



Recommendation to the Minister: Downstream Reconciliation Rules Review 2012

Date issued: 21 December 2012





About Gas Industry Co.

Gas Industry Co is the gas industry body and co-regulator under the Gas Act. Its role is to:

- develop arrangements, including regulations where appropriate, which improve:
 - the operation of gas markets;
 - access to infrastructure; and
 - consumer outcomes;
- develop these arrangements with the principal objective to ensure that gas is delivered to existing and new customers in a safe, efficient, reliable, fair and environmentally sustainable manner; and
- oversee compliance with, and review such arrangements.

Gas Industry Co is required to have regard to the Government's policy objectives for the gas sector, and to report on the achievement of those objectives and on the state of the New Zealand gas industry.

Gas Industry Co's corporate strategy is to 'optimise the contribution of gas to New Zealand'.

Authorship

This paper was prepared by the Market Operations Group

Executive summary

The Gas (Downstream Reconciliation) Rules 2008 are a key governance arrangement for the New Zealand gas market. They ensure the accurate reconciliation and allocation of downstream gas quantities and since being introduced have resulted in a lower proportion of unaccounted for gas than the previous industry arrangements were able to achieve.

Since the Rules were implemented in October 2008, some issues have been identified which have created some unnecessary compliance burdens and inefficiencies. This Recommendation proposes making relatively minor amendments to the Rules to tidy-up those issues.

Gas Industry Co has undertaken a thorough review of how to improve the Rules for those matters without changing the intent and purpose of the Rules, beginning with the publication of an Options Paper in December 2011. In early 2012, an industry advisory group was commissioned to assist Gas Industry Co's progression of the work from the Options Paper. This led to industry support for many of the proposals that were eventually included in the Statement of Proposal published in July 2012.

The proposed amendments to the Rules in this Recommendation include:

- codification of some long-standing exemptions which will remove the compliance burden and uncertainty of rolling-over those exemptions;
- allowing for the explicit correction of erroneous annual unaccounted for gas factors which will ensure accurate data integrity;
- removing the compliance burden created by certain arrangements, often where the compliance costs in administering technical breaches outweigh the impact of the breach in the first place; and
- any other issues identified by the industry group that would represent improvements on the status quo and would be timely to make given the current review.

Gas Industry Co is satisfied the necessary legislative requirements have been met and a good level of industry engagement achieved in the development of the changes presented in this Recommendation. We recommend the proposed amendments to the Rules be approved as attached to this document as Appendix A. Provided the rules are approved in a timely manner the amended Rules will go live on 1 June 2013.

Contents

1	Introduction	7
1.1	Background	7
1.2	Reasons for review	7
1.3	Review process	8
<hr/>		
2	What is downstream reconciliation?	10
2.1	The need for a process	10
2.2	A basic overview of the Rules	11
<hr/>		
3	Process to establish new rules	13
3.1	Work undertaken	13
3.2	Legislative requirements	15
<hr/>		
4	Statement of Proposal	17
4.1	Atypical gas gates	17
4.2	Apportionment of ongoing fees	20
4.3	Correcting AUFG factors	21
4.4	Compliance related issues	21
4.5	Additional issues raised by the DRAG	23
4.6	Minor and technical amendments; other transitional issues	27
<hr/>		
5	Assessment	29
5.1	Identification and assessment of reasonably practicable options	29
5.2	Assessment of costs and benefits	30

6	Consultation	31
6.1	Industry participants	31
6.2	NZX: Gas allocation agent	31
6.3	Ministry of Business, Innovation and Employment	31

7	Potential risks	32
8	Recommendation	33
	Appendix A. Marked-up rules	34
	Appendix B. Clean version of proposed rules	35

1

Introduction

1.1 Background

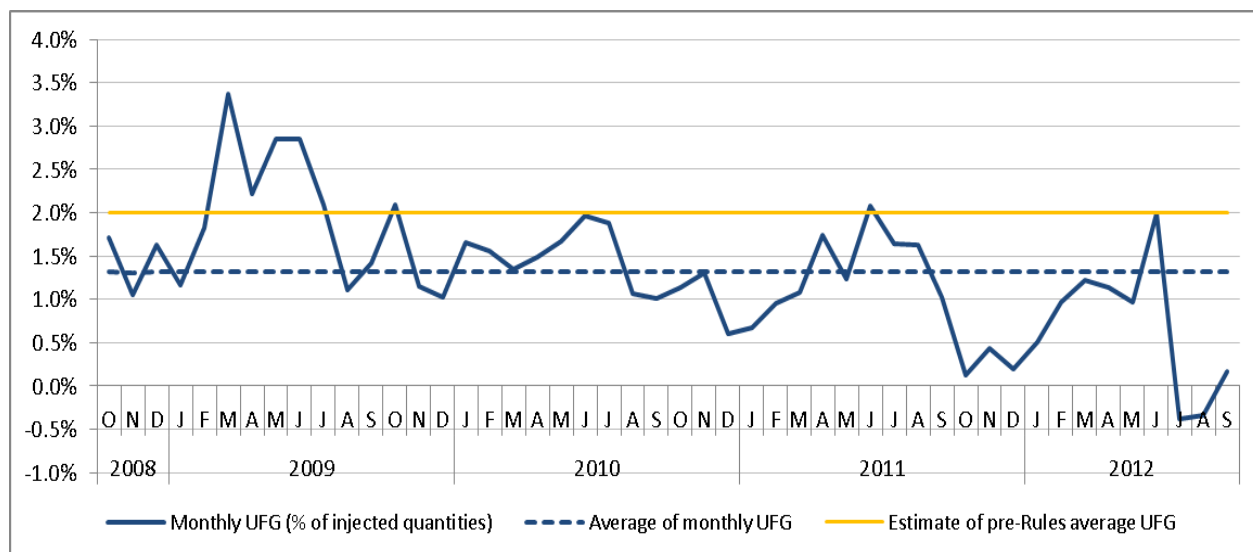
The Gas (Downstream Reconciliation) Rules 2008 (the Rules) have been in place since 1 October 2008. The Rules were developed by Gas Industry Co and the industry to replace the Reconciliation Code which was an industry arrangement for allocating and reconciling downstream quantities of gas. A process of allocating and reconciling downstream quantities of gas is necessary so as to ensure the gas entering a network is attributed to and paid for by those parties consuming the gas. Shortly after Gas Industry Co was founded, concerns were raised by some industry participants that the Reconciliation Code was responsible for sub-optimal reconciliation outcomes. Gas Industry Co established a workstream which, with the assistance from an expert group of industry participants, resulted in the Rules being implemented.

