



CONSULTATION PAPER

Preliminary Assessment of Gas Transmission Access Code (GTAC)

Issued on 13 February 2018

Executive Summary

On 8 December First Gas provided its proposed Gas Transmission Access Code (GTAC) to Gas Industry Co for assessment. Under section 22.16(b) of the MPOC, Gas Industry Co is tasked with preparing a comparative evaluation of the proposed GTAC against the MPOC and VTC. In making that evaluation, Gas Industry Co must use the objectives in s43ZN of the Gas Act 1992 together with the objectives and outcomes set for Gas Industry Co in the Government Policy Statement on Gas Governance dated April 2008 (GPS).

The process of developing the proposed GTAC has been comprehensive and inclusive. Although First Gas has been driving the process and has “held the pen” on the design, the process has been punctuated by a series of formal consultations that have included both conceptual papers as well as progressive drafts of the GTAC. There have also been a series of workshops and industry meetings¹ that, although less formal, have contributed to the debate and have ensured that First Gas is aware of stakeholders’ thinking and that stakeholders have also had the opportunity to ask questions on matters of interest or concern.

Gas Industry Co considers that the level of participation in the process to date is not only an indication of how important the subject matter is to stakeholders, but is also indicative of stakeholders’ willingness to assist in the creation of a better single transmission code. It is worth noting that, based on the many changes that have been made to the GTAC in the process of formal consultations and workshops, First Gas has been responsive to much of the feedback.

Gas Industry Co’s approach

The process of replacing the MPOC and VTC with a new transmission code requires that the TSAs and ICAs under both the VTC and the MPOC are terminated. In the case of the VTC that will occur on 30 September 2018 (unless the VTC is extended further). In the case of the MPOC, those agreements will terminate on notice by First Gas once a series of preconditions have been satisfied. The substantive condition is an evaluation by Gas Industry Co that meets the requirements below:

...following an appropriate consultation process which includes GIC publishing a draft determination and asking each Shipper and Welded Party whether it supports the New Code, GIC has published a final determination that the New Code is materially better than the current terms and conditions for access to and use of gas transmission pipelines having regard to the objectives in section 43ZN of the Gas Act 1992 and any objectives and outcomes the Minister has set in accordance with section 43ZO of the Gas Act 1992²

This Preliminary Assessment Paper is the “*draft determination*” referred to above.

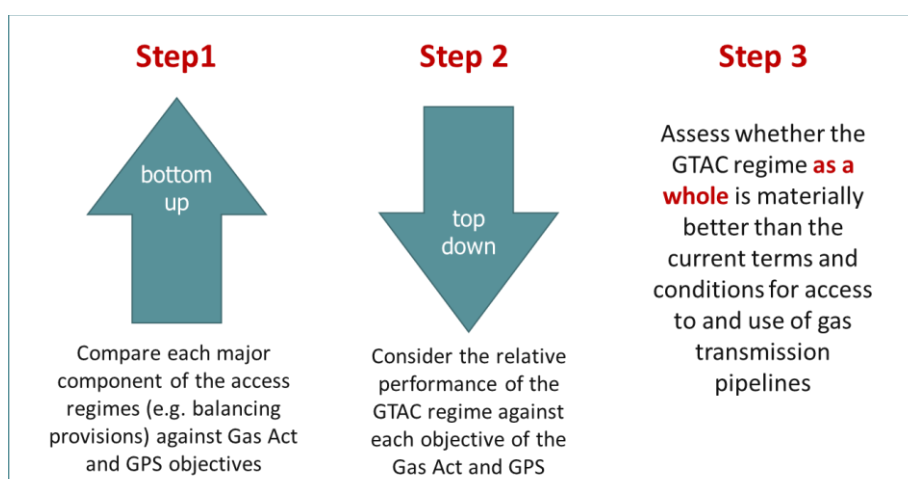
In response to requests from stakeholders, in August 2017 Gas Industry Co consulted on “*Gas Industry Co’s proposed approach to GTAC assessment*”³ that set out its initial thinking on how we might go about assessing the GTAC. We received some useful feedback on that paper. That feedback, together with further consideration, has evolved the approach into the methodology

¹ The meeting on 12 December 2017 where First Gas presented on the proposed GTAC was the 18th industry meeting.

² Section 43ZO of the Act refers to the Minister of Energy’s ability to set objectives and outcomes for Gas Industry Co by publishing a Government Policy Statement.

³ <http://www.gasindustry.co.nz/dmsdocument/5605>

used in this paper. Sections 1 and 2 discuss the evolution of our thinking in some detail but the following diagram usefully summarises the approach.



The first step is a highly detailed, component-level analysis that compares each element of the GTAC against the corresponding elements of the MPOC and VTC, using the Gas Act and GPS Objectives and Outcomes. That assessment identifies, at a discrete level, the degree of improvement, stasis, or detriment relative to the status quo.

The second step changes the perspective by adopting the viewpoint of each Objective and Outcome, e.g. how does the GTAC perform, compared with the MPOC and VTC, in terms of efficiency?

The final step uses the results from steps 1 and 2, and brings it all together by taking a view of how the GTAC regime in its entirety performs relative to the MPOC and VTC and addresses the question: is the GTAC materially better than the existing terms and conditions for access to, and use of, gas transmission pipelines?

Is the GTAC materially better than the status quo?

We now come to the question of whether the GTAC is materially better than the current terms and conditions for pipeline access and use.

Our view is that the GTAC is better than the status quo in many respects. These include:

- Streamlining of transmission products and processes
- Widening and improving the tools available for management of pipeline congestion
- Adopting a system-wide approach to gas balancing
- Removing grandfathering provisions that can impede competition
- Facilitating the trading of gas via a single receipt zone.

While these and other positive features of GTAC offer real benefits, the overall level of improvement falls short of being materially better in our view. Our conclusion is strongly influenced by four areas of concern that appreciably degrade our overall assessment of the GTAC. These are:

- The transport incentive charge structure in non-congested situations appears likely to encourage inefficient behaviour by pipeline users – detracting from the efficiency improvement that would otherwise occur

- Aspects of the liability provisions are less certain in their effectiveness, undermining the incentives on pipeline users to act prudently – detracting from the efficiency and reliability benefits of the GTAC. Even if the liability arrangements are effective, we would also question whether the new arrangements (and the reallocation of risk) are an improvement on the MPOC and the VTC.

We also have concerns about two key associated arrangements. While outside of the GTAC itself, they are an important part of the terms and conditions of pipeline access and use. They are:

- Interconnection agreements – shippers and interconnected parties do not have sufficient certainty regarding the terms of interconnection agreements. This is detrimental to efficiency and fairness.
- Park and Loan service – First Gas could face skewed incentives in relation to the allocation of total line pack flexibility if Park and Loan revenues are outside the transmission services revenue cap. The status of such Park and Loan revenues is currently unclear. Accordingly, we cannot rule out the possibility that the Park and Loan service terms will appreciably skew First Gas' incentives, which would be detrimental to efficiency.

Overall, we conclude that the GTAC (and associated arrangements) in its current form is not materially better than the current terms and conditions for access to and use of gas transmission pipelines.

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1. Introduction and purpose

1.1 Invitation for submissions on this Preliminary Assessment

This paper is Gas Industry Co's preliminary assessment of the Gas Transmission Access Code (GTAC, or New Code), developed by First Gas Limited (First Gas) in consultation with gas industry stakeholders. It is the "draft assessment" referred to in clause 22.16(b) of the Maui Pipeline Operating Code (MPOC) dated 4 January 2018 (MPOC s22.16).⁴ MPOC s22.16 is the substantive condition recently added to the MPOC that provides for termination of Transmission Services Agreements (TSAs) and Interconnection Agreements (ICAs) incorporating the terms of the MPOC.

We would like to hear from stakeholders whether they support the GTAC, and whether they agree with our preliminary assessment of it, along with their reasoning. You will find a response template and instructions for uploading your submission [here](#). We welcome all feedback. The deadline for submissions is 5pm on Monday, 19 March 2018.

We will present this paper at Gas Industry Co on Thursday, 1 March 2018. All stakeholders are welcome to attend.

1.2 Background

The gas transmission systems, previously owned by Maui Development Limited (MDL) and Vector Gas Limited, are now owned by First Gas. First Gas wishes to replace the MPOC and Vector Transmission Code (VTC) with a single new access regime that will cover the combined gas transmission system, with effect from 1 October 2018.

Gas Industry Co's GTAC assessment role

MPOC s22.16 provides for termination of contracts incorporating the MPOC provided that certain conditions have been met. One of the conditions, MPOC s22.16(b), requires Gas Industry Co to assess the new terms and conditions of access to and use of the gas transmission system and determine that those terms and conditions are materially better than the current terms and conditions having regard to the objectives for the industry body in Part 4A of the Gas Act 1992 and the objectives and outcomes in the Government Policy Statement on Gas Governance dated April 2008 (the GTAC Assessment Condition). The GTAC Assessment Condition requires Gas Industry Co to:

1. Follow an appropriate consultation process, including:
 - (a) publishing a draft determination; and
 - (b) asking each Shipper and Welded Party whether it supports the New Code; and
2. Publish a final determination that the New Code is materially better than the current terms and conditions for access to and use of gas transmission pipelines, having regard to the objectives in section 43ZN of the Gas Act 1992 and any objectives and outcomes the Minister has set in accordance with section 43ZO of the Gas Act 1992.

⁴ The full text of MPOC s22.16 is set out in Appendix C

Through stakeholder discussions we consider that we have developed an appropriate consultation process, and assessment methodology, as discussed below.

1.3 Development of assessment process and assessment methodology

In August 2016 First Gas began working in earnest with stakeholders to develop the GTAC. A list of the key documents and workshops associated with that process is provided in Appendix B. In the context of that work, and the progress of First Gas' change request to insert section 22.16 into the MPOC (the Transition Change Request or TCR), stakeholders asked us what process Gas Industry Co would follow, and how it would assess whether the GTAC was "materially better" or not. In response, we set out our initial view in a consultation document entitled Gas Industry Co's Proposed Approach to GTAC Assessment (Proposed Approach Paper), dated 2 August 2017.

GTAC assessment process

Among other matters, the Proposed Approach Paper noted that Gas Industry Co would follow a process like the MPOC change process, involving:

1. Assessing the GTAC against the Gas Act and GPS objectives and outcomes (together, the Objectives and Outcomes);
2. Issuing a Preliminary Assessment of the GTAC, which may include some suggestions for matters requiring further attention, and calling for submissions;
3. Considering submissions (and cross-submissions if necessary); and
4. Issuing a Final Assessment of the GTAC.

In addition, as specified in the GTAC Assessment Condition, we would seek views on whether stakeholders support the GTAC.

The Proposed Approach Paper included an indicative timetable for Gas Industry Co's assessment of the GTAC. That timetable assumed that First Gas would present Gas Industry Co with the GTAC for assessment in late October 2017, and that stakeholders would be very familiar with that version of the GTAC. The indicative timetable proposed publication of Gas Industry Co's Preliminary Assessment of the GTAC in early November with a three week window for stakeholders to make submissions on the Preliminary Assessment prior to Gas Industry Co publishing its Final Assessment of the GTAC. The Proposed Approach Paper was clear that the timeframes proposed were indicative and Gas Industry Co would not decide on the submission timeframe until it had received and reviewed the GTAC from First Gas.

GTAC assessment against the Objectives and Outcomes

In relation to Gas Industry Co's assessment against the Objectives and Outcomes, Table 1 of the Proposed Approach Paper described how each Objective and Outcome could be relevant in the context of terms of transmission access.⁵ That table was developed in response to concerns expressed at industry workshops about potential "gaps" in Gas Industry Co's assessment and the possibility that some aspects of the GTAC would avoid scrutiny. The table was a means for showing how broad the Objectives and Outcomes are to alleviate stakeholder concerns by demonstrating (at a high level) the raft of matters that could be considered under the umbrella of the Objectives and Outcomes. The table provided an indication of how the Objectives and Outcomes may be relevant to the GTAC.

The Proposed Approach Paper also explained that the Gas Act and GPS establish the following hierarchy of Objectives and Outcomes:

⁵ When the Proposed Approach Paper was issued, the content of the GTAC was still being developed by First Gas in consultation with stakeholders.

1. The principal objective in section 43ZN(a) of the Gas Act – ‘to ensure that gas is delivered to existing and new customers in a safe, efficient and reliable manner’ - should be given more weight than other objectives under the Gas Act and GPS.
2. The remaining objectives in section 43ZN(b) of the Gas Act should be given less weight than the principal objective, but should be given greater significance than the objectives and outcomes in the GPS.
3. The GPS outcomes of ‘fairness’ and ‘environmental sustainability’ are the most important GPS objectives.
4. The other GPS objectives, to the extent that they are not otherwise duplicated by the objectives from the Gas Act.

As discussed below, not all submitters agreed with this view of the relative importance of the Objectives and Outcomes.

Meaning of “materially better” standard

The Proposed Approach Paper also discussed how Gas Industry Co understood the term “materially better”, and sought stakeholder views on that interpretation.

The Proposed Approach Paper noted that the December 2013 High Court decision on the appeals against the Commerce Commission’s Input Methodologies Determination (also known as Wellington Airport & others v Commerce Commission case) considered the meaning of the term. The High Court found that “materially better” is “clearly intended to be a higher standard than simply better”, but it cautioned against seeking to further define the term with spurious precision. It also noted that context and purpose are relevant in understanding how the term should be applied.

Our conclusion was that: “to us ‘materially better’ means more than just ‘better’: we would be looking for a substantial improvement.”

As discussed below, not all submitters agreed with this view.

Stakeholder feedback on Proposed Approach Paper

Stakeholders commented on the Proposed Approach Paper either as part of their submissions on the TCR (Contact⁶) or as separate submissions (Greymouth and Methanex⁷). We also received feedback from Trustpower by way of an open letter dated 24 November 2017 that commented on, amongst other things, Gas Industry Co’s proposed approach to assessing the GTAC.

Greymouth also wrote to Gas Industry Co separately on 8 December 2017 and 19 December 2017 regarding the appropriateness of the consultation process for the GTAC. Those submissions and letters raised a variety of concerns, some of which related to the substance of the GTAC arrangements or the appropriate process for transition to the GTAC. For the purpose of our preliminary assessment, we are focussing on feedback from stakeholders that is relevant to the interpretation and application of the GTAC Assessment Condition. Other concerns raised by stakeholders were addressed either through the TCR consultation process or Gas Industry Co’s letters in response to stakeholders.

⁶ Other submissions on the TCR did not comment directly on how Gas Industry Co should approach its assessment if the TCR was supported by it. Contact did not express a particular view on the Proposed Approach Paper other than to suggest codification of the Proposed Approach Paper and make some other general observations regarding the effect of the proposed approach.

⁷ Greymouth and Methanex’s submissions, and the Proposed Approach Paper are available at <http://gasindustry.co.nz/work-programmes/transmission-pipeline-access/developing/gas-industry-co-assessment-of-the-gtac/>

GTAC assessment process

In its letter dated 16 August 2017, Methanex noted that it did not consider Gas Industry to have allowed sufficient time in the timetable outlined in its Proposed Approach Paper to adequately deal with the complexity and number of issues, including the prospect that there may be a number of dissenting views on the GTAC submitted to Gas Industry Co that it may be required to take into account. Methanex noted that no opportunity was being provided for submissions on the GTAC prior to Gas Industry Co issuing its preliminary assessment and the potential for significant and contentious changes to the GTAC being made after the close of the negotiation process.

In its letters dated 8 December 2017 and 19 December 2017, Greymouth expressed concerns with Gas Industry Co's process for assessment of the GTAC. In particular, Greymouth considered that industry stakeholders should have an opportunity to make submissions on the final form of the GTAC submitted to Gas Industry Co and also expressed concern regarding the amount of time that Gas Industry Co had allowed itself to complete its analysis of the GTAC.

GTAC assessment objectives

Methanex noted Gas Industry Co's view that the Gas Act established a hierarchy of objectives, but questioned whether that hierarchy applies when Gas Industry Co is performing a role other than recommending regulations. It also expressed the view that the GPS gives no weighting to the relevant objectives. These comments were made in the context of Methanex's view that the weighting of "fairness" to other objectives is too low.

Trustpower expressed concern that Gas Industry Co's duties under the Gas Act will not be met even if the terms that First Gas proposes are materially better than the current access terms at meeting the Gas Act and GPS Objectives and Outcomes. Trustpower considered that Gas Industry Co should also consider whether terms and conditions are "reasonable terms of access" by reference to section 43F(2)(c) of the Gas Act.

Meaning of "materially better" standard

Methanex considered that Gas Industry Co's overall assessment approach to the "materially better" standard carries with it a real risk of an unfair outcome for particular stakeholders where an aspect of the GTAC could be materially worse than the status quo, but Gas Industry Co still supports the GTAC on the basis that it is, overall, materially better. Methanex considered that this approach is at odds with paragraph 9 of the GPS. Methanex considered that Gas Industry Co should also be satisfied that no aspect of the GTAC is worse than the MPOC and VTC.

Methanex made further observations regarding the "materially better" standard in its submission to Gas Industry Co regarding the GTAC. In its letter dated 22 January 2018, Methanex considered that Gas Industry Co must assess the GTAC against the MPOC and VTC as those codes apply to each of the participants to those codes. In Methanex's view, Gas Industry Co must determine whether the GTAC is materially better than each of the MPOC and VTC.

Other relevant feedback

Methanex requested clarification of how Gas Industry Co intends to approach its assessment of associated arrangements that form part of First Gas' overall regime, but are not formally part of the GTAC.

Response to feedback and further refinement of the assessment methodology

In this section, we provide a response to feedback from stakeholders that is relevant to our Proposed Approach Paper.

GTAC assessment process

Following First Gas' submission of the GTAC to Gas Industry Co on 8 December 2017, we reconsidered our original view that a process like the current MPOC change process was an appropriate process for consultation on the GTAC.

As we expected, the GTAC submitted to Gas Industry Co on 8 December 2017 built on previous versions of the GTAC that had been subject to consultation with stakeholders. However, it did contain a number of changes that had not been subject to discussion at industry workshops. In that context, we considered that an additional window for stakeholders to provide comments on the final version of the GTAC submitted to Gas Industry Co would enable stakeholders to express a view on aspects of the GTAC that they had not previously had an opportunity to comment on. Our view was consistent with the feedback received from Methanex and Greymouth. The revised process notified to stakeholders contained an additional opportunity for stakeholder comments on the GTAC. We received submissions from the following stakeholders:

1. Contact Energy Limited (Contact);
2. First Gas Limited (First Gas);
3. Fonterra Co-operative Group Limited (Fonterra);
4. Genesis Energy Limited (Genesis);
5. Greymouth Gas New Zealand Limited (Greymouth);
6. Major Gas Users Group (MGUG);
7. Methanex New Zealand Limited (Methanex);
8. Shell (Petroleum Mining) Company Limited (Shell);
9. Todd Corporation Limited, including Todd Energy Limited and Nova Energy Limited (Todd);
10. Trustpower Limited (Trustpower); and
11. Vector Limited (Vector).

We have considered the submissions made by the above stakeholders, and to the extent that the submissions have raised new matters that are relevant to our assessment of the GTAC, we have considered those new matters when preparing this Preliminary Assessment. A reference to a "submission" in this Preliminary Assessment refers to these stakeholder submissions on the GTAC submitted to Gas Industry Co on 8 December 2017.

Some of the above submissions provided detailed comments on the drafting of the GTAC (in particular, Vector and Greymouth). While our Preliminary Assessment does not consider detailed drafting concerns, we will issue a note following this Preliminary Assessment indicating whether we agree that the drafting comments should be considered. Our note is intended to assist the parties to address minor errors that have not had a bearing on our Preliminary Assessment, but that, if addressed, would enhance the GTAC.

As part of our consideration of an appropriate consultation process, we also reconsidered our indicative timetable for assessment of the GTAC. The modifications that we made to the timeframes aimed to ensure that stakeholders had a reasonable opportunity to provide comments on aspects of the GTAC that they had not previously had an opportunity to comment on and ensure that stakeholders had adequate time to read, reflect on, and make submissions on our preliminary assessment.

The revised indicative timeframes were identified in our News Bulletins dated 11 December 2017, 22 December 2017 and 10 January 2018 and are reflected in the following table:

| Process | Date |
|---|--------------------------|
| Stakeholders provide submissions to Gas Industry Co on the GTAC submitted to Gas Industry Co on 8 December 2017 | Monday, 22 January 2018 |
| Gas Industry Co issues its preliminary assessment of the GTAC (termed a "draft determination" in the MPOC) for consultation with stakeholders | Monday, 12 February 2018 |
| Stakeholders provide submissions to Gas Industry Co on the preliminary assessment of the GTAC | Friday, 19 March 2018 |
| Gas Industry Co issues its final assessment (termed a "final determination" in the MPOC) | Friday, 20 April 2018 |

GTAC assessment objectives

We continue to hold the view that the Gas Act and GPS establish the hierarchy of objectives outlined in our Proposed Approach Paper.

While the function that Gas Industry Co is performing is contractual (i.e. non-regulatory), that function is performed in the context of Gas Industry Co having the power to recommend, under section 43F of the Gas Act, "reasonable terms and conditions for access to and use of gas transmission pipelines" (i.e. the Gas Industry Co's regulatory role under the Gas Act). That being the case, when we are asked to assess the GTAC against the Objectives and Outcomes, in the absence of any further guidance, we think that we should apply the objectives in accordance with the framework in the Gas Act and GPS.

We think that the GPS preserves the primacy of the Gas Act objectives in the context of non-regulatory arrangements, but adds other objectives to which Gas Industry Co must have regard.

While we think the hierarchy approach is the correct one, the impact on our analysis may be limited by the considerable overlap between the objectives. For example, the GPS adds an objective that energy and other resources used to deliver gas to consumers are used efficiently. Delivery of gas to customers in an efficient manner is a component of the principal objective in the Gas Act.

We have previously provided a response to Trustpower's concern that Gas Industry Co's duties under the Gas Act will not be met even if it has determined that MPOC s22.16(b) has been satisfied. As indicated in our open letter dated 8 December 2017, Gas Industry Co's role under the MPOC is a contractual role that must be performed in accordance with the requirements of the MPOC (which expressly refers to the Objectives and Outcomes). That does not limit Gas Industry Co's power to recommend regulations in the future. Our view is that the "reasonableness" standard in section 43F(2)(c) of the Gas Act defines the scope of Gas Industry Co's power to recommend regulations, but "reasonableness" is inherent in a number of the Objectives and Outcomes against which Gas Industry Co will measure the GTAC.

Meaning of "materially better" standard

Regarding the "materially better" criteria, we do not agree with Methanex that all parts of the GTAC must be materially better, or that no part should be worse than the status-quo. We believe the wording and intent of the MPOC s22.16(b) is clear – Gas Industry Co is required to assess the GTAC as a whole to determine whether it is materially better. In order for Gas Industry Co to reach an overall conclusion on whether the GTAC is materially better, we will need to assess the relevant parts of the GTAC. However, to "split up" the GTAC and impose a requirement that each part of the GTAC is materially better would, in our view be inconsistent with s22.16(b) of the

MPOC. Gas Industry Co's approach is to consider the component parts but then to make a holistic assessment and not allow a single flaw in the GTAC to be a stumbling block to implementing the GTAC if it is, overall, materially better.

While we agree with Methanex that Gas Industry Co must assess the GTAC against the MPOC and VTC as those codes apply to the participants to those codes, we do not agree that Gas Industry Co must be satisfied that the GTAC is materially better than each of the MPOC and VTC. We have been clear that our assessment would involve us assessing the GTAC against the MPOC and VTC and considering whether there is an overall material improvement. We think that view is consistent with the wording of the MPOC which requires Gas Industry Co to assess the GTAC against the terms and conditions of access as a whole.

We think that it is important to note that the current MPOC and VTC framework has proven to be workable. However, those arrangements are not perfect and there are specific areas where improvement is possible, some of which were identified in the Panel of Expert Advisers' advice to Gas Industry Co in July 2013.⁸ We think that it is possible that the GTAC will contain imperfections, particularly in the eyes of individual stakeholders. Gas Industry Co is being asked to determine whether, for the industry as a whole (and having regard to the interests of individual stakeholders), the GTAC is materially better than the current MPOC and VTC.

We acknowledge that Methanex has a legitimate concern that some aspect of the GTAC may adversely affect an individual stakeholder. We suggest that the onus is on any party who is in that position to bring it to our attention and ensure that Gas Industry Co is aware of the significance of the adverse effect for the particular stakeholder. We will assess any individual stakeholder concerns together with the interests of other stakeholders. Fairness is one of the criteria we will be considering.

Other relevant feedback

Section 2 of this paper discusses our approach to associated arrangements under this preliminary assessment.

Further explanation and examples of our assessment approach

Following Gas Industry Co's Final Recommendation of 31 October 2017, supporting the TCR⁹, and the feedback from stakeholders discussed above, we updated stakeholders on how we proposed to assess the GTAC at a workshop on 17 November. The purpose of our presentation was to:

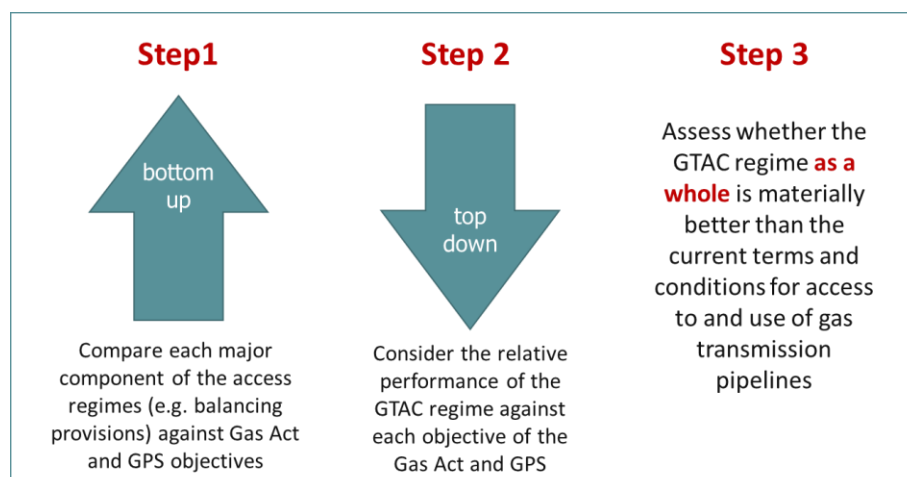
1. Explain Gas Industry Co's GTAC assessment approach;
2. Illustrate the approach with indicative examples using the GTAC dated 3 November 2017;
3. Help First Gas and other stakeholders to focus on issues of significance; and
4. Give an opportunity for stakeholders to provide feedback.

⁸ <http://www.gasindustry.co.nz/work-programmes/gas-transmission-investment-programme/background/transmission-access/advice-from-panel-of-expert-advisers/>

⁹ The MPOC was subsequently amended to incorporate the changes on 4 January 2018. MPOC s29.4 provides that, after Gas Industry Co has made a written recommendation supporting a proposed change, at least 30 days must pass before the MPOC and affected contracts are amended.

Figure 1 illustrates the overall approach we proposed.

Figure 1 – GTAC assessment process



We then presented some worked examples of how our assessment would be done, using the GTAC dated 3 November 2017.

1.4 Guide to this Preliminary Assessment

Above we have explained that Gas Industry Co now has a role under the MPOC (via the GTAC Assessment Condition) to assess whether the GTAC is materially better than the current terms and conditions for access to and use of gas transmission pipelines. With the help of stakeholders, we have developed our thinking on how to perform this role. This leads directly to the layout of this Preliminary Assessment. In particular:

- Section 1 explains the circumstances that have given rise to this Preliminary Assessment, describes Gas Industry Co's assessment role and how we have developed the assessment methodology, including our consideration of stakeholder feedback.
- Section 2 sets out the assessment methodology. First we describe the objectives and how we have grouped them for the purpose of our analysis. Then we explain how the three steps of our analysis fit together.
- Section 3 contains the bottom-up analysis. (Step 1)
- Section 4 contains the top-down analysis. (Step 2)
- Section 5 contains the overall assessment. (Step 3)
- Appendix A reviews a number of issues that have proved significant, either in stakeholder discussions during the GTAC development, or in submissions on the GTAC.
- Appendix B lists the key GTAC documents and workshops that comprised the GTAC development.
- Appendix C MPOC S22.16
- Appendix D lists the matters on which First Gas would have discretion, comparing these to its current discretion.
- Appendix E lists the information that the GTAC, MPOC and VTC require to be publicly disclosed.
- Appendix F illustrates the code change processes of the GTAC, MPOC and VTC.
- Appendix G lists all items that received a negative assessment.

A glossary of common term and acronyms is provided at the end of this Preliminary Assessment.

2. Assessment Methodology

In the previous chapter we described how our methodology evolved. In this chapter we provide a detailed description of the final assessment methodology used in this paper.

2.1 Assessment criteria

We have considered the extent to which the objectives in the Gas Act and the objectives and outcomes in the GPS may be relevant to our assessment of the GTAC. We have concluded that the following assessment criteria are relevant:

Table 1 – Assessment criteria

| Criterion | Objective/Outcome | Text |
|-----------|------------------------------|---|
| 1 | Gas Act s43ZN(a) | the principal objective is to ensure that gas is delivered to existing and new customers in a safe, efficient, and reliable manner |
| 2 | Gas Act s43ZN(b)(i) | facilitation and promotion of the ongoing supply of gas to meet New Zealand's energy needs, by providing access to essential infrastructure and competitive market arrangements |
| 3 | Gas Act s43ZN(b)(ii) | barriers to competition in the gas industry are minimised |
| 4 | Gas Act s43ZN(b)(iii) | incentives for investment in gas processing facilities, transmission, and distribution are maintained or enhanced |
| 5 | Gas Act s43ZN(b)(iv) | delivered gas costs and prices are subject to sustained downward pressure |
| 6 | Gas Act 43ZN(b)(v) | risks relating to security of supply, including transport arrangements, are properly and efficiently managed by all parties |
| 7 | Gas Act s43ZN(b)(vi) | consistency with the Government's gas safety regime is maintained |
| 8 | GPS Item 12(a) | energy and other resources used to deliver gas to consumers are used efficiently |
| 9 | GPS Item 12(b) | competition is facilitated in upstream and downstream gas markets by minimising barriers to access to essential infrastructure to the long-term benefit of end users |
| 10 | GPS Item 12(c) | the full costs of producing and transporting gas are signalled to consumers |
| 11 | GPS Item 12(d) | the quality of gas services where those services include a trade-off between quality and price, as far as possible, reflect customers' preferences |
| 12 | GPS Item 12(e) | the gas sector contributes to achieving the Government's climate change objectives as set out in the New Zealand Energy Strategy, or any other document the Minister of Energy may specify from |

| Criterion | Objective/Outcome | Text |
|-----------|---------------------|--|
| | | time to time, by minimising gas losses and promoting demand-side management and energy efficiency |
| 13 | GPS Item 9 | it is also the Government's objective that Gas Industry Co takes account of fairness and environmental sustainability in all its recommendations. To this end, the Government's objective for the entire gas industry is as follows: To ensure that gas is delivered to existing and new customers in a safe, efficient, fair, reliable and environmentally sustainable manner |
| 14 | GPS Item 13 point 1 | pursue: An efficient market structure for the provision of gas metering, pipeline and energy services |
| 15 | GPS Item 13 point 2 | pursue: The respective roles of gas metering, pipeline and gas retail participants are able to be clearly understood |
| 16 | GPS Item 13 point 3 | pursue: Efficient arrangements for the short-term trading of gas |
| 17 | GPS Item 13 point 4 | pursue: Accurate, efficient and timely arrangements for the allocation and reconciliation of upstream gas quantities |
| 18 | GPS Item 13 point 5 | pursue: Gas industry participants and new entrants are able to access transmission pipelines on reasonable terms and conditions |
| 19 | GPS Item 13 point 6 | gas governance arrangements are supported by appropriate compliance and dispute resolution processes |

In this paper we refer to these items as the Criteria. Stakeholders will note that the list does not include all of the objectives and outcomes in the Gas Act and GPS. We have excluded specific outcomes on the basis that they are unlikely to be directly relevant to our assessment of the GTAC, for example, the GPS outcome that requires contracts between gas retailers and small gas consumers to protect the long-term interest of consumers. That outcome obviously has no specific relevance for our assessment of the GTAC. If stakeholders consider that any other outcomes are relevant, we would encourage submissions in response to this Preliminary Assessment Paper to identify the relevant outcome and provide an explanation of why the objective or outcome is relevant to our assessment.

In addition, when setting out our analysis, we find it helpful to group the Criteria under the five category headings shown in **Table 2 – Categorisation of assessment criteria**. This is similar to the approach that we used when presenting examples of our analysis at the GTAC workshops, but we have expanded the list to include the GPS outcomes. This approach avoids duplication and ensures that stakeholders are presented with a more readable document. However, stakeholders can be assured that our assessment process has been conducted by reference to each of the Criteria individually. Where relevant, our full analysis will refer to the specific objective or outcome under consideration.

Table 2 – Categorisation of assessment criteria

| | Efficiency | Reliability | Safety | Environment | Fairness |
|----------------|--|---|----------------------------|-------------|----------|
| Gas Act | Criterion 1 Criterion 2 Criterion 3 Criterion 4 | Criterion 1 Criterion 2 Criterion 6 | Criterion 1 Criterion 7 | | |

| | Efficiency | Reliability | Safety | Environment | Fairness |
|----------------------|--------------|-------------|--------|--------------|--------------|
| | Criterion 5 | | | | |
| GPS objective | Criterion 8 | | | Criterion 8 | Criterion 13 |
| | Criterion 9 | | | Criterion 12 | |
| | Criterion 10 | | | Criterion 13 | |
| | Criterion 11 | | | | |
| GPS outcome | Criterion 14 | | | | Criterion 18 |
| | Criterion 15 | | | | |
| | Criterion 16 | | | | |
| | Criterion 17 | | | | |
| | Criterion 19 | | | | |

2.2 What is being compared?

The GTAC Assessment Condition requires our assessment to compare the GTAC with the terms and conditions for access to and use of gas transmission pipelines as provided for in the MPOC/VTC access regime that is currently in effect. Our role is not to impose our own view, or the view of any stakeholder, as to what a theoretically “optimal” set of terms and conditions should contain. Accordingly, we will not be considering alternative proposals for achieving the Objectives and Outcomes put forward by stakeholders in their submissions on the GTAC or this Preliminary Assessment. For the purpose of this Preliminary Assessment, the relevant code versions are:

1. GTAC dated 8 December 2017;
2. MPOC dated 4 January 2018 (ie as updated by the TCR); and
3. VTC dated 1 October 2017.

However, we note that the terms and conditions for access to and use of gas transmission pipelines (the “access regime”) may encompass some associated arrangements, as illustrated in Figure 2.

While many of these associated arrangements would remain largely unchanged, a few would be substantially re-written (for example, the balancing operating procedure), others would require adjustment (for example, the Policy on Interconnection), and others would be entirely new (for example, the PR auction rules). It is necessary in our assessment to consider how the GTAC addresses the development of those associated arrangements that will need to be developed, or rewritten (i.e. the process that is set out for such associated arrangements to be formalised), since they are integral to the terms and conditions of access to and use of the gas transmission pipelines. Gas Industry Co can only assess associated arrangements that are made available to it. In all other cases, Gas Industry Co would want to ensure the process for formalisation of such associate arrangement was appropriate having regard to the subject matter.

