairman of the National Allocation Group (“the Chairman”) to facilitate an annual review of this Code and its operation. The Chairman may also determine that a special review is required following a request from a party.
- 4.48 In addition to the review process, the role of the National Allocation Group includes:
- appointing an auditor at the request of any party to investigate an allocation;
 - making determinations on matters of principle related to deemed profiling; allocation or reconciliation;
 - determining the best means of resolving a dispute if the parties cannot agree on the means;
 - reviewing deemed profiles if a party requests a review; and
 - determining the principles that apply to deemed profiling, allocation and reconciliation.
- 4.49 The Gas Industry Co understands that the National Allocation Group has never met in practice and has not provided any effective governance of the existing arrangements.

5 Current Arrangements for Upstream Allocation

Why is upstream allocation necessary?

- 5.1 Upstream allocation identifies the daily quantities of gas transferred between parties to wholesale gas trades at a gas transfer point.
- 5.2 Gas transfer points are listed in Schedule 1 of the Gas Transfer Code. They include:
 - points of interconnection between the Maui and VT pipelines; and
 - the receipt point into the VT pipeline at which Kapuni gas is injected.
- 5.3 There may be a number of parties that deliver gas to a gas transfer point, and a number of receiving parties who take gas away from that point.
- 5.4 VT has an interest in ensuring that the metered volume of gas injected into the VT pipeline at the gas transfer point is fully reconciled. The upstream allocation determines the daily quantity of gas each shipper has received at the entry point into the VT pipeline, and this information is used by VT to determine shipper daily mismatches and running mismatch for the month. VT does not have a similar interest in the quantities that the delivering parties deliver to the gas transfer point, since that has no influence on the Vector invoicing.
- 5.5 The upstream allocation can also be used by the parties who trade gas at the gas transfer point to determine how much gas the buyer has purchased from the seller, and therefore how much should be invoiced under the gas purchase/sale agreement.
- 5.6 Upstream allocation does not affect transmission charging on the Maui pipeline. The “flow-on-nomination” arrangements that operate on that pipeline provide that shippers are deemed to have shipped their approved nominations. Operational imbalances on the Maui pipeline are allocated to “welded parties” (that is, parties that are physically connected to the Maui pipeline, e.g. VT).

Gas transfer points and balancing the VT pipelines

- 5.7 Vector’s arrangements for balancing the VT pipeline involve assigning responsibility to each shipper for matching its aggregate receipt and delivery quantities on the pipeline in the course of each day. Shippers book transmission capacity for shipping gas between a receipt point (injection point into the VT pipeline) and a delivery point (off-take from the VT pipeline). There are no arrangements under the Vector *Transmission System Information Memorandum 2005* for shippers to ship gas from points other than receipt points, or to ship gas to points other than delivery points. This explains why schedule 1 of the Gas Transfer Code only lists points that are receipt points on the VT pipeline.

Gas transfer agreements and the gas transfer agent

- 5.8 The Gas Transfer Code provides that parties who wish to transfer gas at a gas transfer point must have one or more gas transfer agreement in place relating to that

point before the transfer can occur. The gas transfer agreement will describe how the upstream allocation will be calculated, and will appoint a gas transfer agent to carry out the calculation. Although there may be more than one gas transfer agreement in place at a gas transfer point, only one person may act as the gas transfer agent in respect of that gas transfer point.

Gas Transfer Code focuses on process

5.9 The Gas Transfer Code describes:

- a) the pre-conditions to parties transferring gas at a gas transfer point;
- b) the matters which a gas transfer agreement must address; and
- c) the process and timetable for:
 - o delivering parties notifying the gas transfer agent of delivered quantities.
 - o The gas transfer agent calculating and advising parties who transfer gas at a gas transfer point of the quantities of gas transferred on each day.

5.10 The Gas Transfer Code does not prescribe the rules (or algorithms) for determining transferred quantities or the commercial aspects of transfer arrangements between parties. These will be determined by, and set out in an agreement between, the parties in respect of that gas.

Information flows and timetables

5.11 The Gas Transfer Code provides that, on the fourth working day following the end of the month, the “Welded Party” (that is, MDL for most gas transfer points, and Vector for the Kapuni treatment plant) determines the delivered quantities arriving at the gas transfer point in accordance with its allocation rules, and will notify the delivering parties and the gas transfer agent. In the case of gas transfer points that are Maui/VT welded points, MDL will determine the quantities delivered to the gas transfer point by Maui pipeline shippers in accordance with its “flow-on-nominations” arrangements, and will notify those shippers and the gas transfer agent.

5.12 On the sixth working day following the end of the month, the gas transfer agent applies the transfer rules (algorithms) to determine the traded quantities and, in particular, the quantities received into the VT system. The gas transfer agent then notifies each party of its received quantities.

5.13 Note that the Gas Transfer Code makes no specific provision for a day end daily energy information service.

Errors and corrections to upstream allocations

5.14 Gas transfer agents will notify all affected parties of any quantities corrected for errors before the sixth working day following the end of the month. Other affected parties

are required to use this information to re-calculate the value of any associated transactions.

- 5.15 Errors or corrections identified after the sixth working day following the end of the month must be dealt with by delivering and receiving parties, but other affected parties will not be required to use the corrected quantities to re-calculate the value of any associated transactions.

Governance

- 5.16 Where a dispute arises between parties at a gas transfer point, the parties are to determine the best means of resolving the dispute. If they cannot agree, either party can request the Chairman of the National Allocation Group to determine the best means of resolving the dispute.
- 5.17 Any party can propose modifications to the Gas Transfer Code. The Gas Transfer Code provides for the Gas Industry Co to either approve or reject a proposed modification. The Gas Industry Co is not permitted, acting in its role under the Code, to approve any modification that affects the current business systems of a transmission pipeline owner without first obtaining the agreement of that pipeline owner (such agreement not to be unreasonably withheld).

Illustration of the respective domains of the Gas Transfer Code and the Reconciliation Code

- 5.18 Appendix B illustrates and provides supporting explanatory notes on the respective domains of the Gas Transfer Code and the Reconciliation Code.

6 International Experience with Allocation in Gas Markets

HP Invent report

- 6.1 The New Zealand gas market is in transition from a market with one main source of flexible gas supply to a market with multiple sources of supply that are likely to be relatively inflexible. It is also in transition from retailers with strong local incumbencies to more diverse supply arrangements. This poses potentially quite different requirements on the market design and systems to support the market moving forward. In particular, it requires the development of efficient arrangements for the allocation and reconciliation of gas quantities.
- 6.2 Other gas markets have gone through similar transitions and will have dealt with similar issues. In order to draw on this international experience, HP Invent was commissioned to prepare a report reviewing overseas gas markets of similar scope, structure or style to the New Zealand market.
- 6.3 HP Invent was asked to describe the arrangements for determining gas quantities for customers and shippers in those markets and to review the different methods used to determine gas quantities for each shipper or retailer using transmission or distribution pipelines. They were also asked to define how gas quantities are used in the calculation of balancing and transport charges.
- 6.4 Although the report covers both upstream and downstream quantities for all sizes of shipper or customer, the focus is on the small customer who has no daily metering and whose meter will not be read until a considerable time after the day in which gas flows to the customer.
- 6.5 The report reviews the different approaches to forecasting (or nominating) quantities, allocation procedures, and reconciliation (or final allocation) procedures. For comparison, the methods currently used in the New Zealand gas market are also described.
- 6.6 The HP Invent Report is available on the Gas Industry Co website¹⁵.