1.2 Reasons for review

Gas Industry Co began a fit-for-purpose review of the Rules in 2011 in line with its practice to periodically review the ongoing effectiveness of industry arrangements and in response to a number of issues that had been identified with the Rules by industry participants, the allocation agent, and Gas Industry Co. Most of these issues related to increasing the efficiency of compliance-related matters or dealing with subjects that had not been foreseen during the development of the Rules and for which exemptions had been required. Many of the issues are of a technical nature so Gas Industry Co appointed a (different) industry group to assist its review of the Rules. The group met on a regular basis and the wide industry support for many of the proposed amendments to the Rules set out in this document no doubt benefitted from the input of the group.

The review was not a fundamental review of the intent and purpose of the Rules. Gas Industry Co considers that the Rules are functioning well and they have led to satisfactory industry outcomes. As figure 1 shows below, the average monthly unaccounted for gas since the Rules were established is less than an estimate of average monthly unaccounted for gas (UFG) under the Reconciliation Code.

Figure 1. Monthly UFG as a percentage of injected gas quantities¹



Another example of the Rules benefiting the industry was the use of the audit provisions and subsequent discovery of under-reported submissions by the E-Gas group of companies, which went into voluntary liquidation in late 2010. Subsequent investigations uncovered that this was a chronic problem that existed for many years prior to the Rules being introduced. It has been suggested that identifying and stopping the E-Gas under-reporting means the rest of the industry benefits by a reduction in UFG of 250TJ per annum. The benefits from the change to the Rules in the form of reduced costs associated with UFG accrue to all industry participants on a pro rata basis with their consumptions, and those cost savings should benefit customers.

1.3 Review process

The first step in the review of the Rules was the publication of the 'Downstream Reconciliation: Options' paper in December 2011. That paper presented options, along with Gas Industry Co's preferred approach, for the following issues:

- changes to the initial allocation algorithm;
- atypical gas gates;
- correcting AUFG factors;
- allocation of ongoing fees;
- compliance related issues;

¹ The data used for this graph are the best available as of October 2012, i.e., it contains a combination of initial, interim, and final allocations.

- process for granting exemptions; and
- other miscellaneous matters.

Feedback on the Options Paper was generally positive. In our [Analysis of Submissions](#) we proposed splitting the first issue (changes to the initial allocation algorithm) out into a separate process given it was considerably more complicated and would require more analysis than the other issues. The industry was against our proposal for changing the process for granting exemptions and having considered the issue further we agreed to not proceed with a change for this. The remaining issues were considered by the aforementioned industry group (the Downstream Reconciliation Advisory Group, or 'DRAG') over a period of months during 2012.

Using inputs and advice from the DRAG, Gas Industry Co published the 'Statement of Proposal: Downstream Reconciliation Rules Review 2012' in July 2012 which proposed new rules and/or arrangements for the following issues:

- atypical gas gates;
- correcting ACFG factors;
- compliance-related matters;
- certain other matters raised by DRAG members; and
- other minor and technical amendments.

Once again, feedback was generally positive on the proposals. Where certain issues were raised that needed further testing, Gas Industry Co has, where feasible, sought the input of industry participants before making this Recommendation.

We have tested our draft rules with the advisory group and have had our work tested with external legal advice. Sets of marked up rules and final rules are attached to this document.

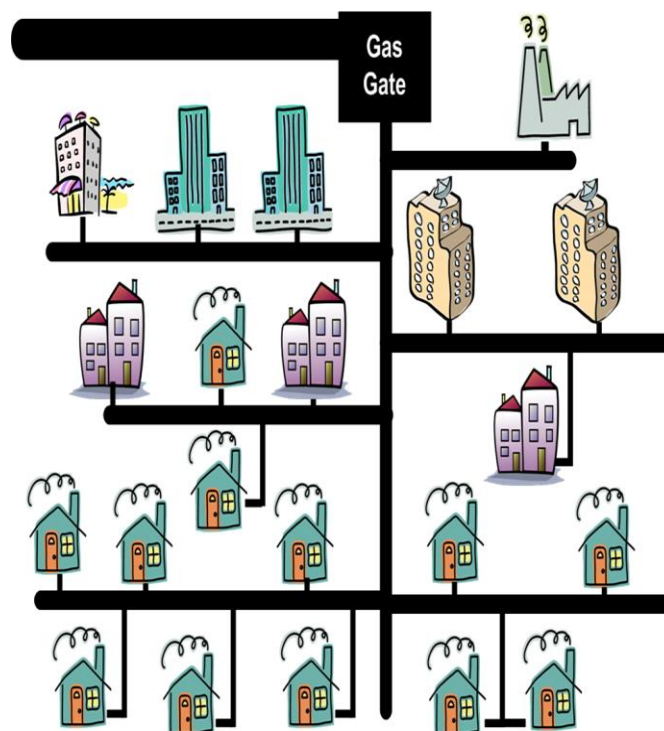
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What is downstream reconciliation?

2.1 The need for a process

Put simply, a downstream reconciliation system is necessary so as to ensure the volumes of gas delivered to a network are allocated among the retailers trading on that network. This is done by apportioning gas deliveries among retailers in line with the amounts of gas consumed by their respective customers, as depicted in the following diagram.

Figure 2. Simple illustration of gas network



Transmission pipelines transport gas from producers to distribution networks. The quantity of gas entering a distribution network is metered at the gas gate. If an entire distribution network was supplied by a single retailer then that retailer would be allocated the whole amount of gas entering the network. However, in most of New Zealand's gas networks, multiple retailers operate in a

competitive environment. Retailers often target certain segments of the market—some target large commercial customers, others target domestic consumers and others a combination. Larger consumers are fewer in number and consume a greater proportion of gas than do domestic customers. Larger consumers are therefore required to have meters which allow gas consumption to be recorded automatically at pre-determined intervals, usually on a daily basis. Smaller users are not required to have so called 'TOU' (time of use) meters installed—these meters are relatively expensive to install and maintain. Instead, smaller users have 'non-TOU' meters installed which are physically read by meter readers on either a monthly basis (mandatory for larger non-TOU customers) or on a less frequent basis (households). Because reconciliations are performed for calendar months and meters are read throughout the month, retailers are required to estimate monthly consumption for the customers with non-TOU meters.

Invariably, things do not add up: often the quantity of gas entering a network does not equal the amount of gas estimated (and measured) by retailers. The difference is known as unaccounted for gas (UFG). Causes of UFG are:

- inaccurate estimations of non-TOU customer consumptions;
- variations in metering accuracy (for meters that meet the accuracy tolerances in the Standard²);
- inaccurate or faulty meters;
- pipeline leakage; and
- undisclosed consumption.