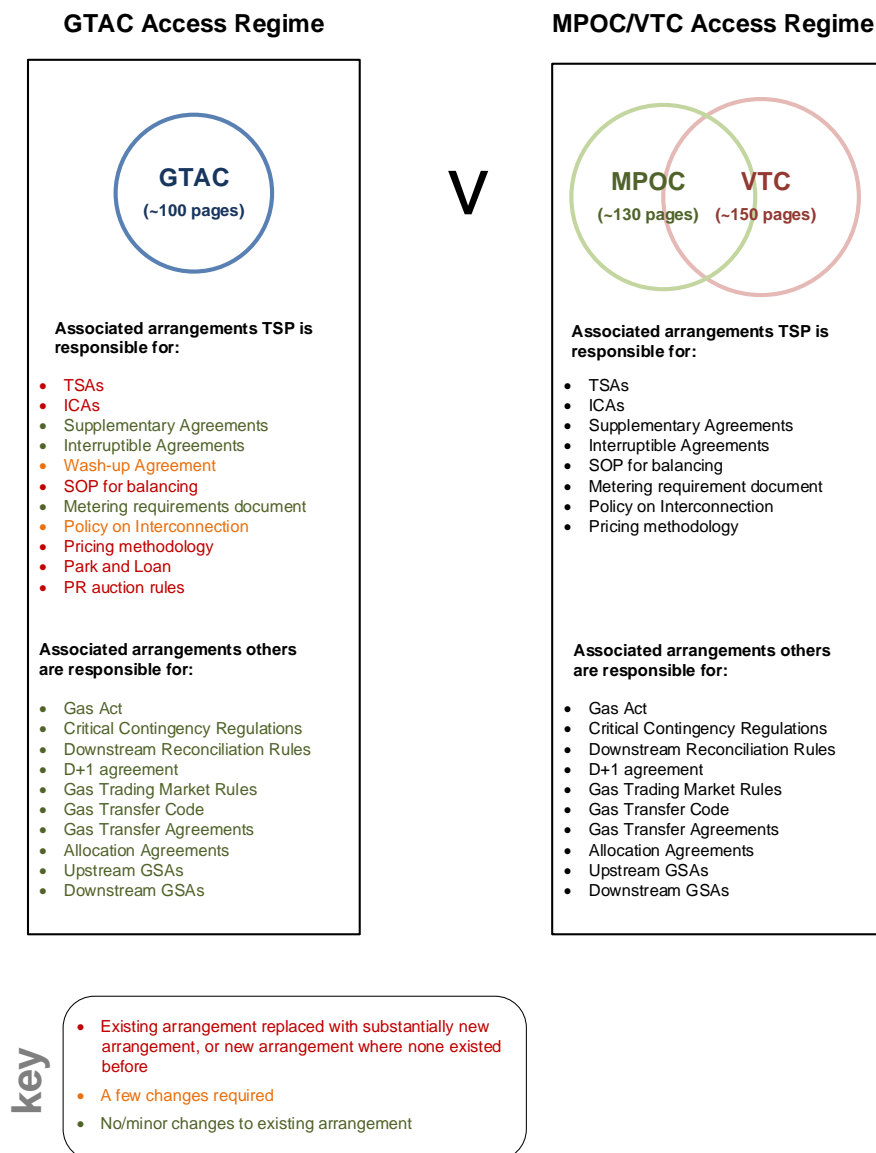
To the extent that associated arrangements have not been developed or need to be re-written, we would need to be satisfied that:

1. Specific processes for the development of the associated arrangements are included in the GTAC. The level of process required would depend on the nature of the associated arrangement (for example, we would expect a lower level of control in relation to the development of an operational policy compared to, for example, PR auction rules).

2. In the absence of specific processes for development of the associated arrangements, we would need to be satisfied that the associated arrangement is a matter that is properly within the discretion of the relevant party.

Our assessment of the process for development or amendment of associated arrangements will have regard to the treatment of those arrangements under the current MPOC and VTC. For example, if those arrangements may be determined at the discretion of a party under the MPOC and VTC, then that will be relevant to our assessment.

Figure 2 – What is being compared?



2.3 Three step analysis

As described in Figure 1, the assessment process Gas Industry Co has adopted to assess whether the GTAC access regime is materially better than the MPOC/VTC access regime, will be in 3 steps, as discussed with stakeholders.

Stakeholders will note that the assessment process in this Preliminary Assessment Paper follows a different structure to Gas Industry Co's previous decisions on MPOC change requests. The approach that we have adopted reflects the fact that Gas Industry Co is reviewing a document that is intended to replace the entire MPOC and VTC, rather than a change to an aspect of the

MPOC. A larger number of Objectives and Outcomes are relevant when compared to Gas Industry Co's assessment of an MPOC change request. We have endeavoured to develop a structure that provides a comprehensive assessment, but is also easy for stakeholders to follow.

Step 1 - A "bottom-up" analysis

For each major component of the access regime, the bottom-up analysis describes the arrangements in the GTAC, MPOC, and VTC and considers whether the GTAC would better meet the Criteria than the MPOC/VTC regime (the current arrangements).

Table 3 lists the components that have been considered and references the section of this Preliminary Assessment where our analysis of that that component can be found.

Table 3 – Where to find our bottom-up analysis of each GTAC component

| Component | | see section |
|--|--|--|
| Gas transmission products | | |
| GTAC s2 GTAC s3 GTAC s4 GTAC s7 | Transmission Services Transmission Products and Zones Nominations Additional Agreements (Supplementary Agreements (SAs) and Interruptible Agreements (IAs)) | Section 3.1 |
| Pricing | | |
| GTAC s11 | Fees and Charges | Section 3.2 |
| System operation | | |
| GTAC s5 GTAC s6 GTAC s8 GTAC s9 GTAC s10 GTAC s12 GTAC s13 | Energy Quantity Determination Energy allocations Balancing Curtailment Congestion Management Gas Quality Odourisation | Section 3.3 Section 3.4 Section 3.5 Section 3.6 Section 3.7 Section 3.8 |
| Governance | | |
| GTAC s14 GTAC s15 GTAC s16 GTAC s17 GTAC s18 | Prudential Requirements Force Majeure Liabilities Code Changes Dispute Resolution | Section 3.9 |

Step 2 - A "top-down" analysis

This analysis provides a different perspective on the material presented in the "bottom-up" analysis. Rather than beginning at each major component of the access regime – for example, Congestion Management – and exploring how it meets the Criteria, the top-down analysis takes the reverse perspective, beginning at each category of assessment criteria – Efficiency, say – and looks at how it is advanced (or otherwise) by each component of the access regime. By looking from two perspectives we get a more balanced view of the whole regime.

Because the detailed description of the arrangements and analysis has been done in Step 1, Step 2 can be much shorter.

The difference between the two steps is illustrated in Table 4.

Table 4 - top-down v bottom-up analysis

| | Efficiency | Reliability | Safety | Environment | Fairness |
|--------------------------|------------|-------------|--------|-------------|----------|
| Standard Access Products | | | | | |
| ... | | | | | |
| ... | | | | | |
| Congestion Management | | | | | |
| ... | | | | | |
| Prices | | | | | |
| ... | | | | | |

Step 3 - An overall assessment

This final step draws on the previous steps to take a more holistic view of the GTAC arrangements, considering whether any relevant matters might not have been captured in steps 1 and 2, what aspects are of high significance to a successful access regime, and what aspects are less important.

This will include consideration of:

1. Matters that are dealt with in the MPOC/VTC regime that are not present, or not dealt with to the same level of detail in the GTAC regime.
2. Matters in the GTAC that are not present in the MPOC/VTC regime.
3. Overall cost and benefits, giving weight to the more substantial aspects of the access regime, and more important Criteria (as per the hierarchy set down in the Proposed Approach Paper).

It is also at this point that consideration can be given to the overall balance of the assessment; whether the questions we have asked ourselves capture the essence of the Objectives and Outcomes in relation to the particular aspect of the access arrangements under consideration; whether any benefits or detriments have been double counted or missed.

Q1: Do you have any comment on our approach to the analysis?

3. Bottom-up analysis








In this chapter we look at how each aspect of transmission access would be dealt with under the GTAC, and consider whether each aspect would be better than the current arrangements under the MPOC and VTC. The bulk of our analysis is in this chapter, so it is detailed and lengthy. Readers who prefer to begin with a summarised version of the analysis should move on to chapter 4, and can then refer back to this chapter when you require more detail.

The coverage of each section in the bottom-up analysis is broadly in the same order as the sections of the GTAC, as set out in Table 3.

We begin each section with a description of how the matter under consideration would be treated under the GTAC, and how it is treated under the MPOC and VTC. For ease of navigation, these descriptive sections are coloured **blue**.

We then consider the Criteria from Table 2 and assess whether the matter under consideration would improve on, or detract from current arrangements in respect to those Criteria. Note that not all of the Criteria will be relevant to every matter under consideration, in that case we describe those Criteria as having “weak relevance”. Where it is possible to do so, we have bundled related Criterion together to avoid repetition. Some Criteria may only be addressed in the summary table at the end of the relevant section to avoid repeating our analysis.

Our assessments using the scale below.

| Key | Deterioration | | | Neutral | | Improvement | |
|-----|---|---|---|---|--|---|---|
| | Substantial | Moderate | Modest | | Modest | Moderate | Substantial |
| |  |  |  |  |  |  |  |

When we assess a feature of the GTAC we might find that some aspects of it are a deterioration while others are an improvement relative to the status-quo. In that case we show both a red arrow and the green arrow. This avoids hiding aspects of the GTAC that would degrade our assessment behind aspects that would improve it. It is only in Chapter 5 that we weigh all aspects to come to an overall view.

For the convenience of those readers who want to know why we have concluded that certain aspects of the GTAC degrade the assessment, we have corralled all the reasons for each red arrow into Table 32 in Appendix G.

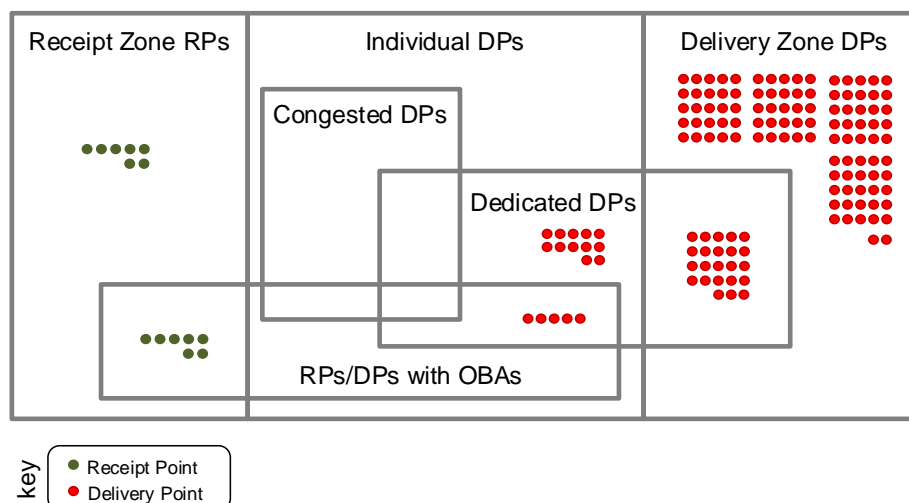
Some commonly used terms

Readers may find the Figure 3 Venn diagram helpful in differentiating some terms the GTAC commonly uses in relation to Receipt Points (RPs) and Delivery Points (DPs).

Figure 3 also aims to give readers an indication of how many RPs and DPs would currently fall into each category. For example, it indicates that there are currently no Congested DPs (i.e. DPs where flows or Nominated Quantities (NQs) are, or are expected to, exceed Available

Operational Capacity). There would be 40 Dedicated DPs (i.e. DPs that supply gas to a single end-user) of which 23 would lie within Delivery Zones. Of the 17 Individual DPs (i.e. DPs that are not in a Delivery Zone), 5 currently have OBAs.

Figure 3 - Relationship of GTAC DP definitions



Use of capitals

Terms are capitalised where they have a particular meaning in the relevant code. However, we have tried to spare the reader capitalisation fatigue by only capitalising terms where their exact meaning is important to the point being discussed.

3.1 Gas transmission products

(Principally GTAC s2 Transmission Services; GTAC s3 Transmission Products and Zones; and GTAC s4 Nominations; and GTAC s7 Additional Agreements.)

Gas transmission products – description of arrangements

GTAC gas transmission products

Standard GTAC gas transmission product

Daily Nominated Capacity (DNC) would be the core product offered to shippers. DNC would be available at each Delivery Zone and each Individual DP (ie any DP not in a Delivery Zone) and is defined by a Maximum Daily Quantity (MDQ) and Maximum Hourly Quantity (MHQ). The standard MHQ is 1/16th of the MDQ, but shippers to Dedicated DPs may apply for an Agreed Hourly Profile (AHP).

The GTAC also provides a supporting product known as a Priority Right (PR), which is only available at auction, and only for a Congested DP (or group of Congested DPs). A shipper with a PR would be “at the head of the queue” to have its DNC nominations approved, up to the amount of its PR. The operation of PRs is set out in more detail in section 3.6 below.

Non-standard GTAC gas transmission products

The GTAC provides that First Gas may, at its discretion, enter into Supplementary Agreements (SAs) that vary certain standard terms and conditions of the GTAC (GTAC s7.4). GTAC s7.1 provides certain criteria that First Gas must apply in considering requests for SAs. SAs must be published in full (GTAC s7.6).

First Gas may also, at its discretion, enter into Interruptible Agreements (IAs). GTAC s7.7 sets out criteria for First Gas to determine whether an IA will be offered: basically to maximise capacity, or as a Congestion Management measure, and/or where the end-user has alternative fuel.

The Interruptible Capacity Allocation Policy, March 2012, would no longer apply since First Gas considers that the matters it covers are largely dealt with in the GTAC¹⁰. In particular, IA is a defined term in the GTAC, meaning an agreement between First Gas and a shipper in relation to a specific end-user or site where transmission capacity may be curtailed, where the terms of the GTAC listed in GTAC s7.9 may be varied.

Where First Gas enters into an IA for the purposes of Congestion Management, it will publish the agreement and the DP where Available Operational Capacity has increased as a result (Beneficiary DP) (GTAC s3.11). First Gas will recover any amounts payable to such an IA holder from shippers using the Beneficiary DP as set out in GTAC s11.11.

GTAC nominations

Shippers must nominate at RPs (GTAC s4.1), delivery zones (GTAC s4.3), and Individual DPs (GTAC s4.4). Unlike the MPOC, there is no requirement for receipt and delivery nominations to be equal. There must be at least 4 nomination cycles each day (GTAC s4.11), as under the MPOC. Also, First Gas may provide one or more additional intra-day cycles where a Shipper's or OBA Party's circumstances change in a material and unforeseeable way (in relation to production or customer outages), or where First Gas experiences technical problems (GTAC s4.18).

MPOC gas transmission products

Standard MPOC gas transmission product

The core product offered to shippers is Daily Approved Nominations at each relevant RP or DP. The MPOC also provides for a supporting product known as Authorised Quantity (AQ), which is a zone based priority right similar to GTAC PRs. However, AQ has never been fully detailed, so has never been used.

Non-standard MPOC gas transmission products

All ICAs and TSAs must incorporate only standard MPOC provisions, except for identified exceptions specified in MPOC s2.1 (e.g. Bertrand Rd, Virtual Welded Point). Non-standard provisions must be disclosed under MPOC s4.1. No further new exceptions are allowed.

MPOC Nominations

Shippers must nominate at all relevant RPs and DPs (including interconnection points between the Maui and non-Maui pipelines). Receipt and delivery nominations must be equal (MPOC s8.2). There must be a minimum of 4 nomination cycles each day (MPOC s 8.14).

VTC gas transmission products

Standard VTC gas transmission product

The core product available to VTC shippers is Reserved Capacity. It is an annual entitlement to ship gas between each specified RP and DP up to an amount of MDQ specified in the Shipper's TSA on each day of the Gas Year.

¹⁰ The policy is "... a guideline of the general steps that [First Gas] will follow and how [First Gas] will offer and allocate interruptible capacity" and "... is provided for information purposes only and is not legally binding on [First Gas]." It sets out when, and how much, interruptible capacity will be offered.

Non-standard VTC gas transmission products

SAs, which in the VTC include fixed term and interruptible agreements (IAs), may be offered at First Gas' discretion. SAs generally incorporate standard TSA conditions, but First Gas can vary certain terms (generally related to the nature, volume and duration of capacity rights, and transmission charges) as set out in VTC s2.7(e). SAs must be published (VTC Sch 5, Table A). The arrangements for First Gas considering and processing SAs are set out in an SA Policy, dated March 2012, published on OATIS.

Similarly, an Interruptible Capacity Allocation Policy, March 2012, is published on OATIS, together with several interruptible contract templates (an Interruptible Shipper Contract and an Interruptible User Contract), but these are outside the VTC. The policy is described as a guideline of the general steps First Gas would follow and how it would offer and allocate interruptible capacity.

VTC Nominations

The annual MDQ service is a "no-notice service", ie once the capacity is reserved there is generally no need for a shipper to nominate its daily requirements (although First Gas can require it to do so, if necessary, for informational purposes only). However, nominations are required at Pokuru #2 (s5.6), and at interconnections with the Maui pipeline if they are Displaced Gas Nominations (VTC s9). Nominations may also be required at large meter stations (>1TJ/day) (VTC s5.1), but generally are not.

Gas transmission products – assessment

This section assesses whether the GTAC gas transmission products, ie the basic arrangements that First Gas offers to transport gas across its transmission system, are an improvement on current MPOC/VTC gas transmission products, with reference to the relevant Criteria. The analysis does not address pricing, which is dealt with separately in section 3.2.

Gas transmission products – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

In situations where there is no congestion

The DNC/zone design would provide shippers with greater flexibility than point to point annual capacity (offered under the VTC). In particular, a shipper would buy its capacity daily (for transport from the Receipt Zone to each of its Delivery Zones and Individual DPs), rather than buying annual blocks of capacity once a year (for transport from each RP to each DP). This would allow a shipper to tailor its capacity purchases to its demand each day, and easily accommodate any changes in demand, and any new customers that it may acquire. Also, in the absence of congestion, there would be no unnecessary incentives for a shipper to reduce its peak demand. Whereas, under the VTC, a shipper has to buy a full year's capacity to cover demand that only occurs at peak. More consideration is given to this where pricing is discussed section 3.2.

DNC would also facilitate maximum use of the pipeline by shippers over time. Previous work by the Panel of Expert Advisers (PEA) described how the VTC's annual capacity reservation arrangement, including "grandfathered" rights to capacity, led to the "sterilisation" of capacity, or "contractual congestion", where a shipper holds more capacity rights than it is using. In particular, if all available capacity has been sold, a shipper who holds more capacity than it is using will be reluctant to relinquish any of that unused capacity to a competitor. In this situation, a new shipper cannot readily enter the market and an existing shipper cannot compete for a rival's market share unless it holds spare capacity. This was the situation in

2009 when constrained capacity in the Auckland region prevented end-users who wanted to switch to a new supplier from doing so.

With DNC a shipper cannot sterilise capacity ahead of a constraint emerging, as it can with annual capacity reservations under the VTC. However, once congestion develops there is some scope for such behaviour, as discussed below.

While these benefits were widely recognised in submissions, the costs of adapting to and operating under the new arrangements were also noted. For example, Vector advised that:

Vector is pleased with First Gas' decision to adopt a zoning approach with respect to Delivery Points under the GTAC. We believe First Gas has struck the right balance between the need for information to efficiently manage the transmission system and limit Shippers' operational overheads. As a result of the zoning approach, the number of chargeable delivery points (for standard transmission delivery points) is reduced from approximately 55 under the VTC to 15 under the GTAC.

But noted:

This will, however, require significant investment in new systems to effectively manage our DNC nominations and develop those new processes, products and services.

And:

In the transition to the GTAC regime, we expect Vector's gas trading business to incur costs in making the necessary changes to align its contracts, processes and systems with the GTAC provisions. However, as we will be using the same inputs across our transmission capacity and gas purchasing operations (including customer gas consumption forecasts), we expect our operational costs to be lower in the future. As a guide, we expect to 'break even' within five years.

Similarly, Genesis observes that:

Removal of grandfathering rights has removed a major barrier to entry. We consider this benefits new entrants and existing players alike as it promotes competition and growth in the gas market.

But noted:

The strict requirements for accuracy under the GTAC will increase costs for shippers and ultimately consumers; this is particularly true for mass market customers with loads difficult to predict and demand profiles that differ from season-to-season. This is inconsistent with a system designed with a degree of tolerance in-built, and materially worse compared with the status quo in our view.

We also acknowledge that not all submitters consider the proposals to be an improvement, at least not in relation to the MPOC arrangements. In particular, Methanex notes that:

Point to point nomination by Shippers and deemed flow to nomination, together with operational balancing as a responsibility of Interconnected Parties has proven to be a safe, reliable and efficient arrangement on the Maui Pipeline for more than a decade. FGL has provided no justification for abandoning it. It could have retained the same arrangements for gas flows that remain within the Maui Pipeline, while addressing the particular aspects of concern to it for gas flows on other parts of the network.

We agree that the core Maui concepts of OBAs and flow-on-nominations have been successful for the set of users whose activities are confined to the Maui pipeline. However, we consider that the products described in the GTAC preserve these core concepts as options, but also allow alternatives that may be more attractive to other pipeline users.

Importantly, the GTAC proposes a coherent set of products that can operate across the entire transmission system. While we do not assess all aspects of the GTAC as improvements, we believe the design of the standard products is generally well-considered, generally well-supported by system users, and overall would allow gas to be delivered more efficiently and enhance competitive market arrangements.

In situations where there is congestion

The GTAC tools for managing congestion are: IAs (where end-users willing to be interrupted can be found) and PRs, available via auction. The operation of these tools is discussed in Section 3.7 System operation – Congestion management, below. Here we consider whether the availability of the tools is an improvement, i.e. are they a useful adjunct to the design.

IAs are available under the VTC but not the MPOC. Since the Maui pipeline has never been capacity constrained, we should consider whether the IAs would bring any practical benefit over the VTC IAs. The important conceptual difference is that the GTAC IAs allow for the Interconnected Party to be paid to interrupt, whereas the VTC IAs only allow for a discounted transmission price. We think this provides a moderate benefit.

PRs, assuming the auction rules are efficient, would allow capacity to be allocated to its highest value use. The GTAC also aims to discourage a shipper from nominating more capacity than it needs. GTAC s10.4 provides for each shipper to warrant that for any Congested DP its nominations will represent its best estimate of its end-users' requirements and that it will not inflate its nominations with the intention of securing a greater share of the Available Operational Capacity.

However, we do not know how rigorously GTAC s10.4 will be policed by First Gas, and there is not sufficient transparency for Gas Industry Co or other stakeholders to detect whether a shipper is over-nominating¹¹. So over-nomination behaviour could go undetected and undisclosed.

Another consideration is that the presence of a daily underrun fee in the GTAC would make over-nominating costly for a shipper (although such a shipper may believe it is worth doing in order to exclude a competitor from the market).

Also, we do not think that an end-user at a Congested DP would always be in a better situation if it wished to change its supplier. GTAC s6.18 requires shippers to acknowledge that an end-user at any Dedicated DP has the right, subject to the terms of its gas supply agreement, to buy gas from more than one shipper. At best, this seems to just acknowledge reality. At worst, since it only applies to Dedicated DPs, it might mistakenly suggest that a different situation exists elsewhere. However, if an end-user at a congested DP requires firm supply, it will rely on its supplier having PRs, and that supplier would be reluctant to relinquish those to a competing retailer. So while competition between shippers to obtain PRs may be vigorous, we would expect that once PRs have been allocated end-users may find it more difficult to change their supplier than they would at uncongested locations.¹²

Nonetheless, overall we consider that the GTAC design would better promote efficient use of gas pipelines in congested situations than the current VTC arrangements, and avoid the more complex arrangements seen in other jurisdictions.¹³

¹¹ Although Daily Delivery Reports will be published, underruns will not, so it will not be possible to detect if a shipper is over-nominating capacity.

¹² An alternative "capacity follows the end-user" approach was proposed in the MGUG submission.

¹³ In the EU, the 2007 sector inquiry recognised similar problems, including inefficient allocation of primary capacity, particular where allocated on a First-Come-First-Served basis, and with incumbents trying to block market entry by hoarding capacity.

Nominations

The GTAC product design incorporates nominations to a much greater extent than the VTC. This is not a problem as long as the benefits of nominations justify the additional work in providing them. In relation to Delivery Zone nomination, i.e. where capacity is not constrained, we do not consider that First Gas has persuaded industry or Gas Industry Co of those benefits. We discuss nominations in more detail in Appendix A. Our conclusion is that the nomination regime is inherent to the GTAC transmission products and, while the shippers' nomination workload would increase, few shippers raise this as a serious issue. Of more concern to submitters, and to us, is the strength of the economic incentives (overrun and underrun fees) to make those nominations accurate. This is discussed in relation to pricing in section 3.2.

Supplementary Agreements (SAs)

SAs are a feature of the VTC and GTAC, but not the MPOC. The GTAC also adds criteria that First Gas would apply when considering if an SA is warranted (GTAC s7.1). A full discussion of these factors is provided in Appendix A.

In summary, SAs have the potential to enhance or undermine efficiency. While the SA assessment criteria are a helpful addition, the discretion First Gas has to agree an SA would remain very wide. Therefore, without any checks or balances, we consider that allowing SAs on the Maui pipeline would not necessarily enhance efficiency.

Interconnection Agreements (ICAs)

ICAs are discussed in Appendix A. Our analysis concludes that the treatment of ICAs under the GTAC has the potential to create efficiency issues by allowing for the negotiation of unique ICAs with each Interconnected Party. Although we believe that some aspects of ICAs may need to be individually negotiated, we think the need for individual negotiation is more limited than the GTAC provides for.

Conclusion in relation to Criteria 1, 2 and 14

Overall, in relation to Criteria 1, 2 and 14, we find that:

1. the DNC/zone design would be more flexible for users and allow for more efficient use of the combined Maui/non-Maui pipelines. Most submitters have a similar view;
2. in uncongested situations the DNC product is inherently more pro-competitive than the VTC annual capacity product; and
3. in congested situations, IAs and PRs at a conceptual level allow for more flexible and efficient outcomes (the practical operation of these tools is discussed in section 3.7 Congestion Management, below).

However, these substantial improvements are offset by cost considerations:

4. transition to the new design will be costly, although savings are available in the longer term (for example, in its submission, Vector notes that it anticipates its business would break-even within five years of the GTAC being introduced).

Assessment:  and 

In relation to Criterion 3 (reducing barriers to competition):

In response Congestion Management Procedures were introduced into the Gas Regulation in 2012 mandating: use-it-or-lose-it (UIOLI), capacity surrender, and overcapacity and buyback arrangements.

The GTAC's DNC product, like the MPOC's Daily Approved Nominations, would allow shippers to change the amount of service they require at each nomination cycle. There is no requirement, as there is under the VTC, to commit to an annual reservation of capacity. The replacement of annual capacity booking with DNC makes it a lower cost proposition for a new shipper to enter the market, and for an existing shipper to enter new geographical areas and new market segments. The barriers to competition would therefore be lower.

The daily nature of the GTAC standard product would make it intrinsically less open to hoarding of capacity than the annual VTC product. However, a new element that the GTAC would introduce is the auctioning of PRs by First Gas, and their secondary trading between shippers. While the PR concept is new, and some stakeholders have voiced concerns about the potential for PRs to raise entry barriers, we note that the auction terms and conditions are to be determined in accordance with the GTAC change provisions, and would therefore be evaluated against the Gas Act and GPS objectives. We believe this gives adequate assurance that they should not raise inefficient entry barriers.

Barriers to competition are also reduced where information asymmetries are removed. Transparency of contracts is somewhat improved since the GTAC, like the MPOC, commits to making all TSAs and ICAs public. The VTC only makes TSAs public, so the publication of future ICAs is also positive.

Assessment: 

In relation to Criterion 4 (providing incentives for investment):

Regarding First Gas investments (in pipeline capacity), we consider that the incentives for First Gas to invest are largely a function of the price-quality economic regulation regime administered by the Commerce Commission. However, we think that the structure of the gas transmission products will help to identify where investment is justified. In particular, the GTAC provides for the identification of likely congestion, then allows for interruptible load to be identified and contracted. Where there is still insufficient Available Operational Capacity, Shippers indicate the value of that capacity by bidding for PRs. Based on that willingness to pay, and a positive assessment of the congestion being long-term, First Gas could more confidently assess the justification for investment. The structure of the existing MPOC and VTC transmission products would not provide incentives for investment decisions to quite the same extent.

We conclude that the incentive for pipeline investments would be modestly more efficient under the GTAC.

Assessment: 

In relation to Criterion 5 (sustained downward pressure on costs and prices):

As noted in relation to the Criteria discussed above, we believe that the design of the access products generally enhances competition when compared to the current arrangements, which should tend to reduce costs and prices. However, there are offsetting increases to transaction costs.

A move to the GTAC would change the overall level of transaction costs and the incidence of those costs. We would expect savings to shippers and to First Gas in managing a single GTAC access product, compared to the cost of managing disparate MPOC and VTC access products. RP nominations would be required more or less as at present but nominations would no longer be required at interconnection points between the Maui and non-Maui pipelines and, as First Gas notes in its submission, the absence of capacity transfers would save it the administrative burden of approving those transfers.

However, additional nominations would be required at each delivery zone (GTAC s4.3), and each Individual DP (GTAC s4.4) (including any Congested DP (GTAC s4.6)). As in the MPOC, there would be at least 4 nomination cycles each day.

While accepting that the nominations provide clear benefits at Congested DPs, some stakeholders have argued that they are unnecessary at delivery zones. We agree that requiring shippers to make delivery zone nominations considerably increases transaction costs for no compelling immediate benefit. It is interesting to note that in the UK it is the system operator rather than the shipper who makes such estimations.¹⁴

The increased nomination workload would largely fall on shippers who ship gas to shared DPs. While these shippers currently need to estimate their demand for the purpose of nominating gas from their gas supplier (generally at a Maui pipeline RP), and nominating (probably the same numbers) at an interconnection point between the Maui and non-Maui pipelines, they only need to reserve capacity once a year under the VTC. In contrast, under the GTAC they would need to nominate for deliveries every day.

Assessment:  and 

In relation to Criterion 8 (efficient use of energy and other delivery resources):

With only one set of transmission products to manage, rather than the MPOC and VTC products, we would expect that modest operational savings in the use of compressors should be achieved.

Assessment: 

In relation to Criterion 9 (facilitating competition in upstream and downstream markets):

The GTAC would introduce a single Receipt Zone that includes all RPs, including for the wholesale market, so trading of gas between RPs in the Receipt Zone should be frictionless, attracting no transport charges. In contrast, wholesale market trades currently attract transport fees, as do other RP to RP trades (unless managed via gas swaps). As Todd observed in its submission “the provision of a single Receipt Zone will make it significantly easier to trade gas between Shippers on a daily basis”.

In relation to downstream gas markets, as described in relation to Criteria 1, 2 and 14 above, we expect that the GTAC access products will generally facilitate competition between shippers (retailers).

Assessment: 

In relation to Criterion 16 (efficient arrangements for short-term trading of gas):

The GTAC DNC product provides for transport from a Receipt Zone to a Delivery Zone or an Individual DP. Within the single Receipt Zone gas can be traded without attracting transport charges, we consider this to be a moderate improvement on current arrangement where short-term trading is discouraged because it attracts transport charges even though there should be negligible transmission costs associated with such trades.

¹⁴ In the UK shippers enter daily nominations for entry and exit and are responsible for forecasting their daily flows at all entry points covering gas production, LNG terminals, cross border interconnections and storage withdrawals. But for distribution networks supplying the mass market a different set of arrangements apply. There shippers forecast the daily flows to their largest end users, who will have daily metering (DM) or time-of-use metering. The expected flows to non-daily metered (NDM) end users are made by the pipeline operator through a top-down estimation and allocation process. The NDM nominations for each shipper are made by the pipeline operator based on the number and class of registered end users for that shipper. (The network code requires all end users with annual consumption in excess of 210,000 GJ to be DM, and provides for voluntary DM down to 2,600GJ.)

Assessment: 

Overall efficiency assessment of gas transmission products

Based on our consideration of each of the efficiency criteria, our overall assessment for efficiency is that the GTAC gas transmission products would have a substantial positive aspect, but also a modestly negative aspect. The factors with the greatest influence on this conclusion are those that have a pervasive influence on efficient outcomes (such as the creation of a single receipt zone), rather than those that have an occasional influence (such as transitional costs).

Assessment:  and 

Gas transmission products – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

Because PRs would only be offered at Congested DPs (GTAC s3.15), the notification of such Congested DPs and the subsequent PR auctions would pre-signal the possibility of scarcity, and should allow shippers to better manage their security of supply risks. Also, if congestion arises or abates during a Year, First Gas will notify all shippers as soon as practicable (GTAC s3.24). Neither the MPOC nor the VTC contains similar arrangements to pre-notify an increased risk of congestion.

However, some submitters have argued that the PR auctions may not result in an efficient allocation of risk because if mass market shippers are unable to secure PRs they have no effective means of reducing their demand. We agree. Mass market retailers should be confident that firm capacity can be obtained to cover their demand (at a price that reflects the market value of the capacity). This may be a matter that could be dealt with in the PR market rules, but might also require attention in the GTAC. This topic is discussed further in relation to curtailment, in section 3.6 below.

Assessment:  and 

Gas transmission products – Safety assessment

In relation to Criteria 1 and 7 (providing access in a safe manner and consistent with the Government's gas safety regime):

We do not think the GTAC transmission products would noticeably affect the safety related risks.

Assessment: 

Gas transmission products – Environmental assessment

In relation to Criteria 8, 12 and 13 (contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management):

The GTAC IAs provide for end-users to interrupt their demand in return for compensatory payments i.e. it allows for demand side management. This is not provided for in the MPOC or VTC.

Assessment: 

In relation to Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions):

Standard products

As discussed above, we consider the daily nature of the GTAC standard product would make DNC intrinsically less open to hoarding than the annual VTC product. We also believe the absence of the capacity grandfathering feature of the VTC provides new entrant shippers with more fair access to capacity, although we recognise that some shippers consider grandfathering to be more fair, as discussed in relation to curtailment, in section 3.6, below.

PRs and PR auctions

A new element that the GTAC would introduce is the auctioning of PRs by First Gas, and their secondary trading between shippers.

A number of submitters consider it to be unfair that “retail load at a congested point is not protected”, as Contact put it in its submission. We take this to mean that there is no guarantee that the shipper/retailer supplying that load would be able to obtain PRs.

The fairness of the PR auctions will largely depend on whether appropriate checks and balances on market behaviour are in place. The terms and conditions of PR auctions would be developed by First Gas in consultation with shippers and subject to approval by Gas Industry Co. Changes to the rules would follow the same process. The rules would be published at least 30 Business Days prior to any auction (GTAC s3.18). We consider that these arrangements would provide adequate assurance that the PR rules would be fair to market participants.

The notification of PR auctions, the basic structure of PR auctions, and the risks for mass market shippers are discussed in relation to congestion management, in section 3.7 below.

Supplementary Agreements (SAs)

Contact advised in its submission that it has SAs in respect of its power stations and does not know how they might change. It has a particular concern that the tolerances it currently enjoys in those contracts might be removed, resulting in higher and less predictable charges. It believes this would be unfair. We have not seen the Contact SAs¹⁵, however, our understanding of the First Gas position is that it will honour existing contracts. So we expect that whatever bundle of rights and obligations is provided under those SAs will be preserved. To the extent that those provisions allow for changes, we think this was part of the original bargain that would have recognised that circumstances could change. While consequential adjustments to the SAs may be unwanted by some counterparties, we cannot consider that they are necessarily unfair.

Interconnection Agreements (ICAs)

ICAs are discussed in Appendix A. Our analysis notes our concerns regarding the fairness of GTAC s7.13. We think that Shippers require further assurance regarding the detail of ICAs given that they have reasonable interests in the terms that apply to Interconnected Parties, particularly in light of the liability regime proposed in the GTAC.

¹⁵ Although SAs are listed in VTC sch5 as being available on OATIS, we assume that the Contact SAs predate that requirement and have confidentiality provisions preventing their disclosure.

Agreed Hourly Profiles (AHPs)

Under the GTAC, a shipper's MHQ is generally 1/16th of its MDQ. However, at a Dedicated DP, at any nomination cycle, a shipper may apply for an AHP for the rest the current day and subsequent days, up to a maximum of 7 days (GTAC ss3.26-3.28). First Gas will approve an AHP request unless it affects any shippers' DNC, exceeds the physical deliverability of the DP, or unduly increases the risk of breaching an Acceptable Line Pack Limit (GTAC s3.31).














Hourly overrun charges apply only to Dedicated DPs, and only where the metered quantity is 200 GJ or more. We consider AHP in Appendix A. Our conclusion is that submitters have raised a number of legitimate concerns about AHP that suggest that further design work is required before the product can be judged fair and reasonable.

Overall fairness assessment of gas transmission products

In summary, we find that fairness would be improved by the removal of grandfathering and daily nature of the standard product, but deteriorated by the wide scope for ICA negotiation and the uncertainty of AHP arrangements.