Markets reviewed

- 6.7 Five overseas markets were reviewed by HP Invent: two from Europe (the British and Irish markets) and three from Australia. These markets were chosen because they are broadly similar in scope, structure and style to the New Zealand gas market. The markets reviewed and a brief comparison of the main features of each market with New Zealand is outlined in the following table:

¹⁵ See http://www.gasindustry.co.nz/Gas_Allocation.html.

Market	Great Britain	Victoria	NSW	SA/WA	Ireland	New Zealand
Market Annual Consumption (PJ)	3360	250	140	500	150	200
Retail Annual Consumption (PJ)	1240	130	30	70	13	40
Retail Contestability	Full	Full	Full	Full	>18TJ pa	Full
Retail Customers (000s)	20,000	1500	900	800	430	250

- 6.8 The West Australian and South Australian markets were treated together since, although they are geographically quite separate, they operate largely under common market rules and a single market operator.
- 6.9 Apart from Great Britain, which is an order of magnitude larger, all the markets reviewed are broadly similar in size to New Zealand. Apart from Ireland, all the markets have full retail contestability covering all customers and have done for some time.
- 6.10 All the overseas markets operate within a regulated governance arrangement that requires participants to comply with market rules generally under some form of licensing arrangement. The rules often contain specific provisions dealing with rule change processes and compliance and enforcement arrangements.

Key differences between New Zealand and overseas markets

- 6.11 HP Invent concluded that the five markets reviewed demonstrated a variety of approaches to allocation, but also a good deal of commonality. The existing arrangements in New Zealand have much in common with these approaches but are somewhat unusual in a number of areas.
- 6.12 In several areas the New Zealand arrangements differ from all but one of the markets reviewed. HP Invent suggests that it would be worth investigating these differences to further understand how or why they have arisen and to consider whether modifications to the New Zealand approach are appropriate. The key areas of difference are:
- The absence of a comprehensive nominations regime on VT pipelines despite the requirement for retailers to nominate to the Maui producer;
 - The lack of any spot or ex-post markets;
 - The use of a differencing approach to downstream allocation and the lack of a demand-weather model for adjusting quantities;
 - The flexibility that New Zealand retailers enjoy in choosing downstream allocation methods;

- The dependence of upstream allocation on downstream allocation, which appears to derive from legacy Maui gas contracts which are likely to expire in the next few years; and
- The way that reconciliation adjustment is “rolled backward” to recalculate historical mismatch quantities rather than “rolled forward” into a “running mismatch” that must be reduced to zero over time.

7 Approach to Improving Allocation and Reconciliation Arrangements

Short-term and long-term issues

- 7.1 The Gas Industry Co, drawing on the assistance provided by the GART and the GTCT, has identified a number of issues with the current upstream and downstream allocation and reconciliation arrangements embodied in the *Reconciliation Code* and the *Gas Transfer Code*. Some of these issues are fundamental in nature, while others are relatively simple issues with fewer implications across other industry arrangements.
- 7.2 The Gas Industry Co proposes to proceed with some relatively simple (“short-term”) changes to industry arrangements, while continuing to develop options for the direction of more fundamental (“long term”) changes.
- 7.3 The more fundamental issues are generally related to the need to adapt to the evolving environment in the New Zealand gas sector. Advancing fundamental changes is likely to require detailed consideration, discussion with stakeholders, and interfacing with other developments such as:
- the switching and registry arrangements;
 - the development of gas balancing mechanisms;
 - the wholesale market development; and
 - the open access regime.
- 7.4 The HP Invent report discussed in Section 6 may provide a useful starting point for considering the longer term development of allocation and reconciliation arrangements.

Migration to a rules-based environment

- 7.5 Section 10 of this paper addresses issues of compliance, and the implications for the form of new arrangements for allocation and reconciliation. That section concludes with a proposal that new arrangements should take the form of Ministerial rules under the Gas Act, rather than to continue with the current approach which makes the *Reconciliation Code* and the *Gas Transfer Code* mandatory for the relevant parties by including requirements and provisions in transmission and distribution agreements.
- 7.6 If a rules-based approach is adopted, a set of rules will be developed based on the existing arrangements for allocation and reconciliation and amended to address defined short-term problem areas.

7.7 The Gas Act requires that, before the Gas Industry Co recommends rules to the Minister, formal consultation must be carried out including an assessment that incorporates a cost-benefit analysis (see sections 43L and 43N of the Gas Act). This discussion paper is not intended to be that formal consultation.

Q1: Do you agree that it is sensible to divide the issues (with the downstream and upstream allocation arrangements) into short-term and long-term issues and to advance the short-term issues ahead of the long-term ones?

8 Issues Arising from Current Arrangements for Downstream Allocation and Reconciliation

8.1 The Gas Industry Co has identified, drawing on the work carried out by the GART, a number of issues arising from the current downstream allocation and reconciliation arrangements that need to be addressed. The issues are discussed below and recommendations for improvements are made.

Issue 1 – Poor compliance and ineffective governance

8.2 Although the Reconciliation Code is made mandatory for the relevant shippers and retailers through VT’s TSAs and through distribution use of system agreements, there appears to be no effective mechanism that monitors and enforces compliance with the provisions in the Reconciliation Code and allocation agreements. The Gas Industry Co understands that there is substantial industry concern about poor compliance with current allocation and reconciliation arrangements. With no substantial incentive to comply, the arrangements may operate unfairly and inefficiently and this could act as an impediment to developing further competition across the industry.

8.3 The Gas Industry Co also understands that there are substantial industry concerns about the effectiveness of the dispute resolution processes in the Reconciliation Code. Disputes tend to be resolved at present between individual parties with the allocation agent acting as an intermediary in many instances. This requirement of the allocation agent does not form part of a typical allocation agreement.

8.4 The Gas Industry Co is also concerned that the Reconciliation Code is not subject to regular reviews. Regular reviews of allocation and reconciliation arrangements are likely to prove beneficial given the dynamic evolution of the industry.

8.5 Under the Reconciliation Code, the National Allocation Group has an important governance role. The role includes determining dispute resolution processes (where the parties cannot agree on a process), appointing auditors to audit allocations, and facilitating an annual review of the Code. However, the Gas Industry Co understands that the National Allocation Group has never actually met or performed any functions under the Code.

8.6 Chapter 10 of this discussion paper discusses options for compliance and the form of allocation and reconciliation arrangements going forward. The Gas Industry Co’s preliminary views and proposals on compliance and governance are contained in that chapter.

- Q2:** Do you agree that compliance with existing arrangements for downstream allocation is poor?
- Q3:** Do you agree that governance arrangements (e.g. code modification processes, dispute resolution processes) are not working effectively? Please provide any specific examples that demonstrate your view.