A mandatory system of reconciliation and allocation ensures that each retailer is billed for its fair share of delivered gas and that UFG is either washed up (in subsequent allocation stages) or allocated to those parties likely to have caused it.

2.2 A basic overview of the Rules

The purpose of the Rules is to establish a set of uniform processes to enable the fair, efficient and reliable downstream allocation and reconciliation of downstream gas quantities. A central party to the Rules' operation is the allocation agent—a role currently carried out by NZX Limited as a contracted party to Gas Industry Co—whose fees for carrying out the role are recovered from retailers by Gas Industry Co.

² NZS5259 is the gas metering standard applicable to gas measurement at consumer installations. The characteristics of the volume measuring devices, together with the process of 'correcting' measured volumes to standard volumes and then to energy, combine to provide an acceptable spectrum of accuracy of approximately $\pm 1.5\%$ (as installed). Thus, UFG can be created simply due to gas measurement systems being located at different parts of that spectrum.

The Rules set out processes for the:

- provision of gas injection information by relevant transmission system owners and provision of gas consumption information by retailers;
- allocation by the allocation agent of daily gas quantities for each calendar month to retailers at gas gates; and
- reconciliation of downstream gas quantities.

For each consumption month, three allocation stages will take place: an initial allocation, an interim allocation, and a final allocation. The initial allocation is performed in the month immediately following the consumption month; the interim allocation occurs in the fourth month following the consumption month; and the final allocation occurs in the thirteenth month following the consumption month. Various industry practices and billing cycles rely on the information provided by these allocations. Several allocation stages are carried out because, over time, more meter readings will result in better quality information being provided to the allocation agent and that will produce more accurate allocations at successive allocation stages.

The central tenet of the Rules is that all of the gas injected into a network must be allocated to the retailers. The Rules explicitly assume that data from customer sites with TOU meters is generally more accurate than the consumption information from customer sites with non-TOU meters and less frequent meter reads. The allocation agent therefore allocates a fixed proportion of UFG to TOU sites where the factor is based on the relevant gas gate's historical UFG levels (the so-called AUFG factor). Non-TOU sites are allocated any residual UFG (applying the so-called MUFG factor).

Other key features of the Rules are:

- an annual reconciliation is performed to verify the accuracy of retailer's consumption information submitted to the allocation agent against the quantities billed to consumers by retailers;
- performance audits of allocation participants are carried out on a regular basis;
- event audits may be conducted to ascertain the cause or causes of a particular issue.

3

Process to establish new rules

The review of the Rules was a ‘bottom up’ review. Since the Rules were implemented in October 2008, Gas Industry Co had kept a register of issues which would be addressed at such a point in time when a review of the Rules was carried out.

3.1 Work undertaken

The Options Paper was published for industry feedback in December 2011. It proposed a range of different options for issues that had been identified by various parties since the Rules went live in October 2008. The issues generally related to matters which had been dealt with using the exemption provisions of the Rules or that had imposed an unnecessary compliance burden on participants.

Based on our analysis of the submissions received we decided to split one of the issues off from the rest of the work—this work is likely to form a subsequent Statement of Proposal and Recommendation to the Minister in financial year 2014—and to convene an industry advisory group to assist in progressing the batch of issues from the paper.

The advisory group (the DRAG) comprised of members from the following organisations:

- Contact Energy Limited;
- Genesis Energy Limited;
- Mighty River Power Limited;
- On Gas Limited (a Vector Limited subsidiary);
- Powerco Limited;
- Vector Transmission (a Vector Limited subsidiary).

Regular meetings of the DRAG were held. Meeting material is available on Gas Industry Co’s website at the following link: <http://gasindustry.co.nz/work-programme/working-group/downstream-reconciliation-advisory-group>. The DRAG considered all of the issues from the Options Paper, other than the options for the initial allocation, which were:

- atypical gas gate exemptions:
 - direct connect gas gates;
 - application of global 1-month methodology;
 - unmetered gas gates;
 - oversized metered gas gates;
- correcting AUFG factors;
- allocation of ongoing fees;
- compliance related issues:
 - estimated data for TOU sites;
 - breach notifications to meter owners;
 - late trading notifications; and
- process for granting exemptions.

The Statement of Proposal, published in July 2012, explains these issues in detail. A short overview of the proposals is provided in the next section. Along with the issues above, the DRAG (and Statement of Proposal) also discussed the following issues which were not included in the Options Paper:

- audits of specific gas registry fields relevant to downstream reconciliation;
- responsibility for event audit costs;
- audits of major system changes; and
- the removal of rule 42; and wider publication of the GAR 170 report.

The Statement of Proposal also recommended a range of minor and technical amendments.

Our summary of the submissions on the Statement of Proposal is available here:

http://gasindustry.co.nz/sites/default/files/consultations/230/submissions_analysis.pdf. In general, there was nothing in submissions to suggest that any of the proposals should not be pursued, other than some fine-tuning and tidying up of rule drafting. We consider that the advisory group approach was particularly beneficial in gaining wide support for the proposed rules. One of the submitters who was not a member of the advisory group raised more issues with the proposals than submitters who were

represented by the DRAG. We have considered that party's concerns in the rule amendments or addressed that party's concerns in our summary of submissions.

The proposed rules have been closely developed with, and scrutinised by, industry participants. External legal advice was also sought on the final rule drafting.

3.2 Legislative requirements

The regulatory objective for the review was to better achieve the purpose of the existing Rules, which is:

'...to establish a set of uniform processes that will enable the fair, efficient, and reliable downstream allocation and reconciliation of downstream gas quantities.'

Any proposed changes coming out of the review must meet Gas Industry Co's other key requirements under the Gas Act and the Government Policy Statement on Gas 2008 ('GPS'), the most important of which is 'to ensure that gas is delivered to existing and new customers in a safe, efficient, and reliable manner.'

Section 43F(2)(a)(ii) of the Gas Act provides that gas governance regulations may be made for the purpose of 'clearing, settling, and reconciling market transactions.' When recommending rule changes, Gas Industry Co must meet the requirements for making recommendations for gas governance as per sections 43L and 43N of the Gas Act.

Section 43L of the Gas Act describes the consultation which must be undertaken before Gas Industry Co makes a recommendation for any gas governance regulations. As outlined above in section 3.1, wide consultation was undertaken with industry participants in the development of the rules which have necessitated this Recommendation.