Assessment:  and 

Table 5 – Summary of GTAC Gas transmission products assessment

| Summary of GTAC Gas transmission products assessment | | |
|--|---|---|
| | comment | assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The transmission product design should bring substantial benefits in uncongested and congested situations, but these benefits would be moderated by the increased transaction costs they introduce. |  and  |
| Criterion 3 | The product design should reduce barriers to competition, particularly for new entrants. |  |
| Criterion 4 | Incentives for investment would be modestly increased due to the extra information provided by PR auctions to aid investment decisions. |  |
| Criterion 5 | Pressure on costs and prices should be improved by increased competition. These gains are offset by increased nomination workload. |  and  |
| Criterion 8 | Simpler contract management should allow some fuel savings. |  |
| Criterion 9 | Frictionless gas trading should facilitate upstream gas trading, and more flexible transmission products should facilitate downstream gas trading. |  |
| Criterion 10 | Weak relevance to transmission products. | - |
| Criterion 11 | Weak relevance to transmission products. | - |
| Criterion 15 | Weak relevance to transmission products. | - |
| Criterion 16 | Frictionless trading in the Receipt Zone. |  |
| Criterion 17 | Weak relevance to transmission products. | - |
| Criterion 19 | Weak relevance to transmission products. | - |
| | Overall Efficiency assessment |  and  |
| Reliability | | |
| Criteria 1, 2 & 6 | Early notification of congestion, but concern about allocation of risk to mass market retailers at congested DPs. |  and  |

| Summary of GTAC Gas transmission products assessment | | |
|--|--|------------|
| | comment | assessment |
| Safety | | |
| Criteria 1 & 7 | No noticeable change expected. | → |
| Environment | | |
| Criteria 8, 12 & 13 | Allowing for demand side management contracts meets GPS objective. | ↑ |
| Fairness | | |
| Criterion 13 & 18 | Fairness would be improved by the removal of grandfathering and daily nature of the standard product, but deteriorated by the wide scope for ICA negotiation and by the inadequate design of AHP arrangements. | ↑ and ↓ |

Q2: Do you agree with our assessment of the GTAC gas transmission products?

3.2 Pricing

(Principally GTAC s.11 Fees and Charges, and some parts of GTAC s.8 Balancing.)

Pricing – description of arrangements

GTAC pricing terms

Transmission charges would be determined annually by First Gas, using the then prevailing Gas Transmission Pricing Methodology (GTPM), in compliance with the current price-quality path set by the Commerce Commission, and as far as practicable the Commerce Commission's pricing principles (GTAC s11.15). The setting of fees would be subject to the GTAC's general dispute resolution provisions.

Broadly, the charges can be categorised as transport charges, congestion charges and balancing charges.

Transport charges

Transmission charges would be based on Daily Capacity Nominations, with fees set for each Delivery Zone and/or Individual DP (GTAC s11.1).

In addition, several incentive charges would apply. Daily Overrun and Underrun charges, and Hourly Overrun charges, would apply for differences between shippers actual delivery quantities and DNC. (GTAC s11.4-11.6). At Dedicated DPs, Over-Flow Charges would apply for differences between hourly deliveries and maximum design flowrate of a DP (GTAC s11.7).

Congestion charges

At Congested DPs where shippers are allocated PRs, PR charges would apply (GTAC s11.2-11.3).

At Congested DPs where First Gas pays pipeline users under an IA (a Beneficiary DP), Congestion Management charges would apply to recover the cost (GTAC s11.11).

Balancing charges

For gas balancing, Excess Running Mismatch (ERM) charges would apply to Running Mismatch that exceeds tolerances (GTAC s8.11-8.14). In addition, cash-outs of ERM may occur when First Gas takes a balancing action (GTAC s8.8-8.10).

MPOC pricing terms

Transmission fees are based on daily approved nominations (MPOC s19). Peaking charges also apply (MPOC s13). First Gas may change transmission fees and charges at no more than 12 monthly intervals, with at least 60 days' written notice, in accordance with tariff principles in Schedule 10 (MPOC s19.9).

Schedule 10 provides for capital related costs to be recovered by \$/GJ.km charges, and operating costs from \$/GJ charges. The setting of fees is subject to the MPOC's general dispute resolution provisions.

For gas balancing, the Accumulated Excess Operational Imbalances are cashed out daily at a market related price (MPOC s12).

VTC pricing terms

Transmission charges are based on annual capacity reservations made on a point to point basis. Additional charges apply for Authorised and Unauthorised Overruns, Throughput, Alternative Transmission Services, and Corrections.

First Gas may propose transmission fee adjustments in June for application in the next transmission year commencing 1 October (VTC s15.6). Fee proposals can be challenged (but not the methodology itself) under the VTC's general dispute resolution procedures (VTC s15.7).

For gas balancing, balancing and peaking pool (BPP) cost allocations are separate to transmission charges (VTC s8).

Pricing – assessment

The following sections assess the structure of the fees and charges in the GTAC, and the provisions for setting and amending those fees and charges. The assessment does not consider the specific level of fees and charges for each DP and delivery zone because:

1. gas transmission services are subject to price-quality control under Part 4 of the Commerce Act, and would remain controlled if the GTAC comes into force; and
2. First Gas is yet to notify such charges and, even if this information was available, a comparison against current charges would be of limited value because First Gas can annually amend charges under the GTAC (as is the case with MPOC and VTC). Hence, any assessment of specific charges would only provide a snapshot at a moment in time.

Pricing terms – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

Efficient use would be promoted if the GTAC provides for distinct prices to be set for each major service provided by the gas pipeline system, and for those prices to be broadly cost-reflective.

The table below summarises the types of services provided by the gas pipeline system, the applicable charges under the GTAC and the MPOC/VTC, and the rebate arrangements for credits.

Table 6 - Services and charge structures in GTAC and MPOC/VTC

| Service | GTAC charges | MPOC(M) /VTC(V) charges |
|--|--|--|
| Gas transport | | |
| Transport (standard) | DNC charge | Tariffs 1 & 2 ^M Capacity Reservation charge ^V Throughput charge ^V |
| Using more than 'booked' pipeline capacity | Daily Overrun charge | Overrun Authorisation charge, Authorised Overrun charge, and/or Unauthorised Overrun charge ^V |
| Using less than 'booked' pipeline capacity | Daily Underrun charge | N.A. ^{M,V} |
| Exceeding within-day flex limit | Hourly overrun charge | Peaking charge ^{M,V} |
| Exceeding design limit of DP | Over-flow charge | N.A. ^{M,V} |
| Transport (non-standard) | As per relevant bilateral agreement | As per relevant bilateral agreement ^{M,V} |
| Management of capacity scarcity | | |
| Procuring interruptible capacity | Congestion Management charge | N.A. ^M Discount to standard rates ^V |
| Obtaining priority right to standard transport service | PR charge | AQ Fee ^M |
| Gas balancing | | |
| Injecting less (or more) gas from the system than is withdrawn | Cash-outs when a balancing action is taken Excess Running Mismatch charge | Cash-outs ^M (daily) Allocation of balancing pool costs ^V (as required) N.A. ^{M,V} |
| Other | | |
| Recalculation of transmission charges due to incorrect or late information from shippers | N.A. | Corrections charge ^V |

| Service | GTAC charges | MPOC(M) /VTC(V) charges |
|---|---|--|
| Credits | | |
| Treatment of incentive charges for transport services | Incentive charge receipts are outside the revenue cap and credited monthly based on shipper shares of primary transport charges | Incentive charges are inside the revenue cap, and primary transport charges are adjusted in a later year for any over/under-recovery relative to Part 4 cap ^V |
| Treatment of incentive charges for balancing services | Incentive charges are outside cap and credited monthly based on shipper shares of total gas flows | N.A. ^{M,V} |

Key observations are:

Basic pricing structure

GTAC applies a DNC charge as the primary pricing component for transport services. MPOC also applies charges based on daily quantities of approved nominations, whereas the VTC's primary charge is based on annual reserved capacity. On balance, the GTAC's daily fee structure appears likely to improve the efficiency of pipeline usage decisions, because the annual fee in the VTC may discourage usage by parties with peakier demand profiles, irrespective of whether such usage imposes any additional system costs.¹⁶ By contrast, the pricing structure in the GTAC does not have a strong signal to discourage peaky usage – unless capacity is likely to be scarce, in which case various forms of congestion management charge may apply (see below for further discussion). Overall, we rate the DNC charge structure as a substantial improvement on the VTC.

Daily overrun and underrun charges

GTAC includes daily incentive charges to encourage shippers to provide accurate nominations (i.e. operate in accordance with their approved DNC quantities). In situations where capacity may be scarce, there are good grounds for such incentives. Conversely, where capacity is not likely to be scarce (which appears to be the case for much of the pipeline system for the foreseeable future), such incentive charges could encourage inefficient pipeline usage decisions, and/or excessive effort by shippers to forecast their capacity needs, with little or no offsetting system operational benefits.

Although the GTAC provides for reduced incentive charges when capacity scarcity is not expected, the base charges are substantial – 100% of the DNC fee applies to underrun quantities (in addition to paying the 'normal' DNC fee for the unused capacity) and 200% of the DNC fee will apply to overrun quantities. The VTC also has explicit overrun charges (and financially encourages users to avoid underrun). Accordingly, the relevant issue is how the GTAC compares to the MPOC and VTC. Our analysis, presented in Appendix A, indicates that the likelihood of inefficient outcomes is appreciably higher under the GTAC than the status quo. Stakeholder submissions reinforce this view, with a number of parties stating that incentive fees are disproportionate to true costs. We note also that standard incentive fees do not apply to gas transported under SAs or IAs (by virtue of GTAC s3.1(d) and the fee provisions), although First Gas has advised that these agreements will provide for such fees.

¹⁶ This assessment considers usage decisions over the medium term (e.g. a party deciding whether to expand its gas use) rather than day to day or hour to hour.

Overall, we believe that the underrun/overrun fees applicable in non-congested situations are a significant concern.

Hourly overrun charges

GTAC includes hourly overrun charges that only apply at Dedicated DPs where metered quantities are 200 GJ/hour or more. The GTAC provides for hourly overrun charges to be 200% of the DNC charge when the DP is not affected by congestion, and 500% otherwise. These charges raise similar concerns to the daily overrun charge, i.e. shippers may incur costs that are not offset by system-wide gains. In principle, the GTAC has mechanisms (the HQ/DQ ratio setting process, and AHPs) that provide flexibility for shippers to avoid hourly overrun charges where no congestion applies. However, a number of submitters express uncertainty about the effectiveness of these mechanisms, and we share this view. Overall, we agree that hourly overrun charges could drive inefficient behaviour if HQ/DQ ratios and AHP do not operate as intended, but see the daily incentive charges as a larger source of concern.

Congestion management charges

GTAC provides for explicit pricing for congestion management (i.e. the 'service' of allocating available transmission capacity among users if it is expected to become scarce). The GTAC provisions are expected to improve the efficiency of pipeline usage decisions by providing clearer price signals about the value of interruptible and firm capacity, when capacity scarcity is expected. This assessment is based on the following:

1. If any payments are made to shippers/users under an IA, the costs will be recovered from other shippers (the "beneficiaries") at the relevant Beneficiary DPs – this is an improvement relative to VTC where the cost of providing a discount to interruptible users may be borne by parties other than those who directly benefit.
2. Payments to shippers to voluntarily interrupt usage are not linked under GTAC to the size of the standard transport charge. This is more flexible than the VTC where only a discount to the standard charge may be provided.
3. PRs must be allocated by auction – compared to the MPOC provision which requires that AQ be allocated in accordance with queueing rules approved by Gas Industry Co. The GTAC provides more explicit assurance that available capacity will flow to parties who value it the most, which should enhance efficiency. Having said that, the GTAC auction terms and conditions and MPOC queueing rules would both require Gas Industry Co approval, so the degree of improvement on this dimension is rated as moderate.

A common congestion management regime will apply across the entire system, which should assist in minimising transaction costs.

Balancing charges

All three codes incorporate pricing mechanisms to encourage pipeline balancing. The MPOC has daily cash-outs at prices that incorporate an adjustment relative to the average market price on the day. The adjustments are intended to provide some incentive for parties to self-balance rather than be cashed-out. The adjustments increase the price of cash-outs where the pipeline is selling gas to a customer, and reduce the price of cash-outs where the pipeline is purchasing gas from a customer. Because the charges under the VTC reflect the cash-outs at the TP Welded Points, those premiums and discounts carry across to balancing transactions under the VTC.

Under the MPOC, when First Gas takes a balancing action it is able to pass on the cost/revenue (and associated title) to the causing party or parties. That approach is

replicated in the GTAC with one difference: under the GTAC, the prices associated with balancing passed on to Shippers or OBA Parties reflect the weighted average price of balancing gas puts/calls on the day; whereas under the MPOC the transactions would use the lowest/highest price at which balancing gas was sold/purchased on the day.

From a pipeline usage perspective, efficiency will be enhanced if causers of system mismatch/imbalance bear any associated costs, and arrangements seek to minimise overall transaction costs. GTAC's pricing arrangements are expected to have the following effects:

4. Under current arrangements, users on the Maui system face daily cash-outs, irrespective of whether any physical balancing action is taken by First Gas. As a result, users can be driven to incur costs to balance their own positions, even though the system does not require any balancing action. Under GTAC, users would only face cash-outs on days that First Gas needs to take a physical balancing action (i.e. when the system requires a corrective action). On other days, users would incur ERM charges. As set out in Appendix A, these charges are lower than the typical bid/ask spread observed in the gas spot market – and this would therefore be expected to reduce the likelihood of pipeline users inefficiently incurring costs to manage their running mismatch positions.
5. Although the effect in 1 above is positive, the ERM charges have another element that raises a potential efficiency concern. The GTAC sets the positive ERM charge at \$0.20/GJ and the negative ERM charge at \$0.60/GJ. This asymmetry may bias users' positions in aggregate towards carrying positive ERM, and mean that system line pack and pressure is typically toward the upper end of the acceptable range. This may result in higher system costs, relative to a balanced incentive position. Having said that, the GTAC provides First Gas with discretion to alter ERM charges with 5 business days' notice (subject to caps of \$1/GJ in both cases). Accordingly, if inefficient behaviour does become apparent from asymmetric ERM charges, the GTAC provides an avenue to address the issue relatively quickly.

Over-Flow charges

These charges (GTAC s11.7-11.8) would apply in any hour where deliveries at a Dedicated DP exceed the maximum design flow rate. First Gas advises that such situations have arisen in the recent past, and that the MPOC and VTC contain no provisions to incentivise appropriate behaviour. First Gas also advises that over-flow charges are likely to very rarely apply.

Conclusions in relation to Criteria 1, 2 and 14

Taking all of the factors noted above into account, we assess the GTAC pricing structure improvements to be moderately better at promoting the efficient usage of the pipelines. However, offsetting negative concerns include that incentive fees (daily and hourly overrun, daily underrun fees) appears disproportionately high in non-congested situations, and would not automatically apply to SAs, and that ERM charges are asymmetric.

Assessment:  and 

In relation to Criterion 3 (reducing barriers to competition):

Single Receipt Zone

GTAC would create a single receipt zone within which all current gas production and storage facilities are located. This is also the zone in which gas in the wholesale spot market is traded. All gas sold within this zone would be perfectly substitutable, and this should facilitate gas trading and competition among suppliers. Although it is not possible to quantify this benefit, we note that the commodity value of gas is typically a multiple of the

transmission charge. This in turn suggests that competition effects in the wholesale market are an important factor to consider in the overall assessment. Some submissions also drew attention to the benefits of a single receipt zone in promoting competition.

Common framework

GTAC would apply a common transport pricing framework across the entire pipeline system – rather than the two quite different pricing systems at present. Furthermore, as noted in submissions, the GTAC seeks to elicit unbiased transmission nominations, which should allow shippers to align their transmission capacity and gas commodity nominations.¹⁷ This should reduce overall transaction costs, and therefore be pro-competitive. The streamlined regime could also make it easier for end-users to become shippers – which would also be pro-competitive.

Daily nominations

GTAC would no longer apply annual capacity reservation fees on the non-Maui parts of the system, instead basing transport fees on daily capacity nominations. This is likely to be beneficial for new entrant retailers supplying smaller gas consumers. This is because an annual capacity fee regime tends to favour parties that have larger customer portfolios (because of diversity benefits) and those with established and predictable customer bases (who therefore have less relative forecasting risk). Furthermore, as noted in submissions, the move away from annual capacity bookings will make it easier for end-users to run tenders for their gas supply, rather than being tied to capacity booking cycles. Hence, the move from annual to daily capacity charges under GTAC is expected to be pro-competitive.

Competitive market for scarce capacity

GTAC would allocate PRs for scarce capacity based on willingness to pay, and replace the current allocation via grandparenting (under the VTC) which favours incumbent shippers. The removal of grandparenting of itself is expected to be pro-competitive, a point noted by a number of submitters. Concerns have been raised previously that the auction terms and conditions might be formulated in a way that has the unintended effect of hindering competition. While this is a potential risk, it appears relatively low given that the GTAC requires First Gas to develop the auction terms and conditions in consultation with shippers, and submit them to Gas Industry Co for approval. Accordingly, GTAC's pricing terms for congestion management are assessed as a moderate improvement for competition.

Benefits of diversity

The transport incentive charges under the GTAC apply at zonal/DP level rather than the pool level as under VTC, amplifying the benefit of customer diversity effects. This factor, in combination with the GTAC incentive fee levels (see earlier), may hinder the expansion of retailers in areas where they lack an established base, and hinder competition.

Rebates

Under the GTAC, receipts from transport incentive charges and PR charges will be credited to shippers each month based on their respective share of total DNC charges, and would therefore be treated as nil under the Commerce Act Part 4 revenue cap. This is a change from the VTC, where any under- or over-recovery against the total revenue cap is washed up in a later year. Concerns have been raised by some submitters that this approach in the GTAC may hinder competition. As set out in Appendix A, our analysis confirms that larger shippers will face lower effective incentive charges at the margin, because rebates are proportional to shares of total DNC charges. However, the GTAC and VTC are fundamentally

¹⁷ Although, as noted in Appendix A, the daily incentive fees are not necessarily symmetric in their effect.

similar in this respect, with the main difference being that VTC rebates occur with a lag of more than 12 months. Arguably, the more immediate rebate under the GTAC may affect competition to a larger extent. However, we expect the size of the incentive charge pool to be more relevant – and as noted earlier, we expect the incentive charge revenues under the GTAC to be appreciably higher than the VTC. Hence, we expect the rebate mechanism in combination with the relatively high incentive charges to adversely affect competition.

Concerns have also been expressed in submissions about the extent to which retailers will pass incentive charge credits to end-users under the GTAC. We acknowledge this potential effect, but note that it also exists under the VTC. Of greater potential relevance is the interaction between this issue and the incentive charge level – which creates a larger pool of monies subject to pass-through risk.

Conclusion in relation to Criterion 3

Taking all of the factors noted above into account, we assess the adoption of DNC charges to be moderately better at promoting competition. However, we are concerned that aggregate incentive revenue will be higher than at present and, because of the rebate mechanism, smaller shippers will effectively face higher marginal incentive charges, and less informed end-users may not get the benefit of any rebates.

Assessment:  and 

In relation to Criterion 4 (providing incentives for investment):

The GTAC pricing provisions are not expected to materially alter incentives for investment in gas processing, transmission and distribution since these are largely determined by factors outside the transmission code (e.g. wholesale gas price outlook, Part 4 of the Commerce Act).

Assessment: 

In relation to Criterion 5 (sustained downward pressure on costs and prices):

See discussion in relation to Criterion 3. We expect the pricing terms to facilitate competition in some respects, but the quantum of incentive charges, coupled with the rebate mechanism gives us concern. Overall, we rate the GTAC as neutral on this issue.

Assessment:  and 

In relation to Criterion 8 (efficient use of energy and other delivery resources):

We would not expect a noticeable change.

Assessment: 

In relation to Criterion 9 (facilitating competition in upstream and downstream markets):

See discussion in relation to Criterion 3. We expect the pricing terms to facilitate competition in the gas trading market, but to lessen competition in the downstream gas retail market.

Assessment:  and 

In relation to Criterion 10 (full cost of producing and transporting are signalled to consumers):

As noted earlier, the transport incentive charges appear to be disproportionately high in non-congested situations. The GTAC is rated as a moderately worse than current arrangements on this dimension.

Assessment: 

In relation to Criterion 11 (price/quality trade-off reflects customer preferences):

The GTAC has more developed pricing provisions than either MPOC or VTC in relation to capacity pricing if scarcity arises. In principle, this should enable pipeline users to make better trade-offs between price and service quality (i.e. the priority of their access to capacity if scarcity arises).

Assessment: 

Overall efficiency assessment of pricing arrangements

Based on our consideration of each of the efficiency criteria, our overall assessment for efficiency is that the GTAC pricing terms would have a moderately positive aspect, but also a moderately negative aspect. The factors with the greatest influence on this conclusion are those that have a pervasive influence on efficient outcomes (such as overrun and underrun charges), rather than those that have an occasional influence (such as PR auction pricing).

Assessment:  and 

Pricing – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

As discussed above, the GTAC pricing provisions should enable better management of capacity scarcity situations, and therefore reduce the risk of interruption or contingency. However, the terms and conditions for PR auctions are not fully specified, so GTAC is rated as a moderate improvement on current arrangements on this dimension.

Assessment: 

Pricing – Environmental assessment

In relation to Criteria 8, 12 and 13 (contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management):

Allowing payments to be made for demand side management when congestion occurs should have a modestly positive effect.

Assessment: 

Pricing – Fairness assessment

In relation to Criteria 13 and 18, i.e. gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions:

In terms of procedural fairness, the GTAC, MPOC and VTC all have similar provisions, with First Gas annually setting the level of individual charges, subject to a requirement for charges to be consistent with the relevant price-quality path approved by the Commerce Commission, and pre-defined pricing methodologies etc. The GTAC, MPOC and VTC also have similar provisions in relation to pipeline users' ability to challenge First Gas' charges under the dispute provisions, except that the VTC has a prohibition on challenging balancing charges.

As regards the charge structures, an assessment of fairness will be influenced by the weighting applied to different parties' interests – which is necessarily subjective. For example, some parties may consider it fairer for PRs to be allocated via auctions because they are neutral between new entrants and incumbents, whereas others may believe that grandfathering provisions are fairer. Similarly, some parties might consider that adopting a

daily nominated capacity charge as the primary transport fee will be fairer to users with more seasonal demand profiles – whereas others consider the reverse to be the case.

Instances where parties may be strongly disadvantaged by GTAC pricing terms, as identified in submissions are:

6. hourly overrun charges are only payable by parties shipping to dedicated delivery points on standard TSAs, but the monies collected will be rebated to all shippers using DNC; and
7. shippers using SAs or IAs may incur transmission incentive charges, but not qualify for any rebates (assuming that SAs and IAs apply transport incentive charges).

Our assessment is that charging based on usage (unless congestion applies) is fairer. But this is offset by concerns about the rebates of hourly overrun fees being allocated to all shippers, not just those liable to pay them – and incentive fees/rebates not applying to gas transported on Supplementary and Interruptible Agreements, irrespective of how closely they mirror standard TSA terms.















Assessment:  and 

Table 7 – Summary of GTAC Pricing assessment

| Summary of GTAC Pricing assessment | | |
|------------------------------------|---|---|
| | Comment | Assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The GTAC pricing structure should be moderately better at promoting the efficient usage of the pipelines. However, offsetting negative concerns are that incentive fees (daily and hourly overrun, daily underrun fees) may be disproportionately high (particularly in non-congested situations), would not apply to SAs or IAs, and that ERM charges are asymmetric. |  and  |
| Criterion 3 | A single receipt zone, single pricing regime, charges based on daily rather than annual capacity, and allocating scarce capacity rights via auction are all inclined to reduce barriers to competition. However, the quantum of incentive charges appears to be significantly higher, accentuating concerns about the effect of the rebate mechanism on smaller shippers and end-users. |  and  |
| Criterion 4 | Would not expect any noticeable change. |  |
| Criterion 5 | The positive effects of pricing on competition should increase downward pressure on prices, but the quantum of incentive charges, coupled with the proposed rebate mechanism is expected to have opposing effects. |  and  |
| Criterion 8 | Pricing is not expected to noticeably change fuel costs. |  |
| Criterion 9 | Receipt zone trading free of transport charges should facilitate upstream gas trading, but (as discussed in relation to Criteria 3 and 5) there are offsetting concerns in the downstream retail market. |  and  |
| Criterion 10 | Incentive charges appear disproportionately high where congestion is not expected – creating potential divergences between costs and prices. |  |
| Criterion 11 | The GTAC's more developed pricing provisions should allow customers to make a better price/quality trade-off. |  |
| Criterion 15 | Weak relevance to pricing terms. | - |
| Criterion 16 | Weak relevance to pricing terms. | - |

| Summary of GTAC Pricing assessment | | |
|------------------------------------|---|------------|
| | Comment | Assessment |
| Criterion 17 | Weak relevance to pricing terms. | - |
| Criterion 19 | Weak relevance to pricing terms. | - |
| | Overall Efficiency assessment | ↑ and ↓ |
| Reliability | | |
| Criteria 1, 2 & 6 | The proper allocation of risk should be strengthened by the GTAC pricing provisions during congestion. | ↑ |
| Safety | | |
| Criteria 1 & 7 | Weak relevance to pricing terms. | - |
| Environment | | |
| Criteria 8, 12 & 13 | Allowing for demand side management payments is in line with Criterion 12. | ↑ |
| Fairness | | |
| Criterion 13 & 18 | Charges based on usage (unless congestion applies) is fairer – but offset by rebates of hourly overrun fees being allocated to all shippers, not just those liable to pay them – and incentive fee rebates not applying to users on SAs or IAs. | ↑ and ↓ |

Q3: Do you agree with our assessment of the GTAC pricing arrangements?

3.3 System operation - Energy quantity determination

(Principally GTAC s5 Energy Quantity Determination.)

Energy quantity determination – description of arrangements

GTAC energy quantity determination

The GTAC specifies:

- Metering is required at every RP, DP and Bi-directional Point, unless First Gas considers it impractical or uneconomic (GTAC s5.1-5.2);
- Shippers may request unscheduled testing (no more frequently than 9 months). If found accurate, shipper will pay, otherwise First Gas will pay and adjust. If First Gas is not the meter owner, shipper will exercise its rights or, failing that, First Gas will exercise its contractual rights to get the test done (GTAC s5.3-5.4);
- At points monitored by telemetry, First Gas will publish Daily Delivery Reports (DDR) and Hourly Delivery Reports (HDRs), on the next Business Day, otherwise at month-end (GTAC s5.5-5.7);
- For all DPs, First Gas will publish Gas Composition Data on the next Business Day (GTAC s5.8); and
- Corrections for inaccurate metering will be as per the Metering Requirements document (as also referenced in the VTC) (GTAC s5.9).

MPOC energy quantity determination

The MPOC specifies:

- the requirements on station owners (MPOC Sch1, Part1);

- metering standards (MPOC Sch1, Part 2);
- testing arrangements (MPOC Sch 1, Part 3); and
- corrections for inaccurate metering (MPOC Sch1, Part 4).

VTC energy quantity determination

The VTC specifies:

- metering ownership, standards, special testing, and metering corrections (VTC s11);
- the timing of Daily Delivery Reports (DDRs) is specified in VTC Sch 4.

The VTC references a Metering Requirements document, outside the VTC, for more detail.

Energy quantity determination – assessment

In essence, the energy quantity determination arrangements, including the issuing of DDRs, MDRs and gas composition data has not significantly changed. However, common standards and procedures should lead to some efficiencies.

Energy quantity determination – Efficiency assessment

In relation to Criterion 5 (sustained downward pressure on costs and prices):

Although the MPOC and VTC metering arrangements are substantially similar, the GTAC requirement that all metering is subject to the same technical standards (rather than MPOC Sch 1 and the VTC Metering Requirements document), the same testing requirements, correction methodology etc, should modestly reduce costs.

Assessment: 

Energy quantity determination – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

In general, we expect that having a single set of Metering Requirements will improve reliability. However, there are some offsetting concerns.

In its submission, Methanex noted that the Metering Requirements document is not a schedule to the GTAC and that First Gas has provided no other documents that address metering requirements. The concern that Methanex has is that there is no information regarding *“suitable metering requirements or possible changes that FGL may be considering”*. We asked First Gas about progress on metering requirements and they responded that they had started work on the metering requirements, expected that they would engage with stakeholders on those as part of the development of “Standard Operating Procedures”, and that any changes from the current metering requirements were not expected to be controversial.

Methanex also raised a concern regarding the frequency of special testing for meters. Under the MPOC a metering owner is not required to undertake special testing more frequently than once in a 60-day period (90 days under the VTC). Under the GTAC unscheduled testing may not be requested at intervals shorter than nine months. Methanex also pointed out that requests for testing may only be initiated by Shippers, i.e. Interconnected Parties are unable to request that meters be tested.

Vector's submission raised the publication times for gas composition data as well as hourly and daily delivery reports and noted the concern that those times drive the timeliness of the daily allocation data. The earlier that gas composition data is provided and metering information can be processed and made available to Shippers, and be used in the allocation process, the better Shippers are able to utilise intra-day nomination cycles to improve accuracy. Vector considers that, given that a new IT system would accompany implementation of the GTAC, First Gas should be able to improve on these times, and could have proposed a service level commitment to do so.

In response to Methanex concerns we note that, like the GTAC, the standard ICAs do reference the Metering Requirements document, provide for the amendment of that document, and give the Interconnected Party the same rights to call for meter tests as shippers would have under the GTAC. However, we acknowledge that the 9 month interval before special tests is worse than under the MPOC (60 days) or VTC (90 days).

We expect the substance of the Metering Requirement to be substantially the same as the current Metering Requirements. Nonetheless, the absence of the Metering Requirements, or an appropriate process for its development of those requirements, is a concern.

Assessment:  and 

Energy quantity determination – Fairness assessment

In relation to Criteria 13 and 18, i.e. gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions:


The GTAC does not deal directly with the exceptions provided for in the VTC (VTC s11.1(b) and s11.3) in relation to legacy arrangement that existed at a DP as at 30 November 2005. The VTC requires, for example, that owners of such meters use reasonable endeavours to keep them accurate. However, First Gas has advised us that these legacy arrangements will still be provided for.

Under the GTAC the accuracy requirement would be effected through the Metering Requirements (see the relevant GTAC definitions). We assume that, where a meter is not owned by a party to the GTAC, the accuracy requirements would be dealt with in the relevant ICA.

No significant change.

Assessment: 

Table 8 – Summary of GTAC energy quantity determination assessment

| Summary of GTAC energy quantity determination assessment | | |
|--|--|---|
| | Comment | Assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The GTAC would introduce one set of technical standards, testing requirements, and correction methodology, which should modestly reduce costs. | - |
| Criterion 3 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 4 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 5 | Weak relevance to energy quantity determination arrangements. |  |
| Criterion 8 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 9 | Weak relevance to energy quantity determination arrangements. | - |

| Summary of GTAC energy quantity determination assessment | | |
|--|--|------------|
| | Comment | Assessment |
| Criterion 10 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 11 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 15 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 16 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 17 | Weak relevance to energy quantity determination arrangements. | - |
| Criterion 19 | Weak relevance to energy quantity determination arrangements. | - |
| | Overall Efficiency assessment | ↑ |
| Reliability | | |
| Criteria 1, 2 & 6 | A single set of technical standards, testing requirements etc. is expected to improve reliability, but the 9 month interval before special tests is worse than under the MPOC (60 days) or VTC (90 days), and the absence of a completed Metering Requirements document, or an appropriate process for development of that document, is a concern. | ↑ and ↓ |
| Safety | | |
| Criteria 1 & 7 | Weak relevance to energy quantity determination arrangements. | - |
| Environment | | |
| Criteria 8, 12 & 13 | Weak relevance to energy quantity determination arrangements. | - |
| Fairness | | |
| Criterion 13 & 18 | No significant change. | → |

Q4: Do you agree with our assessment of the GTAC energy quantity determination?

3.4 System operation - Energy allocation

(Principally GTAC s6 Energy Allocations.)

Energy allocation – description of arrangements

GTAC energy allocation

The GTAC specifies:

- Shipper receipts would be determined by:
 - **OBA** (GTAC s6.1); or
 - **GTA** (GTAC s6.2). For GTAs, First Gas will be the Gas Transfer Agent unless shippers at the RP agree an alternative acceptable to First Gas (GTAC s5.5). GTAs are required to set out the rules the Gas Transfer Agent will apply to allocate the metered quantity among shippers (GTAC s6.3) and notify those quantities (GTAC s6.4).
- Shipper deliveries would be determined by:
 - **Downstream Reconciliation Rules** (DRRs) (GTAC s6.10), with initial allocations determined by industry agreement (GTAC s6.11(a)) or in proportion to DNCs (GTAC s6.11(b)). And, if an SA or IA applies to an end user supplied from a Distribution Network, First Gas will advise the Allocation Agent of the daily delivery quantities (GTAC s6.16);

- **OBA** (GTAC s6.9); or
- **Allocation Agreement** (GTAC s6.11). And if end-users at a Dedicated DP buys gas from more than one shipper (GTAC s6.18), those shippers will enter into an Allocation Agreement (GTAC s6.19).
- Secondary trades would be determined by:
 - **GTA**;
 - **Gas Market**; or
 - **OATIS trading functionality**.

Trades are final and will not be altered by wash-up or otherwise (GTAC s6.7). Buyers and sellers are responsible for notifying First Gas of any trade.
- Wash-ups would be determined by:
 - **Wash-up Agreement** defined as an agreement between all Shippers, OBA Parties and First Gas or, if agreement can't be reached, in the manner reasonably determined by First Gas (GTAC s1.1).
- For all OBA Parties, receipts and/or deliveries are determined by metered quantities.

MPOC energy allocation

The MPOC specifies:

- For shippers, at all RPs and DPs, energy is allocated according to OBA principles (MPOC s10.1) with shippers being allocated their Approved Nominations (MPOC s10.2); and
- For all Welded Parties, receipts and/or deliveries are determined by metered quantities.
- Wash-ups are not addressed.

VTC energy allocation

The VTC specifies:

- Shipper receipts will be determined by a GTA (VTC s6.1); and
- Shipper deliveries will be determined by the metered quantity where it is the only shipper to that point (VTC s6.5(a)), or by an Allocation Agreement where it shares the point with other shippers (VTC s6.5(b)). Special arrangements apply at Frankley Road, Kapuni and Pokuru #2.
- Wash-ups are not addressed.

Energy allocation – assessment

The major change to allocation arrangements under the GTAC would be that OBAs are no longer required at all Maui pipeline RPs and DPs. Instead, OBAs are an optional allocation method at all RPs and DPs.

Energy allocation – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

Whereas OBAs are compulsory under the MPOC, and do not feature in the VTC, parties to the GTAC could agree to use an OBA allocation or alternative allocation methods at any RP or DP.

Methanex submitted its view that the OBA mechanism in the GTAC has a number of shortcomings and considered that there were of sufficient magnitude that it would not elect to utilise the OBA mechanism at its DPs. The issues identified by Methanex included that OBA Parties:

1. are not entitled to AHPs;
2. do not have access to the meter testing aspects of section 5; and
3. cannot request confirmation that another Interconnected Party is meeting its gas quality obligations.

These are legitimate concerns that would need to be tidied up for the GTAC to realise the efficiency benefits of the wider availability of OBAs.

Methanex also believes that it is irrational to allow shippers to ensure that the allocation methodology is acceptable to the Interconnected Party (GTAC s6.14(a)) or to determine the Allocation Agent (through the Allocation Agreement), since it is the Interconnected Party who has the long term relationship with the DP, not the shipper.

The Todd submission stressed the importance of the daily allocation process being both accurate and timely. It also noted that daily allocations will be required for all days, even if the process needs to be largely automated for non-business days.

Greymouth Gas identified risks with the need to put in place an arrangement agreed by all Shippers and First Gas to deal with daily allocations at shared DPs. Greymouth noted that there was no certainty such an agreement would be reached and that the alternative, based on scaling DNC nominations, is likely to be materially worse than the current arrangements. The problem with scaling DNC to gate or zone deliveries is that Shippers who are able to make accurate nominations will be made less accurate by scaling and that will likely have a knock-on effect for their balancing positions.

The above submitters were all concerned with downstream allocations but Shell also raised the matter of upstream allocations, noting that the GTAC falls short of what it considers to be good practice internationally. The specific issue highlighted was the lack of a mechanism by which interconnected parties approve Shipper nominations, irrespective of the allocation arrangements at the interconnection point (OBA or GTA). However, we think that Interconnected Parties would need to be party to either an OBA or GTA and nomination and approval arrangements would be a feature of these contracts.

The optionality of using OBA allocation or alternative allocation methods at any RP or DP is positive, but we consider that submitters have raised some valid concerns. In particular, we agree that some aspects of the GTAC relating to OBA Parties (but not directly related to energy allocation) may cause Interconnected Parties to avoid choosing OBA as an allocation method.

Assessment:  and 

Energy allocation – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

The Greymouth submission notes the absence of a Wash-up Agreement to replace the existing D+1 Agreement, and considers this materially worse than the current arrangement.

We discuss this in Section 5.2, Associated arrangements. While we accept that there is some uncertainty here we conclude that it is modest.

Assessment: 







Energy allocation – Fairness assessment

In relation to Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions):

No significant change.