Issue 2 – Appointment of allocation agent

- 8.7 The VT TSA requires shippers at a shared gate station to enter an allocation agreement. This allocation agreement must name the allocation agent who is to apply the agreed allocation methodology. The allocation agreement must also contain the terms of appointment of the allocation agent.
- 8.8 The need for all parties using a gate station to agree on an allocation agent can cause difficulties or delays in some circumstances. For example, when the period of appointment for an allocation agent expires the parties shipping gas to the gate station must again agree who to appoint as the allocation agent. If there is any disagreement, the appointment of an allocation agent cannot take place and this can delay the completion of the annual reconciliation conducted in October each year.
- 8.9 It is proposed to implement a regime where the Gas Industry Co becomes the single industry body responsible for appointing an allocation agent (or allocation agents).

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| <p>Q4: Do substantial difficulties arise as a result of the need for all shippers at a gate station to agree who to appoint as the allocation agent?</p> <p>Q5: Do you agree that the Gas Industry Co should implement a regime where the Gas Industry Co becomes the single industry body responsible for appointing an allocation agent?</p> |
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Issue 3 – Inequitable allocation of UFG variations to the incumbent retailer

- 8.10 As outlined at paragraph 4.31, the “difference” method of allocation effectively allocates variations in UFG to the incumbent retailer. At the time the Reconciliation Code was drafted in 2000, incumbent retailers were identified for each shared gas gate, based on their market share at that time. Industry changes and customer transfers since that date means that some incumbent retailers do not now have the majority of market share at gas gates, both in terms of ICPs and volume. This can result in unfair and inefficient allocations of variations in UFG.
- 8.11 It is proposed to require the global method of allocation to be applied uniformly across all gas gates. Use of the global method, and allocating UFG variations based on each retailers’ volumes on the distribution network would more accurately reflect the true costs for each retailer.
- 8.12 While it would be preferable for all participants to move quickly to global allocation arrangements, the Gas Industry Co notes that retailers may require some time to adjust their own systems and data to accommodate such a change. It is proposed to recognise this issue in any commencement date for mandatory global allocation.
- 8.13 The Gas Industry Co also envisages carrying out further work in the longer term to determine whether improvements can be made in UFG allocations.

Q6: Does the use of the “difference” allocation method and the resulting implications for the allocation of UFG variations create a substantial problem in the industry?

Q7: If there are problems with the allocation of UFG variations, is working towards mandatory global allocation an appropriate response for the Gas Industry Co?

8.14 As discussed in paragraph 4.33, loss factors determined by distributors are used to scale delivery point gas quantities (i.e. measured at the customer’s site) up to equivalent receipt point (gas gate) quantities. They indicate the “efficiency” of a particular network (or section of network) in accounting for gas used on the network. Retailers will take these loss factors into account when determining their tariffs, since allocations of UFG are a cost of supplying gas to customers.

8.15 It is suggested that, in the event of not universally adopting a global allocation methodology across all gas gates, further work would be helpful in establishing how loss factors are calculated by network companies, the public availability of these to interested parties and whether these can be calculated on a 12 month rolling basis so that the loss factors remain as relevant and accurate as possible.

8.16 Some parties have also suggested that the availability of gas gate data (daily metered throughput, available next day) would also be useful to improve the ability of retailers to manage trading risks. However, the Gas Industry Co does not propose to address this issue in the short-term as further discussion would be needed to address potential confidentiality issues.

Q8: If global allocation is not made mandatory, how important would it be for 12 month rolling loss factors to be used in the allocation process?

Q9: Should all gas gate daily metered quantities be published daily? What difficulties (e.g. confidentiality) might arise from daily publication?

Issue 4 – Misalignment between month end and reconciled consumption data for non-TOU sites

8.17 The Gas Industry Co notes that there are no easily enforceable obligations on retailers to ensure that the data provided to the allocation agent is accurate and of good quality. In particular, retailers may have an incentive to present data to the allocation agent that is based on inappropriate estimates.

8.18 Where quantities for sites in allocation groups 3 and 4 are *deemed* to align with the allocation month (the meter readings for the site may not align exactly with the start and finish of each calendar month), there may be some inaccuracy introduced. In addition, where retailers adjust quantities for sites in allocation groups 3 and 4 to reflect the exact calendar month, forward estimates need to be made for the appropriate adjustment. For allocation groups 5 and 6, the retailer will need to use some forecasting techniques to estimate monthly energy use by that group. Wherever estimates are required, there may be an incentive on retailers to make these estimates based on a flatter seasonal profile than reality would otherwise suggest. This approach could reduce transmission overruns, reduce Balancing and

Peaking Pool liabilities, and may also have an impact on the accuracy of wholesale gas settlements (particularly with the expected increase in the importance of capacity pricing in new wholesale gas contracts).

- 8.19 The Gas Industry Co is proposing a number of solutions to this problem, all of which could be implemented together as part of the initial changes to the downstream allocation arrangements.
- 8.20 One proposal is to require quantities to be “normalised” so that they reflect consumption in the calendar month (rather than reflecting consumption in the period between two reads that coincides only roughly with the calendar month). This proposal requires the Gas Industry Co to establish a mandatory formula and revision cycle for seasonally adjusted read-read estimates (historic read-read estimates) to replace initial estimates (forward estimates).

Seasonally adjusted read-read estimates

“Seasonally adjusted read-read estimates”, in the case of sites in allocation groups 3 and 4, would involve making adjustments to the read-read quantities to match the calendar month using information provided by subsequent actual meter readings. For allocation groups 5 and 6, “seasonally adjusted read-read estimates” would be based on a greater number of actual meter readings covering the month in question. A mandatory formula would need to be established for calculating “seasonally adjusted read-read estimates”.

- 8.21 It is proposed to implement arrangements for two wash-up periods. It is proposed that the first of these would occur after either the fourth or the sixth month following the allocation month in question. The second would be undertaken after the twelfth month following the allocation month.
- 8.22 The Gas Industry Co is aware of concerns from some industry participants actively trading in upstream markets that the adoption of additional wash-up periods may give rise to additional business risks. There are two key areas of concern. First, it is argued the potential for retrospective amendments to the allocations of Maui legacy gas under the Maui Pipeline Operating Code (MPOC) would introduce additional undesirable complexity.¹⁶ Second, it is argued that the VT bilateral contractual arrangements with shippers (which are not necessarily uniform for all shippers), and the limitation on the liability of the Balancing and Peaking Pool (limited to the amount in the BPP Account) may mean that shippers may not receive payments to which they become entitled following a retrospective adjustment to Balancing and Peaking Pool positions (that reflect adjusted mismatch positions for example).¹⁷

¹⁶ See clauses 3.10 and following in the MPOC.

¹⁷ As a result of a retrospective adjustment to an allocation, some parties will have an obligation to pay more into the Balancing and Peaking Pool, while others will have offsetting rights to receive payments from the Pool. However, if one party does not make its required payments, the Pool may be short of funds, and the other parties may not receive (the full amount of) the payments to which they would otherwise be entitled. Since VT has

- 8.23 As an alternative to the proposal, some upstream participants have suggested the focus should be on improving the quality of the month end daily allocations. Suggestions have also been made to limit the number of reallocations for each month to one or at most two.
- 8.24 The difficulties raised in paragraph 8.22 may need to be addressed in the longer term. However, the Gas Industry Co considers that these difficulties are not likely to be of sufficient magnitude to outweigh the advantages of implementing the proposal as part of the short-term changes to the downstream allocation arrangements. The Gas Industry Co understands that such “wash-ups” are already currently being undertaken, although on an ad-hoc basis. Regular wash-ups would effectively formalise this ad-hoc process and make it mandatory for all industry participants to comply. Better quality allocation information would become available, improving the ability of participants to manage their business risks.
- 8.25 A further proposal is to require (as part of the short-term changes to allocation arrangements) all retailers to read every non-TOU ICP at least once in every twelve months. This would ensure that there is at least one actual read in a submission prior to the final wash-up.