Section 43N of the Gas Act describes the assessment Gas Industry Co must undertake before making a recommendation to the Minister for a gas governance regulation³. In the Statement of Proposal, Gas Industry Co presented its assessment of each of the proposals against the section 43N requirements, which are to:

- (a) seek to identify all reasonably practicable options for achieving the objective of the regulation; and
- (b) assess those options by considering—
 - (i) the benefits and costs of each option; and
 - (ii) the extent to which the objective would be promoted or achieved by each option; and

³ Note that although sections 43L and 43N refer to 'regulation', those requirements equally apply to rules made under the Gas Act as provide for in s43Q.

(iii) any other matters that the industry body considers relevant; and

(c) [...]

Our assessment of each proposal will be summarised in section 5 below.

4

Statement of Proposal

This section summarises what was proposed in the Statement of Proposal and whether/how anything we have recommended differs from that Statement of Proposal.

4.1 Atypical gas gates

Shortly after go-live in 2008, it became apparent that the new rules would not handle all circumstances or situations that would occur in practice. Exemptions were therefore granted using the Rules' exemption provisions for a range of scenarios. Many of those exemptions relate to certain gas gates for which the Rules' methodology was found to be impractical. The scenarios were: direct connect gas gates; application of the global 1-month methodology; and unmetered/oversized gas gates.

Direct connect gas gates

Exemptions were sought by participants for direct connect gas gates. A direct connect gas gate is a gas gate that serves a single customer. There is no benefit in applying the Rules at such gas gates because all of the gas would be allocated to that single customer. As a result, exemptions were granted that essentially removed direct-connect gas gates from many of the Rules' obligations. The Options Paper discussed two options which were to continue using the exemptions process for direct connect gas gates or to modify the Rules so that gas gates meeting certain criteria should not be subject to certain of the Rules.

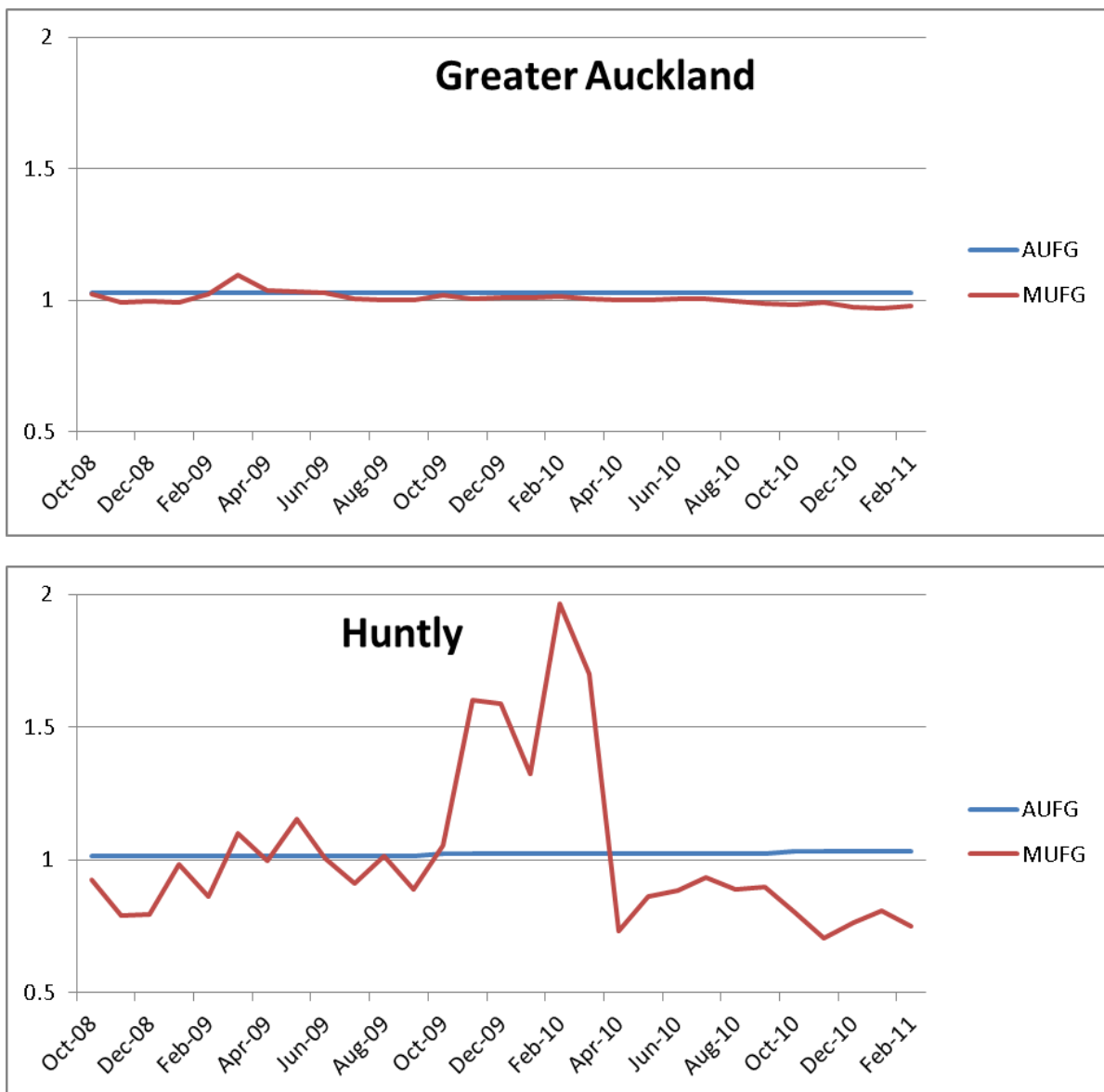
Gas Industry Co's preference was for the latter—that a rule be codified for direct connect gas gates—and all submitters agreed this was the optimal approach. The DRAG therefore worked on creating a new rule that defines a 'direct connect gas gate'. Consequential rule changes were required so that the Rules would distinguish between direct connect gas gates and all other gas gates (allocated gas gates). Allocated gas gates would have to comply with the whole of the Rules whereas direct connect gas gates would be removed from several parts of the Rules, namely the global allocation process, broadly in line with the existing exemptions for direct connect gas gates.

There was unanimous support for this approach in submissions received on the Statement of Proposal. Some submitters suggested minor drafting amendments and those suggestions were considered during our final preparation of the Rules but for the most part, our recommended rules reflect the original design.

Global 1-month methodology

The global allocation methodology used in the Rules can produce unacceptable results for gas gates with a preponderance of TOU-load. At gas gates where TOU load dominates the gas gate volume, large variations in month-to-month UFG are more likely to be caused by metering inaccuracies by or between TOU sites and/or the gas gate meter. The impact of minor inaccuracies (1-2%) in TOU metering where that TOU site represents a large proportion of total load at the gas gate can translate to a significant difference in the gas allocated to mass market customers. A tell-tale sign of TOU-load being the primary causer of UFG at a gas gate is extreme variability in MUFG factors. For example, compare the two following charts.