Assessment: 

Table 9 – Summary of GTAC energy allocation arrangements assessment

| Summary of GTAC energy allocation arrangements assessment | | |
|---|--|---|
| | comment | assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The optionality of using OBA allocation or alternative allocation methods at any RP or DP is positive, but we consider that some aspects of the GTAC relating to OBA Parties (but not directly related to energy allocation) may cause Interconnected Parties to avoid choosing OBA as an allocation method. |  and  |
| Criterion 3 | Weak relevance to energy allocation arrangements. | - |
| Criterion 4 | Weak relevance to energy allocation arrangements. | - |
| Criterion 5 | Weak relevance to energy allocation arrangements. | - |
| Criterion 8 | Weak relevance to energy allocation arrangements. | - |
| Criterion 9 | Weak relevance to energy allocation arrangements. | - |
| Criterion 10 | Weak relevance to energy allocation arrangements. | - |
| Criterion 11 | Weak relevance to energy allocation arrangements. | - |
| Criterion 15 | Weak relevance to energy allocation arrangements. | - |
| Criterion 16 | Weak relevance to energy allocation arrangements. | - |
| Criterion 17 | Weak relevance to energy allocation arrangements. | - |
| Criterion 19 | Weak relevance to energy allocation arrangements. | - |
| | Overall Efficiency assessment |  and  |
| Reliability | | |
| Criteria 1, 2 & 6 | Absence of the Wash-up Agreement. |  |
| Safety | | |
| Criteria 1 & 7 | Weak relevance to energy allocation arrangements. | - |
| Environment | | |
| Criteria 8, 12 & 13 | Weak relevance to energy allocation arrangements. | - |
| Fairness | | |
| Criterion 13 & 18 | No noticeable change. |  |

Q5: Do you agree with our assessment of the GTAC energy allocation arrangements?

3.5 System operation – Balancing

(Principally GTAC s8 Balancing.)

Balancing – description of arrangements

GTAC gas transmission balancing

Scope

The balancing arrangements apply in respect of the entire transmission system. Each shipper would aim to match its daily system-wide receipts and deliveries. Each OBA Party (an interconnected party with an OBA) would aim to match its daily scheduled and metered quantities, and First Gas would aim to buy sufficient gas each day to meet its operational use. First Gas would also buy and sell balancing gas where necessary to manage the system line pack within limits.

Primary balancing obligation

The GTAC provides that shippers will use reasonable endeavours to match their gas receipts and deliveries each day (GTAC s8.2). Similarly, OBA Parties must use reasonable endeavours to match metered quantities and daily scheduled quantities (GTAC s8.3). Both shippers and OBA Parties are required to minimise their running mismatch but may create mismatch on a day in order to correct their running mismatch. First Gas is also under an obligation to minimise its running mismatch by matching its purchases for operational purposes on a day to the quantities it uses on that day (GTAC s8.4). First Gas is also permitted to have mismatched quantities in order to reduce its running mismatch.

Line pack management

First Gas would use reasonable endeavours to maintain line pack between the upper and lower acceptable limits. First Gas would determine those limits taking into account the need to: provide all DNC and supplementary capacity, provide Running Mismatch Tolerance for shippers and OBA Parties and comply with and any other obligations under the GTAC (GTAC s8.5). If a breach of the acceptable line pack limit is likely, First Gas would take corrective action, including: moving gas from one part of the transmission system to another; issuing high or low line pack notices; and/or buying or selling balancing gas. Balancing gas transactions would be executed effectively, efficiently, and transparently, including via a gas market (GTAC ss8.6-8.7).

A related matter, Target Taranaki Pressure (TTP), is not covered in GTAC s8 but is referred to in GTAC s7.13(e) as one of the items to be stipulated in any interconnection agreement concerning a Receipt Point on the First Gas 400 line between Oaonui and the Turangi Mixing Station. That clause requires First Gas to use reasonable endeavours to maintain pressure in that region of the pipeline to between 42 and 48 bar gauge.

Cash-outs

If First Gas buys/sells balancing gas on a day it would pass on the associated cost/receipt by selling/buying gas to/from each party that had negative/positive running mismatch at the end of the previous day. The cash-out volumes would be allocated *pro rata* to each relevant party's respective running mismatch. These transactions would be subject to the effects of any wash-ups (GTAC ss8.8-8.10).

Incentive charges

Each shipper and OBA Party would be subject to Excess Running Mismatch (ERM) charges whenever it has running mismatch in excess of its running mismatch tolerance. The aggregate tolerances for shippers and interconnected parties would be determined and published by First Gas. Each shipper or interconnected party would be allocated a share of the aggregate tolerances based on its respective delivery quantity (shipper) or metered quantity (interconnected party). The standard fee for excess negative/positive running mismatch would be \$0.60/\$0.20 per GJ. However, the fee for negative/positive running mismatch on a day when a low/high line pack notice has been issued would be multiplied by 5. Negative ERM charges would not apply on days when a high line pack notice has been issued and positive ERM charges would not apply on days where a low line pack notice has been issued (GTAC ss8.11-8.15).

Transparency

Mismatch would not be confidential information under the GTAC and First Gas will publish each shipper's and interconnected party's running mismatch each day (GTAC s8.15 & Sch Two).

Park and loan

The GTAC provides for First Gas to offer Park and/or Loan services to shippers and OBA Parties (GTAC ss8.16-8.22). First Gas would be the party who determines the aggregate quantities of gas that may be temporarily parked in, or borrowed from, the pipeline, and those quantities would be published. Park and Loan would only be available on application and the service would be offered on a first come, first served basis. Fees for Park and Loan would be determined by First Gas and published.

The Park and Loan service would only be available to the extent that it would not compromise First Gas' ability to provide transmission capacity and to manage line pack within acceptable limits.

MPOC gas transmission Market Based Balancing (MBB)

Scope

The balancing arrangements apply in respect of the entire Maui pipeline. Each shipper aims to match its daily system-wide receipts and deliveries. Each OBA party (a Welded Party in the MPOC) aims to match its daily scheduled and metered quantities. In practice, shippers very rarely have mismatch, so balancing is primarily a matter for OBA parties. First Gas buys and sells balancing gas where necessary to manage the line pack within limits.

Primary balancing obligation

With the change to market-based balancing (MBB) in 2015, the MPOC provided for tolerances (Running Operational Imbalance Limits (ROIL)) at receipt and DPs, outside of which parties are subject to automatic end-of-day cash-out. Thus MBB sharpened the previous primary balancing obligation under the MPOC that a Welded Party must use reasonable endeavours to manage its ROI towards zero over a reasonable period of time.

Line pack management

Under the MPOC First Gas is required to maintain flow line pack (necessary to support the day's nominated flows), a contingency volume (to provide for contingencies, maintenance, etc), plus 10TJ. First Gas also has an obligation to use reasonable endeavours to manage the TTP within the range of 42 to 48 bar gauge in the southern

section of the Maui pipeline. The mechanics of how these balancing constraints are managed are set out in a Standard Operating Procedure (SOP)¹⁸.

Cash-outs

At the end of each day, any OBA party that has accumulated excess operational imbalance will have that excess amount cashed-out. This is executed as a sale to, or purchase from, that party by First Gas, i.e. the transaction includes title transfer for that volume of gas. Prices for cash-outs are intended to reflect the value of gas in the spot market or the price that First Gas has actually bought or sold balancing gas, but are adjusted up or down in order to provide an incentive for parties to undertake their own transactions. First Gas publishes a default rule from time to time that determines what the cash-out price will be on days when there has been insufficient spot market activity (which is the vast majority of days).

Transparency

The MPOC provides for the BGIX, an information platform, on which the cash-outs and balancing gas transactions are published. On any day, an interested party can see the cash-out transactions that occurred at the end of the prior day. The platform also shows the net position, i.e. the closing imbalance position of the Maui pipeline as a whole together with the net volume cashed-out.

VTC gas transmission balancing

Scope

The balancing arrangements apply in respect of each BPP. Each shippers aims to match its daily BPP receipts and deliveries. Although the VTC provides for First Gas to buy or sell balancing gas to maintain the line pack, in practice this is rarely done and the non-Maui pipelines effectively rely on there being sufficient pressure in the Maui pipeline at each interconnection point where it feeds into a non-Maui pipeline BPP to maintain balance.

Primary balancing obligation

Shippers under the VTC have an obligation to manage their BPP receipts and deliveries to reduce their running mismatch towards zero. The incentives for this were heightened once MBB came into effect under the MPOC, as the interconnections between the Maui and (then) Vector systems (so-called TP Welded Points or TPWP) became subject to daily cash-outs of excess imbalance. Those cash-outs were passed to VTC shippers (and Vector in respect of its running imbalance as pipeline operator (VRI)).

Line pack management

Operation of the ex-Vector pipelines is often more about providing sufficient pressure in those pipelines to deliver the expected load rather than First Gas undertaking active secondary balancing. The result of that pressure management can mean that volumes of gas can move across a TPWP and create imbalance that is not reflective of either shipper imbalance or VRI.

Cash-outs

For each BPP, the VTC provides for the daily cash-out at any associated TPWP to be spread *pro rata* among those shippers and the pipeline owner with mismatch, or VRI, in the direction of the cash-out.

¹⁸ The current Balancing SOP, dated 15 September 2015, is available on OATIS

Transparency

There is little transparency concerning the BPP arrangements as each shipper's BPP information is included in the list of information that is confidential under the VTC.

Balancing – assessment

The major change to balancing arrangements under the GTAC would be for each user's balance position to be assessed system wide (rather than by pipeline or balancing pool), and for balancing to be encouraged by an ERM charge, with cash-outs only occurring when First Gas takes a balancing action.

Balancing – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

At the outset it is worth noting that progress has been made on improving the balancing arrangements over recent time. For many years Gas Industry Company had concerns over the MPOC balancing arrangements as they did not always target costs to causers and, as a result, created a degree of cross-subsidisation. The introduction of MBB aimed to address that concern but at the cost of a high number of cash-out transactions, many of which were arguably not essential. The improvements wrought by MBB limits the scope for further improvement, but the arrangements under the GTAC appear to improve some of the shortcomings of MBB, while reducing the scale of cash-out transactions. That said, contrary views have been advanced in submissions, most particularly in relation to perceived differences in maintenance of TTP as between the MPOC and the GTAC. The TTP issue is examined more closely in Appendix A.

How the scope of GTAC balancing GTAC would affect efficiency

Because the GTAC approaches balancing across the entire transmission system, a party would be assessed on its overall net position at the end of the day. By contrast, the combined MPOC and VTC arrangements are more complex with OBA parties on the Maui pipeline being balanced in the first instance, and then shippers in each non-Maui pipeline BPP being balanced.

Under the MPOC and VTC it is quite possible for, say, a shipper to have positive positions in one or more BPPs and negative positions in the rest. As a result, that shipper might be cashed-out for having both positive and negative mismatch on the same day. Under the GTAC, that same situation would see the shipper (or OBA party) being exposed to either a balancing cash-out or an ERM fee on a day, and that would be based on its **net** running mismatch, i.e. that shipper's (or OBA party's) positive and negative mismatches would be offset against one another.

The change to addressing balancing across the transmission system as a whole would relieve non-Maui shippers (and, in some cases, their customers) of another inefficiency. Under the MPOC, the cash-outs that take place at TPWPs are often of a magnitude that exceeds the aggregate of the downstream shipper mismatch and VRI. The effect of this, when First Gas cashes out shippers, is that shippers are cashed out for more than (and sometimes multiples of) their running mismatch position. Under the GTAC, because it would be based on comparing each shipper's receipts into, and deliveries from, the transmission system, a shipper should never be cashed-out for more than its net running mismatch on a day. This would be a substantial improvement over the MPOC and VTC.

How the GTAC incentives for primary balancing would affect efficiency

Efficient pipeline operation requires that pipeline users take responsibility for maintaining balanced positions, with the pipeline operator having the secondary role of managing any residual imbalance. The GTAC would encourage primary balancing in two ways:

1. Encouraging by charging a fee for ERM (GTAC ss8.11–8.14); and
2. Where residual balancing actions are taken, allocating the cost of such actions, and title, to the parties who caused them, or contributed to causing them (GTAC ss8.8–8.10).

In relation to 1, we note that the ERM fee is set in the GTAC, so there will likely be times when it provides a more attractive alternative to self-balancing, and times when it is less attractive. This issue is examined in detail in Appendix A. There we conclude that we expect that the GTAC arrangements would reduce the instances where users inefficiently incur costs to balance their positions, when there is no system wide need for balancing actions.

In addition, if the ERM fees do encourage more primary balancing then it is to be expected that there may be some increased activity in the spot market by shippers seeking to self-balance.

In relation to 2, i.e. when there is a need for residual balancing, the cost and title would be passed directly to the causer, rather than being allocated through the two stage allocation process we have at present (MPOC followed by VTC).

We consider the results will be positive for primary balancing.

How the GTAC arrangements for secondary balancing affect efficiency

By cashing out excess imbalance following the end of each day, First Gas, in effect, transfers the resulting net imbalance position to itself. In effect, MBB placed First Gas in the position of being the buyer/seller of last resort.

Under the GTAC, the only time that First Gas would cash-out a shipper or OBA Party is to offset a balancing transaction. On other days First Gas simply charges ERM fees wherever excess running mismatch occurs. Given the potential for an ERM fee to be charged multiple times if an excess mismatch position is not corrected, and taking into account that paying the ERM fee is never associated with a title transfer, there appears to be a clear incentive to take action to minimise ERM fees. Provided that action is to endeavour to keep running mismatch close to zero, the net effect should be to minimise the amount of secondary balancing that First Gas is required to perform.

We consider the results will be positive for secondary balancing.

Some concerns identified by submitters

Some potentially adverse efficiency issues have been identified by submitters. The first is asymmetry of ERM fees for positive and negative mismatch. The ERM fees for carrying negative running mismatch is three times the rate for positive running mismatch. In some circumstances, particularly where a party is uncertain of its position, it may be logical to err on the side of accumulating a net positive mismatch position. This was discussed in detail in section 3.2.

A second issue relates to balancing tolerances. A number of submitters have expressed concern about the high degree of uncertainty that currently applies regarding tolerance levels. This uncertainty stems mainly from First Gas having yet to define the aggregate quantities of line pack that will be provided for shipper and OBA party running mismatches (as per GTAC s8.5). Some submitters have also noted that First Gas may have conflicting incentives when determining these aggregate quantities (and associated balancing fees), because stricter balancing requirements could drive higher demand for unregulated services

from First Gas (such as use of underground gas storage, and park and loan services if these fall outside the Part 4 revenue cap). We discuss this issue further in section 5.2 on associated arrangements. There we conclude that concerns regarding discretion over tolerances are generally moderated by First Gas' obligation to act in a neutral fashion (GTAC s2.6), and the information disclosure provisions (GTAC Sch 2) which would facilitate scrutiny by users. However, we would be concerned about the potential for First Gas to have skewed incentives if Park and Loan revenues fall outside the revenue cap. We discuss that issue further in our overall conclusion.

Finally, some submissions have suggested that shippers supplying end-users under Supplementary Agreements or Interruptible Agreements will not be allocated any associated tolerance. This interpretation appears to be based on the provision in GTAC s3.1(d) which states that DNC cannot be used in conjunction with Supplementary or Interruptible Capacity. If this interpretation is correct, it would be a sizeable change relative to the status quo. For example, over 50% of the throughput volume on the non-Maui system in the year to June 2016 was subject to non-standard agreements. If a similar proportion applied under GTAC, that would imply a significant change to the allocation of tolerances, with uncertain consequences. However, on enquiry, First Gas have advised us that Mismatch and Running Mismatch refer to Shippers' overall gas position(s), and how the gas is shipped (e.g. using DNC and/or Supplementary Capacity and/or Interruptible Capacity) is not relevant to the allocation of tolerances.

Conclusion in relation to Criteria 1, 2 and 14

From the above, we consider a move to system-wide balancing and introduction of the ERM mechanism will be positive for efficiency. However, given the 2015 improvements for balancing incentives under the MPOC, we would expect the arrangements under the GTAC only to give a moderate incremental improvement to balancing outcomes.

We consider that the uncertainty of tolerance levels modestly diminishes the overall efficiency improvement.

Assessment:  and 

In relation to Criterion 3 (reducing barriers to competition):

The one area in which the balancing arrangements might offer assistance to new entrants is in how the change to system-wide balancing helps to ensure that shippers do not get cashed-out for more than their running mismatch. Removing this uncertainty should modestly reduce this barrier to entry, and improve competition.

Assessment: 

In relation to Criterion 4 (providing incentives for investment):

Because the incentives for First Gas to invest are expected, largely, to be a function of the price-quality economic regulation regime, we do not think that the design of the balancing arrangements will have a substantial bearing on First Gas' incentive to invest.

In relation to Criterion 5 (sustained downward pressure on costs and prices):

The potential for increased activity in the spot market would make it more attractive to non-traditional players. If that were borne out then we would expect such parties would be better able to compete in the retail market. In addition, a more vibrant spot market would be expected to facilitate entry by new retailers, leading to increased competition. More competition should increase the downward pressure on prices.

Assessment: 

In relation to Criterion 8 (efficient use of energy and other delivery resources):

Under the MPOC and VTC, when First Gas cashes-out a user it takes responsibility for that user's mismatch, so the user no-longer needs to balance that mismatch in the primary market. However, the system still needs to balance so, to the extent the net mismatch position that First Gas has assumed responsibility for needs to be balanced. First Gas will take balancing actions to do this.

Under the GTAC cash-outs will not occur every day, as they do under the MPOC, so a user will have more time to balance its mismatch in the primary market. To the extent that this reduces the amount of secondary balancing done by First Gas, we would expect some modest reduction in the use of compressor fuel.

Assessment: 

In relation to Criterion 9 (facilitating competition in upstream and downstream markets):

It was noted in relation to Criteria 1, 2 and 14 above that the ERM fees in the GTAC balancing arrangements are likely to incentivise increased balancing activity through the spot market. Assuming that proves to be the case then we would expect to see a corresponding increase in the rate of balancing-related transaction through the spot market (given that under MBB First Gas both takes on the net position across all of the parties and does not necessarily clear that position through the market). Increased transactions in the spot market would assist in increasing liquidity and depth and that would make the market more attractive to a broader range of participants. We would expect this to result in a modest increase in upstream competition.

Assessment: 

In relation to Criterion 10 (full cost of producing and transporting are signalled to consumers):

No noticeable change is expected.

Assessment: 

In relation to Criterion 11 (price/quality trade-off reflects customer preferences):

No noticeable change is expected.

Assessment: 

Overall efficiency assessment of balancing arrangements

Based on our consideration of each of the efficiency criteria, our overall assessment for efficiency is that the GTAC balancing arrangements would have a moderately positive aspect, but also modestly negative aspect. The factors with the greatest influence on this conclusion are those that have a pervasive influence on efficient outcomes (such as the move the system-wide balancing), rather than those that have an occasional influence (such as the initial uncertainty about tolerance levels).

Assessment:  and 

Balancing – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

One submission suggests the GTAC will weaken secondary balancing, because it places a lesser obligation on First Gas as TSP than the MPOC. We do not share this view. The GTAC places a reasonable endeavours obligation on First Gas to maintain line pack within pre-

defined lower and upper limits. MPOC s3.1 does not define any specific obligation, and simply states that the TSP “may undertake” balancing actions to fulfil defined goals. More generally, the GTAC, MPOC and VTC all require First Gas to act as a RPO in relation to balancing (and other) obligations.

We expect no noticeable change against this criterion.

Assessment: →

Balancing – Environmental assessment

In relation to Criteria 8, 12 and 13 (contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management):

As discussed earlier in relation to Criterion 8, we consider that GTAC balancing would bring a modest reduction in compressor fuel use.

Assessment: ↑

Balancing – Fairness assessment

In relation to Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions):

As noted earlier, the MPOC and VTC routinely cause shippers to be cashed-out for volumes greater than their running mismatch, which appears unfair.

The construct in the GTAC is such that parties should never be cashed-out for more than their running mismatch on a day and, therefore, the unfairness inherent in the existing VTC balancing arrangements would be eliminated.

Assessment: ↑

Table 10 – Summary of GTAC balancing arrangements assessment

| Summary of GTAC balancing arrangements assessment | | |
|---|---|------------|
| | comment | assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The GTAC would introduce a single balancing regime across the entire system, eliminating the inefficient anomalies that arise from current arrangements. However, gains would be reduced by uncertainties regarding tolerance levels. | ↑ and ↓ |
| Criterion 3 | The GTAC balancing benefits seem to apply recognises that an end-user at a Dedicated DP may buy gas from multiple shippers. | ↑ |
| Criterion 4 | Weak relevance to balancing arrangements. | - |
| Criterion 5 | More spot market activity would be expected which should modestly increase downward pressure on prices. | ↑ |
| Criterion 8 | GTAC balancing would allow for modestly more efficient use of compressors. | ↑ |
| Criterion 9 | Competition facilitated through increased spot market activity. | ↑ |
| Criterion 10 | No change to cost signalling. | → |
| Criterion 11 | No change to price/quality trade-offs. | → |
| Criterion 15 | Weak relevance to balancing arrangements. | - |
| Criterion 16 | Weak relevance to balancing arrangements. | - |

| Summary of GTAC balancing arrangements assessment | | |
|---|---|------------|
| | comment | assessment |
| Criterion 17 | Weak relevance to balancing arrangements. | - |
| Criterion 19 | Weak relevance to balancing arrangements. | - |
| | Overall Efficiency assessment | ↑ and ↓ |
| Reliability | | |
| Criteria 1, 2 & 6 | No noticeable change expected. | → |
| Safety | | |
| Criteria 1 & 7 | Weak relevance to energy allocation arrangements. | - |
| Environment | | |
| Criteria 8, 12 & 13 | GTAC balancing would bring a modest reduction in compressor fuel use. | ↑ |
| Fairness | | |
| Criterion 13 & 18 | Parties should never be cashed-out for more than their running mismatch on a day. | ↑ |

Q6: Do you agree with our assessment of the GTAC balancing arrangements?

3.6 System operation – Curtailment

(Principally GTAC s9 Curtailment.)

Curtailment – description of arrangements

GTAC curtailment arrangements

In the GTAC curtail “includes to reduce either partly or to zero and to shut or close down” (GTAC s1.2). So, depending on the context, the term may refer to:

- reducing a physical flow of gas;
- reducing a shipper’s nominations (DNC, Supplementary Capacity, or Interruptible Capacity); or
- reducing a previously approved AHP.

Curtailment of physical flow

Curtailment of physical flow is primarily dealt with in GTAC s9. First Gas may curtail the injection of gas at a RP, the flow of gas through the system, or the delivery of gas at a DP because (GTAC s9.1):

- an Emergency is occurring or is imminent;
- a Force Majeure Event has occurred;
- a breach of any Security Standard Criteria and/or a Critical Contingency would otherwise occur;
- an Interconnected Party’s ICA expires or is terminated; and/or
- a Shipper’s TSA, Supplementary Agreement, GTA or Allocation Agreement expires or is terminated; or
- Congestion is occurring (GTAC s10).

Operational Flow Orders (OFOs)

In the event of any of the above, First Gas may issue an OFO (GTAC s9.5) to Shippers, or Interconnected Parties at Dedicated DPs. If a Shipper fails to comply with an OFO, First Gas may (to the extent practicable) curtail the Shipper's gas take, and the Shipper would be deemed not to have acted as an RPO and would indemnify First Gas for any resulting losses (GTAC s9.12(b)). Similarly, if an Interconnected Party fails to comply the RP and DP ICAs provide for First Gas to curtail gas flows and for the Interconnected Party to be deemed not to have acted as a RPO.

Curtailment of nominations

Nominations would only be curtailed where an OFO has been issued (GTAC s9.8 and s9.9), or where there is Congestion (GTAC s10.3), or a Critical Contingency has occurred (GTAC s10.5). And First Gas will use reasonable endeavours to avoid curtailing any Shipper's DNC or Supplementary Capacity (GTAC s9.1).

GTAC s4.15 states that where First Gas must curtail nominations, it will do so in accordance with GTAC s10.3. GTAC s10.3 sets out a "hierarchy" of steps First Gas will follow to align NQs (or actual offtake) with Available Operational Capacity. Basically this involves curtailing all requests for Interruptible Capacity, converting requests for AHP to DNC, curtailing requests for Supplementary Capacity (where the relevant contract allows), pro-rata curtailment of Shipper NQs not covered by PRs, and, if necessary, pro-rata curtailment of Shipper NQs that are covered by PRs.

First Gas may also curtail interruptible capacity at any time, for any reason (GTAC s7.9(d)).

OBA Parties could also curtail nominations for any reason up to 30 minutes after any nomination deadline (GTAC s4.12(a)). But, there is no equivalent to MPOC s15.2, that would allow an OBA Party to reduce its Scheduled Quantity in certain circumstances simply by notifying the system operator. (First Gas has said that it is a gas supply matter between the OBA Party and its shippers.)

Curtailment of AHP

First Gas may curtail a previously approved AHP to avoid breaching an Acceptable Line Pack Limit or having to curtail DNC or Supplementary Capacity. In that case it would convert the AHP into Approved NQ (GTAC s3.33).

MPOC curtailment arrangements

The MPOC refers to "curtailing" a Welded Party's Scheduled Quantity, and/or a shipper's Nominated Quantity and "interrupting" a physical gas flow.

Interruption of physical flow

Physical flows may be interrupted because of:

- A Pipeline Contingency Event (including an Emergency) (MPOC s15.1(b)(iv));
- Non-specification gas (MPOC s15.1(b)(i));
- Maintenance (MPOC s15.1(b)(ii));
- A Force Majeure Event (MPOC s15.1(b)(iii));
- Welded Party Excess Daily Imbalance or exceeding Peaking Limit (MPOC s15.1(b)(v)); or
- Potential Operational Imbalance at Notional Welded Points (MPOC s15.1(b)(vi)).

Operational Flow Orders (OFOs)

Under the MPOC First Gas can issue OFOs to Welded Parties for any of the above matters. If a Welded Party is in breach of an OFO, First Gas is entitled to suspend injections/offtakes at the Welded Point if that is necessary to protect the operational integrity of the Maui Pipeline or the wider New Zealand gas pipeline system (MPOC s15.1 and s2.23).

Curtailment of nominations

First Gas may curtail Approved Nominations and associated Scheduled Quantities due to any of the above matters and:

- A shortage of capacity in the pipeline (MPOC s8.24(a)) or at a particular Welded Point (MPOC s8.24(b)).

The Welded Party may also reduce its Scheduled Quantity (with a consequent reduction of Approved Nominations) at any time by notifying the system operator:

- to prevent non-specification gas from entering/exiting;
- for unscheduled maintenance; or
- where a FM or Contingency Event occurs (MPOC s15.2)

The amount of curtailment is shared according to a capacity allocation algorithm which gives priority to:

- Balancing Gas nominations (MPOC s8.23(a))
- Nominations covered by AQ, curtailed in proportion to AQ (MPOC s8.23(b))
- Other nominations, curtailed in inverse proportion to Net Historical usage (MPOC s8.24I)

VTC curtailment arrangements

Interruption of physical flow

VTC s10 addresses interruptions of transmission. "Curtailment" under the VTC refers to reducing the physical flow of gas, and not nominations (since nominations are not a standard feature of its core "no-notice" service).

The possible reasons for curtailment may be:

- An Emergency (VTC s10.1(a)(i));
- A Force Majeure Event (VTC s10.1(a)(ii));
- To avoid a Critical Contingency (VTC s10.1(a)(iii));
- A shipper exceeding its MDQ or MHQ (VTC s10.1(b)(i));
- An Operational Imbalance (VTC s10.1(b)(ii));
- Low Line Pack (VTC s10.1(b)(iii));
- Maintenance (VTC s10.1(c));
- an Interconnection Agreement ceases (VTC s10.1(d)); or
- a Gas Transfer Agreement or Allocation Agreement ceases (VTC s10.1I).

Operational Flow Orders (OFOs)

First Gas can issue OFOs under the VTC for any of the above matters. The OFO may require a Shipper to ensure that its offtake at a DP is curtailed and/or its Maui Pipeline nominations are reduced (VTC s10.2).

Curtailment – assessment

The GTAC curtailment arrangements relate to both curtailment of physical flows and to the curtailment of nominations. They are most similar to the MPOC arrangements since the VTC does not commonly require nominations, so does not deal with curtailing them. However, whereas the MPOC arrangements primarily address Welded Parties, the GTAC arrangements primarily address shippers, with the curtailment arrangements for interconnected parties being dealt with in the RP and DP ICAs. Another difference is that the MPOC has complex algorithms for allocating curtailments, the GTAC essentially applies a simple pro-rata on nominations rule except where PRs give priority.

Curtailment – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

Curtailment is more efficient where it better matches supply/demand to the capability of the system, and is directed at those who value continuous service least.

The reasons for physical curtailment are very broad in the GTAC, MPOC and VTC because they all include Emergency, which is drafted widely in the GTAC, MPOC and VTC.

The reasons for curtailing nominations are difficult to compare since they are tailored to each access regime. To us, they seem appropriate.

We do not necessarily agree with Methanex's¹⁹ view that Shippers are poorly placed to respond to curtailment directions. In our view, at shared DPs Shippers are best placed to respond since action from Shippers' customers (i.e. end-users) are required, rather than action from the interconnected party (i.e. a gas distributor). Only at Dedicated DPs could it be argued that an OFO should be targeted at the interconnected party rather than the Shipper, and GTAC s9.7 provides for this. From a practical viewpoint, the Shippers and Interconnected Parties at Dedicated DPs need to act in close op-operation, so it is probably not material who receives the first notification of curtailment. In any case, the draft RP ICA and DP ICA allow for OFOs to be sent to Interconnected Parties, and that would clearly be appropriate at RPs. (However, we accept that the RP and DP ICAs have not yet been negotiated. See Appendix A for an in-depth discussion on the status of those contracts.)

Assessment: ➡

In relation to Criterion 3 (reducing barriers to competition):

The GTAC approach of curtailing nominations on a pro-rata basis is more competitively neutral than the MPOC approach of curtailing based on historic usage. So barriers to competition would be modestly reduced.

Assessment: ⬆

¹⁹ Methanex submission on 8 December 2017 GTAC, para 35.

In relation to Criterion 5 (sustained downward pressure on costs and prices):

It is well known in the industry that the complexity of the MPOC curtailment algorithms considerably increased the OATIS design and testing costs. It also made MPOC code changes that required any OATIS refinement to be very costly, since the operation of the curtailment algorithms had to be tested each time. The GTAC curtailment algorithms would be much simpler and less costly.

Assessment: 

In relation to Criterion 9 (facilitating competition in upstream and downstream markets):

Since the GTAC approach of curtailing nominations on a pro-rata basis is more competitively neutral, it should modestly improve downstream competition.

Assessment: 

Based on these factors, we would expect an overall modest improvement in efficiency from the GTAC curtailment arrangements.

Assessment: 

Overall efficiency assessment of curtailment arrangements

Based on our consideration of each of the efficiency criteria, our overall assessment for efficiency is that the GTAC curtailment arrangements would have a modestly positive aspect. The factors with the greatest influence on this conclusion are those that have a pervasive influence on efficient outcomes (such as the removal of the MPOC curtailment algorithms).

Assessment: 

Curtailment – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

Curtailment arrangements should provide sufficient incentive to provide a physical response. Each regime does this in its own way. The ultimate GTAC sanction is that a shipper or interconnected party indemnifies First Gas for any loss incurred by it if that party fails to curtail its demand. And, where a party does not comply with an OFO it is deemed not to have acted as an RPO. Neither of these sanctions apply under the MPOC or VTC, so we would expect a moderately more reliable response to OFOs.

Assessment: 

Curtailment – Safety assessment

In relation to Criteria 1 and 7 (providing access in a manner consistent with the Government's gas safety regime):

No noticeable change anticipated.

Assessment: 

Curtailment – Environmental assessment

In relation to Criteria 8, 12 and 13 (contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management):

No noticeable change anticipated.

Assessment: ➡

Curtailment – Fairness assessment

In relation to Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions):

Curtailment would be more fair if it better protected the majority of pipeline users and if it better targeted those most capable of making a physical response.

Generally we consider the arrangements are equally fair, except for one aspect of the OFOs. GTAC s9.12(b) provides that, if a shipper fails to comply with an OFO it is deemed not to have acted as an RPO, and will indemnify First Gas for any loss. In its submission, Contact argues that this is unfair since an end-user may not be able to control its market demand. We agree that this may occasionally be true, and that it should be sufficient that a shipper's end-user contracts make provision an appropriate end-user response, and that the shipper will use its best endeavours to respond to the OFO. In most cases this would result in an OFO being complied with. We think the provision is modestly more un-fair than the current requirements (VTC s10.2 requires a shipper to use best endeavours to immediately comply with an OFO, and MPOC s2.23 entitles First Gas to suspend injections or off-takes for the duration an OFO is not complied with).

Assessment: ⬇

Table 11 – Summary of GTAC curtailment arrangements assessment

| Summary of GTAC curtailment arrangements assessment | | |
|---|---|------------|
| | Comment | Assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The GTAC, MPOC and VTC all have tailored curtailment arrangements. | ➡ |
| Criterion 3 | Pro-rata curtailment is more competitively neutral. | ⬆ |
| Criterion 4 | Weak relevance to curtailment arrangements. | - |
| Criterion 5 | Removing the complexity of the MPOC curtailment algorithms should provide a sustained benefit through lower costs of IT system modifications. | ⬆ |
| Criterion 8 | Weak relevance to curtailment arrangements. | - |
| Criterion 9 | Modest benefit to downstream competition from more neutral treatment of curtailments. | ⬆ |
| Criterion 10 | Weak relevance to curtailment arrangements. | - |
| Criterion 11 | Weak relevance to curtailment arrangements. | - |
| Criterion 15 | Weak relevance to balancing arrangements. | - |
| Criterion 16 | Weak relevance to balancing arrangements. | - |
| Criterion 17 | Weak relevance to balancing arrangements. | - |
| Criterion 19 | Weak relevance to balancing arrangements. | - |
| | Overall Efficiency assessment | ⬆ |
| Reliability | | |
| Criteria 1, 2 & 6 | The sanctions for not complying with an OFO are stronger under the GTAC. | ⬆ |
| Safety | | |
| Criteria 1 & 7 | No noticeable change anticipated. | ➡ |
| Environment | | |

| Summary of GTAC curtailment arrangements assessment | | |
|---|--|------------|
| | Comment | Assessment |
| Criteria 8, 12 & 13 | No noticeable change anticipated. | ➔ |
| Fairness | | |
| Criterion 13 & 18 | Shippers should use their best efforts to comply with OFOs, but it is unreasonable to expect that can always comply. | ⬇ |

Q7: Do you agree with our assessment of the GTAC curtailment arrangements?

3.7 System operation – Congestion management

(Principally GTAC s10 Congestion Management.)

Congestion management – description of arrangements

GTAC congestion management arrangements

Notification of congestion

- Under the GTAC, Congestion means a situation where aggregate NQs, or current offtake associated with DNC exceed, or are expected to exceed the Available Operational Capacity (GTAC s1.1). Congestion can apply to a single DP or a group of DPs.
- First Gas would use reasonable endeavours to predict congestion (GTAC s10.1), and notify shippers if it intends to initiate Congestion Management (GTAC s10.2);

Priority Rights (PRs)

- A PR would give its holder priority to have its NQ approved ahead of other shippers. A shipper may use its PRs in any nomination cycle (GTAC s 3.14).
- First Gas would offer PRs for Congested DPs exclusively by auction (GTAC s3.17). First Gas would develop the terms and conditions of a PR auction, and Gas Industry Co will consider them (following the same process as a code change). Subject to Gas Industry Co's approval, they would be published at least 30 business days prior to the auction (GTAC s3.18).
- First Gas would schedule a PR auction for the first business day of the month prior to the first month in which it expects congestion to occur (but may cancel the auction if it considers there is no longer a threat of congestion) (GTAC s3.17).
- At least 10 days prior to an auction, First Gas would notify shippers which DPs were affected, the estimated Available Operation Capacity at those DPs, the amount of PRs on offer and how that amount had been determined. It would also notify the start date, term, and reserve price of each PR. (GTAC s3.19).
- The basic structure of PR auctions is set out in GTAC s3.20, including that shippers may bid for 5 tranches of PRs at different prices, and that PRs will be allocated to the highest value bids. Each shipper's current PR holdings would be available on OATIS (GTAC s3.20).
- Once a shipper has acquired PRs, those PRs would be tradeable on a trading platform specified by First Gas (GTAC s3.21). First Gas would not be involved in any trade, but would publish the number of PRs traded and the trade price (GTAC s3.22).

- A shipper would pay for its PRs monthly based on previously established auction clearing prices (GTAC s11.2) (and together with revenue from other incentive charges, First Gas would credit that revenue to shippers in proportion to their DNC charges (GTAC s11.13))

Interruptible Agreements (IAs)

- First Gas, at its sole discretion, may offer IAs (GTAC s7.7 – 7.11). Where First Gas enters into an IA for the purposes of Congestion Management, it will publish the agreement and the DP where Available Operation Capacity has increased as a result (Beneficiary DP) (GTAC s3.11). First Gas will recover any amounts payable to such an IA holder from shippers who use the Beneficiary DP, as set out in GTAC s11.11.