Q10: To what extent do industry problems arise as a result of poor quality data supplied into the allocation process?

Q11: Should the Gas Industry Co introduce formalised, regular wash-ups of month end allocations after 4 or 6 months and after 12 months following the month in question?

Q12: Is it appropriate, as part of the initial changes to allocation arrangements, to require all retailers to read every non-TOU ICP at least once in every twelve month cycle?

Issue 5 – Data quality

- 8.26 It is proposed to introduce mandatory performance criteria for quality of data. This proposal is expected to improve the quality of month end daily allocations, particularly in conjunction with proposed improvements in the compliance regime (see section 10).
- 8.27 In the longer term and after the initial changes are made to the allocation arrangements, the Gas Industry Co envisages working towards ensuring that submitted data contains a minimum percentage of historic read data (as opposed to forward estimates).
- 8.28 Data quality issues are exacerbated by the lack of a standardised format for submitting data to the allocation agent. At present, the allocation agent receives data in multiple formats from multiple sources. This makes it more likely that errors will occur in the allocation process. The Gas Industry Co considers that data transferred

bilateral contracts with each party (the terms of which are not necessarily known to the other parties), it would be a matter for VT to pursue recovery under the appropriate contract. Participants who are entitled to receive payment from the Pool would not be able to pursue the payments under those contracts.

and submitted between all parties should be subject to a standardised data transfer format. However, at this stage the Gas Industry Co considers that these standards are a longer term issue that should be resolved only after the initial changes have been made to allocation and reconciliation arrangements. A draft Gas Information Exchange Protocol (GIEP) has been compiled by the industry although this requires further development and is not likely to be completed in the short term. However, the Gas Industry Co considers it important to also progress further work in this area.

- Q13** Should the Gas Industry Co establish accuracy criteria for estimates (in conjunction with an appropriate compliance regime)?
- Q14:** Is it appropriate in the longer term (after the initial changes are made to the allocation arrangements) to introduce a requirement that submitted data contains a minimum percentage of historic read data?
- Q15:** Is it appropriate in the longer term to introduce a standardised data transfer format?

9 Issues Arising from Current Arrangements for Upstream Allocation and Reconciliation

- 9.1 The Gas Industry Co has worked with the Gas Transfer Code Team (GTCT) to develop proposals for changes to gas transfer arrangements. Consultation was carried out in February 2006 on a number of proposed changes, as outlined in paragraphs 1.22 to 1.25.
- 9.2 Since that consultation took place, the Gas Industry Co has given further consideration to the compliance and governance arrangements for both upstream and downstream allocation and reconciliation. This paper contains a proposal that the Gas Industry Co should develop Ministerial rules for both upstream and downstream allocation and reconciliation (see section 10). It is proposed that short-term changes to allocation and reconciliation arrangements be included in these new rules (see section 7).
- 9.3 The process of migrating to a rule-based environment would involve a number of necessary changes to gas transfer arrangements. For example, a new compliance regime would be required, and subsequent modifications to the rules would need to be made in accordance with provisions in the Gas Act rather than in accordance with the current code modification provisions in the Gas Transfer Code. A number of drafting changes are also likely to be necessary as part of a migration process. The Gas Industry Co would need to consult on a detailed proposal for new rules before making a recommendation to the Minister to promulgate rules.
- 9.4 If the Gas Industry Co decides, following consideration of comments on this discussion paper, to proceed with a rules-based framework for allocation and reconciliation, it will consider whether any of the changes proposed in the February 2006 consultation paper should be included in the rules.
- 9.5 At this stage, the Gas Industry Co wishes to indicate that it has reached a preliminary view, following the February 2006 consultation, that the former proposal to expand the scope of the Gas Transfer Code beyond the existing gas transfer points (so that the arrangements would apply at any point at which gas is transferred on an open access pipeline) should not proceed as part of the short-term changes. This proposal proved controversial, and is more appropriately dealt with as part of the longer-term development process.

10 Achieving Compliance with Allocation and Reconciliation Arrangements

Governance framework

- 10.1 The combination of the Gas Act, the GPS and the Constitution of the Gas Industry Co provide the framework within which the Gas Industry Co is required to operate in developing gas market arrangements. They set out a clear role that involves developing pan-industry arrangements in areas where a common approach to certain issues is more efficient, and more readily facilitates achieving government objectives for the sector.
- 10.2 Earlier in the year some amendments to the Constitution of the Gas Industry Co were made in order to ensure that, as well as recommending regulations and rules under the Gas Act, it is able to develop non-regulatory solutions and assume roles in support of some of the existing industry arrangements.
- 10.3 Where the Gas Industry Co becomes involved in roles that support some of the existing industry arrangements, or where it implements non-regulatory solutions, it must aim to deliver on the objectives and outcomes outlined in the Gas Act and the GPS.

The existing arrangements for compliance

- 10.4 The existing allocation arrangements comprise two codes that have been developed by industry groups following various consultative and decision-making processes. These codes are made mandatory on the relevant shippers and retailers by transmission and distribution contracts and by ability of those pipeline owners to exclude parties from access to the infrastructure if they do not implement the arrangements. Pipeline owners can enforce their rights through their access contracts with pipeline users, and the parties to allocation agreements, and gas transfer agreements can legally enforce their rights against other parties to those agreements.

Options for enforcing allocation and reconciliation arrangements

- 10.5 It is appropriate and efficient for allocation and reconciliation frameworks (both upstream and downstream) to be mandatory for all relevant participants shipping, retailing or transferring gas on the pipeline system. This is because there is a significant risk of “free-riding” and/or “hold-out”, to the disadvantage of overall efficiency, if those frameworks are voluntary.
- 10.6 Where it is deemed efficient to make arrangements mandatory, there are essentially three broad options for making industry arrangements legally enforceable and mandatory for all relevant participants. The three broad options are to:
 - establish mandatory frameworks through the ability of pipeline owners to limit access to non-compliant parties and make arrangements enforceable through

contracts – both bilateral (e.g. VT’s TSAs, gas transfer agreements) and multilateral (e.g. allocation agreements);

- establish a multilateral agreement between all affected parties, possibly facilitated by an industry body (such as the Gas Industry Co), with participation encouraged by the (implicit) threat of regulation; and
- promulgate regulations or rules under the Gas Act.

10.7 The choice between these options should be based on the relative efficiency of implementing the initial arrangements and the relative efficiency of the process for subsequent amendments to the arrangements.

10.8 A multilateral agreement requires unanimous consent from all parties that would be impacted by the arrangements. Experience with industry arrangements in the gas sector suggests that this would make the process of agreeing the initial arrangements a protracted exercise and with a risk of hold-out from one or more parties. This approach is not favoured for this reason and is not considered further in this paper.