Figure 3. Comparison of AUFG factor and MUFG factor at Greater Auckland and Huntly gas gates



The top chart shows AUFG and MUFG factors for the Greater Auckland gas gate. This gas gate is in many ways a 'typical' gas gate with a mixture of TOU, industrial and residential customers. Contrast this with the Huntly⁴ gas gate where a few large TOU sites tend to dominate the total load at the gate. One immediately notices the volatility in the MUFG factor at the Huntly gas gate compared to a 'typical' gas gate. As mentioned above, the most likely cause of this MUFG factor volatility is swings in the volume of TOU consumption and minor errors in measuring TOU consumption. The impact will be disproportionately unfair on retailers responsible for the non-TOU sites, which are allocated the residual volume.

To address this problem an exemption has applied to certain gas gates requiring the use of the global 1-month methodology⁵. The Options Paper asked whether the exemptions should continue to be relied on or whether a rule should be drafted setting parameters for gas gates where if the threshold(s) was (were) met the global 1-month method would apply. Submitters generally agreed that the global method did not produce acceptable allocation results at gas gates with a high proportion of TOU load, though one party suggested the paper lacked an evidential base of the problem. We consider good evidence of the problem exists, and provided additional analysis in the Statement of Proposal to support that position.

The DRAG discussed the best way forward and decided to combine some of the sub-options from the Options Paper. The policy settings based on those deliberations was that Gas Industry Co establish certain parameters by way of a determination, which may be updated from time to time provided consultation occurs, and the allocation agent will calculate annually those gas gates captured by the determination. For the captured global 1-month gas gates, the allocation agent would then apply the global 1-month methodology at those gas gates rather than the standard global method set out in the Rules.

This was put forward in the Statement of Proposal and was supported by all parties but one. Our evaluation of the objecting party's submission is that they were less concerned with the proposed design of the rule itself than they were with the need for a policy intervention in the first place. We disagree with the reasons put forward by the party in arguing that there is not a problem and we addressed this in our Summary of Submissions. Our recommended rules therefore largely reflect those from the Statement of Proposal, subject to minor drafting amendments.

Unmetered and oversized gas gates

Although the Rules require that all gas gates have meters installed to measure injection quantities, seven gas gates are currently unmetered. Further, there are two gas gates where the installed meters are 'oversized' for the load at the gate and cannot accurately measure the current flow of gas. Each of these nine gas gates has an exemption at present so that (a modified form of) the allocation methodology in the Rules can apply. The Options Paper asked whether the exemptions approach

⁴ Does not include the Huntly Power Station

⁵ The global 1-month methodology does not distinguish between AUFG and MUFG but applies a UFG factor for each consumption month to both TOU and non-TOU consumption.

should be rolled forward or whether it should be compulsory for meters to be installed (the default position in the Rules) or at least require installation if some threshold was met. Gas Industry Co's preferred approach was to require appropriately sized meters to be installed as the information provided is a key component of the reconciliation process.

Submitters on the Options Paper were divided on this matter. There was a mixture of support for requiring all gas gates to be metered and for requiring gas gates to be metered providing that it was economic to do so. Based on the deliberations of the DRAG, where it was discussed that the most economic meter of the nine with a current exemption would have a pay-back period of over 70 years (which exceeds the useful life of the asset), we concluded that it would be inefficient to pursue our preferred option. While our preference remains that all gas gates must be appropriately metered, we decided to recommend in the Statement of Proposal a rule which provides the industry body with discretion to determine whether certain gas gates must have appropriate meters installed. The rule requires consultation with participants in order to determine such a list where the parameters that prescribe eligibility for entry to such a list are largely prescribed in the rules.

All but one submitter agreed with the proposal. The submitter that disagreed considered all gas gates should be appropriately metered, a view shared by other submitters despite their acceptance of the proposed rule. We accept that making it compulsory at certain gas gates—such as those nine currently subject to an exemption—risks the decommissioning of those gas gates, depriving consumers the use of gas. There is an acceptable workaround which is proposed in our recommendation and which minimises the risk of gas gate decommissioning. While we do not expect to require prohibitively uneconomic gas measurement systems to be installed in future, the default position in the Rules will remain that all gas gates must be appropriately metered and updated as required. Eligibility for oversized or unmetered gas gate status will be considered on a case-by-case basis in accordance with the criteria in the Rules and any guidelines. We note for the electricity industry that all points of connection to the grid must have a metering installation.

4.2 Apportionment of ongoing fees

Ongoing fees are recovered from retailers to meet the costs which comprise the allocation agent business-as-usual costs plus any external advice and/or system development costs. These costs are apportioned based on retailers' monthly shares of the total volume of allocated gas as determined by the initial allocation results in the month prior to the invoice month. The Options Paper discussed the different options for apportioning these costs: to retain the volume-based approach, to change to an ICP-based method, or to apportion the costs on a 50:50 split between allocated volumes and ICPs.

Based on analysis and submissions received throughout the review process, we do not consider there is a case for changing the apportionment of ongoing costs. We consider that the benefits of the Rules—more accurate allocation processes and reduced UFG—accrue to participants pro rata with their allocated volumes. Given that the benefits accrue to participants in the same proportion that the costs are paid, it therefore seems efficient to apportion the ongoing costs based on allocated volumes.

The Statement of Proposal recommended not changing the apportionment method. Nothing from submissions suggested that recommendation should be changed. One party that did not agree with the proposal also stated the apportionment method used to recover system development costs should be reconsidered. Where such system development costs provide benefits that are skewed to identifiable subsets of retailers it makes sense, and we will consider such a change in due course, possibly in the next Statement of Proposal which may precipitate the conditions for such a change being needed.

4.3 Correcting AUFG factors

As noted earlier, AUFG factors are used to allocate quantities of gas to customers in allocation groups 1 and 2 at each gas gate. The allocation agent determines and publishes the factors each year based on information gathered from allocations over a 12 month period. There have been at least two instances where the data used to calculate AUFG factors have been found to be erroneous subsequent to publication of the AUFG factors. As the Rules contain no provision for such errors to be corrected, exemptions were required in both of those cases to permit the allocation agent to correct and republish the AUFG factors.

The Options Paper posited, and the Statement of Proposal recommended based on work carried out by the DRAG, a rule enabling the correction of AUFG factors. Submitters unanimously supported the proposal which requires the allocation agent to recalculate and republish AUFG factors where they are discovered to be erroneous, provided the allocation agent applies the process determined by the industry body.