Supplementary Agreements

- Shippers may apply for Supplementary Agreements, which (among other matters) can set priority in relation to DNC, with and/or without PRs during congestion (GTAC s7.4(g)), term of agreement (including renewal rights) and transmission fees payable.

MPOC congestion management arrangements

- Primary transmission service is based on daily nominations.
- If physical congestion occurs on a day, First Gas may reduce nominations, while respecting priorities for service:
 - 1st balancing gas;
 - 2nd category A nominations; and
 - 3rd category B nominations based on pro-rata net historic usage. (MPOC s8.20-8.28).
- Category A nominations are those subject to Authorised Quantities (AQ). First Gas required to obtain approval from Gas Industry Co for queuing rules before issuing AQ (such rules have not been proposed or approved).

VTC congestion management arrangements

- Annual Reserved Capacity is the primary transmission service. Contractual congestion may arise if shippers seek an aggregate amount of reserved capacity that exceeds available pipeline capacity. Each shipper has a right to reserve capacity up to the amount it held in previous year (VTC s4.5).
- If physical congestion occurs (i.e. insufficient capacity to flow desired volume on the day), First Gas may reduce gas receipts, flows or deliveries “on a fair basis” (VTC s10.1(g)). If such action is required, First Gas will use all reasonable endeavours to first curtail or shutdown gas receipts subject to the terms of any IA.

Congestion management – assessment

In section 3.1 we considered the relative merits of having PRs and IAs as part of the GTAC’s gas transmission product mix. Here we look more specifically at PRs and IAs from a system operations viewpoint, considering whether they would likely better meet the Criteria than the current congestion management arrangements.

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

When congestion occurs, efficiency will be promoted if:

1. Firm capacity is allocated to users who value it the most;
2. Physical capacity is fully utilised;
3. First Gas receives signals to inform its capacity investment decisions; and
4. Undue cost and complexity is avoided

We consider that GTAC arrangements could improve over the MPOC and VTC against some of these criteria:

5. The IAs could provide an efficient demand management option.
6. The PR auction mechanism is positive in principle, and should permit those who value capacity most to obtain it (either in the primary auction or in secondary trading).
7. Capacity is more likely to be fully utilised if physical congestion arises because:
 - (a) Congestion would be signalled well in advance, allowing shippers to assess their options and put a value on PRs;
 - (b) First Gas would have more comprehensive nomination information on which to base its curtailment decisions; and
 - (c) As discussed in section 3.1 above, there is no grandfathering of capacity, and less opportunity for shippers to sit on capacity rights that they will not use.
8. The PR auctions should provide price signals to all market participants that should be a useful guide to decision making, including to inform First Gas in its capacity investment decisions.

These substantial benefits are achieved at some cost, including the costs of additional nominations and of running auctions to allocate PRs. However, as we note in our discussion below, the costs of the current congestion management arrangements, particularly the MPOC curtailment algorithms, are significant, even in the absence of congestion. We therefore agree with the Genesis submission that having multiple options to manage congestion (investing in new capacity, entering into IAs and/or auctioning PRs) is a substantial improvement. (We also note that, although it is not directly relevant to our assessment, the proposed congestion management arrangements avoid the cost and complexity of such arrangements seen in other jurisdictions.)

In its submission, Greymouth considered that PRs would be unworkable until the PR auction rules are developed. We agree, but consider that since those rules are to be developed in consultation with shippers, and would be subject to Gas Industry Co approval (GTAC s3.18), it is reasonable to assume that they will be workable and align with the Objectives and Outcomes.

Greymouth also raises concerns about the scaling of PRs, but we see no problem with having fractions of a PR, and there does not seem to be anything in the GTAC to preclude that. At any rate, if it is a problem we think a pragmatic fix would be readily found.

Nevertheless, we do have some significant reservations about the proposed PR design:

1. First Gas has considerable discretion to negotiate SAs and IAs. First Gas can sell scarce capacity via SAs at a price that is less than its scarcity value. Or First Gas may negotiate IAs at a price that overestimates the scarcity value. Discretion over SA and IA terms and condition is also a feature of the VTC, but the potential effect of that discretion on the effectiveness of PRs is a new matter to the GTAC.
2. Mass market shippers would need to bid for PRs, and may not be able to obtain them in either the primary or secondary market. In that case such shippers would be left with a risk that they cannot manage, since they have no practical means of turning down the demand of their mass market customers. This concern has been raised in submissions from a number of shippers²⁰, and most comprehensively in the Trustpower submission. While we believe the issue to be serious, we agree with the Todd submission which considered that "In the absence of any immediate congestion issues, Todd believes this can be more fully considered in the future, just as long as the IT system remains flexible enough to cater to future changes to the Priority Rights design."

In summary, PRs are a new tool with a strong potential to maintain ongoing efficient supply, but with some design issues yet to be fully addressed.

Our conclusion, in relation to Criteria 1, 2 and 14, is that the GTAC congestion management arrangements could allocate scarce capacity on a willingness to pay basis, allow better use of available physical capacity, and provide price signals. However, the First Gas discretion to negotiate SAs and IAs could lead to outcomes that undermine the benefits of PRs. Also, where mass market shippers are unable to obtain PRs the risks could be unmanageable.

Assessment:  and 

In relation to Criterion 3 (reducing barriers to competition):

Since rights to constrained capacity would be more contestable (allocated via auction rather than being grandfathered), we believe the barriers to competition would be reduced. However, as discussed above, SAs and IAs have the potential to increase barriers to competition.

Assessment:  and 

In relation to Criterion 4 (providing incentives for investment):

We consider that the incentives for investment in the transmission system are mostly determined by price-quality regulation, and would not be substantially affected by the GTAC congestion management arrangements. However, we believe the GTAC arrangements would generally increase the awareness of the market needs, and this may incline First Gas towards investment where there is a customer demand (and vice versa).

Assessment: 

In relation to Criterion 5 (sustained downward pressure on costs and prices):



While the running of PR auctions will introduce some new costs, we do not think they will be substantial in relation to total system costs. While there will be costs in running auctions, including the costs to participants, these costs are limited to occasions where there is congestion. In contrast, the cost of maintaining the MPOC curtailment algorithms is more

²⁰ Most submissions on the matter considered the issue to be an efficiency/reliability issue but Contact also considered it be a matter of fairness.

pervasive, and would be avoided (see discussion in relation to Criterion 5 in the Curtailment assessment).

While the PR auctions provide an opportunity for shippers to compete, we are not persuaded that the increase to competition will result in a noticeable reduction in prices in downstream markets. In fact, the overall level of end-user prices at congested DPs would be expected to increase, although this should be offset by the re-cycling of PR revenues.

In short, we anticipate that there would be a mix of cost increases and cost reductions and price increases and price reductions.

Assessment:  and 

In relation to Criterion 9 (facilitating competition in upstream and downstream markets):

As noted in section 3.1, we believe that an end-user at a congested DP may still find it difficult to switch its supplier in some circumstances. However, in the absence of grandfathered capacity, and with the greater daily flexibility, we think that new arrangements would generally make it easier for end-users to switch suppliers.

Assessment: 

In relation to Criterion 10 (full cost of producing and transporting gas are signalled to consumers):

We consider that managing congestion via PRs and IAs would introduce costs, but that these costs would only arise when congestion looms, and would be targeted towards the beneficiaries of the arrangements, so they would better signal the full costs than current arrangements (where the congestion management costs are not explicit and not directed to beneficiaries).

Assessment: 

In relation to Criterion 11 (price/quality trade-off reflects customer preferences):

Consumers would need to discuss with their suppliers at what price they may be willing to curtail supply (if an IA is an option), or how much extra they would be willing to pay for a more secure supply (if PRs are to be bought). In either case the customer's preference for un-interrupted supply is revealed and traded-off against price. We also believe that the proposed congestion management arrangements would make the prices more transparent and better directed towards the beneficiaries.

Assessment: 

Overall efficiency assessment of congestion management arrangements

Based on our consideration of each of the efficiency criteria, our overall assessment for efficiency is that the GTAC pricing terms would have a substantial positive aspect, but also a moderately negative aspect. The factors with the greatest influence on this conclusion are those that have a pervasive influence on efficient outcomes (such as the availability of demand side management ICs), rather than those that have an occasional influence (such as the added cost of running PR auctions).

Assessment:  and 

Congestion management – Reliability assessment

In relation to Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently):

The GTAC congestion management arrangements would better direct the cost of congestion towards the beneficiaries (those willing to pay for a more reliable supply).

However, for mass market retailers there is no practical way of managing the market risk if they fail to obtain the PRs they need (since mass market demand is impractical to control).

Assessment:  and 

Congestion management – Safety assessment

In relation to Criteria 1 and 7 (providing access in a manner consistent with the Government's gas safety regime):

No significant change.

Assessment: 

Congestion management – Environmental assessment

In relation to Criteria 8, 12 and 13, i.e. contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management:

No significant change.

Assessment: 








Congestion management – Fairness assessment

In relation to Criteria 13 and 18, i.e. gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions:

Allocation of scarce capacity on the basis of willingness to pay is seen as moderately more fair than basing it on historic usage.

Assessment: 

Table 12 – Summary of GTAC congestion management arrangements assessment

| Summary of GTAC congestion management arrangements assessment | | |
|---|--|---|
| | comment | assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | The GTAC congestion management arrangements could allocate scarce capacity on a willingness to pay basis, allow better use of available physical capacity, and provide price signals – but the First Gas discretion to negotiate SAs and IAs could lead to outcomes that undermine the benefits of PRs, and where mass market shippers are unable to obtain PRs the risks could be unmanageable. |  and  |
| Criterion 3 | Barriers to competition would be reduced by making access to scarce capacity more contestable, but the First Gas discretion to negotiate SAs and IAs has the potential to increase barriers to competition. |  and  |
| Criterion 4 | Incentives for investment are mostly determined by price-quality regulation, but awareness of the need for investment would be better signalled. |  |
| Criterion 5 | PR auctions allow for more competition, but prices will increase to reflect the added costs. |  and  |

| Summary of GTAC congestion management arrangements assessment | | |
|---|--|------------|
| | comment | assessment |
| Criterion 8 | Weak relevance to congestion management arrangements. | - |
| Criterion 9 | Absence of grandfathering and greater flexibility of DNC should facilitate competition. | ↑ |
| Criterion 10 | Costs should be better targeted and signalled to consumers. | ↑ |
| Criterion 11 | More awareness of, discussion about, and pricing of supply security would result in better price/quality trade-offs. | ↑ |
| Criterion 15 | Weak relevance to congestion management arrangements. | - |
| Criterion 16 | Weak relevance to congestion management arrangements. | - |
| Criterion 17 | Weak relevance to congestion management arrangements. | - |
| Criterion 19 | Weak relevance to congestion management arrangements. | - |
| | Overall Efficiency assessment | ↑ and ↓ |
| Reliability | | |
| Criteria 1, 2 & 6 | Risks are better managed by directing congestion management cost towards beneficiaries. But mass market retailers have no practical means of managing their risk if they fail to obtain the PRs. | ↑ and ↓ |
| Safety | | |
| Criteria 1 & 7 | No noticeable change anticipated. | → |
| Environment | | |
| Criteria 8, 12 & 13 | No significant change anticipated. | → |
| Fairness | | |
| Criterion 13 & 18 | Allocation of scarce capacity on the basis of willingness to pay is moderately more fair than basing it on historic usage. | ↑ |

Q8: Do you agree with our assessment of the GTAC congestion management arrangements?

3.8 System operation – Gas quality and odourisation

This section addresses the GTAC provisions relating to gas quality (GTAC s12) and odourisation (GTAC s13).

Gas quality and odourisation – description of arrangements

GTAC gas quality and odourisation terms

Gas quality

The GTAC requires that shippers and First Gas ensure that contracts with third parties to buy or sell gas in pipeline system include a requirement that only specification gas may be bought or sold (GTAC s.12.1). First Gas must also ensure that ICAs at RPs require interconnected parties to ensure injected gas meets specification, and (on First Gas request) to promptly demonstrate they have adequate facilities, systems, procedures and monitoring to comply (GTAC s12.2). If First Gas becomes aware that non-specification gas has entered a pipeline, it must promptly notify all shippers (GTAC s12.4). First Gas shall have no liability to any shippers taking non-specification gas at a DP, except where it is shown that First Gas caused gas to become non-specification (GTAC s12.11). If First

Gas caused gas to become Non-Specification Gas, it will indemnify a Shipper (GTAC s12.10)

Odourisation

First Gas will continue to odourise gas in the pipelines that are currently odourised. First Gas can cease odourisation of gas in a pipeline or at a DP if all shippers agree (GTAC s13.1), or by providing 18 months' notice (GTAC s13.5). First Gas can commence odourisation in unodourised parts of system if all shippers agree. First Gas must inject odorant to meet (in normal circumstances) NZS detectability standard. If First Gas becomes aware that detectability standard is not being met, it will promptly advise each affected shipper and take all reasonable steps to remedy situation (GTAC s.13.3).

MPOC gas quality and odourisation terms

Gas quality

Parties injecting gas into Maui system (directly or indirectly) must ensure that they comply with the NZ specification and monitor their injections. Injecting parties must be able to demonstrate upon reasonable request that they have adequate facilities, systems and procedures to ensure compliance (MPOC s17.9). First Gas may enter relevant premises, conduct its own tests and/or request party to immediately cease gas injections (s17.13). Any failure to comply with s.17 by an injecting party shall constitute a failure to act as an RPO (s17.21). First Gas indemnifies welded parties for Loss arising from the injection of Non-Specification Gas. In turn, injecting parties indemnify First Gas for any Loss arising from the injection of Non-Specification Gas (MPOC s17.22 and 17.33).

Odourisation

Not applicable to Maui pipeline system.

VTC gas quality and odourisation terms

Gas quality

Shippers and First Gas must ensure that contracts with third parties to buy or sell gas in pipeline system include a requirement that only specification gas may be bought or sold (VTC s12.1). First Gas must ensure that ICAs at Receipt Points require interconnected parties to ensure injected gas meets specification, and require the injecting counterparty (if asked by First Gas) to promptly demonstrate they have adequate facilities, systems and procedures to comply. If First Gas becomes aware that non-specification gas has entered pipelines, it must promptly notify all shippers. First Gas shall indemnify shippers for loss arising out of them taking non-specification gas at a DP, except to extent that shippers did not mitigate loss (VTC s12.7). First Gas indemnities are subject to limitations and exclusions which vary depending on whether First Gas caused gas to become non-specification (VTC s12.8-12.9).

Odourisation

First Gas will not odourise gas in an unodourised pipeline, or cease odourisation in an odourised pipeline, unless each shipper using the pipeline agrees – although First Gas can cease odourisation of a pipeline with 12 months' notice. First Gas must inject odorant to meet (in normal circumstances) NZS detectability standard. If First Gas becomes aware that standard is not being met, it will advise each affected shipper and take all reasonable steps to remedy situation (VTC s13.3).

Gas quality and odourisation – assessment

In respect of gas quality, the key features of GTAC s12 essentially mirror those of MPOC s17 and VTC s12, except that the MPOC contains some provisions specifically related to interconnected parties. For example, MPOC s17.13(a) provides an express right to enter premises, conduct tests etc if First Gas suspects the injecting party of not satisfying obligation to monitor compliance with injection quality obligation. That right would need to be provided for in an ICA rather than the GTAC (see for example GTAC RP ICA s6.7).

In respect of odourisation, GTAC s13 is essentially the same as VTC s13, except that:

1. If First Gas becomes aware that NZS5263:2003 is not being met, it is required to take reasonable steps to remedy the situation (GTAC s13.3)
2. A minimum 18 months' notice period applies if First Gas decides to cease odourisation of a pipeline (GTAC s13.5); and
3. The specific liability disclaimer in VTC s13.4 is removed.

Gas quality and odourisation – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

Gas quality

Non-specification gas can cause significant costs for pipeline users. It is important for pipeline arrangements to provide robust incentives on injecting parties and First Gas to maintain gas specification, and to promptly detect and remedy any situation where non-specification gas is flowing. The GTAC arrangements are functionally similar to those in the MPOC and VTC, with obligations on interconnected parties at receipt points to only inject specification gas, and to put in place the systems etc. needed to ensure compliance. Comments on the liability arrangements in relation to Non-Specification Gas are addressed in the assessment of the GTAC liability provisions in Appendix A.

Odourisation

The odourisation provisions in GTAC largely mirror those in the VTC (the Maui pipeline would continue to be unodorised). The First Gas obligation to remedy lack of odourisation under GTAC requires it to "take reasonable steps", compared to obligation under VTC to "take all reasonable steps". This is a lower obligation. On the other hand, the GTAC removes the specific liability exclusion in relation to loss of odourisation.

We consider the gas quality and odourisation provisions would not noticeably influence efficiency.

Assessment: ➡ assessment – Governance terms

Gas quality and odourisation – Reliability assessment

In relation to Criteria 1, 2 and 6, i.e. providing reliable and competitive arrangements and allocating risks properly and efficiently:

GTAC s12.2 requires First Gas to ensure that any RP ICA will require the Interconnected Party to ensure that all gas it injects meets the gas specification, and that on First Gas' request, it will demonstrate that it has adequate facilities, systems, procedures and monitoring to achieve that. This is essentially the same as VTC s12.2 except that it adds the words "and monitoring".

In comparison to the MPOC, the Methanex submission provides a good comparison of MPOC s17 and GTAC s12. Among other matters it notes that the MPOC s17.2(b) provides that each "... Direct Injecting Party shall... monitor, in accordance with the Gas Specification... to demonstrate" compliance with the gas specification. Whereas GTACs 12.2(b) provides that the ICA will require the "... Interconnecting Party to... demonstrate that it has adequate facilities, systems, procedures and monitoring..." to ensure that all gas it injects meets the gas specification. Methanex considers the GTAC obligation is considerably weaker.

We accept that the GTAC (and VTC) wording is more passive than the MPOC; essentially requiring that "facilities, systems, procedures and monitoring" are in place but not explicitly requiring the Interconnected Party to monitor the gas. But we think that the intention is clear, and the head obligation in the GTAC, and MPOC is the same as that of the VTC (GTAC s12.2(a), MPOC s17.2(a) and VTC s12.2(a)). In each case, it is for the interconnected party to ensure that only specification gas is injected into the pipeline.

As under the VTC, the GTAC provides that First Gas is not required to monitor the quality of gas injected into the transmission system (GTAC s12.8 and VTC s12.6). Methanex points out that there is no analogue to this in the MPOC. We agree, but neither do not find any explicit obligation in the MPOC for such monitoring.

Accordingly, we find no significant change to the allocation of risk under the GTAC, MPOC and VTC.

Assessment: ➡

Gas quality and odourisation – Safety assessment

In relation to Criteria 1 and 7, i.e. providing access in a manner consistent with the Government's gas safety regime:

The provisions relating to odourisation of gas are a key item from a safety perspective. The GTAC provisions largely mirror those in the VTC (and the Maui system is not odourised). The GTAC also provides for odourisation to continue in previously odourised pipelines and at previously odourised DPs, on establishment date if the GTAC comes into force. Accordingly, the GTAC is rated as neutral on this dimension.

Assessment: ➡ Efficiency assessment – Governance terms

Gas quality and odourisation – Environmental assessment

In relation to Criteria 8, 12 and 13, i.e. contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management:

The system operation terms are not expected to materially alter the risk of harm to the environment, so GTAC is rated as neutral on this dimension.

Assessment: ➡

Gas quality and odourisation – Fairness assessment

In relation to Criteria 13 and 18, i.e. gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions:

We rate the GTAC system operation terms to be neutral for fairness.

Assessment: ➡

Table 13 – Summary of GTAC gas quality and odorisation arrangements assessment

| Summary of GTAC gas quality and odorisation arrangements assessment | | |
|---|--|------------|
| | Comment | Assessment |
| Efficiency | | |
| Criterion 1, 2 & | The GTAC congestion management arrangements would allocate scarce capacity on a willingness to pay basis, allow better use of available physical capacity, and should provide price signals. | ➔ |
| Criterion 3 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 4 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 5 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 8 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 9 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 10 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 11 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 15 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 16 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 17 | Weak relevance to gas quality and odorisation arrangements. | - |
| Criterion 19 | Weak relevance to gas quality and odorisation arrangements. | - |
| | Overall Efficiency assessment | ➔ |
| Reliability | | |
| Criteria 1, 2 & 6 | No noticeable change expected. | ➔ |
| Safety | | |
| Criteria 1 & 7 | No noticeable change expected. | ➔ |
| Environment | | |
| Criteria 8, 12 & 13 | No noticeable change expected. | ➔ |
| Fairness | | |
| Criterion 13 & 18 | No noticeable change expected. | ➔ |

Q9: Do you agree with our assessment of the GTAC gas quality and odorisation arrangements?

3.9 Governance

This section addresses the GTAC provisions relating to prudential requirements (GTAC s14), force majeure (FM) (GTAC s15), general liability terms (GTAC s16) code changes (GTAC s17), dispute resolution (GTAC s18), termination (GTAC s 19), confidentiality (GTAC s 20) and assignment (GTAC s 20). For brevity, we collectively refer to these as 'governance' terms.

Stakeholders will note that the discussion of the liability arrangements in this section is brief, as liability is a matter that is given specific attention as a "Contentious Issue" in Appendix A of this Preliminary Assessment.

Governance – description of arrangements

GTAC governance terms

Prudential

Shippers are required to have a minimum long term credit rating equivalent to Baa3 (Moody's) BBB- (Standard & Poors), B (AM Best or Fitch) or provide an equivalent credit rating or reference acceptable to First Gas, or provide credit support equivalent to three times their estimated monthly transmission charges plus \$100k (GTAC s14.1-14.4).

FM

Shippers or First Gas may seek relief from liability due to an event or circumstance beyond their reasonable control, including (in the case of a Shipper) the inability to inject or take gas (GTAC s15.1). The party claiming FM must take all reasonable steps to minimise loss (GTAC s15.3(c)). Shippers cannot claim FM due to performance or non-performance of their customers (GTAC s15.5). FM claims must be notified as soon as practicable and no later than 48 hours after an event occurs. (GTAC s15.3(a)).

Liability

Liability will only arise where a party failed to act as an RPO (GTAC s16.1). Parties will only be liable for direct Loss, except in relation to Overrun or Over-Flow that causes Loss to First Gas (GTAC s16.2). The maximum liability of a Party will be \$10 million for a single event or related events or \$30 million in a gas year (GTAC ss16.4 and 16.5). The caps may be adjusted in certain circumstances to reflect First Gas' recovery (GTAC ss16.7 to 16.11). In certain circumstances, a Shipper may defend a claim in the name of First Gas or bring a claim against another Shipper or Interconnected Party (GTAC ss16.11 and 16.12).

Code change

See table below and Appendix F.

Dispute resolution

Disputes that cannot be resolved by negotiation will be referred to an independent expert jointly appointed by the parties, or failing that to arbitration for determination (GTAC s18.2).

Term and Termination

The GTAC will expire on 30 September 2022 (GTAC s19.2). TSAs will expire on that date unless an earlier termination date is specified (GTAC s 19.1). A Shipper may terminate on any date that is more than three months after the date on which First Gas receives written notification, subject to the expiry or sale of any PRs held by the Shipper (GTAC s19.3). Either party may terminate for specified events of default (including a material breach that is not remedied within 20 Business Days), or First Gas may exercise a right of suspension (GTAC ss19.4 and 19.5)

Confidentiality

The GTAC defines certain information as "Confidential Information" with a general catch-all of "any other material a Party wishes to disclose to First Gas on the basis that it is Confidential Information and which First Gas agrees (prior to actual disclosure of the information) is Confidential Information" (GTAC s20.3). First Gas' use or disclosure of Confidential Information is permitted in certain circumstances (GTAC s20.4).

Assignment

A Shipper must not assign or transfer its rights and obligations under a TSA without First Gas' consent (GTAC s20.14). First Gas must not assign or transfer any of its rights or obligations under any TSA, unless it can reasonably demonstrate that the assignee is capable of meeting First Gas' obligations under that TSA (GTAC s20.15). Liability remains with the assignor on assignment, unless prior written consent has been obtained (GTAC s20.16). Prior to assignment, the Assignor must execute a deed of covenant binding the assignee to perform the Assignor's obligations (GTAC s20.17).

MPOC governance terms

Prudential

Shippers and Welded Parties are required to have a minimum long term credit rating equivalent to Baa2 (Moody's) or BBB (S&P) or B (AM Best), or (for shippers) provide a security equivalent to three months' transmission charges, or such other arrangements as agreed by the parties (MPOC s20).

FM

Shippers, interconnected parties and First Gas may seek relief from liability due to an event or circumstance beyond its reasonable control, or any inability take or deliver gas (MPOC s27.1–27.3). Claims must be as soon as reasonably practicable and no later than 2 days of becoming aware of an event. A party claiming FM must take all reasonable steps to minimise loss (MPOC s27.3).

Liability

Liability will only arise where a party failed to act as an RPO (MPOC s28.1(a)). Parties will only be liable for direct Loss, except in relation to breaches of the provisions regarding the injection of Non-Specification Gas (MPOC s28.2). The maximum liability of a Party will be \$10 million for a single event or related events or \$30 million in a gas year (MPOC s28.4). The caps may be adjusted in certain circumstances to reflect First Gas' recovery (MPOC ss28.4 to 28.6). In certain circumstances, a Shipper may defend a claim in the name of First Gas (MPOC s28.14). First Gas provides an indemnity to Welded Parties in relation to Loss arising from Non-Specification Gas, but receives an indemnity from Injecting Welded Parties (MPOC ss17.22 and 17.33). First Gas administers an "Incentives Pool" to compensate Welded Parties due to another Welded Party having Excess Daily Imbalance or exceeding a Peaking Limit (MPOC s14)

Code change

See table below and Appendix F.

Dispute resolution

Disputes between the First Gas and shippers or Welded Parties that cannot be resolved by negotiation will be referred to any available standard industry dispute resolution procedure, or failing that a jointly agreed mediation or independent expert determination process. If the parties cannot agree a process, either party may refer the matter to a court for resolution (MPOC s23.3). Some issues are reserved for expert determination, including metering disputes and matters arising in relation to compliance with Gas Specification (MPOC s23.4).

Termination

There is no provision under the MPOC, TSAs or ICAs that contemplates expiry of those arrangements. A Shipper may terminate a TSA that has an AQ Volume of zero on 30

Days' notice, otherwise termination may not be before the AQ Expiry Date (MPOC ss22.10 and 22.11). Either party may terminate for a material events of default (MPOC s22.1). For events of default, there is a 30 day period for the breaching party to remedy the default (MPO s22.4).

Confidential Information

Much of the confidentiality arrangements in the MPOC are directed at ring fencing the control of the Maui Pipeline from the influence of the Maui Mining Companies (including a detailed Confidentiality Protocol in Schedule 4). In terms of the general confidentiality provisions, Confidential Information shall not be disclosed other than with the consent of the other party or in other particular circumstances (MPOC s24.2). "Confidential Information" includes specific information and "other information identified by a Shipper or Welded Party (acting reasonably), and notified to the TSP, to be confidential" (MPOC s1.1). The MPOC provides for an audit of First Gas' operating procedures.

Assignment

A Shipper or Welded Party must not assign or transfer its rights and obligations under a TSA without First Gas' consent, not to be unreasonably withheld (MPOC s36.1). First Gas must not assign or transfer any of its rights or obligations under any TSA, unless it assigns or transfers all TSAs and ICAs, ensures that the assignee is capable of meeting First Gas' obligations and executes a deed of covenant (MPOC s36.2). A deed of covenant must also be executed by a Shipper or Welded Party in the event of any transfer or assignment by that party (MPOC s36.3)

VTC governance terms

Prudential

Shippers are required to have a minimum long term credit rating equivalent to Baa3 (Moody's) or BBB- (S&P) or B (AM Best or Fitch), or provide security equivalent to three times the estimated monthly transmission charge plus \$115k, or such other arrangements as agreed by the parties (VTC s14).

FM

Shippers or First Gas may seek relief from liability due to an event or circumstance beyond its reasonable control, or (in the case of a Shipper) an inability to take or deliver gas (VTC s22.1). FM claims must be made as soon as practicable and no later than 48 hours after an event occurs. A party claiming FM must take all reasonable steps to minimise loss (VTC s22.3(c)). Shippers cannot claim FM due to customer performance (VTC s22.4).

Liability

Liability will only arise where a party failed to act as an RPO (VTC s23.1). Parties will only be liable for direct Loss, except in relation to breaches of the provisions regarding the injection of Non-Specification Gas or a Shipper's obligation to indemnify First Gas for Loss where that Shipper caused or contributed to a Force Majeure (VTC s23.2). The maximum liability of a Party will be \$10 million for a single event or related events or \$30 million in a gas year (VTC s23.4(a) to (d)). The caps may be adjusted in certain circumstances to reflect First Gas' recovery (VTC ss23.4(e) and 23.5). In certain circumstances, a Shipper may defend a claim in the name of First Gas (VTC). First Gas provides an indemnity to Shippers in relation to Loss arising from Non-Specification Gas (VTC s12.7). First Gas administers a "Balancing and Peaking Pool" to compensate a Shipper who is unable to take gas to which it was entitled (VTC ss8.14 to 8.16)

Code change

See table below and Appendix F.

Dispute resolution – Disputes between First Gas and shippers that cannot be resolved by negotiation will be referred to any available standard industry dispute resolution procedure, or failing that a jointly agreed mediation or independent expert determination process (VTC s17). If the parties cannot agree a process, either party may refer the matter to arbitration (VTC s18). Invoicing issues are reserved for expert determination (VTC s16.17 and 17.1).

Term and Termination

The VTC expires on 30 September 2018 (VTC s20.2).²¹ TSAs will expire on that date unless terminated earlier (VTC s20.1). A Shipper may terminate at the end of any gas year provided that it has given written notice by the second Friday in August of the relevant gas year. Either party may terminate for specified events of default (including a material breach), or First Gas may exercise a right of suspension (VTC ss20.3 and 20.4). For events of default, there is a 30 day period for the breaching party to remedy the default (VTC s20.3(g) to (j)).

Confidentiality

The starting position in the VTC is that First Gas and a Shipper may disclose information made available by the other party except for certain types of information (VTC s19.1). There is a limited set of circumstances in which Confidential Information may be disclosed, which includes the consent of the other party (VTC s19.2). There is a requirement that First Gas only use confidential information for the purpose of the VTC and not to advance any gas trading business (VTC s19.4). There is also a specific complaints procedure (VTC s19.5).

Assignment

A Shipper must not assign or transfer its rights and obligations under a TSA without First Gas' consent, not to be unreasonably withheld (VTC s24.1). First Gas must not assign or transfer any of its rights or obligations under any TSA, unless it can reasonably demonstrate that the assignee is capable of meeting First Gas' obligations under that TSA (VTC s24.2). Liability remains with the assignor on assignment, unless prior written consent has been obtained (VTC s24.3). Prior to assignment, the Assignor must execute a deed of covenant binding the assignee to perform the Assignor's obligations (GTAC s24.4).

Summary of Code change provisions

| Issue | GTAC (s.17) | MPOC (s.29) | VTC (s.25) |
|-------------------------------------|--|--|--|
| Who can propose Code changes? | Shippers, ICA parties or First Gas | Shippers, ICA parties or First Gas | Shippers or First Gas |
| How are change requests formulated? | Proposer is required to follow a progressive refinement process involving notification to interested parties | Proposer decides whether to confer with other parties or directly lodge a final change request | Proposer is required to follow a progressive refinement process involving notification to interested parties |

²¹ The VTC has been extended on an annual basis through the VTC change process.

| Issue | GTAC (s.17) | MPOC (s.29) | VTC (s.25) |
|--|---|---|--|
| Who makes final decision on change request (excl. any First Gas veto)? | Gas Industry Co | Gas Industry Co | Shipper vote |
| What criteria must be used to assess change request? | Objectives in s.43ZN of Gas Act and s.43ZO Government Policy Statements | Not specified in the MPOC, but separate MoU requires Gas Industry Company to "have regard to" the objectives in s43ZN | Not specified |
| On what grounds may First Gas veto a final change request that is otherwise valid? | First Gas may only withhold its consent if First Gas has given prior notice of not supporting a draft change, and it considers the change request would cause a party to breach its RPO obligation, or if First Gas is required to incur expenditure it could not recover, or be likely to adversely affect current or future provision of transmission services, pricing structure or revenue recovery | First Gas may withhold its consent to a change request provided that it does not do so unreasonably. Specific grounds on which First Gas may withhold consent are: if First Gas required to incur capex, or opex that cannot be recovered, or materially adversely affect pipeline business or tariffs, or open access compatibility. | First Gas may withhold its consent to a change request provided that it does not do so unreasonably. Specific grounds on which First Gas may withhold its consent are: if First Gas is required to incur capex, or opex that it cannot reasonably expect to recover, or be likely to adversely affect structure of transmission services, business structure, transmission revenue, or open access compatibility. First Gas may also withhold consent if it considers any shipper has not acted in good faith during the change process. |
| When can First Gas change Code outside full change request process | To correct a drafting error or reflect law change or court order – any such change will not take effect if any party objects. Such change may be proposed by any party First Gas can make urgent change to address an unforeseen issue that threatens integrity of, or proper | To reflect change in law or court order – no consultation or notice is required | To reflect change in law or court order – consultation and notice are required |

| Issue | GTAC (s.17) | MPOC (s.29) | VTC (s.25) |
|-------|--|-------------|------------|
| | operation of transmission system – provided that change lapses after 6 months unless ratified via full change request process. GIC may revoke urgent change at any time. | | |

Governance – assessment

Governance – Efficiency assessment

Prudential – efficiency could be impaired if prudential requirements are unduly tight (hindering competition) or relaxed (encouraging risky behaviour). GTAC requirements for shippers are less restrictive than those in MPOC and similar to those in VTC, and appear reasonable in overall terms.

Force Majeure – efficiency is expected to be promoted by allocating risks to those with best ability, information and incentives to control them, and by sharing 'long-tail' risks that are genuinely beyond the reasonable control of any party. GTAC provisions are similar to those in MPOC and VTC, and appear consistent with these principles.

Liability – liability arrangements are efficient when risks are allocated to those parties who are best able to manage them. An efficient set of liability arrangement are legally robust, reduce the risk of disputes and incentivise appropriate behaviour. The GTAC includes a new subrogation process that purports to give rights to shippers and interconnected parties to enforce breaches of the GTAC against other shippers and interconnected Parties (in First Gas' name). As mentioned in Appendix A, we have the following concerns:

1. The effectiveness of the subrogation provisions, particularly when compared to the back-to-back indemnities in the MPOC and VTC that apply to the injection of Non-Specification Gas.
2. Even if the subrogation process is effective, whether this new process (and the reallocation of risk) is an improvement on the MPOC and VTC.

Those concerns lead us to conclude that the changes to the liability arrangements will have a negative effect on efficiency. Under the MPOC and VTC there is a clear contractual chain between First Gas and interconnected parties that can be used to ensure that the incentives rest with the appropriate party.

Code change – efficiency is generally promoted where code evolution is guided by pipeline users and First Gas, while ensuring checks are in place to ensure code changes do not inhibit competition. Arrangements should also avoid undue cost and complexity that can hinder adoption of desirable code improvements. GTAC provisions appear reasonable across these criteria. Change requests are initiated by pipeline users or First Gas, and refined via engagement among interested parties. Final decisions will be made by an external party (Gas Industry Co) that is required to consult interested parties and apply the objectives in the Gas Act and any applicable Government Policy Statement. We think that mitigates the risk of any one participant, or group of participants, being able to block a change proposal that has benefits for the wider industry (as may occur under a voting regime like the VTC). First Gas' right to block a code

change is tighter than in the VTC and MPOC²², and notification must be made at an early point to minimise wasted costs. While the GTAC would allow First Gas to unilaterally amend the code to address an urgent and unforeseen issue, any such change automatically lapses after six months unless ratified by the full change request process. In addition, Gas Industry Co may revoke an urgent change made by First Gas at any time.

Dispute resolution – efficiency is typically promoted where parties first seek to resolve disputes via negotiation or via alternative lower cost means (e.g. mediation), and failing this, can refer disputes to an independent decision maker for binding resolution. GTAC’s provisions are similar to those in MPOC and VTC, and appear consistent with these principles (noting that GTAC and VTC both provide for arbitration as the ultimate backstop, whereas as the MPOC provides for parties to refer unresolved matters to the courts). In our opinion the dispute resolution provisions in the GTAC are, overall, less complicated than the MPOC and VTC and less likely to result in unnecessary delay. Accordingly, we believe that efficiency is enhanced.