Contractual enforcement mechanism

10.9 The current contractual approach could be adapted to enforce mandatory provisions as follows:

- The Gas Industry Co would reach agreement with pipeline owners that they will require parties (by threat of exclusion from pipeline access) to enter contractual arrangements for allocation and reconciliation that comply with a codified framework approved by the Gas Industry Co; and
- The codified framework would include compliance mechanisms that involve a common system of enforcement and rulings in respect of breaches of the allocation and reconciliation arrangements, and a common system for dispute resolution.

10.10 This approach offers possible advantages in terms of flexible, industry-based rule change processes. It could also be adapted from the existing arrangements that require compliance with the *Reconciliation Code* and the *Gas Transfer Code*. However, it also has disadvantages in the form of possible pipeline owner leverage, Commerce Act issues and a clear demonstration that the current contractual based arrangements are not delivering the optimum solution in respect of allocation and reconciliation activities.

Pipeline owner leverage

10.11 In order to implement a cascading set of uniform and mandatory reconciliation arrangements, it would be necessary to reach agreement with pipeline owners that they would implement the necessary contractual arrangements. This process may provide pipeline owners with additional leverage over the terms of the arrangements. This may be a problem where the proposed arrangements have potentially negative implications for pipeline owners.

10.12 Although it may be possible to balance this risk to some degree with the threat of regulation, it is likely that pipeline owners would exert some degree of influence over the proposed arrangements.

Commerce Act issues

10.13 Perhaps of more concern, is the risk that this approach will either breach the Commerce Act, or involve costly and time consuming applications for authorisation of the arrangements by the Commerce Commission.

10.14 Any contractual industry arrangements will be subject to the Commerce Act provisions prohibiting restrictive trade practices. The key Commerce Act provisions are:

- Section 27 which prohibits arrangements that substantially lessen competition; and
- Section 29 which prohibits arrangements containing exclusionary provisions.

10.15 If the Commerce Commission (or High Court) determined that industry arrangements to enforce allocation and reconciliation arrangements were in breach of those provisions, the arrangements would be unenforceable and pecuniary penalties could be imposed.

10.16 If parties to the arrangements were concerned that the arrangements could breach the Act, they may apply for an authorisation from the Commerce Commission under section 58 of the Act. If authorisation is granted, the effect is that the arrangements are enforceable and protected from challenge under the Commerce Act. An arrangement is capable of being authorised if the benefits from the arrangement outweigh any detriments that may arise.

10.17 It is not always straight-forward to anticipate how the Commerce Commission will approach issues in relation to collective industry arrangements. However, precedent provides some guidance:

- The Commission accepted jurisdiction in a number of cases over the last ten years involving industry arrangements that contained potentially exclusionary provisions; and
- Of particular relevance, the Commission accepted jurisdiction in a May 2002 application by Electricity Governance Board Limited for a combined electricity industry rulebook incorporating industry voting arrangements and exclusionary provisions, including arrangements for metering and reconciliation.

10.18 In several cases the Commission has accepted jurisdiction and then proceeded to authorise the arrangement (in some cases with conditions). While the outcomes were probably satisfactory to the applicants in these cases, the processes were complex and time-consuming. It would limit flexibility and take considerable time and resources if Commerce Commission authorisation was necessary in order to implement industry-wide reconciliation arrangements for the gas sector.

10.19 It may be possible to proceed to implement a contractual solution without seeking authorisation (on the assumption that the Commission did not have jurisdiction and that authorisation was not necessary). However, such a course of action may be risky, since the contractual solution incorporates a potentially exclusionary arrangement, and it is possible that some participants will oppose some aspects of the new arrangements.

Regulations and rules

10.20 The Gas Act establishes the subject matters that can be covered by regulations and rules. It also sets out the processes that the Gas Industry Co and the government need to follow to make regulations and rules.

10.21 Note that Government regulations and rules are deemed to be specifically authorised for the purposes of the Commerce Act (section 43ZZR of the Gas Act), so they do not carry Commerce Act risks.

Regulations

10.22 Regulations are made by the Governor-General by Order in Council on the recommendation of the Minister of Energy. This means that regulations must be agreed by Cabinet. Cabinet papers accompanying proposed regulations must show that all relevant government agencies have been properly consulted, and sometimes political parties may be consulted in accordance with their agreements to provide support to the government.

10.23 The regulations themselves are drafted by Parliamentary Counsel Office, which formally takes its drafting instructions from the lead government department (Ministry of Economic Development) rather than from the Gas Industry Co.

10.24 The same processes apply regardless of whether the proposal is for new regulations or an amendment to existing regulations. The process to implement regulations is time consuming and bureaucratic. The Electricity Commission (for example) has recommended to the Minister only one amendment to the Electricity Governance Regulations 2003 since its inception.

Rules

10.25 Rules can be promulgated in a much simpler way. The Gas Act provides that the Minister of Energy may make a rule for any of the purposes for which a regulation may be made. In deciding whether to make a rule rather than a regulation, the Minister must consider issues such as the importance of the rule, the level of technical detail involved, and the breadth of application of the rule. Rules are made by the Minister publishing a notice in the Gazette.

10.26 The Ministry of Economic Development must be consulted before a recommendation to make or amend rules is made to the Minister. The Ministry may choose to provide its own advice to the Minister on whether to accept a recommendation made by the Gas Industry Co.

10.27 The Electricity Commission has made 36 recommendations to the Minister for amendments to the Electricity Governance Rules 2003 from 1 March 2004 through until 1 May 2006.

Rules are more appropriate than regulations for allocation and reconciliation

10.28 Section 43Q(2) of the Gas Act outlines the circumstances in which rules should be made rather than regulations. The provision is as follows:

“(2) In deciding whether to make a rule rather than recommend the making of a gas governance regulation, the Minister must have regard to only—

(a) the importance of the rule, including whether the rule has a material effect on the rights and interests of individuals; and

(b) the subject matter of the rule, including whether the rule contains detailed or technical matters rather than matters of general principle;

(c) the application of the rule, including—

(i) whether the rule applies principally to a particular group (eg, industry participants) rather than the general public;

(ii) whether the benefits of publication in accordance with section 43R rather than the Acts and Regulations Publication Act 1989 outweigh the costs of publication by that method; and

(d) the expertise and rule-making procedures of the recommending body.”

10.29 It appears to be likely that the detailed subject matter of allocation and reconciliation arrangements, and the fact that the principal effect of the arrangements is on industry participants rather than gas consumers, would mean that rules would be a more appropriate vehicle for these arrangements than regulations.