4.4 Compliance related issues

Estimated daily energy quantities

The Rules require that retailers provide to the allocation agent 'actual daily energy quantities' for each consumer installation in allocation groups 1 & 2. Transmission system owners (TSO) must also provide to the allocation agent 'actual daily energy quantities' injected at each gas gate. Estimates are calculated whenever an 'actual' reading cannot be provided for whatever reason but the current drafting of the rule means that such estimates are not deemed to be compliance with the requirement to provide actual data. Whenever an estimate is provided, the participant potentially faces three breaches of the Rules (one for each allocation stage). This creates an unnecessary compliance burden.

The Options Paper presented a range of options for removing this burden. Submitters agreed it was a good idea to create a rule for dealing with estimated data and two of the four options from the paper were most popular. When the DRAG met to discuss the best way forward, an alternate option was discussed (having been raised by Contact in its submission) which would establish that estimates themselves are not a problem but must be flagged to the allocation agent when being made. Rather, the problem would be using an inappropriate estimation methodology. If a retailer was unable to provide actual data by the time final allocations were made then the estimate would be deemed

permanent. When performance audits are carried out, the auditor would examine the methodology used by the participant to provide estimates and if the auditor was not satisfied with the methodology used then a breach would be notified. Such an arrangement would provide the necessary incentives for participants to use appropriate estimation methodologies whenever actual data is not available.

In order to achieve this by way of changing the Rules, the Statement of Proposal discussed that removing the word 'actual' from the relevant parts of the Rules and replacing it with a new term ('daily metered energy quantities') would achieve the desired result. Feedback was mostly positive on this proposal though some practical difficulties were pointed out with the proposed rule, in particular the applicability of the proposed rule to gas gate metering.

Therefore, subsequent to the consultation period, we met with parties to discuss a slight amendment to the proposed rules and associated schedules. Parties were satisfied the amended drafting was an improvement on what was originally proposed. That amended version is presented in this Recommendation.

Trading notifications

The allocation agent often alleges breaches of rule 39 which requires retailers to notify the allocation agent whenever they:

- commence supplying gas to a consumer installation at a gas gate at which it has not previously supplied gas; or
- cease supplying gas to any consumer installations at a gas gate; or
- commence or cease a transmission services agreement (TSA) with a TSO in respect of gas supplied at a gas gate.

The deadline for providing these trading notifications is midday on the third business day of the month following the consumption period in which the change takes place. The deadline is chosen specifically so that when the allocation agent performs the initial allocation, between the fourth and fifth business days, the allocation system contains up-to-date information that identifies which retailers are trading at which gas gates and under which TSAs the allocated volumes should be reconciled.

The Options Paper asked for feedback on what the cause of late trading notifications was. Submitters responded that late trading notifications were principally caused by back-dated switches, i.e., where a new contract with a customer is not finalised until after the commencement date of that contract. Options discussed by the DRAG for addressing this problem included removing the timing requirement in the rule, requiring the allocation agent to source retailer trading data directly from the gas registry, or maintaining the status quo. The DRAG's preferred option was to only require trading notifications to be sent in certain circumstances and for the allocation agent to use the gas registry to determine which retailers should be submitting consumption against each gas gate for a consumption period. A

second-best option was to delay the compliance test for rule 39 to the interim allocation. These options were reflected in the Statement of Proposal.

Submitters were divided on the preferred option with a slight majority favouring the preferred approach of linking the allocation agent's system with the gas registry. Other submitters, primarily owing to the relatively higher cost of the preferred option, favoured the alternative to delay the compliance test to the interim allocation. Having considered the submissions we have decided to pursue a middle-ground arrangement whereby most of the rule drafting will be retained. A lower cost option than the full linkage between the allocation agent's and the registry operator's systems will be for the allocation agent to receive reports from the registry operator and be required to use those reports to determine the gas gates for which it should expect to receive consumption information from retailers. The detail of this will be dealt with in the functional specification between Gas Industry Co and the allocation agent. The effect of the changes will be to delay the compliance test to the interim allocation and for that compliance test to check whether consumption information had been provided rather than whether the correct trading notification had been submitted.

4.5 Additional issues raised by the DRAG

The DRAG discussed several issues which were not included in the Options Paper. All of the following were included in the Statement of Proposal and, where possible, alternative options for each issue were presented.

Audits of specific gas registry fields

Currently, audits are carried out at regular intervals to assess the performance of the allocation agent and allocation participants in terms of compliance with the Rules. Gas Industry Co may also commission specific event audits to ascertain the cause or causes of any particular event that may arise in relation to the Rules. One of the objectives of a retailer performance audit under the Rules is to assess the process used to convert read-to-read volumes (for non-TOU meters) into the amounts of energy that are subsequently submitted to the allocation agent and billed to customers. With consideration being given to adding metering-related fields to the gas registry, several of the factors necessary for this calculation (as well as other parameters necessary for retailers' allocation processes) would be managed by participants other than the responsible retailer, so are not covered by the retailer's performance audit. Experience from the performance audits undertaken so far has highlighted instances where retailers have been found to exhibit non-compliance due to reliance on the existing information in the gas registry (most notably ICP altitude).

The population of gas registry fields is governed by the Gas (Switching Arrangements) Rules 2008 (the Switching Rules) but these rules contain no audit provisions. Whilst the Switching Rules require maintenance of current and accurate information relating to each ICP, the absence of any auditing provisions means that there is no way to independently assess or verify the accuracy of the information in the registry. In addition, although the Reconciliation Rules require compliance with NZS5259:2004, achieving this compliance does not implicitly ensure that the registry is populated

accurately. NZS5259:2004 requires assets to meet an appropriate standard, not that information relating to those assets be accurately portrayed in a third party database such as the gas registry.

The DRAG discussed two options for dealing with this issue. The first option was to create a new rule in the Reconciliation Rules to make explicit that the accurate and timely population of any registry field that contains information relevant to reconciliation would fall within the scope of a performance audit on the participant responsible for that field. The second option was to add audit provisions to the Switching Rules, so that all obligations under those Rules could be audited rather than just the parts relevant to reconciliation. It was agreed that wider feedback should be sought on the two alternatives.

Submitters were unanimous in their support for a change enabling audits to check for accuracy of registry population. However, submitters were divided on whether the change should occur as part of the review or whether it should be included in a forthcoming Gas Industry Co review of the Gas (Switching Arrangements) Rules 2008. Having considered the issue further we have decided to include a general obligation in the Rules to accurately populate the registry and we will consider developing audit provisions for accurate registry population as part of an upcoming review of the Switching Rules.