Termination – submitters have expressed concerns regarding the short term that applies to the GTAC and TSAs (these expire on 30 September 2022) and have referred to the evergreen nature of the MPOC. The term of the GTAC is longer than the VTC, which is typically renewed annually using the change process. Like the VTC, there is the possibility for parties to the GTAC to submit a change request to extend the term of the GTAC. The short-term nature of the GTAC may reflect the absence of a unilateral right for First Gas to terminate the GTAC and TSAs on notice. Overall, we consider that the term of the GTAC is more efficient than the VTC as renewal will not need to occur on an annual basis, but is less efficient than the MPOC where no renewal process is necessary. We do not consider that the length of the term provides First Gas, Shippers or Interconnected Parties any increased certainty regarding the form of the gas transmission access arrangements given the change process in the GTAC and Gas Industry Co’s overall regulatory oversight. Accordingly, we consider any negative impact on efficiency when compared to the MPOC arrangements to be modest.

Confidentiality and Assignment – we do not consider that the confidentiality or assignment provisions to directly impact our efficiency analysis.

Overall efficiency assessment of governance arrangements

Our overall assessment is that the GTAC governance terms have both positive and negative impacts on efficiency. The main improvements relate to the change process in the GTAC, while the concerns regarding the liability provisions have a negative impact on efficiency

Assessment:  and 

Governance – Reliability assessment

In relation to Criteria 1, 2 and 6, i.e. providing reliable and competitive arrangements and allocating risks properly and efficiently:

Liability – the GTAC materially changes the liability arrangements in relation to the injection of Non-Specification Gas. As outlined in Appendix E, we have concerns regarding the process for enforcing breaches under those arrangements when compared to the back-to-back indemnities in the MPOC and the VTC. Accordingly, we think that this aspect of the liability framework has a negative impact on the proper and efficient management of risks relating to security of supply.

²² Although section 7.14(a) of the GTAC could be considered to provide some loosening of First Gas’ right to veto, we think that limiting the veto to three criteria rather than “consent not be unreasonably withheld” (or similar drafting in the VTC) does result in an, overall, narrower right of veto.

Other governance terms are not expected to directly alter the risk of interruption or contingency. However, the express requirement in the GTAC for all code change requests to be assessed against the Gas Act and GPS objectives should be positive for reliability. Overall, our concerns regarding the liability arrangements lead us to rate the GTAC's governance terms as being modestly negative for reliability.

Assessment: 

Governance – Safety assessment

In relation to Criteria 1 and 7, i.e. providing access in a manner consistent with the Government's gas safety regime:

Liability - Section 41 of the Gas (Safety and Measurement) Regulations 2010 (Safety Regulations) requires a retailer or wholesaler to ensure that gas it supplies at a consumer's point of supply complies with NZS 5442. The current MPOC and VTC support this requirement through a clear chain of liability that places appropriate incentives on those parties responsible for ensuring that gas complies with the Gas Specification. While we have concerns regarding the liability arrangements in the GTAC in relation to Non-Specification Gas, we think that the proposed framework does not materially affect consistency with the Safety Regulations. Injecting parties will still have an incentive to inject specification gas through their contracts for the sale or purchase of gas (as required by GTAC s12.1).

Other governance terms are not expected to directly alter the risk of harm to people or property. Overall, we rate the GTAC's governance terms as being neutral for safety.

Assessment: 

Governance – Environmental assessment

In relation to Criteria 8, 12 and 13, i.e. contributing to environmental sustainability by using energy and resources efficiently, minimising gas losses and promoting demand side management:

The governance terms are not expected to directly alter the risk of harm to the environment. Overall, we rate the GTAC's governance terms as being neutral for the environment.

Assessment: 

Governance – Fairness assessment

In relation to Criteria 13 and 18, i.e. gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions:

The GTAC gives existing pipeline users and First Gas similar rights in respect of force majeure, prudential requirements and dispute resolution – and is therefore not expected to materially alter fairness for these parties.²³

Code changes - One aspect of the GTAC which could arguably improve fairness is that there is less risk of code changes that favour incumbent pipeline users, because all changes will be assessed against the Gas Act and GPS objectives by an external party (Gas Industry Co). Voting processes, like the VTC change process, have the potential to favour the incumbent pipeline

²³ Stakeholders have suggested that referral of a dispute to arbitration is likely to be prohibitive for some stakeholders. We think that the position in the GTAC is no more prohibitive than the current MPOC and VTC, which refer disputes to court or arbitration.

users or a subset of the existing pipeline users. Some submitters had concerns regarding the time constraints in section 17 of the GTAC. We agree with some of those concerns. In our view the following timeframes have a negative impact on fairness:

1. Section 17.6 of the GTAC requires a Change Requestor to provide First Gas and Gas Industry Co with additional information requested by the Interested Party in relation to the proposed change no later than 5 Business Days following the request being made. In our view, the appropriate timeframe for provision of the additional information will depend on the scope of the additional information that the Interested Party asks the Change Requestor to provide. That is reflected by the equivalent provision in the VTC, which refers to "as soon as reasonably practicable", rather than imposing an absolute deadline. We consider that the introduction of the 5 Business Day deadline has a negative effect on fairness.
2. Section 17.9 of the GTAC imposes a deadline for submission of a Draft Change Request to Gas Industry Co of 25 Business Days following First Gas' publication of a Draft Change Request. We do not consider that timeframe to be fair given that it will mean that the Change Requestor will only have 3 Business Days (taking into account the 20 Business Day window for Interested Parties' view on the change request and the requirement that First Gas publish the views of Interested Parties within 2 Business Days) to review submissions on the Draft Change Request and decide whether to submit the Change Request to Gas Industry Co.

Liabilities – We think that First Gas' inclusion of a provision that purports to give Shippers a general right to claim Losses arising from breaches of the GTAC by other Shippers and Interconnected Parties is a positive step in terms of fairness. There was no right of that nature under the MPOC and the VTC. However, we have concerns regarding the process for enforcing breaches under the subrogation provision. Given that the subrogation arrangements are intended to replace the existing back-to-back indemnities in relation to the injection of Non-Specification Gas (a key source of potential liability), we consider the overall impact on fairness to be negative. A range of other concerns are raised in Appendix A of this paper. We think that, overall, the balance of the liability arrangements is not as fair as the MPOC and the VTC.

Termination – although we are generally comfortable that the termination provisions in the GTAC are reasonably balanced (when compared to the current arrangements), we do have the following concerns and queries:

1. We think that the absence of an opportunity for a default to be remedied (as currently exists under the MPOC and the VTC) has a modestly negative effect on fairness.
2. Section 19.1(a) permits any party to immediately terminate on written notice if any money remains unpaid for 10 Business Days. In our view that provision is unreasonable and unfair when compared to the equivalent provisions in the MPOC and VTC (particularly as the termination right will be triggered after 10 Business Days and there is no opportunity to remedy).
3. Whether it is necessary for termination to be conditional on the expiry or sale of all PRs held by the Shipper. A similar approach was adopted in relation to AQ under the MPOC. Nevertheless, we think that the Shipper's right to terminate is more flexible than the VTC where termination must be notified before the second Friday in August for the following gas year.

Confidentiality – we have considered stakeholder views that the confidentiality provisions in the GTAC are insufficiently detailed. While stakeholders are correct that the arrangements in the GTAC do not have the same level of detail as the MPOC or the VTC, we think that is largely due to the fact that the MPOC and the VTC were drafted in the context of a transmission owner that

had interests at a production and retail level through related companies. In that context, it was deemed appropriate to include additional checks on the use of confidential information, such as confidentiality protocols and audit requirements. We think that the same concerns do not apply in the context of First Gas' ownership of the transmission system. Accordingly, the exclusion of some detail in the MPOC and VTC from the GTAC can be expected without a detrimental impact on fairness. However, we consider that the follow matters have a minor impact on fairness:

1. The VTC lists specific information that is confidential with no ability for the parties to identify other information as confidential. While we favour transparency, there may be some situations where information other than that listed is genuinely confidential and should be protected from disclosure. In the MPOC and GTAC, a right exists for the parties to determine information to be confidential. The MPOC and GTAC contain an obvious tension in terms of whether the disclosing party (acting reasonably) should be able to determine that the information is confidential (MPOC) or First Gas makes that determination (the GTAC). On balance, we think that the approach in the MPOC is fairer, particularly as First Gas has certain permitted uses of Confidential Information.
2. We think that the MPOC's requirement (in relation to any authorised disclosure of Confidential Information) that the recipient of that information execute a confidentiality undertaking, is reasonable. The absence of this requirement in the GTAC has a minor negative impact on fairness.





We consider the confidentiality arrangements in the GTAC to be an improvement on the VTC in relation to the fairness objective and modestly less fair than the MPOC.

Assignment - we think that the assignment provisions are similar to the equivalent provisions in the MPOC. We do not expect these provisions to have any notable influence on our assessment of the GTAC. We do not think that assignment of TSAs and ICAs to different parties (as prohibited by the MPOC) is a realistic possibility. The GTAC itself is not capable of assignment and nor should it be. The concern on the assignment provisions is First Gas' rights and obligations, not the underlying ownership of the pipeline infrastructure.

Overall, we rate the GTAC governance terms to be negative for fairness.

Assessment:  and 

Table 14 – Summary of GTAC governance assessment

| Summary of GTAC governance assessment | | |
|---------------------------------------|--|---|
| | Comment | Assessment |
| Efficiency | | |
| Criterion 1, 2 & 14 | We think that the code change process enhances the efficient delivery of gas to consumers. Barriers to making changes to the arrangements that existed under the MPOC and VTC (the extent of First Gas' veto and the requirement for a vote under the VTC) have been reduced. We have a concern as to whether the liability arrangements under the GTAC increase the risk of disputes and incentivise inappropriate behaviour. |  and  |
| Criterion 3 | No noticeable change expected |  |
| Criterion 4 | No noticeable change expected |  |

Summary of GTAC governance assessment

| Comment | | Assessment |
|---------------------|---|------------|
| Criterion 5 | No noticeable change expected | → |
| Criterion 8 | No noticeable change expected | |
| Criterion 9 | No noticeable change expected | → |
| Criterion 10 | No noticeable change expected | → |
| Criterion 11 | No noticeable change expected | → |
| Criterion 15 | No noticeable change expected | |
| Criterion 16 | No noticeable change expected | → |
| Criterion 17 | No noticeable change expected | → |
| Criterion 19 | We think that efficiency is enhanced by a dispute resolution process that has, overall, less complexity, than the processes in the VTC and the MPOC. | ↑ |
| | Overall Efficiency assessment | ↑ and ↓ |
| Reliability | | |
| Criteria 1, 2 & 6 | Material changes have been made to the liability arrangements in relation to the injection of Non-Specification Gas. We have concern regarding effectiveness of those arrangements when compared to the current regime under the MPOC and VTC. Accordingly, there is a modest negative impact on the proper and efficient management of risks relating to security of supply. | ↓ |
| Safety | | |
| Criteria 1 & 7 | No noticeable change expected | → |
| Environment | | |
| Criteria 8, 12 & 13 | No noticeable change expected | → |
| Fairness | | |
| Criterion 13 & 18 | The code change process does not favour incumbent pipeline users or a subset of users. We consider this to be an improvement when compared to the VTC. We consider that some of the timeframes in the code change process have a negative impact on fairness. We have concerns regarding the effectiveness of key aspects of the liability framework. We think that aspects of the termination and confidentiality arrangements have a negative impact on Shippers when compared to the MPOC and VTC and are not a reasonable change. | ↑ and ↓ |

Q10: Do you agree with our assessment of the GTAC governance arrangements?

4. Top-down analysis

This chapter discusses whether the GTAC will promote the Objectives and Outcomes.

As set out in Chapter 2 for each of the five major topics (efficiency, reliability, safety, environment and fairness), we assess whether the GTAC is likely to be better than, the same as, or worse than current transmission access arrangements.

We compile this assessment by considering the results of the 'bottom-up' analysis from the preceding chapter, and then considering the relative significance of the various positive and negative aspects of the GTAC, in terms of promoting efficiency, reliability etc.

4.1 Top-down assessment - efficiency

Table 15 summarises the assessment of the GTAC against efficiency criteria. Readers should refer to Chapter 3 for the fuller explanation of reasoning in relation to each component of the GTAC.

Table 15 – GTAC top-down assessment - efficiency

| Component | Assessment | Key reasons |
|-------------------------------|------------|---|
| Gas transmission products | ↑ and ↓ | The GTAC's transmission product design is pro-competitive relative to annual capacity bookings, provides increased flexibility for shippers, and reduces the risk of capacity sterilization. However, adoption of the new products will increase transaction costs. |
| Pricing | ↑ and ↓ | The GTAC improves pricing provisions in some areas (e.g. single receipt zone, balancing, allocation of scarce capacity based on willingness to pay). The GTAC also applies a common framework across the entire system, which is pro-competitive. But these gains are offset by; the size of the overrun and underrun charges in non-congested situations, which appear likely to cause inefficient shipper behavior, and (in combination with rebate structure) hinder competition; the disparity of SA and IA incentive charges, and: the asymmetry of ERM charges. |
| Energy quantity determination | ↑ | The GTAC would introduce one set of technical standards, testing requirements, and correction methodology, which should modestly reduce costs. |
| Energy allocation | ↑ and ↓ | The optionality of using OBA allocation or alternative allocation methods at any RP or DP is positive, but we consider that some aspects of the GTAC relating to OBA Parties (but not directly related to energy allocation) may cause Interconnected Parties to avoid choosing OBA as an allocation method. |
| Balancing | ↑ and ↓ | System-wide balancing and ERM mechanism a moderate improvement – but these gains partially offset by uncertainties regarding tolerance levels. |
| Curtailment | ↑ | The GTAC's curtailment arrangements are less complex than status quo, and should lower IT costs |
| Congestion management | ↑ and ↓ | The GTAC provides more assurance that available capacity will be used, and clearer signals to users of any impending scarcity but there are |

| Component | Assessment | Key reasons |
|-----------------------------|------------|---|
| | | significant issues, including discretion for First Gas to negotiate SAs and IAs, and un-manageable risks for mass market shippers unable to obtain PRs. |
| Gas quality and odorisation | → | No noticeable change expected |
| Prudential requirements | → | No noticeable change expected |
| Force majeure | → | No noticeable change expected |
| Liabilities | ↓ | The GTAC provides less certainty that pipeline users can recover certain types of loss. This weakens incentives for prudent behavior by pipeline users. |
| Code changes | ↑ | Code change process blends the respective strengths of MPOC and VTC processes |
| Dispute resolution | → | No noticeable change expected |
| Term and termination | ↓ | Modest impact on efficiency arising from the short-term nature of the GTAC. |
| Confidentiality | - | Weak relevance to efficiency |
| Assignment | → | No noticeable change expected |

Overall, from a top-down perspective, we assess the GTAC as providing a moderate efficiency improvement in some areas. This assessment reflects our expectation, including of:

1. stronger competition from the DNC structure, single gas receipt zone, and removal of grandfathering provisions; and
2. efficiency improvements from a common pipeline regime and system-wide gas balancing.

We rate both factors as important because they affect many pipeline users and are important from an operational perspective. We expect the GTAC to also yield less substantial efficiency gains in some other areas, including better arrangements for congestion management, curtailment and code changes.

However, these positive efficiency effects are offset by concerns in some areas, including:

3. the transport incentive fees in non-congested situations appear likely to encourage a greater level of inefficient behaviour by pipeline users and, combined with the rebate mechanism, raise some competition concerns. We regard this issue as important because the incentive charges will potentially affect all pipeline users every day; and
4. GTAC's liability provisions appear less certain in their effectiveness than present arrangements. This is an important issue, because the maintenance of robust incentives on pipeline users to act prudently is critical to efficient and reliable operations.

4.2 Top-down assessment - reliability

Table 16 summarises the assessment of the GTAC against the reliability criteria compiled at a component level in Chapter 3. Readers should refer to Chapter 3 for the fuller explanation of reasoning in relation to each component of GTAC.

Table 16 – GTAC top-down assessment - reliability

| Component | Assessment | Key reasons |
|-------------------------------|------------|--|
| Gas transmission products | ↑ and ↓ | GTAC should provide earlier notification of potential congestion, but concern about allocation of risk to mass market retailers. |
| Pricing | ↑ | GTAC enables better management of capacity scarcity situations. |
| Energy quantity determination | ↑ and ↓ | A single set of technical standards, testing requirements etc. is expected to improve reliability, but the 9 month interval before special tests is worse than under the MPOC (60 days) or VTC (90 days), and the absence of a completed Metering Requirements document, or an appropriate process for development of that document, is a concern. |
| Energy allocation | ↓ | Absence of Wash-up Agreement |
| Balancing | → | No noticeable change expected |
| Curtailement | ↑ | The sanctions for not complying with an OFO are stronger under the GTAC. |
| Congestion management | ↑ and ↓ | Risks are better managed by directing congestion management cost towards beneficiaries. But mass market retailers have no practical means of managing their risk if they fail to obtain the PRs. |
| Gas quality and odourisation | → | No noticeable change expected |
| Prudential requirements | → | No noticeable change expected |
| Force majeure | → | No noticeable change expected |
| Liabilities | ↓ | Material changes have been made to the liability arrangements in relation to the injection of Non-Specification Gas. We have concern regarding the effectiveness of those arrangements when compared to the current regime under the MPOC and VTC. Accordingly there is a modest negative impact on the proper and efficient management of risks relating to security of supply. |
| Code changes | → | No noticeable change expected. |
| Dispute resolution | → | GTAC provisions similar to current arrangements. |
| Term and termination | - | Weak relevance to reliability. |
| Confidentiality | - | Weak relevance to reliability. |

| Component | Assessment | Key reasons |
|------------|------------|-------------------------------|
| Assignment | - | Weak relevant to reliability. |

Overall, from a top-down perspective, we assess GTAC as providing moderate reliability improvements in some areas. This assessment reflects:

1. the modest gains in relation to gas transmission products;
2. the mixed effects expected in relation to congestion management; and

However, these positive reliability effects are offset by moderate concerns in some areas. Including:

3. the potential allocation of risk to mass market retailers who are unable to obtain sufficient PRs; and
4. a concern that GTAC's liability provisions are less certain in their effectiveness, which increases the risk that users will act in a way that undermines reliability.

4.3 Top-down assessment - safety

Table 17 summarises the assessment of the GTAC against the safety criteria compiled at a component level in Chapter 3. Readers should refer to Chapter 3 for the fuller explanation of reasoning in relation to each component of GTAC.

Table 17 – GTAC top-down assessment - safety

| Component | Assessment | Key reasons |
|-------------------------------|------------|-------------------------------|
| Gas transmission products | ➔ | No noticeable change expected |
| Pricing | - | Weak relevance to safety |
| Energy quantity determination | - | Weak relevance to safety |
| Energy allocation | - | Weak relevance to safety |
| Balancing | - | Weak relevance to safety |
| Curtailment | ➔ | No noticeable change expected |
| Congestion management | ➔ | No noticeable change expected |
| Gas quality and odourisation | ➔ | No noticeable change expected |
| Prudential requirements | ➔ | No noticeable change expected |
| Force majeure | ➔ | No noticeable change expected |
| Liabilities | ➔ | No noticeable change expected |
| Code changes | ➔ | No noticeable change expected |

| Component | Assessment | Key reasons |
|----------------------|------------|-------------------------------|
| Dispute resolution | ➔ | No noticeable change expected |
| Term and termination | - | Weak relevance to safety |
| Confidentiality | - | Weak relevance to safety |
| Assignment | - | Weak relevance to safety |

Overall, from a top-down perspective, we assess GTAC as neutral in relation to safety. This assessment reflects that GTAC is not expected to noticeably change safety performance.

4.4 Top-down assessment - environment

Table 18 summarises the assessment of the GTAC against the environmental criteria compiled at a component level in Chapter 3. Readers should refer to Chapter 3 for the fuller explanation of reasoning in relation to each component of GTAC.

Table 18 – GTAC top-down assessment - environment

| Component | Assessment | Key reasons |
|-------------------------------|------------|--|
| Gas transmission products | ↑ | The GTAC better allows for demand side management |
| Pricing | ↑ | Allowing for demand side management payments is in line with Criterion 12. |
| Energy quantity determination | - | Weak relevance to environment |
| Energy allocation | - | Weak relevance to environment |
| Balancing | ↑ | The GTAC balancing arrangements would bring a modest reduction in compressor fuel use. |
| Curtailment | ➔ | No noticeable change expected |
| Congestion management | ➔ | No noticeable change expected |
| Gas quality and odourisation | ➔ | No noticeable change expected |
| Prudential requirements | ➔ | No noticeable change expected |
| Force majeure | ➔ | No noticeable change expected |
| Liabilities | ➔ | No noticeable change expected |
| Code changes | ➔ | No noticeable change expected |
| Dispute resolution | ➔ | No noticeable change expected |

| Component | Assessment | Key reasons |
|----------------------|------------|-------------------------------|
| Term and termination | - | Weak relevance to environment |
| Confidentiality | - | Weak relevance to environment |
| Assignment | - | Weak relevance to environment |

Overall, from a top-down perspective, we assess GTAC as a modest improvement in relation to environmental issues. This reflects:

1. Our expectation that the GTAC will better enable the use of demand-side management tools, while recognising that such tools are likely to be required on a relatively infrequent basis; and
2. Our expectation that the GTAC will enable a modest reduction in fuel used by compressors.

4.5 Top-down assessment - fairness

Table 19 summarises the assessment of the GTAC against the fairness criteria compiled at a component level in Chapter 3. Readers should refer to Chapter 3 for the fuller explanation of reasoning in relation to each component of GTAC.

Table 19 – GTAC top-down assessment - fairness

| Component | Assessment | Key reasons |
|-------------------------------|------------|--|
| Gas transmission products | ↑ and ↓ | Fairness would be improved by the removal of grandfathering and daily nature of the standard product, but deteriorated by the wide scope for ICA negotiation and the uncertainty regarding AHP arrangements. |
| Pricing | ↑ and ↓ | Charges based on usage (unless congestion applies) is fairer – but offset by rebates of hourly overrun fees being allocated to all shippers, not just those liable to pay them – and incentive fees/rebates not applying to gas transported on SAs or IAs. |
| Energy quantity determination | → | Legacy metering arrangements are not specifically addressed by the GTAC, but s5.2 addresses that by enabling the use of aggregate customer consumption. |
| Energy allocation | → | No noticeable change expected |
| Balancing | ↑ | Parties should never be cashed-out for more than their running mismatch on a day. |
| Curtailement | ↓ | Shippers should use their best efforts to comply with OFOs, but it is unreasonable to expect that can always comply. |
| Congestion management | ↑ | Allocation of scarce capacity on the basis of willingness to pay is seen as more fair than basing it on historic usage. |
| Gas quality and odourisation | → | No noticeable change expected |
| Prudential requirements | → | No noticeable change expected |
| Force majeure | → | No noticeable change expected |

| Component | Assessment | Key reasons |
|----------------------|------------|--|
| Liabilities | ↓ | Reduced clarity regarding liability chain could mean that parties do not bear consequences of losses they cause. |
| Code changes | ↑ | Does not favour incumbent users. |
| Dispute resolution | → | No noticeable change expected |
| Term and termination | ↓ | The GTAC is generally equivalent to the MPOC and VTC, but some negative effects on fairness. |
| Confidentiality | ↓ | The GTAC is generally equivalent to the MPOC and VTC, but some negative effects on fairness. |
| Assignment | → | No noticeable change expected |

Overall, from a top-down perspective, we assess GTAC as having mixed effects on fairness due to factors such as:

1. the removal of grandfathering and the daily nature of the standard product;
2. parties no longer being cashed-out for more than their running mismatch on a day;
3. aspects of the incentive fee rebate arrangements;
4. unreasonableness of expecting that shippers will always be able to comply with OFOs; and
5. changes to the existing liability arrangements.

Q11: Do you agree with our top-down analysis?

5. Overall assessment

This chapter sets out Gas Industry Co's overall assessment of whether the new terms and conditions of access to and use of the gas transmission system are materially better than the current terms and conditions, having regard to the objectives for the industry body in the Gas Act 1992 and the objectives and outcomes in the GPS.

We have compiled our overall assessment by considering:

1. The bottom-up and top-down analyses of the GTAC itself (discussed in Chapters 3 and 4 respectively); and
2. The extent to which 'associated arrangements' would be altered if the GTAC comes into force, and how these would affect the terms and conditions of access to and use of the gas transmission system.

We have also considered the reasonableness of the GTAC access terms and conditions, and the extent of any inherent benefits from moving to a single code.

Each of these topics is addressed in the following sections.

5.1 Bottom-up and top-down analyses of the GTAC

Table 20 summarises the results of the bottom-up and top-down analyses of the GTAC discussed in Chapters 3 and 4. Readers should refer to Chapters 3 for the fuller explanation of reasoning in relation to each cell in the table.

Table 20 – Summary of bottom-up and top-down assessment of GTAC

| Component | Efficiency | Reliability | Safety | Environment | Fairness | All criteria |
|-------------------------------|------------|-------------|--------|-------------|----------|--------------|
| Gas transmission products | ↑ and ↓ | ↑ and ↓ | → | ↑ | ↑ and ↓ | ↑ and ↓ |
| Pricing | ↑ and ↓ | ↑ | - | ↑ | ↑ and ↓ | ↑ and ↓ |
| Energy quantity determination | ↑ | ↑ and ↓ | - | - | → | ↑ and ↓ |
| Energy allocation | ↑ and ↓ | ↓ | - | - | → | ↑ and ↓ |
| Balancing | ↑ and ↓ | → | - | ↑ | ↑ | ↑ and ↓ |
| Curtailment | ↑ | ↑ | → | → | ↓ | ↑ and ↓ |
| Congestion management | ↑ and ↓ | ↑ and ↓ | → | → | ↑ | ↑ and ↓ |
| Gas quality and odorisation | → | → | → | → | → | → |

| Component | Efficiency | Reliability | Safety | Environment | Fairness | All criteria |
|-------------------------|------------|-------------|--------|-------------|----------|--------------|
| Prudential requirements | ➡ | ➡ | ➡ | ➡ | ➡ | ➡ |
| Force majeure | ➡ | ➡ | ➡ | ➡ | ➡ | ➡ |
| Liabilities | ⬇ | ⬇ | ➡ | ➡ | ⬇ | ⬇ |
| Code changes | ⬆ | ➡ | ➡ | ➡ | ⬆ and ⬆ | ⬆ |
| Dispute resolution | ⬆ | ➡ | ➡ | ➡ | ➡ | ⬆ |
| Term and termination | ⬇ | ➡ | ➡ | ➡ | ⬇ | ⬇ |
| Confidentiality | - | - | - | - | ⬆ and ⬆ | ⬆ and ⬆ |
| Assignment | - | - | - | - | ➡ | ➡ |
| Overall | ⬆ and ⬆ | ⬆ and ⬆ | ➡ | ⬆ | ⬆ and ⬆ | |

| Key | Deterioration | | | Neutral | Improvement | | |
|-----|---------------|----------|--------|---------|-------------|----------|-------------|
| | Substantial | Moderate | Modest | | Modest | Moderate | Substantial |
| | ⬇ | ⬇ | ⬇ | ➡ | ⬆ | ⬆ | ⬆ |

The table shows that the GTAC rates well across many dimensions. Looking at the bottom-up assessment for each major component of the transmission code (i.e. reading across the table, with net impacts in the right-hand column), we assess the GTAC as neutral to moderately positive in most cases. Furthermore, the components with the largest improvements (e.g. transmission products, allocation, balancing) are generally important from an operational perspective, because they affect many (if not all) pipeline users for much of the time.

Two important exceptions to the pattern of component-level improvement relate to pricing and liability provisions. As discussed in Appendix A, the GTAC contains transport incentive charges which appear likely to encourage inefficient behaviour by pipeline users in non-congested situations. Hence, the assessment on pricing shows a mixed picture.

In relation to liability provisions, the GTAC replaces back-to-back indemnity provisions in the MPOC and VTC which apply to the injection of Non-Specification Gas with a subrogation process that purports to give rights to Shippers and Interconnected Parties to enforce breaches of the GTAC against other Shippers and Interconnected Parties in First Gas' name.

Our concerns around the effectiveness of the subrogation provisions, together with other concerns regarding the liability arrangements outlined in Appendix A, lead us to conclude that the liability arrangements will have a negative effect relative to the MPOC and the VTC. We

regard this issue as significant, because the maintenance of robust incentives on pipeline users to act prudently is critical to ensuring efficient and reliable pipeline operations.

Turning to the top-down assessment for each of the major assessment criteria (i.e. reading down the table, with net impacts in the bottom row), we assess the GTAC as providing moderate overall efficiency improvements. This reflects the mixed effects across different transmission code components. We expect modest gains in relation to reliability, again reflecting the range of effects. We rate the GTAC as neutral for safety because of the absence of any discernible impacts. On the environment front, there are relatively few impacts and we rate these as modest overall. Finally, in relation to fairness, there are a wide range of positive and negative impacts, which we assess as neutral at the overall level.

5.2 Associated arrangements

As discussed in Chapter 2, we are required to assess “the terms and conditions for access to and use of gas transmission pipelines”. Some terms and conditions fall outside the GTAC into so-called ‘associated arrangements’. A full listing of associated arrangements was set out in Figure 2.

In most cases, we expect there to be little or no impact on associated arrangements if GTAC comes into force. For example, it will not affect the Gas Act or GPS because these are determined by Parliament and the Government respectively. Similarly, where First Gas has very similar levels of discretion under the GTAC and the status quo, we consider that the nature of the associated arrangement is unlikely to be significantly altered.

Applying this framework, we have identified the seven areas listed in Table 21 where associated arrangements could appreciably alter if GTAC comes into force. For each, we have considered whether the associated arrangements would improve on, or detract from, the current terms and conditions, using the assessment criteria discussed in Chapter 2.

Table 21 – Associated arrangements – key areas with potential for change under GTAC

| Associated arrangement | Treatment under GTAC | Treatment under MPOC/VTC | Assessment |
|--------------------------------------|---|---|------------|
| Transmission Services Agreements | Major terms and conditions set out in GTAC | Major terms and conditions set out in MPOC/VTC | → |
| Interconnection Agreements | Template agreement is a schedule to the GTAC – specific ICAs to be negotiated bilaterally | MPOC – major terms and conditions in Code VTC – standard agreement is a schedule to Code, specific ICAs to be negotiated bilaterally | ↓ |
| Gas transmission pricing methodology | Outside the GTAC | MPOC – part of Code VTC – outside the Code | → |
| Priority rights auction rules | Outside the GTAC, but subject to GTAC Change process | Not addressed in either the MPOC or VTC | → |
| Wash-up Agreement | Defined in GTAC as an agreement between all Shippers, OBA Parties and First Gas or, if agreement can't be reached, in the | MBB D+1 Pilot Agreement | → |

| | manner reasonably determined by First Gas | | |
|--|---|---|---|
| First Gas discretion and standard operating procedures for balancing | Outside the GTAC | Outside the MPOC/VTC | → |
| Park and loan service provisions | Outside the GTAC | Not addressed in either the MPOC or VTC | ↓ |

Each item is discussed further below.

Transmission service agreements

Strictly speaking, any TSA signed pursuant to the GTAC will be outside the Code. However, all of the major terms and conditions of such TSAs are set out in the GTAC itself. These terms and conditions were assessed as part of the bottom-up and top-down analysis of GTAC, so we do not regard TSAs as a source of concern.

Interconnection agreements

The GTAC and VTC are codes that apply principally to shippers, and ICAs are separate, individual agreements. The MPOC is a combined code for both shippers and interconnected parties.

As discussed in Appendix A, we see no inherent problem with the GTAC containing terms that apply principally to shippers, with interconnected parties' rights and obligations largely defined within ICAs. However, at the present point in time, it is difficult to compare the ICAs contemplated by the GTAC with current terms and conditions, because the former have yet to be negotiated.

The level of uncertainty is also affected by the degree to which the GTAC prescribes the minimum content of ICAs. GTAC s7.13 places some requirements on the content of ICAs, it still leaves sizeable uncertainty about the negotiated outcomes. Some submissions have stated that the negotiating strength of parties to ICAs is not balanced, because gas transmission is a natural monopoly. We have some sympathy with this view, though we note that First Gas has strong incentives to encourage use of the gas transmission system.

Submissions have also contrasted the need for ICA negotiations under the GTAC with the present situation for Maui interconnected parties, for whom the MPOC defines all major interconnection terms. These submissions note that MPOC ICA terms can only be varied by mutual consent of First Gas and the interconnected party, or via an MPOC change request which requires approval from Gas Industry Co. Again, we have some sympathy with this view.

In summary, we consider that there is significant uncertainty about ICA terms because:

1. The GTAC at s7.13 provides a relatively narrow range of minimum prescribed terms, meaning that the ICAs themselves will define much of the detail; and
2. The ICAs contemplated by the GTAC are yet to be negotiated.

Overall, we see the uncertainty about interconnection terms as detrimental to efficiency and fairness, and consider it to be a substantial negative factor in the assessment of the GTAC.

Gas transmission pricing methodology

Under the GTAC, the Gas Transmission Pricing Methodology (GTPM) is outside of the code. The VTC takes the same approach. Under the MPOC, there are tariff principles in MPOC Sch 10.

We have considered the implications of placing the GTPM outside the code for the GTAC. Key factors we regard as relevant are:

1. The GTAC would maintain the approach that is currently applied to the non-Maui system, noting that this system accounted for over 70% of combined transmission charges paid in 2016.²⁴
2. Although the MPOC contains tariff principles within the code, it is not clear whether adherence to these principles would necessarily promote the assessment criteria in Table 1 of this paper.
3. If the GTAC comes into force, First Gas' transmission pipeline business will remain subject to the Commerce Act's information disclosure provisions, including a requirement to report on how closely its pricing compares to the Commerce Commission's pricing principles.

Overall, we do not believe that placing the GTPM outside the GTAC raises any major concerns, relative to the status quo.

Priority Rights auction rules

The GTAC makes provision for the auctioning of PRs to shippers, based on auction terms and conditions that are outside the code. Neither the MPOC nor the VTC include any PRs.

As discussed in Chapter 3, we believe that providing for PRs is a positive feature of GTAC, relative to the status quo. However, we also regard the detail of the auction terms and conditions as being important, to ensure they achieve their purpose and minimise any adverse effects.

Under GTAC s3.18, First Gas is tasked with developing the auction terms and conditions in consultation with Shippers. These require the approval of the Gas Industry Co under the code change provisions before they can come into effect. We believe this process provides adequate safeguards to minimise the scope for adverse outcomes. Accordingly, we are not concerned that the PR auction rules are outside the GTAC.

Wash-up Agreement

In May 2015, following the introduction of Market Based Balancing arrangements on the Maui pipeline, Gas Industry Co formed the Daily Allocation Working Group (DAWG) to assist with the design and implementation of a trial to enable daily Balance and Peaking Pool (BPP) calculations, then performed at the end of each Month, to be done on a day in arrears basis (the D+1 Pilot). It was agreed that Gas Industry Co would review the D+1 Pilot with a view to developing a statement of proposal for a change to the Downstream Reconciliation Rules to provide for daily allocations.

GTAC s1.1 defines a Wash-up as any adjustments to previously determined Daily Delivery Quantities:

1. determined by an Allocation Agent, including adjustments arising from "interim allocations" and "final allocations" (as those terms are defined in the DRR); and
2. to correct for Metering errors or the miscalculation of energy quantities; or
3. any adjustment to a previously determined Receipt Quantity,

where the effect of such adjustments shall be as set out in the Wash-up Agreement or, in the absence of such an agreement, in the manner reasonably determined by First Gas.

Commenting on wash-ups, the Greymouth submission notes that the GTAC "... defers the policy to a future document or puts the methodology at First Gas' discretion. This is materially worse

²⁴ Based on disclosed annual line charge revenues for Maui system to December 2016, and for non-Maui system to June 2016.

than current arrangements as there is no certainty as to the possible nature or implications of Wash-ups and no transitional arrangements pending the entry into a Wash-up Agreement.”

Our experience of the DAWG suggests that industry participants will take a pragmatic view of wash-ups. While we agree with Greymouth that the outcome is uncertain, we think that the arrangements are very likely to be quite similar to the current arrangements, and we would maintain a keen interest in the development of the Wash-up Agreement, and be prepared to make recommendation for any consequential amendments to the DRR. We are therefore not concerned that the Wash-up Agreement is still to be negotiated.

Standard operating procedures for gas balancing

Standard operating procedures (SOP) for gas balancing are outside of the GTAC and MPOC. In this respect, the codes on their face are similar in the discretion conferred on First Gas. Furthermore, while ideally we would be able to compare the SOPs for the MPOC and VTC with the GTAC (the SOP for which is yet to be developed), any conclusion would be qualified by the fact that it is open to First Gas to amend the SOPs for the MPOC and VTC.