Advantages and disadvantages

10.30 The advantages and disadvantages of the two key approaches to making arrangements enforceable and mandatory are summarised in Table 3:

Table 3: Advantages and disadvantages of the two key options for enforceability

Approach	Advantages	Disadvantages
Contracts	<p>Potentially flexible processes for amending or developing arrangements</p> <p>Less regulatory involvement in industry details</p>	<p>Commerce Act risks</p> <p>Some lack of clarity about the extent to which levy funding is available</p> <p>Pipeline owners may veto arrangements</p> <p>Currently not meeting the needs of the industry</p>
Rules	<p>No Commerce Act risks</p> <p>Levy can cover costs</p> <p>No risk of pipeline owner veto</p> <p>Clarity and consistency for all parties regarding what the arrangements are and how they will be enforced and monitored</p>	<p>Rule change processes may be more bureaucratic and less flexible than contractual arrangements</p>

10.31 The Gas Industry Co has reached a preliminary view that the possible advantages of enforcing allocation and reconciliation arrangements through industry contracts appear to be outweighed by the disadvantages. In particular, the Gas Industry Co is concerned about the need to secure pipeline owner agreement to any arrangements, or changes to the arrangements and the risk that the Commerce Commission has jurisdiction over the arrangements and an application for authorisation is likely to be necessary.

Conclusion

10.32 The Gas Industry Co has concluded that the most appropriate means of implementing a revised arrangement for allocation and reconciliation arrangements is by recommending rules to the Minister.

10.33 The Gas Industry Co would also like to refer industry stakeholders to a separate consultation issued on 12 April 2006 entitled "Compliance and Enforcement

Arrangements in the New Zealand Gas Industry”¹⁸. This paper sought input from industry stakeholders on the proposal for a compliance and enforcement regime to support the development of the switching and registry arrangements. The paper identified the various functions of a compliance regime and developed a preferred model based on regulations and rules. This model could be adapted to support any revised arrangements for allocation and reconciliation.

Q16: Do you agree that the two main options that should be considered for making allocation and reconciliation arrangements mandatory and enforceable are a modification of the existing contractual arrangements, and Ministerial rules under the Gas Act?

Q17: Do you agree that potential problems with pipeline owner leverage and Commerce Act risks associated with the contractual arrangements favour the Ministerial rules solution?

¹⁸ This consultation paper can be accessed via the Gas Industry Co’s website
<http://www.gasindustry.co.nz/Consultation.html>

Appendix A: Format for Submissions

To assist the Gas Industry Co in the orderly and efficient consideration of stakeholders' responses, a suggested format for submissions has been prepared. This is drawn from the questions posed throughout the body of this discussion document.

Respondents are also free to include other material in their responses.

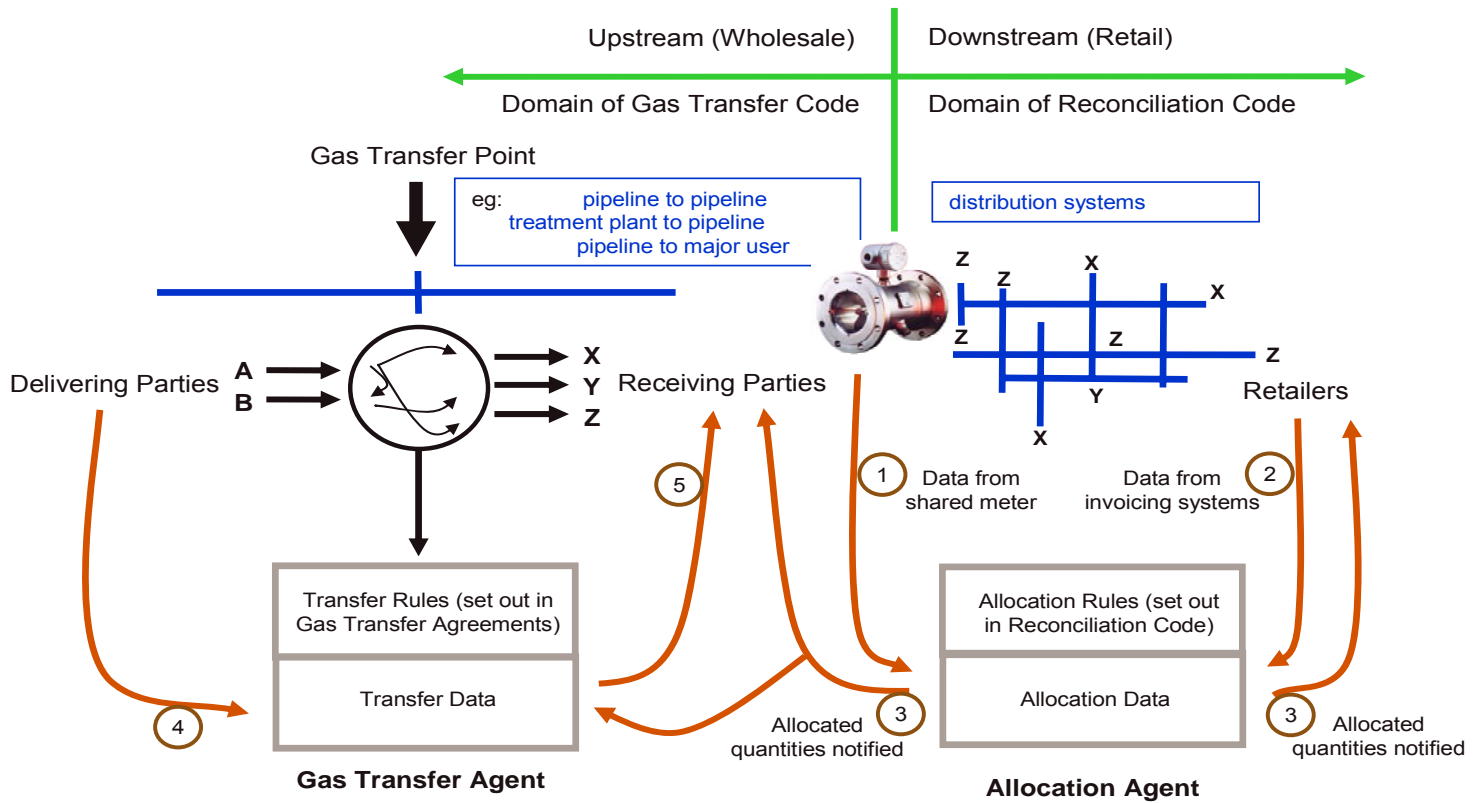
Recommended Format for Submissions

QUESTION	COMMENT
Q1 Do you agree that it is sensible to divide the issues (with the downstream and upstream allocation arrangements) into short-term and long-term issues and to advance the short-term issues ahead of the long-term ones?	
Q2 Do you agree that compliance with existing arrangements for downstream allocation is poor?	
Q3 Do you agree that governance arrangements (e.g. code modification processes, dispute resolution processes) are not working effectively? Please provide any specific examples that demonstrate your view.	
Q4 Do substantial difficulties arise as a result of the need for all shippers at a gate station to agree who to appoint as the allocation agent?	
Q5 Do you agree that the Gas Industry Co should implement a regime where the Gas Industry Co becomes the single industry body responsible for appointing an allocation agent (or allocation agents)?	