Responsibility for event audit costs

The Statement of Proposal recommended a change to rule 75 that would better align the apportionment of event audit costs with the cost-to-causers principle. In the first instance, the responsibility for event audit costs depends on whether or not the auditor finds a material issue. If a material issue is found then the cost of the audit is met by the party or parties responsible for causing the material issue. If no material issue is found then the costs of the audit will be apportioned between the relevant parties being audited, as determined by the industry body. The problem identified applies to the former situation, in the case where a material issue is discovered by the auditor but this issue does not fully account for the event that triggered the audit; in this situation the party to whom the material issue relates must pay the full cost of the audit even though the 'true' cause of the problem that led to the audit remains undiscovered.

The proposed change would give the auditor more discretion in determining who should be responsible for paying the costs of an event audit provided the discovery of a material issue during such an audit.

There was unanimous support for the proposal. The only issue raised was to request clarification on the general parameters of how the auditor may apportion the costs. We noted in our Summary of Submissions that the amendments to the proposed rule 75 already provided such parameters.

Audits of major system changes

Another suggestion from the DRAG was that any allocation participant carrying out a system change that is likely to impact on its obligations under the Rules should be required to submit to an audit to ensure their new system remains Rules-compliant. A similar provision is included in Part 15 of the

Electricity Industry Participation Code 2010. As is the case with electricity, the audit requirement would only apply if it was a material or major system change.

In the Statement of Proposal, we favoured specifying what a major system change is up-front, preferably in an industry guideline (or an amendment to the existing audit guideline). As an example in the Information Paper for Approved Auditors v2 (August 2009), the Electricity Commission referred to:

Changes such as software bug fixes, upgrades to database management operating systems, communications and other third party software are not regarded as material.

The new rule would require participants planning to implement a major system change to notify Gas Industry Co at least 90 days before go-live of the proposed system change. This lead time would allow Gas Industry Co to appoint an auditor who would assess whether the system change was likely to be appropriate for the purposes of achieving compliance with the Rules. The auditor would be required to complete his/her audit at least 30 days before go-live of the proposed system change. This would give sufficient time for Gas Industry Co and the participant being audited to consider any recommendations arising out of the audit report. In discussions with the DRAG and also with an experienced electricity and gas auditor, it was recommended that a post go-live audit should also be carried out to test the accuracy of the system change after a few months of operation. Gas Industry Co welcomed feedback on whether this should be mandatory or optional.

Submitters were mostly in support of the proposal but had mixed views on whether there should be both pre-/post- go-live audits. One submitter did not agree with the proposal because it considered the rule may impose on commercial decisions. We explained in our Summary of Submissions that the major system audit would not impose on any commercial decisions. Rather, the aim of such an audit would be to assure other participants that they would not be harmed by one participant's system change (as has occurred at least twice in the electricity market).

We have decided to retain the drafting from the Statement of Proposal, thereby retaining the pre-go live audit. We will not include an explicit rule requiring a post-go live audit. Rather, performance audits could check whether major system changes had indeed been successfully implemented, or an event audit be commissioned if subsequent allocation results indicated step changes that might have been triggered by such system changes.

Removal of rule 42

Rule 42 requires TSOs to give notice to each retailer trading at a gas gate connected to the TSO's network of the unvalidated daily energy quantities that were injected the previous day. An exemption from rule 42 currently applies for certain gas gates where this information is unavailable, that is:

- for gas gates without telemetry metering, transmission system owners are exempt from the requirement to comply with rule 42 on all calendar days; and/or

- for gas gates with telemetry metering but without live System Control and Data Acquisition (SCADA), transmission system owners are exempt from the requirement to comply with rule 42 on days that are not business days.

Gas gates with telemetry metering and live SCADA data must comply with rule 42 on all calendar days. Under the current exemption, a high proportion of gas gates are exempted from rule 42.

When this issue was discussed by the DRAG, it emerged that the original intent of the rule was to ensure that participants had access to estimated day-end quantities at a time when objections were being raised about disclosure of quantities at certain gas gates under the Vector Transmission Code. However, those concerns about disclosure have dissipated over time such that those quantities are now available to shippers on OATIS pursuant to Schedule 4 of the VTC. It therefore appears that rule 42 is redundant and can be deleted.

As part of the follow-up to the discussion, Vector provided clarification on the availability of information: for gas gates without telemetry metering, Vector indicated that it will continue to upgrade delivery points so that the list of gas gates where unvalidated data are not provided to OATIS would decrease over time. It was noted that some of the gas gates without telemetry metering are direct connect gas gates off the Maui Pipeline so estimated day-end information at such gates would be irrelevant for all retailers other than the responsible retailer (who potentially has access to telemetry data from the customer GMS).

For gas gates with telemetry metering but without a live SCADA feed, Vector is currently providing unvalidated data on all days to OATIS on a reasonable endeavours basis. If problems are encountered, Vector may not be able to provide data on non-business days.

In the Statement of Proposal we proposed deleting rule 42 from the Rules. This would also have the effect of making the exemption redundant. If it emerged that any participant still relies on this rule in order to access gas gate injection information then Gas Industry Co would consider retaining the rule in an amended form which takes account of the situations provided for in the current exemption.

In light of the proposed reduction in reporting by each TSO, it was suggested that as a safeguard the obligations in rule 28.4 could be extended to cover daily delivery information supplied by TSOs. Gas Industry Co welcomed feedback on the merit of this idea.

There was strong support for removing rule 42. One submitter disagreed that rule 42 should be deleted because there was no guarantee the information would continue to be provided on OATIS. We noted in our summary of submissions that it was unlikely such information would not continue to be provided on OATIS. As long as the VTC requires the provision of the information, the party will be able to provide input on any proposed amendments for the provision of that information as a shipper under the VTC.

One party disagreed that rule 28.4 should be extended to TSOs but this disagreement would fall away if it were amended to satisfactorily cover TSO metering requirements. We amended the rule accordingly (now included as rule 27A) and have included the amended version in this Recommendation.

4.6 Minor and technical amendments; other transitional issues

Several minor and technical amendments were discussed, which were:

- future proofing the reference to NZS5259:2004;
- improving the calculation of seasonal adjustment daily shape values;
- where special allocations have occurred, Gas Industry Co may determine that the special allocation(s) be used in the calculation of certain processes and that they replace any preceding allocation;
- making changes to the way ongoing fees are recovered: to use interim allocation data, the best available allocation information, and to align the payment year for monthly fees with the Gas Industry Co financial year used for all market fees under other gas governance arrangements.