Of greater significance in our view is the difference between the GTAC and the MPOC and VTC in relation to the setting of balancing tolerances. As we discussed in Chapter 3, tolerances are defined within the codes themselves in the MPOC, whereas the GTAC provides First Gas with some discretion when it comes to set balancing tolerances. As we explain below, we are concerned that First Gas could have skewed incentives to provide limited balancing tolerances if Park and Loan fees fall outside the revenue cap.

Hence, our concern in this area is not about SOPs per se, but the degree of flexibility afforded to First Gas in setting Park and Loan service provisions, if associated fees are outside the revenue cap.

Park & Loan service provisions

The GTAC contemplates that First Gas may offer a Park and Loan service to pipeline users, and key provisions for the service would be defined by First Gas (i.e. they are not in the GTAC). The Park and Loan service would allow parties to temporarily add to, or borrow from, system line pack. The service is not provided for under either the MPOC or VTC.

In principle, the provision of such a Park and Loan service would be a positive development, as it would provide pipeline users with a new tool to address their short-term gas flexibility requirements. If a Park and Loan service is offered, First Gas will need to reserve some of the system’s total line pack flexibility to support the service. All other factors being equal, that would reduce the line pack flexibility available for other purposes (such as supporting gas transport services, or providing gas balancing tolerances).²⁵ This is recognised in GTAC s8.5(b)(iv).

If Park and Loan revenues are subject to the Part 4 revenue cap applying to transmission services, we would expect First Gas to allocate the total line pack flexibility across the various sources of demand in a relatively neutral manner. Accordingly, we would not have any undue concerns.

However, if Park and Loan revenues are outside the Part 4 revenue cap, First Gas would have a financial incentive to a dedicate a larger proportion of line pack flexibility to supporting Park and Loan services. Not only would First Gas be able to retain associated revenues, such an action would likely reduce Running Mismatch Tolerance (under GTAC s8.5(b)(iv)), which could in turn stimulate the demand for Park and Loan services. This could compromise efficiency because pipeline line-pack flexibility would not necessarily be deployed to its best overall use. More generally, First Gas’ incentives to exercise discretion in other areas of pipeline operation may be

²⁵ In principle, First Gas could create increased flexibility via changes to operational practices and/or capital expenditure – both of which would involve it incurring a cost.

skewed (such as the setting of ERM fees) in order to earn higher unregulated Park and Loan revenues, causing further inefficiencies.²⁶

We have sought clarification regarding the status of Park and Loan revenues. First Gas has advised that it is unclear at this time whether Park and Loan revenues would be included within the revenue cap or not.

Accordingly, based on present information, we consider the Park and Loan service provisions to be a moderate negative factor in the assessment of the GTAC.

Ahuroa underground gas storage

Although there is no associated arrangement relating to the Ahuroa underground gas storage (UGS) facility, we have considered whether First Gas' planned acquisition of this facility would affect our assessment of the GTAC. Our core question is whether, relative to the status quo, the GTAC would provide additional scope for First Gas to stimulate the demand for flexibility services from Ahuroa. We note that revenue from such services would fall outside the Part 4 revenue cap, and any non-neutral behaviour by First Gas could be prejudicial to gas pipeline users.²⁷

In broad terms, to stimulate additional demand for UGS services, it would be necessary to either restrict the supply of line pack flexibility to pipeline users, or increase the cost of accessing that flexibility.

In relation to restricting supply, our view is that GTAC s8.5 requires First Gas to act reasonably in making the pipeline's line pack flexibility available to meet its obligations under the GTAC, including:

1. Supporting all current DNC and Supplementary Capacity
2. Providing Running Mismatch Tolerances, subject to:
 - (a) not affecting its ability to provide additional transmission capacity;
 - (b) not unduly increasing the risk of breaching an Acceptable Line Pack Limit;
 - (c) providing a reasonable allowance for Specific HDQ/DDQ and AHPs; and
 - (d) providing for park and loan service (where First Gas elects to offer such service).

Aside from the provision in relation to Park and Loan (discussed immediately above with which we are concerned), we do not see these provisions as fundamentally altering the present position. We also note that First Gas is required to act in a neutral fashion under GTAC s2.6, and is required to disclose the information in GTAC Sch 2. We would expect users to scrutinise and challenge any actions that appear unreasonable.

In relation to increasing the cost of accessing pipeline line pack flexibility, a possible avenue would be to raise balancing charges. As we discuss in Appendix A, as the GTAC is presently drafted, pipeline users in aggregate appear likely to see reduced balancing costs because of the introduction of the ERM mechanism.

We acknowledge this effect may be partially negated if First Gas increases the ERM charges, using the discretion in GTAC s8.14. However, such charges are capped at \$1/GJ, and even at this level we would still expect some benefits relative to the MPOC. The GTAC does not provide any discretion to increase ERM charges beyond \$1/GJ without using the GTAC change process, which should provide a sufficient safeguard to users.

²⁶ In making these observations, we are not suggesting that First Gas would necessarily act in this way. We are simply making observations about the incentive arrangements under the GTAC and associated arrangements.

²⁷ In making our assessment, we have not considered the extent to which Ahuroa can practically compete to provide additional flexibility services – we have simply assumed that such potential exists.

In theory, pipeline users' desire to avoid transport incentive charges may also stimulate demand for UGS services. This will only be relevant for users located within the receipt zone.²⁸ However, such users would presumably re-nominate to address any known quantity deviations, and 'unknown' deviations could not be addressed by UGS, because a storage nomination would presumably be required.

Overall, based on present information, we do not consider that the assessment of the GTAC is significantly affected by the potential acquisition of Ahuroa by First Gas. However, we note that the acquisition has arisen at a relatively late stage in the process, and we welcome information from submitters on the issue.

5.3 Reasonable terms and conditions

One of the GPS outcomes requires Gas Industry Co to pursue an outcome that industry participants are able to access to gas transmission pipelines on reasonable terms and conditions. In light of our findings in this paper, we conclude that the terms and conditions in the GTAC do not meet the standard of "reasonable terms and conditions". We believe that the analysis in this paper clearly identifies the areas where improvements are required.

5.4 Inherent benefits of single code

Some stakeholders have expressed the view in workshops and submissions that a single code offers significant inherent benefits, because one common approach applied across the entire pipeline system will make it easier to transport and trade gas. Furthermore, these benefits are likely to grow over time as parties become more familiar with a single code.

Gas Industry Co agrees with the view that a single code should provide inherent benefits. One of the key areas where the GTAC is better than the MPOC and VTC relates to the streamlining of transmission access products and processes and we have factored that into our overall conclusion.

5.5 Overall conclusion

We now come to the question of whether the GTAC is materially better than the current terms and conditions for pipeline access and use.

Our view is that the GTAC is better than the status quo in many respects. These include:

- Streamlining of transmission products and processes
- Widening and improving the tools available for management of pipeline congestion
- Adopting a system-wide approach to gas balancing
- Removing grandfathering provisions that can impede competition
- Facilitating the trading of gas via a single receipt zone.

While these and other positive features of GTAC offer real benefits, the overall level of improvement falls short of being materially better in our view. Our conclusion is strongly influenced by four areas of concern that appreciably degrade our overall assessment of the GTAC. These are:

1. The transport incentive charge structure in non-congested situations appears likely to encourage inefficient behaviour by pipeline users – detracting from the efficiency improvement that would otherwise occur.

²⁸ Gas injections/withdrawals at Ahuroa cannot affect pipeline users' nomination errors in other zones – and even within the single receipt zone will not affect users at single delivery points.

2. Aspects of the liability provisions are less certain in their effectiveness, undermining the incentives on pipeline users to act prudently – detracting from the efficiency and reliability benefits of the GTAC. Even if the liability arrangements are effective, we would also question whether the new arrangements (and the reallocation of risk) are an improvement on the MPOC and the VTC.

We also have concerns about two key associated arrangements. While outside of the GTAC itself, they are an important part of the terms and conditions of pipeline access and use. They are:

1. Interconnection agreements – shippers and interconnected parties do not have sufficient certainty regarding the terms of interconnection agreements. This is detrimental to efficiency and fairness.
2. Park and Loan service – First Gas could face skewed incentives in relation to the allocation of total line pack flexibility if Park and Loan revenues are outside the transmission services revenue cap. The status of such Park and Loan revenues is currently unclear. Accordingly, we cannot rule out the possibility that the Park and Loan service terms will appreciably skew First Gas' incentives, which would be detrimental to efficiency.

Overall, we conclude that the GTAC (and associated arrangements) in its current form is not materially better than the current terms and conditions for access to and use of gas transmission pipelines.

Q12: Do you agree with our overall assessment?

Appendix A Significant Issues

This Appendix provides more intensive consideration of a number of specific issues that have proved contentious during the GTAC development process.

A.1 Interconnection Agreements (ICAs)

Code design

Each Shipper would be bound to the terms of the GTAC through its TSA, but each Interconnected Party is subject to an individually negotiated ICA that is only loosely associated with the GTAC. This approach is similar to the VTC arrangements, where only Shippers are subject to the terms of that code, with ICAs being separate, individual agreements.²⁹ However, the approach is different to the MPOC which is a combined code for both Shippers and Interconnected Parties.

In our view, there is no inherent problem with the GTAC containing terms that apply principally to Shippers and addressing the terms that apply to Interconnected Parties in separate ICAs. However, a coherent, non-discriminatory access regime needs to prescribe the rights and obligations of all system users; Shippers and Interconnected Parties. This need not be done in a single code, but if the GTAC is to remain a shipper code:

1. The terms that apply to Interconnected Parties through ICAs must “mesh” with the terms that apply to Shippers through TSAs (that reference the GTAC). The terms and conditions of access to, and use of, the gas transmission system must be fully described for all system users and be coherent (i.e. work together).
2. The core terms of interconnection must be standard across all Interconnected Parties (so that coherent, non-discriminatory access is assured), except to the extent that individually negotiated terms can be demonstrably justified.³⁰

Shipper interests

From GTAC s7.13, it is clear that First Gas has endeavoured to capture the matters that are important to Shippers in relation to ICAs, and improve on the MPOC and VTC. For example s7.13(g) aims to address the absence of shipper information on plant outages.³¹ However, as drafted, GTAC s7.13 provides Shippers with little confidence that the above principles will be observed. That provision, which prescribes the content of ICAs, is framed in general terms and does not provide Shippers with sufficient certainty regarding the terms of ICAs (i.e. First Gas and each Interconnected Party is able to freely negotiate terms while remaining within the bounds of that provision). In our view, at least some of the rights and obligations of an Interconnected Party have the potential to affect a Shipper. We do not think that there has been adequate consideration of what aspects of ICAs a Shipper may have an interest in enforcing (and therefore should be included in a strengthened GTAC s7.13). As highlighted by the examples below, we

²⁹ Although we note that there is some limited prescription of the terms of ICAs in the VTC.

³⁰ However, in our view this would include for the continuation of existing ICAs with a term that continues beyond the termination or expiry of the MPOC or the VTC.

³¹ We assume that First Gas wishes to bring the arrangements into line with overseas practice in regard to transparency of outages. For example, the EU’s REMIT regulations on Wholesale Market Integrity and Transparency here (<https://www.ofgem.gov.uk/gas/wholesale-market/european-market/remit>).

think that GTAC s7.13 must prescribe the relevant terms in more detail. The actual wording of the ICAs is critical. For example:

1. The requirement, in GTAC s7.13(b), that an ICA stipulate the requirement for metering (including its location, ownership and monitoring rights). This provision provides a Shipper with no assurance that Interconnected Parties will be operating off a standardised set of requirements in relation to metering or any obligations on an Interconnected Party regarding the accuracy of meters.
2. GTAC s7.13(g) requires the Interconnected Party to provide First Gas with information regarding outages, and permit the publication of that information on OATIS. It does not prescribe, for example, the timing of the provision of this information or require the Interconnected Party to notify when the outage will end. That being the case, each Interconnected Party would be able to negotiate its own terms with First Gas. Shippers clearly have an interest in the timely provision of this information for the purpose of their sales and purchases of gas on the wholesale market.
3. The requirement, in GTAC s7.13(r), that the liability provisions in ICAs are consistent with section 16 of the GTAC. We think that the liability provisions in ICAs may not exactly replicate section 16 of the GTAC as the allocation of risk is different under ICAs. For example, Interconnected Parties with RP ICAs will have a specific obligation to ensure that gas injected into the gas transmission system complies with the Gas Specification. The precise drafting of the liability provisions in ICAs is relevant for Shippers, particularly in the context of the subrogation arrangements in GTAC s16.12.
4. GTAC s12.2 requires a RP ICA to include a requirement that an Interconnected Party ensures that gas that it injects into the transmission system complies with the Gas Specification and demonstrate its processes are adequate. While we agree with that requirement, our question is whether (from a Shipper's perspective) it is enough for a RP ICA to only cover off the narrow range of matters mentioned in GTAC s12.2, particularly if First Gas does not offer an indemnity in relation to Loss that Shippers suffer from the injection of Non-Specification Gas. For example, First Gas' obligation to notify Shippers of the injection of Non-Specification Gas in GTAC s12.4 depends on it being "aware" of the injection. Shippers would need to be confident that there is an obligation on Interconnected Parties to make sure that First Gas is aware of Non-Specification Gas entering the pipeline system.³²

We think that it is necessary for First Gas and stakeholders to consider the relationship between ICAs and the GTAC in further detail. The above examples highlight the interest that Shippers have in the terms of ICAs beyond those prescribed in GTAC s7.13 and s12.2.

Interconnected Party interests

An Interconnected Party, who is not a party to the GTAC, would not have any assurance that it could access the transmission system on an equal footing with other Interconnected Parties, except to the extent that individual terms can be justified. Currently MPOC Welded Parties and any new producer seeking interconnection has that assurance through MPOC s2.1.

The lack of certainty afforded by GTAC s7.13 also creates difficulty for our assessment of the arrangements in respect of Interconnected Parties. MPOC s 22.16(b) requires Gas Industry Co to assess a "New Code" that provides for Shippers to continue to transport gas and Welded Parties to continue to connect to the Maui Pipeline. We cannot assume that the template RP ICA and DP ICA will be the final terms that will be agreed with Interconnected Parties as GTAC s7.13 does not provide that assurance. The approval of the GTAC will result in the termination of MPOC

³² Under the MPOC a Shipper would have had the certainty of MPOC s17.5 and 17.6.

Interconnected Parties' ICAs. We think that there should be greater certainty regarding the replacement terms for existing ICAs.

We note that there is a requirement, in GTAC s17.15, that First Gas publish ICAs on OATIS, consistent with the VTC and MPOC. While retrospective publication may encourage standardisation over time, it does not entirely address our concerns regarding GTAC s17.13, as mentioned above.

Submitter views

Understandably, many of the MPOC Interconnected Parties who filed submissions were concerned with the status of ICAs under the GTAC (Greymouth, Methanex, Shell and Todd). We share the concerns regarding the lack of clarity of the terms of interconnection. We agree with Methanex's view that it is not possible for Gas Industry Co to undertake any meaningful assessment of the template ICAs as those agreements are subject to individual negotiation.

However, we do not agree with Greymouth and Shell's view that the terms that apply to interconnected parties must necessarily be included in the GTAC. In our view, a separate ICA is acceptable provided that the core terms of the ICA "mesh" with those contained in the GTAC, and cannot become misaligned over time.

We should note that our assessment and our resulting concerns relate to the terms of ICAs that will be terminated by the GTAC. We cannot assess, or require First Gas to terminate, existing ICAs that have been subject to individual negotiation and will continue beyond the expiry of the MPOC and the VTC.

Conclusion on ICAs

Based on our analysis above, we think that the treatment of ICAs under the GTAC has the potential to create efficiency issues by allowing for the negotiation of a unique ICA with each Interconnected Party. Although we believe that some aspects of ICAs may need to be individually negotiated, we think the need for individual negotiation is more limited than the GTAC provides for.

We also have concerns regarding the fairness of GTAC s7.13. We think that Shippers require further assurance regarding the detail of ICAs given that they have reasonable interests in the terms that apply to Interconnected Parties.

Q13: Do you agree that with our analysis of ICAs?

A.2 Supplementary Agreements (SAs)

Boundaries of SAs

Table 22 shows that the extent to which SAs may vary the standard terms of transmission products (DNC in the case of the GTAC and annual reserved capacity in the case of the VTC) is very wide, and broadly comparable between the GTAC and the VTC (SAs are not a feature of the MPOC).

Table 22 also lists the items that a SA may be conditional on. The list is longer in the case of the GTAC, but none of the items seem out of place, and probably reflect past experience of what conditions are relevant. The only item required by the VTC and not the GTAC is that the SA may be conditional on the availability of land to site a DP. However, it is not necessary to compare these conditional items in detail since the decision of whether it enters into an SA or not is entirely at First Gas' discretion.

Table 22 - Comparison of GTAC and VTS arrangements for Supplementary Agreements (SAs)

| GTAC s7.4 | VTC s2.7(e) |
|---|--|
| An SA may vary standard transmission products in relation to: | |
| RP and/or DP (GTAC s7.4(a)(i)) | RP and/or DP (VTC s2.7(e)(iii)) |
| End-user (GTAC s7.4(a)(ii)) | - |
| Capacity, including whether it is constant or variable, and determining the priority of Supplementary Capacity over DNC with Priority Rights Term (GTAC s7.4(a)(iii),(b)&(g)) | Capacity (VTC s2.7(e)(ii) & (ix), but no capacity trading rights (VTC s2.7(e)(iv)) |
| Fees (GTAC s7.4(a)(iv)), including providing for an early termination fee (GTAC s7.4(d)) | Fees (VTC s2.7(e)(v),(vi)&(vii)) |
| Term (GTAC s7.4(a)(v)) | Term (VTC s2.7(e)(i)) |
| Termination in the event of FM (GTAC s7.4(c)) | - |
| An SA may be conditional on: | |
| The Interconnected Party entering into an ICA (GTAC s7.4(e)(i)) | - |
| The end-user entering into a transmission pricing agreement (GTAC s7.4(e)(ii)) | The end-user entering into a transmission pricing agreement (VTC s2.7(e)(xiv)) |
| Statutory or regulatory approvals (GTAC s7.4(e)(iii)) | Corporate/statutory approvals (VTC s2.7(e)(xv)) |
| The Shipper complying with its obligations under the DRR, Allocation Agreement or OBA (GTAC s7.4(e)(iv)) | - |
| The Allocation Agent providing First Gas with Daily Delivery Quantities and the Shipper agreeing First Gas can use them (GTAC s7.4(e)(v)) | - |
| The Shipper making nominations (GTAC s7.4(f)) | - |
| The end-user being required to have a TOU Meter (GTAC s7.4(h)) | - |
| - | Availability of land to site DP (VTC s2.7(e)(xiii)) |

Evaluation of requests for SAs

The GTAC lists a number of criteria against which First Gas will evaluate any request for an SA. In its submission, First Gas suggests these criteria would limit the use of SAs to circumstances where they are genuinely warranted. The criteria (GTAC s7.1) are:

1. The amount of capacity requested, and whether providing it would affect Available Operational Capacity to the extent of impeding or forestalling opportunities more beneficial to First Gas and other users of the Transmission System;
2. whether the Shipper (or End-user) can demonstrate that it has a practical opportunity to bypass the Transmission System or use an alternative fuel that is cheaper than Gas;
3. whether the Shipper (or End-user) can demonstrate that paying First Gas' standard transmission fees would be uneconomic; and
4. whether the Shipper (or End-user) is the sole user of the relevant Delivery Point or other transmission assets and those assets would cease to be useful were the End-user to cease using Gas.

These are all relevant considerations, but GTAC s7.1 only requires First Gas to evaluate a request against these criteria, it does not require First Gas to publish its analysis or justify its decision to enter into an SA. So, although these criteria may be helpful indicators to a shipper seeking an SA, they do not constrain the very wide discretion First Gas has in respect of SAs. However, we note that this discretion is equally unconstrained under the VTC.

Conclusion on SAs

From the above, it may seem that there would be very little difference between the proposed arrangements and those in the VTC, but one significant difference is that the GTAC would allow an SA to apply on the Maui pipelines. SAs are not a feature of the MPOC, so we need to consider whether this added contractual option is efficiency enhancing or not.

We generally agree with the MGUG submission: "The new arrangements also allow for non-standard products that may be substantially different from the DNC product. Provided DNC is the dominant product on the system, we believe that this can offer a materially better outcome under the new arrangements."

Certainly the SAs should be a marginal product. Our concern is whether First Gas should have sole discretion on how "different from the DNC product" they should be. SAs can be efficiency enhancing; for example an SA may be necessary to prevent uneconomic bypass, or provide sufficient supply certainty to allow a major gas fired power station development to proceed. SAs can also be destructive to competition, for example where they give a shipper preferential rights to capacity and/or discounted prices without good reason. Without checks and balances on outcome of the SA negotiation process, we cannot agree with the First Gas submission, that allowing SAs on the Maui pipeline would necessarily be an improvement.

Q14: Do you agree with our analysis of SAs?

A.3 Nominations

The GTAC allows for two different types of nominations for each day: nominations for gas receipts into the pipeline, and nominations for capacity, so-called DNC. The de-linking of receipt and delivery nominations under the GTAC would make it possible for a Shipper to make adjustments to its running mismatch position independently of providing the correct downstream capacity nominations.

DNC identifies a Shipper's intended use of the transmission system capacity at any of 15 zones and 17 Individual DPs (see Figure 3). Each daily capacity nomination will represent a Shipper's best estimate of its aggregate customer demand at each of those locations. Under the GTAC each DNC nomination (for an Individual DP or delivery zone) a shipper makes is compared with its allocated quantity at that point (as determined by GTAC s6, Energy Allocations) and any difference would accrue either an overrun fee or an underrun fee.

Table 23 compares the nominations regime under the proposed GTAC with the nominations arrangements for the existing arrangements.

Table 23 Comparison of GTAC nominations with MPOC/VTC arrangements

| Description | GTAC | MPOC/VTC |
|----------------------------------|---|---|
| Type of nomination | Receipt nominations would be required at any receipt point with an OBA or other GTA arrangement requiring nominations. Delivery Zone nominations/individual DP nominations are required to obtain DNC. | MPOC nominations are point-to-point, i.e. from a receipt point to one or more DPs on the Maui pipeline. Nominations must be balanced (i.e. it is not possible to receive more or less than the aggregate DP nominations), but any mismatches can be corrected by nominating to the 'payback point'. Other than for non-standard agreements, daily nominations are not commonly required under the VTC. |
| Numbers of delivery zones/points | There would be 15 delivery zones and 17 Individual DPs. | There are 15 DPs on the Maui pipeline, some of which are TP Welded Points that deliver gas to the ex-Vector transmission system. |
| Nomination cycles | Provisional (week-ahead) Changed provisional (day ahead) Four intra-day cycles Emergency intra-day cycle(s) | Provisional (week-ahead) Changed provisional (day ahead) Four intra-day cycles |
| Deemed flow | Flow for period prior to intra-day cycle is deemed to be 1/24 th of previous scheduled quantity times elapsed hours to the ID cycle. | Flow for period prior to intra-day cycle is deemed to be 1/24 th of previous scheduled quantity times elapsed hours to the ID cycle. |
| Over-/Under-run fees | Overrun and Underrun fees are charged on any deviation between DNC and allocated deliveries at the relevant Individual DP or delivery zone. | The VTC provides for overrun charges where a Shipper's deliveries on any day are in excess of its reserved capacity. The charge is 8X or 10X the daily capacity charge depending on whether the overrun is authorised or unauthorised |

Shipper nomination workload

Nominations under the MPOC are generally balanced RP-DP nominations (although OATIS also provides functionality that allows for nominations to and from a pooling point). The VTC's standard product is a "no-notice" service, i.e. no nominations are generally required once the annual reserved capacity has been booked. As a result, with a relatively small number of

nominations, gas can currently be transported from Taranaki to anywhere in the North Island served by the high-pressure gas transmission network. For example, a shipper wishing to transport gas from Oaonui to all DPs north of Rotowaro need only make balanced bookings at Oaonui and Rotowaro (assuming it holds sufficient reserved capacity for delivery to each DP). Under the GTAC, that shipper would need to make nominations at Oaonui and at each Dedicated DP and delivery Zone north of Rotowaro.

Looking at the aggregate position, shippers currently nominate to 15 Maui pipeline DPs, in future they would have to make nominations to 15 delivery zones and 17 Individual DPs. Clearly this is an increased workload overall, with associated increased costs.

Stakeholder views

Not all stakeholders see the added nomination workload as an issue. For example Contact considers that after new systems are commissioned there would be little overall change. And Todd notes that the nomination cycle frequency is the same as at present, and advocates that there should be extra intraday cycles. Vector commented that First Gas had struck the right balance between the feed for information to efficiently manage the transmission system while limiting shippers' workload.

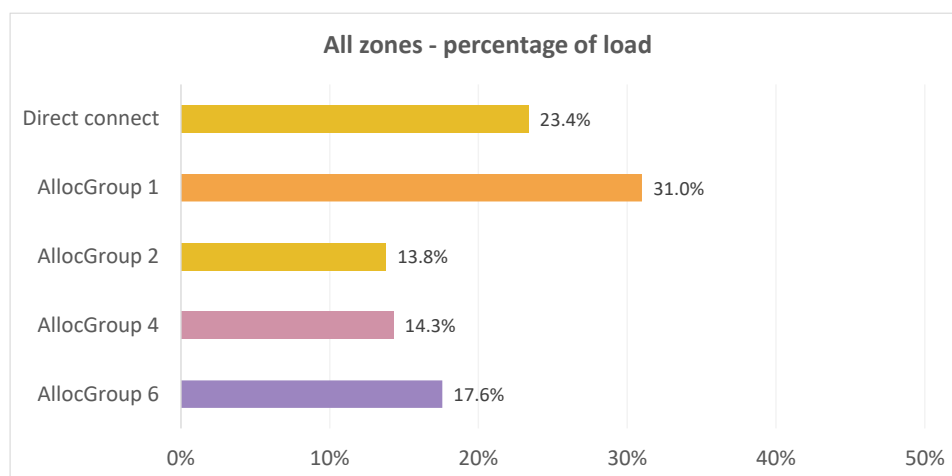
However, Greymouth considers the added nominations make the GTAC arrangements worse than current arrangements.

Conclusion on nominations

While we have no doubt that shipper nominations are necessary and valuable when capacity is congested, the value of those nominations in situations where there is ample transmission capacity is less certain. First Gas notes that the more granular nominations will allow it to optimise pipeline operations, particularly compressor usage. However, given that the great majority of delivery nominations would be for ex-Vector DPs where the current no-notice service has operated for many years, some stakeholders are sceptical about this claim.

Shippers with mass-market customers have made the point that they can only estimate customer demand with limited accuracy. Those comments accord with the low accuracy of such retailers' submissions for the initial allocations under the DRR. They argue that it would be easier and more accurate for First Gas to forecast the aggregate system demand, of which the mass-market (Allocation Groups 4 and 6) is currently only about one-third of the total demand. Figure 4 shows that, of the approximately 40PJ/annum "reticulated market", about a third do not have time-of-use metering (Allocation groups 4 and 6).

Figure 4 - Allocation group breakdown for the "reticulated market"



This is the approach taken in the UK where Shippers only forecast the daily flows to their largest end users, ie those who have daily metering (DM) or time-of-use metering. There, the expected flows to mass-market or non-daily metered (NDM) end users are made through a top-down estimation and allocation process run by the TSP. The NDM nominations for each shipper are made by the TSP based on the number and class of registered end users for that shipper. That system appears to recognise the difficulties inherent in multiple parties attempting to solve the same estimation problem and have addressed it by having one party undertake the forecasting and apportion the results.

Our conclusion is that the nomination regime is inherent to the GTAC transmission products. While the shippers' nomination workload would increase, few shippers raise this as a serious issue. Accordingly, we consider that the extra workload does represent additional cost, but in the overall context of the proposed change this does not seem to be a major concern, particularly since we would expect new IT systems to streamline the processes.

However, while the increased submission workload did not emerge as a major issue for submitters, the strength of the economic incentives to make those nominations accurate (the overrun and underrun charges) did raise serious concerns. We discuss these in the next section.

Q15: Do you agree with our analysis of nominations?

A.4 Daily overrun and underrun charges

As noted in section 3.2, GTAC includes daily incentive charges to encourage shippers to provide accurate nominations (and to operate in accordance with their approved DNC quantities). In situations where capacity is not expected to be scarce³³, such charges could encourage:

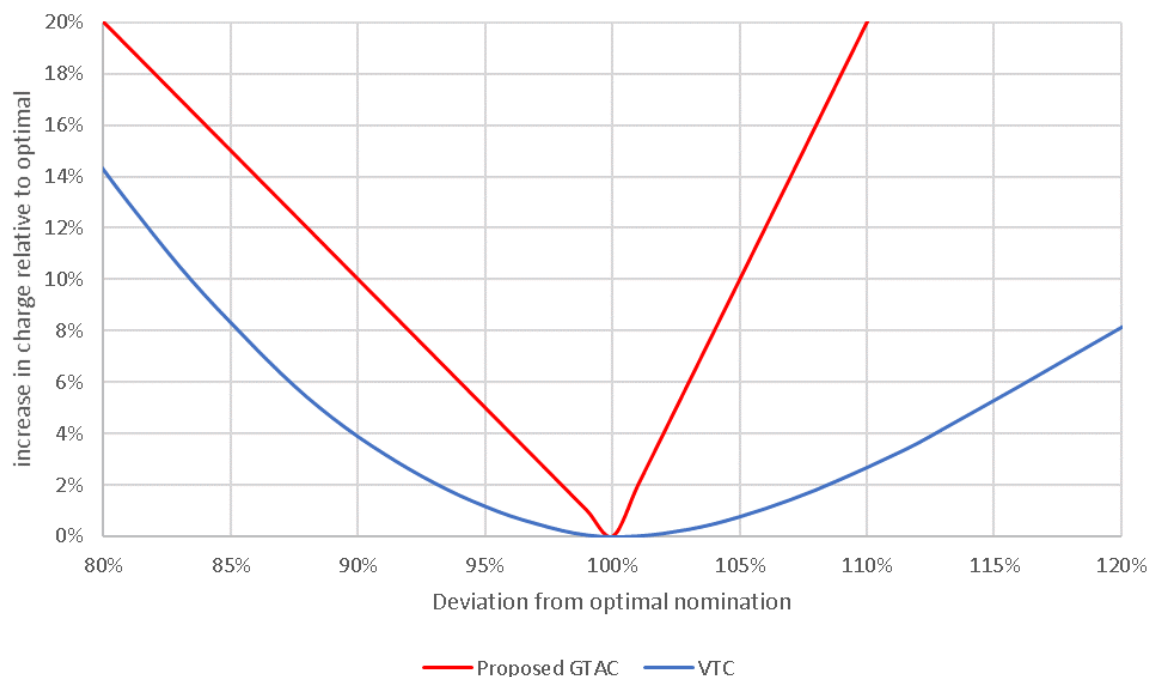
1. shippers to expend undue effort on forecasting their usage, even though the more accurate nomination information does not yield an offsetting system wide benefit; and/or
2. shippers to alter their gas usage to conform to their previous nomination/reservation, even though a deviation causes little or no cost from a system perspective.

While these inefficiencies are a potential concern, the same broad issue arises with the charging structure in the VTC, because it also financially discourages overruns and underruns where no capacity scarcity is expected.

To compare the GTAC and the VTC, we analysed the relative strength of the incentive charges using a common measurement framework as far as possible. The results are summarised in Figure 5.

³³ Unless stated otherwise, the remaining discussion in this section is focused on incentives charges when congestion does not apply.

Figure 5 – Comparison of incentive charge strength – VTC and GTAC



The horizontal axis shows deviations between a shipper's capacity 'nomination'³⁴ and its actual gas flow, expressed in percentage terms. The left-hand portion of the axis (<100%) indicates that a capacity nomination is less than the flow, and vice versa.

The vertical axis shows the size of the financial incentive associated with differing deviations. To ensure comparability, these incentives are expressed as the percentage increase in transmission charges faced by a user for each level of deviation.³⁵

The chart shows that the incentive to minimise deviations is appreciably stronger under GTAC than the VTC.³⁶ For example, under the GTAC, a shipper who nominates 90% of its actual flow will face a transmission cost uplift equivalent to 10% of DNC, whereas under VTC the effective increase is around 4%. The differences are larger for underrun situations, where the capacity nomination exceeds the actual flow.³⁷ This arises because a shipper who does not utilise a unit of DNC will pay the normal cost of the DNC charge itself, plus the underrun charge (100% of DNC if there is no congestion), and not receive any economic benefit from shipping a unit of gas. Hence, the net penalty for the nomination error is 200% of the DNC charge. Conversely, a shipper with overrun will not pay a 'normal' DNC charge, and instead pays overrun charges equivalent to 200% of the DNC fee (absent congestion). That shipper will have the economic benefit associated with shipping the gas. The benefit will vary with circumstances, but assuming it approximates the value of the standard DNC charge on average, the net penalty for the nomination error is 100% of DNC.

³⁴ Noting that it is a daily nomination for GTAC, and a yearly 'nomination' (capacity booking) for VTC.

³⁵ Under GTAC, the existence of overrun and underrun charges means that shippers will minimise their costs by nominating their expected usage (assuming no forecast uncertainty and symmetric incentives). Under VTC, most shippers will minimise their costs by reserving less than (but relatively close to) their highest expected daily flow for the coming year, and incur some overrun charges. The comparison adjusts for this difference by considering deviations from the optimal 'nomination/reservation' level. Note also that the chart shows the increase in the daily cost from under- or over-nominating usage for GTAC, and the change in annual cost for VTC.

³⁶ The shape of VTC curve is affected by the profile of a user's daily gas flows over a year, and data for a mass market gate has been used for the analysis.

³⁷ This asymmetry could encourage users to bias their nominations, but that concern is secondary to the overall size of the incentives

While the incentives to minimise deviations are clearly greater under the GTAC than the VTC, this may not necessarily lead to increased efficiency losses. That would depend on the degree of difficulty that shippers face in minimising their deviations under the GTAC. These may differ because:

1. The VTC requires shippers to forecast their maximum daily demand each year by DP. These forecasts need to be made on a year-ahead basis, although shippers can adjust their forecasts nearer the time by purchasing additional capacity (for the full annual capacity reservation fee) or transferring capacity between points that are in the same area; and
2. The GTAC requires shippers to forecast their demand for the current day, and shippers can adjust these forecasts during the course of the day to reflect new information if they wish. Forecasts must be made for each Delivery Zone and each Individual DP.

To explore this issue, we undertook modelling to estimate the total incentive charges that would be payable under the GTAC, so these could be compared with the VTC. If the estimated level of charges is higher than under the VTC, that would suggest stronger incentives to minimise nomination errors relative to the status quo, and vice versa.

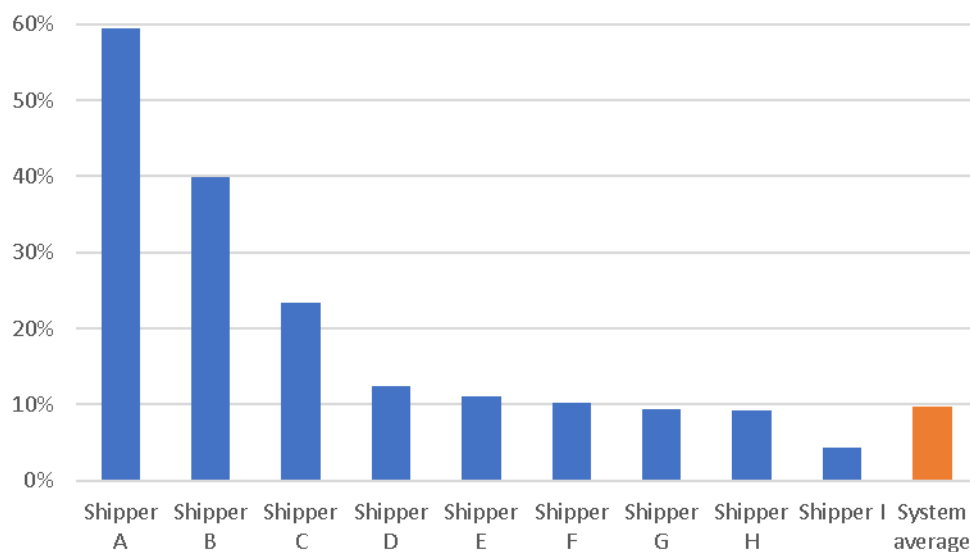
No zonal nominations exist currently to enable a direct comparison. However, D+1 allocations provide a potential proxy to simulate nominations from shippers, i.e. the nomination for Tuesday 16 January is assumed to be the D+1 allocation quantity for that gas day. Although strictly speaking D+1 allocations look back in time, they are still a “forecast” because data from most meters is not available and is modelled. In this respect, the D+1 allocations are similar to shipper demand forecasts that inform their nominations. D+1 allocations are also at the DP level, and are specific to each shipper, which means they can be easily converted to zonal nominations.