QUESTION	COMMENT
<p>Q6 Does the use of the “difference” allocation method and the resulting implications for the allocation of UFG variations create a substantial problem in the industry?</p>	
<p>Q7 If there are problems with the allocation of UFG variations, is working towards mandatory global allocation an appropriate response for the Gas Industry Co?</p>	
<p>Q8 If global allocation is not made mandatory, how important would it be for 12 month rolling loss factors to be used in the allocation process?</p>	
<p>Q9 Should all gas gate daily metered quantities be published daily? What difficulties (e.g. confidentiality) might arise from daily publication?</p>	
<p>Q10 To what extent do industry problems arise as a result of poor quality data supplied into the allocation process?</p>	
<p>Q11 Should the Gas Industry Co introduce formalised, regular wash-ups of month end allocations after 4 or 6 months and after 12 months following the month in question?</p>	

QUESTION	COMMENT
<p>Q12 Is it appropriate, as part of the initial changes to allocation arrangements, to require all retailers to read every non-TOU ICP at least once in every twelve month cycle?</p>	
<p>Q13 Should the Gas Industry Co establish accuracy criteria for estimates (in conjunction with an appropriate compliance regime)?</p>	
<p>Q14 Is it appropriate in the longer term (after the initial changes are made to the allocation arrangements) to introduce a requirement that submitted data contains a minimum percentage of historic read data?</p>	
<p>Q15 Is it appropriate in the longer term to introduce a standardised data transfer format?</p>	
<p>Q16 Do you agree that the two main options that should be considered for making allocation and reconciliation arrangements mandatory and enforceable are a modification of the existing contractual arrangements, and Ministerial rules under the Gas Act?</p>	
<p>Q17 Do you agree that potential problems with pipeline owner leverage and Commerce Act risks associated with the contractual arrangements favour the Ministerial rules solution?</p>	

Appendix B: Illustration of Current Industry Arrangements for Allocation and Reconciliation



Notes to Appendix. B

- a. The diagram is broadly divided into two areas. The left hand side (left of the turbine meter illustration) represents the “upstream”, i.e. the high pressure transmission pipelines receiving gas from various gas treatment facilities and delivering it to major end users and distribution networks.
- b. The right hand side represents the “downstream”, i.e. the distribution networks carrying gas from transmission delivery points to many reticulated gas users.
- c. A Gas Transfer Point is the focus of the left hand side. This is the point where gas is exchanged between parties. It may be where a gas treatment plant connects to the transmission system – such as the Kapuni Receipt Point - or just where two transmission pipelines connect – such as at Rotowaro where the Maui pipeline and VT pipeline connects.
- d. The parties delivering gas into a Gas Transfer Point are termed A and B. These may be wholesalers - such as Shell and Vector at Kapuni – or transmission shippers – such as Todd and Contact Energy on the MDL pipeline.
- e. A and B transfer gas to X, Y and Z who are shippers on the pipeline carrying gas away from the Gas Transfer Point. The arrows, inside the circle representing the Gas Transfer Point, pointing between A, B, X, Y and Z symbolize gas transfers. The arrangements specifying how the transferred quantities of gas are to be calculated are contained in Gas Transfer Agreements between the parties to the transfer – for example A and X - and the Gas Transfer Agent.
- f. In the language of the Gas Transfer Code, Parties A and B are the “Delivering Parties” and Parties X, Y and Z are the “Receiving Parties”.
- g. The information required for the Gas Transfer Agent’s work is contained in the two boxes above the caption “Gas Transfer Agent”. The upper box contains standing data – the transfer rules. As discussed above, these are set out in the Gas Transfer Agreement. The lower box contains the data on quantities relevant to particular gas flow days.
- h. The gas which belongs to shippers X, Y and Z is delivered off the transmission system through a metering system at a delivery point (sometimes called a “gate station”). This is represented by the turbine meter clip. This gas is delivered to the various customers of X, Y and Z located on the distribution network.
- i. The parties who share the metering system – X, Y and Z – are required by the Reconciliation Code to (collectively) have an Allocation Agreement with an Allocation Agent. It is the job of the Allocation Agent to say how much of the total quantity of gas metered by the shared meter was attributable to each party.
- j. The information required for the Allocation Agent’s work is contained in the two boxes above the caption “Allocation Agent”. The upper box contains standing data – the allocation rules. These are set out in the Reconciliation Code. The rule can be the Difference Method, where there is an incumbent retailer, or the Global Method. The lower box contains the data on quantities relevant to particular gas flow days.

k. The following notes explain the data flows illustrated by the numbered red arrows:

1. The shared meter owner – usually VT – advises the Allocation Agent of the daily quantity of gas metered.
2. The retailers on the network – X, Y and Z – advise the Allocation Agent of the daily quantity of gas delivered to their various customers. For large customers these quantities may be metered daily but for smaller users, such as the thousands of residential customers, meters may only be read three or four times a year. For these small users, the Retailers will use some kind of algorithm for estimating daily deliveries. These algorithms are usually contained in the Retailers' billing systems.
3. The Allocation Agent will calculate the quantities of gas delivered through the shared meter attributable to each retailer and notify them of these quantities. This is represented by two arrows on the diagram – one on the right going back to the Retailers and one on the left going to the Receiving Parties. This is a little confusing until you realise that (in almost all circumstances) the shippers on the transmission system – the Receiving Parties – are the same as the Retailers. So although there is one arrow pointing to Retailers and one pointing to the Receiving Parties, they are normally the same, so there is normally only one information flow.

The Allocation Agent also advises the (upstream) Gas Transfer Agent of the daily quantity allocated to each Retailer.

4. The Delivering Parties will provide the Gas Transfer Agent with information about the quantities of gas delivered into the Gas Transfer Point. In the case of the MDL pipeline these are deemed to be the quantities nominated by those parties – A and B. In the case of the NGC pipeline, they are generally derived from some allocation of metered quantities.
5. The Gas Transfer Agent can now apply the transfer rules and advise the Receiving Parties of how much gas each took on the day. In some cases, depending on the transfer rules, the quantity of gas a Receiving Parties received will equal the quantity of gas it delivered into the distribution network. In other cases the two quantities will be different – there will be a “mismatch”.

The diagram is obviously quite simplistic. For example, in reality a shipper may be carrying gas from several Receipt Points to many Delivery Points. Also, there are other quantities which need to be accounted for such as compressor fuel and unaccounted for gas.

Appendix C: Industry Correspondence Requesting Review of Allocation and Reconciliation Arrangements



21 June 2005

Hon Jim Bolger
Chairman
Gas Industry Company Limited
C/- PriceWaterhouseCoopers
P O Box 10646
WELLINGTON

Dear Chair

Retail (Downstream) Allocation & Reconciliation

While developing the terms of reference for the Switching & Registry Working Group (SRWG) it has become apparent that there is some confusion as to whether or not the scope of the SRWG is intended to include improvements to both the switching & registry and retail (downstream) allocation & reconciliation arrangements. In addition it has become apparent through the introduction of new gas contracts to the market and the introduction of daily balancing on the transmission system that gas users need much better information about gas flows.

Although not identified explicitly in the GPS it is nevertheless an area of significant commercial risk to the industry and the protocols outlined in the July 2000 Reconciliation Code are in need of a review and upgrade to better manage the current and future risks.

Initially allocation & reconciliation was included in the scope of the SRWG, however given the confusion and the natural reluctance of the consumer representatives to include this work, given it has no impact on consumers, Contact recommends that the GIC appoint a new working group to progress this work in parallel with the switching & registry arrangements.