Some transitional issues discussed were:

- to address the exemptions which were, at the time of publishing the Statement of Proposal, shortly due to expire. All of these exemptions have since been rolled-over. Most of these exemptions will be made redundant as a result of the Rules update as part of this Recommendation;
- to highlight that consequential rule changes had been required to certain parts of the Rules but that these were done to give effect to the policy decisions made throughout the review process;
- that the development costs associated with the allocation agent making the required changes from the review would be recoverable in accordance with the provisions for ongoing costs in rule 15. The method for recovering development costs in future may need to be reconsidered in future; and
- the intended 'go-live' date for the new rules would be 1 June 2013.

Submitters agreed with all of the changes listed above, subject to a few minor drafting amendments, and these have been included in this Recommendation.

Publication of GAR170

One final issue from the Statement of Proposal was whether submitters had any appetite to have one of the allocation agent's reports—presently wholly visible only by Gas Industry Co—to be made publicly available. There was majority support for this but seeing as though this does not require a change to the Rules, we do not address it further here. It will be further discussed internally and with industry participants.

5

Assessment

5.1 Identification and assessment of reasonably practicable options

Reasonably practicable options for each issue identified with the Rules were presented in the Options Paper published in December 2011. The DRAG discussed these options in detail and also proposed additional options. Where new options were discussed by the DRAG—i.e., they had not been included in the Options Paper—the Statement of Proposal (where relevant) mentioned these different options while presenting a preferred approach. Feedback was sought on the preferred approach but if there was support for one of the other options then Gas Industry Co would analyse these as part of its analysis of submissions.

Where necessary, we also reconsidered the options available once submissions were received. Additional consideration was carried out where necessary. Where a divergence was made from the Statement of Proposal, additional consultation was carried out where possible, particularly for rules drafting. Examples of this additional consultation include the definition of ‘daily metered energy quantities’ and the development of Schedule 1A.

We are satisfied that reasonably practicable options were identified throughout the review, each option has been tested through consultation, and each recommendation has been subjected to our normal assessments.

5.2 Assessment of costs and benefits

An assessment of the costs and benefits for each option was carried out in the Statement of Proposal. Each proposal was expected to result in either a net benefit or a neutral impact, as reproduced in the table below. The total assessment of costs and benefits for the Statement of Proposals must therefore be net positive: summing each of the individual changes must result in a net benefit.

Table 1. Summarised assessment of costs and benefits (updated from the Statement of Proposal)

Issue	Assessment of benefit and costs	Regulatory objective met?		
		Fair	Efficient	Reliable
Atypical gas gates				
• Direct connect	Net benefit	✓	✓	✓
• G1M	Net benefit	✓	✓	✓
• Unmetered/oversized	Net benefit	✓	✓	
Correcting AUFG factors	Net benefit	✓		✓
Compliance related issues				
• Estimated data for TOU sites	Net benefit	✓	✓	
• Trading notifications	Neutral	✓	✓	
Issues raised by the DRAG				
• Extend performance audits to registry	Net benefit	✓	✓	✓
• Audits following major system change	Neutral	✓		✓
• Rule 42 deletion	Net benefit	✓	✓	

6 Consultation

6.1 Industry participants

Industry participants and our broader stakeholders were consulted at least twice throughout the review process: once in response to the Options Paper and once in response to the Statement of Proposal. In both instances, Gas Industry Co considered participant's views and responded to these in analyses of submissions.

In addition, the advisory group process essentially gave the majority of the industry an opportunity to shape the review. While Gas Industry Co was responsible for ensuring regulatory tests and objectives were met throughout the review, we consider that the advisory group process enabled wide industry buy-in including on any matters where Gas Industry Co may have disagreed with something posed by the DRAG.

6.2 NZX: Gas allocation agent

The allocation agent will have to make numerous changes to its systems in order to remain rules compliant once the new rules go-live. Meetings have taken place between Gas Industry Co and NZX and the allocation agent is up to speed on developments.

6.3 Ministry of Business, Innovation and Employment

Gas Industry Co briefed MBIE officials about the proposed changes. MBIE officials were comfortable with the content of the Statement of Proposal and raised no material concerns prior to the preparation of this Recommendation.

One issue raised by MBIE officials was that the proposed changes could grant Gas Industry Co an unlawful delegated legislative authority with respect to Gas Industry Co making determinations and guidelines under the Rules. Having seen the proposed Rules, officials noted that Gas Industry Co's discretion was proposed to be appropriately circumscribed in the Rules, meaning that any guidelines or determinations issued in accordance with the Rules were likely to be *intra vires*. MBIE noted that a precedent already existed for issuing technical guidelines and thresholds.

7

Potential risks

One of the key risks from this workstream is to not address the long-standing exemptions. Continually rolling over the exemptions would establish de facto rule changes and Gas Industry Co does not consider such a position to be tenable.

Other risks in making the changes are the normal risks associated with the implementation and timing of rule changes. However, these risks are small compared with the risks of implementing the Rules back in 2008 considering the reconciliation system is now well established. The allocation agent has been and will continue to be briefed as developments occur.

Industry participants have requested that there is sufficient lead-in time to go-live of the new rules. Assuming the rules are gazetted in the first quarter of the 2013 calendar year, this would give participants ample time to prepare for the transition. Very few of the proposed changes will require any participant, other than the allocation agent, to make changes to their systems and processes. Some participants had requested that some of the non-technical changes be made before the intended go live date of 1 June 2013. While Gas Industry Co is not opposed to the idea, we consider that the risks of essentially implementing two separate go live dates outweighs the benefits, particularly as there will only be a few months difference between the two implementation dates.

One other potential risk, though it too is not an unusual risk, is if the allocation agent encounters an unforeseen difficulty in implementing the changes and must invoice Gas Industry Co significantly higher than the initial cost estimate. We have attempted to mitigate this risk as far as possible by asking the allocation agent for a 'low-medium-high' cost estimate and we have used the high cost estimate provided in all of our cost-benefit assessments. It is probable this conservative estimation will result in some of the actual costs being lower than the high cost estimate therefore freeing up some of the estimate for overspends. This risk will be mitigated by continuing to involve allocation participants in the process of specifying system changes and to ensure that the end result is both aligned with the Rules (as amended) and accessible by participants' systems. We will manage any incidences of higher than expected costs on a case-by-case basis.

8

Recommendation

It is recommended that the Minister of Energy and Resources **approves** that the Gas (Downstream Reconciliation) Rules 2008 be amended according to the changes discussed in this document and as set out at Appendix A of this Recommendation.

Appendix A. Marked-up rules

Draft

Appendix B. Clean version of proposed rules