It is suggested this working group comprise the existing Retailer and Network members of the SRWG, with support from external resource as necessary. It is also necessary that this work is coordinated closely with the Wholesale Markets Group to ensure that the information needs and objectives marry with the arrangements being imposed upstream.

Background

Retail (downstream) allocation & reconciliation is the process required to allocate daily quantities flowing through gas gates into distribution networks to Retailers trading on the networks. Currently a single Allocation Agent (Tom Tetenburg) provides this service, based on contracts with the Retailers. It is a month end process and the daily allocation information is then passed to the upstream Allocation Agent (NGC Transmission) which completes an upstream allocation process that enables settlement invoices to be produced for transmission and wholesale gas.

Tom Tetenburg also provides a daily estimation service to assist Retailers/Wholesalers in the transmission capacity nominations.

In future with open access and multiple gas fields replacing Maui it is expected that the monthly process producing daily allocation quantities after month end will still be required, but in addition there will be an increased need for high quality throughput information to be available real time to assist participants in managing their wholesale gas and transmission risks – i.e. daily nominations and gas balancing.

The Wholesale Markets Working Group is expected to progress the upstream arrangements, and it would be expected the retail (downstream) allocation & reconciliation working group would ensure its improved protocols and processes are aligned with upstream requirements. In this respect we believe that the GIC needs to consider an end to end review of the information requirements of the industry as the market moves to daily balancing. This includes the information which may be available on the transmission systems as well as gas flows within the networks to ensure that the industry is working to a common objective.

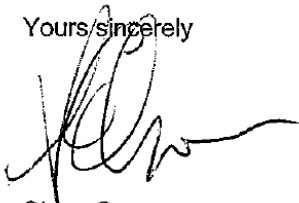
The Gas Reconciliation Code, has been used as the basis for customer switching and retail (downstream) allocation & reconciliation since July 2000. In April 2002 the gas industry met to review the effectiveness of the arrangements and agreed that improvements were required as a priority. Terms of reference were completed for both but work was only progressed on switching & registry arrangements late in 2002/early 2003 before work was put on hold by the Gas Industry Steering Group while the focus turned to development of the governance framework.

While the GIC road map (21 February 2005) prepared by Castalia, and the scope of the GIC Switching & Registering Working Group (3 March 2005) implied inclusion of allocation & reconciliation, the GPS did not formally include retail (downstream) allocation & reconciliation.

As a consequence this has led to some confusion. Nevertheless improvements to retail allocation & reconciliation remain a priority for the industry and these need to be carried out within the overall changes being made upstream in transmission..

While the GPS does covers the development of protocols and standards for wholesale gas trading, balancing and reconciliation – i.e. includes upstream reconciliation arrangements there is a need to cover retail allocation and reconciliation but in a manner which fits with the wholesale workstream. Contact believes that this work is vital to ensuring that participants are able to manage the risks and costs which are being imposed through the new transmission arrangements. I look forward to getting a positive response from the GIC.

Yours/sincerely

A handwritten signature in black ink, appearing to read 'Steve Cross', with a long horizontal flourish extending to the right.

Steve Cross

General Manager Trading

25 July 2005

Christine Southey
Chief Executive
Gas Industry Company Limited
P O Box 10646
WELLINGTON

RECEIVED
28 JUL 2005



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Human Resources

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Fax: 09-580-4813
GM Retail

Dear Christine

Retail (Downstream) Allocation and Reconciliation

It has recently been brought to my attention that the Switching and Registry Working Group (SWRG) have identified an area of confusion. The confusion centers on whether the SWRG's scope was intended to include improvements to Switching, Registry and Retail (Downstream) Allocation and Reconciliation.

Given the confusion and the disinclination by the Consumer Representatives, the SWRG has not included Retail Allocation and Reconciliation in their Term's of Reference.

It is our view that Retail Allocation and Reconciliation are part of the same process and that it would be prudent to ensure a comprehensive review is conducted.

Background

At present the data produced by the Retail Allocation & Reconciliation process is passed from Retailers to Networks and a single downstream Allocation Agent, based on current industry protocol as outlined in the Reconciliation Code 1 July 2001. The downstream Allocation Agent feeds this information upstream for wholesale and transmission billing.

The downstream Allocation Agent also provides daily estimated data to Retailers who utilise this information for gas wholesale and transmission activities, such as daily nominations etc

With changes in the industry such as Maui Open Access, the introduction of new gas contracts to the market, and daily balancing on the transmission system it is envisaged that there would be an expectation of superior data production placed on downstream Reconciliation processes.

4/10/10

Recommendation

Genesis Energy recommends that the GIC look to specifically include Retail Allocation and Reconciliation as part of the SWRG's scope with the current Network and Retail representatives along with external resources as required and form a sub group to work on the issues in the area of Retail Allocation and Reconciliation.

Yours sincerely



Vince Hawksworth

General Manager Retail

Copy: Bill Heaps

1.0 JAN-2006



6th January 2006

GAS INDUSTRY COMPANY (GIC)

c/o Ms C Southey
Chief Executive Officer
Level 9, State Building
Willis Street
WELLINGTON

RE - Allocation

Dear Christine,

I recently attended a workshop run by GIC which covered a number of issues currently under review by GIC.

There is one particular issue that I wish to comment on and hopefully the matter will be considered either by GIC workgroups or the relevant Industry Participants. It is Allocation, the methodology and the need for a review of the current system. There are two distinct areas - Upstream (Wholesale) and Downstream (Networks). Until now the information for the allocation of load was generated downstream by an allocation agent, passed upstream for calculation and then fed downstream again often resulting in distorted outcomes. This process should cease and allow the new Open Access regime at the Maui Pipeline level take effect and use monthly balancing with the opportunity for Shippers to trade imbalances for a short period after the month close-off. At the conclusion of this calculation and reconciliation there will be no need, nor will there be any desire to reopen calculations which currently the downstream allocation agent is able to do changing the upstream and ultimately the downstream outcomes.

This means that going forward downstream allocation will be a separate market and the process for dealing with imbalances caused by erroneous information and/or continual wash-ups will need to be dealt with at the downstream level. The current methodology used is difficult for participants to understand and certainly does not stand the test of transparency. There is only one allocation agent and the whole industry is reliant upon his interpretation and technology based on the current Reconciliation code. This vulnerability is totally unacceptable and requires immediate review.

The obvious solution would be for each network company to be responsible for allocation on their network, to put in place a transparent and robust methodology and for any imbalances to be dealt with between the participating retailers. In the event of any dispute the normal commercial practice of arbitration can apply and the costs can be built into the system or be borne by the participants. The current process leads to booking and overrun penalties for which there is little justification as the downstream network systems still have unused capacity and these extra costs are then passed on to the end consumer.

The Government has set up GIC to function as a co-regulating body which means that it needs to review methodology and processes which are either excessive in their application and cost, or outmoded and unnecessarily vulnerable when considering the future of the supply and distribution of gas with the most cost effective outcomes for the end user.

I look forward to hearing from you and your thoughts as to how this issue can be addressed with an effective outcome.

Kind regards

A handwritten signature in black ink, appearing to read "Ron Rosenberg", with a horizontal line underneath it.

RON ROSENBERG
Managing Director
Multigas (NZ) Ltd & E-GAS Group