We also have access to one shipper’s daily pool forecasts on a confidential basis. This allowed us to compare the relative accuracy of that shipper’s genuine forecasts with ‘D+1 forecasts’. The two data series resulted in very similar payments for incentive fees, suggesting that D+1 forecasts are a reasonable proxy for this shipper.

However, there will be significant variability among shippers regarding the accuracy of their forecasts. Shippers mainly serving mass market demand will not have access to significant volumes of telemetry data. Other shippers serving larger customer may have access to telemetry data on the morning after real-time which means that their D+1 data is more accurate, and less in the nature of a genuine forecast. For these shippers, using D+1 as a proxy may understate the actual errors that would arise with real-time nominations.

Figure 6 shows the modelled incentive charges as a percentage of each shipper’s total transmission charges under GTAC, based on D+1 data for the period August 2015 to July 2016. Note that the chart shows results for flows on the non-Maui system that are subject to D+1 allocations – i.e. it does not include flows to Dedicated DPs.

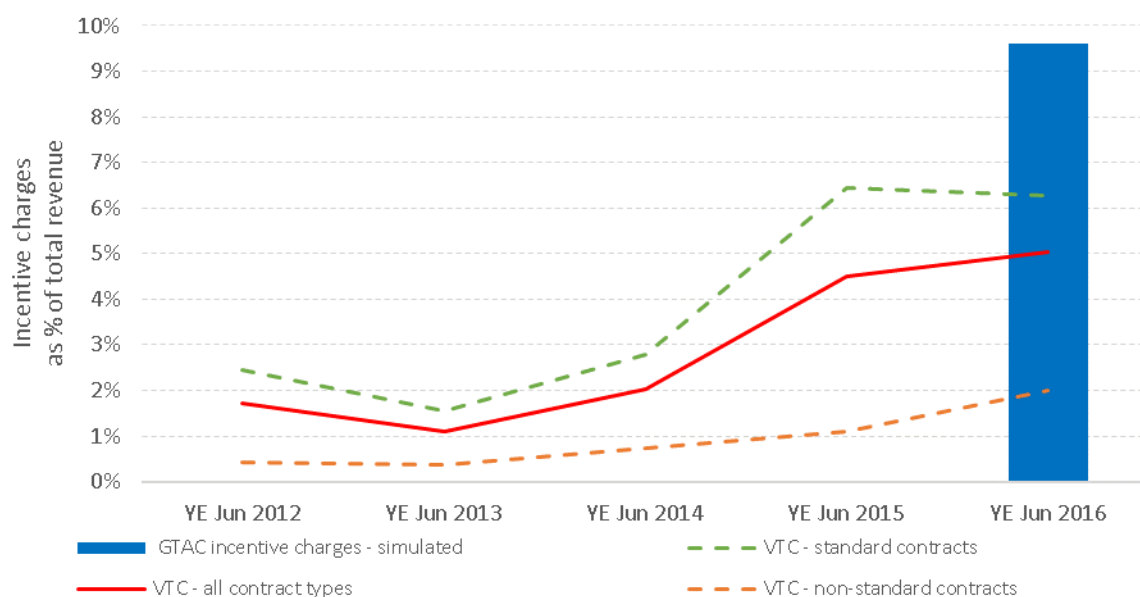
Figure 6 - Modelled GTAC incentive charges using D+1 allocations as nominations



The system average is about 9.5%, but there is significant variation between shippers. The main reason for this is the size of different shippers. D+1 generally performs worse for smaller shippers, because their customer base changes more quickly, and because they have lower diversity benefits and less telemetry data. It is likely that smaller shippers would be able to predict their demand better than the D+1 model does by modelling their changing customer base in more detail. This would require additional effort, but we expect that shippers already produce their own demand forecasts. However, as noted above, the errors for the other shippers may be larger because telemetry data available on the morning after real-time will not assist their nomination accuracy.

We also compared the modelled incentive charges under the GTAC to existing overrun charges under the VTC, as shown in **Figure 7**.

Figure 7 - Overrun charges as share of total revenue



The modelled GTAC ratio represents a sizeable increase in incentive charges compared to historic data for all VTC contract types – roughly doubling in total size. Arguably, the historic data for VTC standard contracts is a more appropriate comparator (because the modelled GTAC charges

only apply for allocated gates, at which standard terms are more likely to apply). However, there is still an appreciable increase in charges even for this subset.

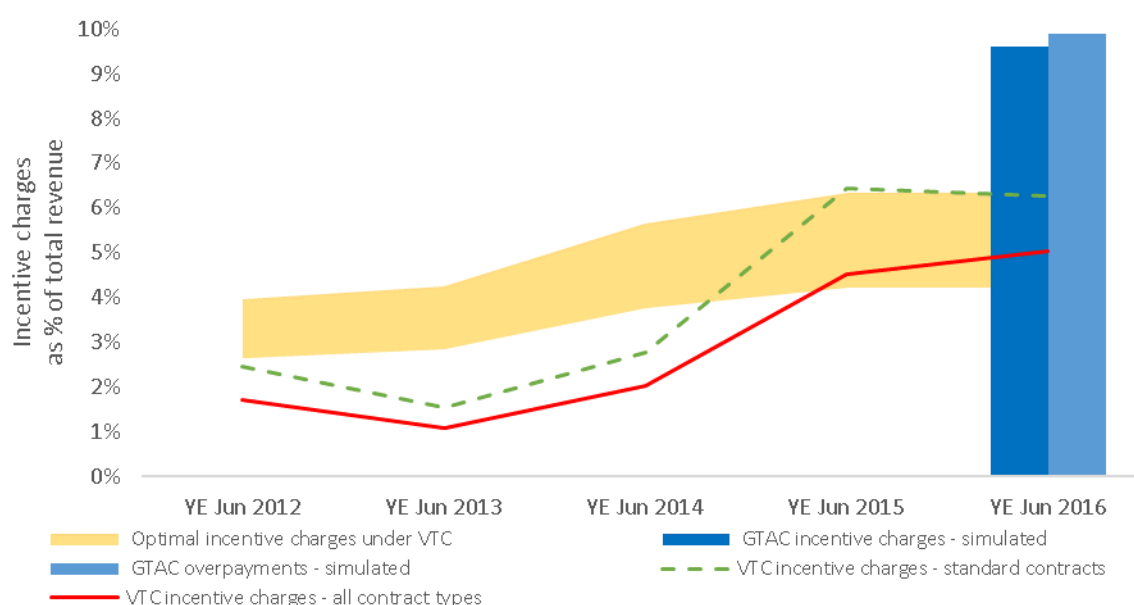
More importantly, comparing the ratio of incentive fees to total charges does not necessarily show the extent to which forecasting incentives would change. Under the current VTC pricing regime, the optimal booking strategy for most shippers is to book slightly less than their peak capacity and then pay the overrun charge on a small number of days. The amount the shipper saves by paying less on every day of the year outweighs the overrun penalty. The exact incentive charge which minimizes a shipper's total transmission charge is dependent on the shape of a shipper's demand³⁸. For shippers at allocated gates, the average optimal incentive charge is about 5% (close to the observed ratio of fees). The key point here is that under VTC a shipper pays less overall if they book less than their peak capacity and pay some overrun fees. This is not the case under the GTAC.

Under the GTAC, the optimal nomination strategy is to nominate accurately.³⁹ A shipper that is able to perfectly forecast their load minimizes their total transmission charge and pays no incentive charges.

This illustrates the difference between *incentive charges*, and '*overpayments*.' Overpayments are any payments that the shipper pays in excess of their minimum payment from nominating or booking capacity optimally. For example, paying for DNC and not utilising it represents an overpayment, but is not an incentive charge per se.

Figure 8 shows modelled overpayments under GTAC, as well as the modelled incentive charges.

Figure 8 - Incentive charges and overpayments



Overpayments are slightly higher than incentive charges for the simulated GTAC. Unfortunately, we are not able to calculate equivalent overpayments under the VTC from publicly disclosed data. However, we believe they are significantly lower than the observed incentive charges.

³⁸ For example, if a shipper only required gas for one month in a year, the optimal strategy would be to book no capacity, and only pay overrun charges. On the other hand, a shipper with perfectly flat load should optimally pay no overrun charges.

³⁹ Assuming there is no appreciable asymmetry in underrun/overrun penalty.

We draw this inference because of the observation that with optimal booking behaviour we would expect to see incentive charges account for around 5% of charges paid, and the historical level is very close to this⁴⁰.

Conclusion on daily overrun and underrun charges

In summary, while the simple comparison suggests that incentive payments for mass-market shippers would increase by around 50%,⁴¹ this is likely to understate the actual step-up in incentives to minimise nomination errors. This is because under GTAC, the full incentive charge pool is in play, whereas under VTC it is the difference between amount payable and the optimal level.

Another factor to consider is the extent to which daily nominations provide some system operational benefits where congestion does not apply. First Gas has stated that this is the case.⁴² However, we are not aware of any analysis that quantifies this benefit. We assume such benefits would need to be in the millions of dollars per annum, if they were to reflect the estimated level of incentive payments.

As a further point of comparison, we considered the approach taken in Great Britain, which was among the first gas markets to introduce open access arrangements. In that system, shippers supplying non-daily metered (NDM) customers at the distribution-level are not required to provide daily delivery nominations. Instead, these nominations are made through a top-down estimation and allocation process run by the transmission system provider. The cut-off for requiring a customer to have daily metering is currently around 210 TJ/year, although customers below this threshold may be able to opt-in to daily metering. We understand a top-down approach for NDM users was taken because it was considered to be less costly (less replication of forecasting systems/effort across shippers), and more accurate (less difficulty in accounting for diversity effects in a consistent manner within, and across, shipper portfolios).

Overall, we conclude that GTAC is likely to appreciably increase the incentive to minimise nomination deviations compared to the status quo, and that it appears unlikely that this will yield commensurate efficiency gains where congestion does not apply.

Q16: Do you agree with our analysis of daily overrun and underrun charges?

A.5 Agreed Hourly Profiles (AHPs)

Under the GTAC, a shipper's MHQ would generally be 1/16th of its MDQ. However, a shipper may apply for an AHP at a Dedicated DP at any nomination cycle, for the rest of the current day and subsequent days up to a maximum of 7 days (GTAC ss3.26-3.28). First Gas will approve an AHP request unless it affects any shipper's DNC, exceeds the physical deliverability of the DP, or unduly increases the risk of breaching an Acceptable Line Pack Limit (GTAC s3.31).

Hourly overrun charges apply only at Dedicated DPs, and only where the metered quantity is 200 GJ or more.

There is no equivalent to AHP in the MPOC or VTC.

⁴⁰ For YE Jun 2016. Earlier years have lower optimal percentages because more of the VTC revenue was recovered under throughput charges.

⁴¹ Based on comparing the modelled increase for allocated flows on the non-Maui system with the observed payment ratio for standard contracts.

⁴² See slides entitled "Value of nominations" presented at workshop on 25 August 2017. The main value claimed is that nominations would provide an advance indication of intended use of the gas transmission system (week ahead, day ahead). This would provide the First Gas operators with an early indication of any deliverability concerns and allow them to better interpret real-time information on system use and take action where necessary. For example, First Gas could adjust its line pack and configure system operations if nominations indicated that offtake would not be matched by receipts.

Submitter views

Todd note that the arrangements under the MPOC and VTC do not seem to have been a problem, so it questions why AHP is needed. It is concerned how it would impact on the operation of large industrial sites and gas fired power stations.

Vector notes that AHP effectively amends DNC, and through what appears to be drafting errors could provide more DNC than a shipper had requested.

Several Shippers and Interconnected Parties have questioned why hourly overrun charges should apply at Dedicated DPs but not to shared DPs. Our view is that this simply reflects the practical difficulties of identifying the causer(s) of overruns at a shared DP when many of the downstream sites will not have meters capable of logging hourly consumption.

There also seems to be something of an anomaly that where an OBA exists at a Dedicated DP the OBA Party becomes liable for any hourly overrun charges but is not able to apply for an AHP, i.e. the OBA Party has to rely on its supplier Shipper to obtain an AHP. However, that Shipper arguably has weak incentives to acquire the AHP as the OBA Party has the liability for hourly overrun charges (GTAC s11.12).

In its submission, Methanex considered that there were a number of shortcomings in the AHP design, including:

1. OBA Parties are excluded from being able to acquire an AHP;
2. AHPs being available for up to a seven day period means that the GTAC arrangements are somewhat more permissive than the equivalent in the MPOC;
3. MPOC places obligations for peaking limits on interconnected parties rather than shippers, reflecting that they are best placed to manage those obligations; and
4. there is a level of consistency in the MPOC in that peaking limits are consistently 125% for DPs and 150% for receipt points. The arrangements in the GTAC do not seem to require consistent application.

One of Methanex's key points was that it would expect AHPs to be available for extraordinary operational circumstances and was concerned that AHPs may be available for a variety of commercial reasons. Alongside that, Methanex was also concerned GTAC s3.31 is drafted in a fashion that means First Gas is obliged to provide AHPs except where granting the AHP would:

- (a) require it to curtail any Shipper's request:
 - (i) in the same nominations cycle, for DNC; and/or
 - (ii) previously approved DNC or Supplementary Capacity;
- (b) exceed the Physical MHQ of the relevant DP; or
- (c) unduly increase the risk of breaching an Acceptable Line Pack Limit.

Conclusion on AHPs

Gas Industry Co considers that it is important to provide for flexibility in the arrangements where that is needed. But we are concerned that a common good, such as operational flexibility, ought to be provided without undue discrimination. We think that submitters have raised a number of legitimate concerns about AHP that suggest that further design work is required before the product can be judged fair and reasonable.

Q17: Do you agree with our analysis of hourly quantities?

A.6 Liabilities

The following table provide our comments on the liability framework in the GTAC. The liability provisions are largely the same as the current MPOC and VTC in a number of respects, but there are important differences.

| Issue | Comment |
|--|--|
| Interaction between the GTAC (TSAs) and ICAs | GTAC s7 requires the liability arrangements in GTAC s16 to be reflected in ICAs. We think that approach does not take into account differences in the obligations that apply to Shippers and Interconnected Parties. Some of the obligations that apply to Interconnected Parties will require exclusions and limits on liability that are different to s16 of the GTAC. |
| GTAC s1.1. definition of "Reasonable and Prudent Operator" | <p>We think that, notwithstanding the changes to the drafting of the definition of "Reasonable and Prudent Operator", reference may still be made to international practice when assessing conduct, but local practice may also be relevant. We think that change to the drafting is neutral.</p> <p>We are concerned that inclusion of the reference to "having due consideration to other users of the Transmission System" may increase the scope for dispute give the vagueness of that concept.</p> |
| GTAC ss16.4 and 16.5 "Capped Liability" | <p>The liability caps under the GTAC appear to be adopted from the MPOC and the VTC. However, that does not take into account the fact that the caps in the MPOC and VTC have been adjusted for inflation on an annual basis since the commencement of those codes.</p> <p>It is also unclear whether the various incentive and other charges are included within the liability cap.</p> |
| GTAC s16.2 "Limitation of a Party's Liability" | This does not carve out liability for the injection of Non-Specification Gas (or other relevant liabilities) from the general exclusion of liability to third parties. That means that a Shipper or Interconnected Party would be unable to recover any amounts claimed by third parties. The MPOC and the VTC both include the ability for a Welded Party or Shipper to claim for damages awarded against a Welded Party or Shipper in favour of a third party. |
| GTAC s16.12 "Subrogated Claims" | The subrogation process in GTAC s16.12 is intended to provide Shippers with a right to claim against other Shippers or Interconnected Parties in relation to breaches that cause a Shipper Loss. In relation to liability for the injection of Non- |

| Issue | Comment |
|---|---|
| | <p>Specification Gas, we have concerns regarding the following:</p> <ol style="list-style-type: none"> 1. The effectiveness of the subrogation provisions (i.e. whether the subrogation provisions enable shippers to recover their loss), particularly when compared to the back-to-back indemnities in the MPOC and VTC that apply to the injection of Non-Specification Gas. 2. Even if the subrogation process is effective, whether this new process (and the reallocation of risk) is an improvement on the MPOC and VTC. |
| MPOC s14 and s12.4 "Incentives Pool" and VTC s8 "Balancing and Peaking Pool". | There is no equivalent to the liquidated damages mechanism in the MPOC and the VTC if a Shipper or Welded Party is unable to offtake gas due to the actions of another Shipper or Welded Party. This risk remains under the GTAC, but the equivalent mechanism for a Shipper or Interconnected Party to recover loss under the GTAC is unclear. |
| GTAC s16.1 and various references | There are various references to "reasonable endeavours" and "to the fullest extent practicable" in the context of the obligation to mitigate loss. This looks to be a consistency issue arising from the adoption of the VTC drafting for some provision, while new drafting has been inserted for others. |
| GTAC ss16.1, 9.12(b), 11.9(b), 12.2, 12.10 and ICAs | The use of the "Reasonable and Prudent Operator Standard" has been modified in the GTAC when compared to the MPOC and the VTC. Under the MPOC and the VTC the need to establish a breach to the standard of an RPO was only avoided in the case of the provisions regarding Non-Specification Gas (which is not the case under the GTAC), not other provisions. We think that exclusions from the need to establish a breach of the RPO standard should be reconsidered. ⁴³ |

Conclusion on liabilities

We note that some submitters shared some of our concerns regarding the liability arrangements in the GTAC. Those submitters who had strong views were Fonterra, Methanex, Trustpower and Vector.

As we have mentioned in our assessment of the governance terms, an efficient set of liability arrangement are legally robust, reduce the risk of disputes and incentivise appropriate behaviour. In light of the above issues, we consider that the liability arrangements in the GTAC

⁴³ For example, we have previously discussed the reasonableness of exclusions from the need to establish a breach of the RPO standard in the context of Operational Flow Orders (OFOs).

are less efficient than the MPOC and the VTC. We also think that the lack of certainty regarding liability for Non-Specification Gas has a potentially negative impact on reliability given the impact that injection of Non-Specification Gas may have on security of supply. In our view, the overall balance of the liability arrangements is not as fair or reasonable as the MPOC and the VTC.

Q18: Do you agree with our analysis of liabilities? In particular, do you have any particular comments on whether the proposed liability arrangements in relation to the injection of Non-Specification Gas better meet the efficiency, reliability and fairness objectives when compared to the MPOC and the VTC?

A.7 Target Taranaki Pressure (TTP)

The TTP issue

In section 3.5 (Balancing) we noted that concern had been expressed in submissions over the different treatment afforded the maintenance of TTP as between the MPOC and the GTAC. This section examines those differences more closely.

Under the MPOC, TTP is defined as:

...the pressure calculated by TSP at or near the Bertrand Road Welded Point to be sufficient to:

- (a) deliver Shippers' Approved Nominations; and
- (b) provide, using reasonable endeavours, a reasonable quantity of Gas for use in a Contingency Event; and
- (c) provide, using reasonable endeavours, a reasonable quantity of Gas to allow for delivery within the relevant Peaking Limit and Daily Operational Imbalance Limit.

Then, in MPOC s2.5, First Gas, acting as RPO, is required to:

...use reasonable endeavours to manage the Target Taranaki Pressure to be as low as practicable while maintaining sufficient Line Pack to meet its obligations under this Operating Code

MPOC s2.19 specifies that the TTP shall be:

...between 42 and 48 bar gauge, except as may be required as a result of a Contingency Event, Force Majeure Event or Maintenance.

The GTAC treats TTP somewhat differently. It notes that TTP is for the benefit of injecting parties located between Oaonui and the Turangi Mixing Station, and GTAC s7.13(e) requires that:

...First Gas will use reasonable endeavours to maintain the pressure in that line at or near the Bertrand Road Offtake between 42 and 48 bar gauge (Target Taranaki Pressure), subject to a Critical Contingency, Force Majeure Event, Emergency, Maintenance or the aggregate ERM of Shippers and/or OBA Parties

The RP ICA is silent on the TTP, except to note in RP ICA s3.1(b) that the Interconnected Party acknowledges and agrees that:

...apart from the provisions of the Code relating to the Target Taranaki Pressure, First Gas shall not be obliged to operate its Pipeline within any particular pressure range to facilitate the injection of Gas at any Receipt Point

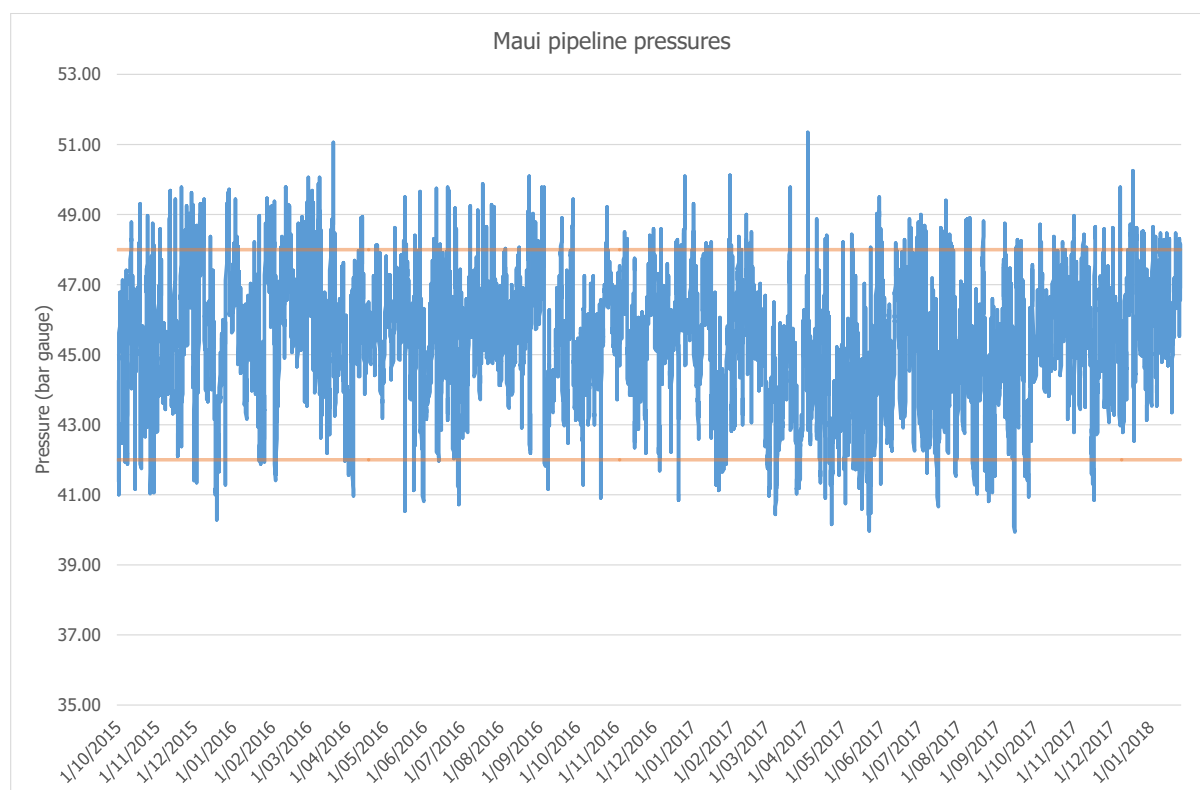
From the above extracts the MPOC places an obligation on First Gas to manage the TTP to be “...as low as practicable...” consistent with maintaining line pack sufficient to meet its obligations, but there is no equivalent in the GTAC.

Operating practice

The proposed TTP obligations under the MPOC appear to reflect the established practice for managing pressure in that segment of the Maui pipeline.

Figure 9 shows the variation in Maui pipeline pressures in the Taranaki region since October 2015 (the period since the introduction of MBB). As can be seen from the chart there are numerous excursions both above and below the TTP range. The pipeline pressure is below 42 bar for 2.5% of observations and is above 48 bar for 6.5% of observations (i.e. the pressure is outside of the range almost 10% of the time). Additionally, the shape of the chart does not suggest that there is any consistent bias towards the lower end of the range as might be expected from the wording on the MPOC. That appearance is consistent with the 50th percentile of the data being at 45.63 bar, a margin above the mid-point of the 42 to 48 bar range.

Figure 9: Maui pipeline pressures since introduction of MBB



Why TTP matters

The exit pressure from a producer's plant must exceed the pressure in the transmission system for gas to flow. If the pipeline pressure rises to a level above that which the injecting party is able to achieve then that producer will be “shut-in”, i.e. unable to inject its gas into the pipeline and, therefore, unable to meet its commercial obligations. The TTP range is set so that:

1. the lower limit is sufficient to allow the transmission owner to maintain sufficient line pack in the system to meet its delivery obligations and to provide a cushion against contingencies; and
2. the upper limit is below the pressure that would shut-in producers.

The latter point is important because a producer that is shut-in is likely to experience a shutdown of its production facilities that may take significant time to restart. Depending on the size of such a producer, the system could potentially trip into a critical contingency situation. Hence the importance of maintaining pipeline pressure within the TTP range.

Also, the lower the pipeline pressure is within the TTP range, the lower will be the producer's compression cost to inject its gas (and the higher will be the pipeline owner's compression cost to transport that gas).

Submitter views

A number of submitters have expressed concern that the maintenance of TTP has been downgraded or de-emphasised by the proposed arrangements in the GTAC. In particular:

1. while the drafting in GTAC s7.13(e) is clear that First Gas is to use "reasonable endeavours" to manage TTP between 42 and 48 bar gauge, the drafting in the MPOC is unequivocal in stating that "TTP shall be between 42 and 48 bar gauge" (MPOC s2.19); also
2. Although GTAC s7.13 requires any ICA to contain its sub-clauses, the RPICA does not mirror GTAC s7.13(e).

A producer has also provided Gas Industry Co with some information concerning the interplay between the economics of production and the pressure against which the producer is required to inject. That information was provided in confidence but indicated that there are two cost effects experienced by producers:

1. Higher backpressures increase production costs and reduce flexibility. Mitigating these effects can be a significant cost
2. The ultimate recovery of hydrocarbon resources can be affected by higher backpressures.

Conclusion on TTP

We conclude that there are potential efficiency gains that arise from managing pressure within the TTP range (and potentially more gain from managing closer to the bottom of that range). However, in the absence of information on the corresponding pipeline management costs, it is difficult to identify whether those potential gains outweigh the cost of tighter pressure management and the need for Shippers to acquire flexibility from other sources.

The risk of any relaxation in pressure management within the Taranaki region is that the reliability of gas receipts into the pipeline could be compromised, which goes directly to the reliability Criterion.

The TTP has been in existence for many years and, despite excursions outside of the range, the pressure falls within that range over 90% of the time. We have seen no evidence supporting a change to the TTP or justifying a relaxation of the management standards. Accordingly, it would appear efficient and prudent to maintain at least the level of scrutiny and control that is currently required by the MPOC.

Q19: Given that the current, tighter, drafting in the MPOC still results in excursions outside of the 42-48 bar gauge range, what is your view of the revised drafting under the GTAC?

A.8 ERM charges

We expect that the GTAC arrangements would reduce the instances where users inefficiently incur costs to balance their positions, when there is no system wide need for balancing actions.

Our reasoning is illustrated with the following stylised example, and subsequent analysis of bid and offer prices in the spot market.

Imagine a pipeline user on the Maui system with a negative excess running mismatch position that will be cashed out at the close of the day. Let's also assume that the pipeline as a whole is in balance, because of an offsetting mismatch position held by another user.

Notwithstanding the system being in balance, the pipeline user with negative excess running mismatch will be incentivised to act to reduce this because of the automatic cash-out rule in the MPOC. One of the alternatives available to the user is to buy more gas in the spot market. Let's assume in this example that the market offers (i.e. sell) price is \$8/GJ, and that our party is unwilling to pay that price. Let's also assume that the market bid (i.e. buy) price is \$4/GJ. Our party presumably thinks the true value of gas to it is somewhere around the bid price, i.e. \$4/GJ. (If it thought gas was worth more, it would bid at a higher price.)

If the party does nothing, it will be cashed out at the end of the day. For simplicity we will assume the cash-out price equates to the mid-point of the bid-offer price range (this ignores transaction costs etc.) – i.e. \$6/GJ in this example.

The cost to the user of the cash-out will therefore be around \$2/GJ, i.e. the difference between the cash-out price and its valuation of gas. If the user had other alternatives to clear the mismatch that are cheaper, it would be driven to use them to avoid a cashout. For example, it might reduce its gas withdrawals by cutting demand, or increase gas injections by paying a supplier. As long as the net cost of those actions is less than \$2/GJ, that would be commercially rational for the user. However, it would be inefficient for the system as a whole because there is no pipeline running mismatch position that needs to be addressed.

Likewise, the party with the offsetting positive mismatch position will be cashed out irrespective of the fact that the system is in balance. That party would also be driven to incur some costs to avoid cash-outs, and the upper limit is set by the difference between the cash-out price and its gas value (i.e. the \$8/GJ offer price).

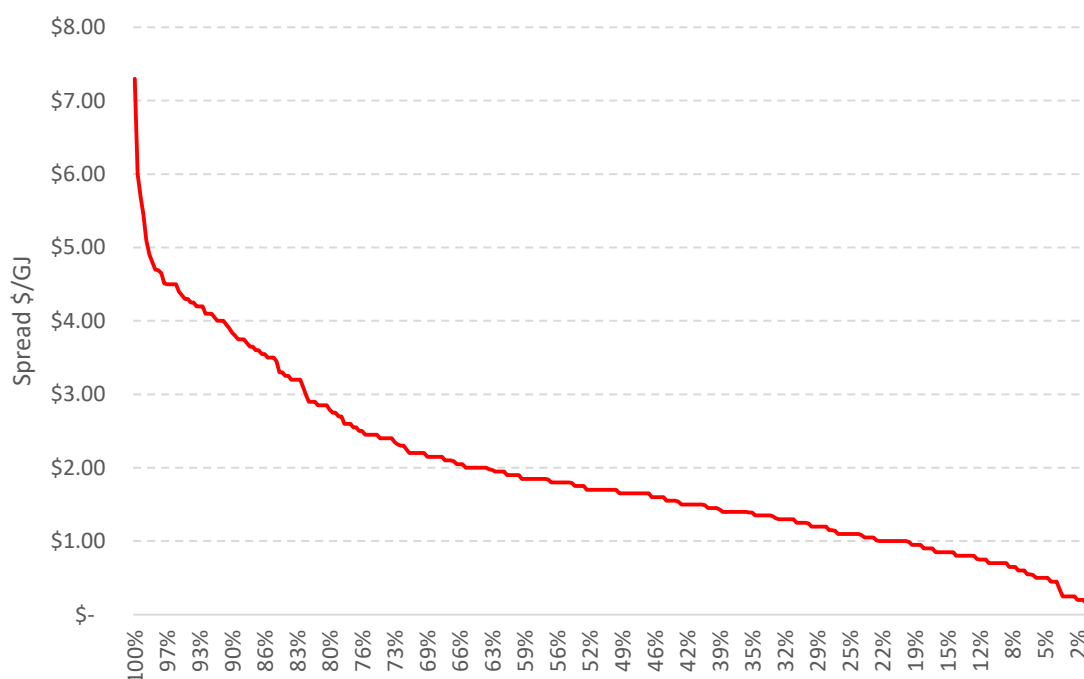
Now consider what the position would be under the GTAC. No automatic cashout would occur because the system is in balance and no physical action is needed. Instead, the two parties would pay Excess Running Mismatch charges of \$0.20/GJ for positive running mismatch and \$0.60/GJ for negative running mismatch.

In our stylised example, the party with the negative excess running mismatch would incur a net cost of \$0.60/GJ instead of \$2/GJ (assuming no balancing action is needed by First Gas), and likewise the party with the positive excess running mismatch would pay only \$0.20/GJ. In both cases, the incentive to undertake actions to balance their individual positions (and which have no effect on the system position) would be much reduced.

Of course, the preceding section discussed a stylised example with a sizeable spread between market bid and offer prices that could drive parties to undertake inefficient actions. To assess whether the GTAC is likely to reduce inefficient incentives in practice, we have analysed historic spot price data between July 2016 and December 2017. Earlier data was excluded because there has been a noticeable tightening spreads since mid-2016.

Figure 10 shows the daily spreads at the close of trading, ranked from highest the lowest value.

Figure 10 - Closing spread between bid and offer prices (Jul 2016-Dec 2017)



Conclusion on ERM charges

Key observations from the data are:

1. The observed bid-offer spreads are relatively large ($> \$1.50/\text{GJ}$) for much of the period;
 - (a) On more than 95% of the observed days, the spread divided by two⁴⁴ exceeded $\$0.20/\text{GJ}$ (the positive ERM charge in the GTAC). This suggests that the GTAC would substantially reduce the incentive on parties with positive excess running mismatch to inefficiently incur balancing costs; and
 - (b) On around 70% of the observed days, the spread divided by two exceeded $\$0.60/\text{GJ}$ (the positive ERM charge in the GTAC). This suggests that the GTAC would reduce the incentive on parties with negative excess running mismatch to inefficiently incur balancing costs.

However, there are some caveats to bear in mind:

1. The data in **Figure 10** does not distinguish days when a physical balancing action was required. On those days, the observed spread would continue to be the relevant incentive under the GTAC. This reduces the extent of improvement that can be expected under the GTAC, although we are unable to quantify the size of this effect;

⁴⁴ The spread divided by two gives a measure of the cost incurred by the party facing cash-out – i.e. the difference between the cash-out price and the value of gas to the party with mismatch.

2. The data in **Figure 10** does not include transaction costs which are incurred for spot market trades. These costs are likely to increase the incentive on parties to avoid cash-outs, and mean the extent of improvement under the GTAC may be greater than implied by **Figure 10**; and
3. The analysis assumes that historic spreads provide a reasonable indication of future conditions. While we have no specific reason to expect any change, spot market spreads are influenced by a wide range of factors, including the strength of balancing incentives in the transmission codes.

Q20: Do you agree that comparing the ERM charges with bid/ask spreads is a sound method for testing the appropriateness of the quantum of those ERM charges? If not, what would be a more appropriate comparator?

A.9 Incentive Charge Rebates

Proposed change to the rebate arrangements

The GTAC approach to recycling incentive charges is different to the current arrangement. The difference and the rationale for the change were explained in a First Gas memo to pipeline users dated 1 December 2017 (Rebate Memo).

Under the current MPOC/VTC rebate arrangements, for any year (year 1, say), First Gas' regulated revenue will include its estimated incentive charge revenue. In the following year (year 2), the actual incentive charge revenue is known and the difference from the estimate is carried forward in an adjustment account. In the subsequent year (year 3), the balance of the adjustment account is applied as a credit or debit to the standard transmission fees (capacity charges) in that year.

Under the GTAC arrangement incentive charges would be rebated in the same month the incentive charges are invoiced. GTAC s11.13 provides for total Daily Overrun Charges, Underrun Charges, Hourly Overrun Charges and Over-Flow Charges (what we collectively call the incentive charges) will be credited to shippers each month pro-rata to each shipper's DNC charges.

First Gas considers that the benefits would be that the new arrangement would:

1. immediately recycle incentive charge revenue;
2. avoid the need for First Gas to forecast incentive charges; and
3. use the same approach as First Gas had earlier proposed for recycling PR revenue.

Stakeholder concerns

In addition to a general concern that the proposed change to the rebate method had not been sufficiently discussed, submissions on the GTAC raised concerns that rebates might:

1. Favour larger shippers;
2. Distort the incentives under the GTAC, including to ensure accurate daily nominations and the need to procure Priority Rights; and
3. Allow rebates to be captured by retailers (shippers) and not passed through to end-users of gas.

To explore these issues we develop the example First Gas set out in its Rebate Memo.

Example of how total charges compare

Table 24, copied from the Rebate Memo, traces through how the additional revenue earned from incentive charges finds its way back to shippers under current arrangements. It assumes that in year 1 \$10m of incentive charges were estimated but \$15m were received (marked in red). The additional \$5m results in an over-recovery in year 1 which is returned through lower capacity charges in year 3 of the regulatory period (also marked in red). For simplicity the example ignores the time value of money.

Table 24 – Table from Rebate Memo illustrating current approach to rebates

| Figure 10 | Regulatory Year | | | | |
|---------------------------------|-----------------------|-----|-----------------------|-----|-----|
| | 1 | 2 | 3 | 4 | 5 |
| Supplementary capacity charges | 20 | 20 | 20 | 20 | 20 |
| Standard capacity charges (DNC) | 90 | 90 | 90 85 | 90 | 90 |
| Incentive charges | 10 15 | 10 | 10 | 10 | 10 |
| Total revenue | 120 125 | 120 | 120 115 | 120 | 120 |

Table 25 is also copied from the Rebate Memo. It shows how this situation would play out under the GTAC. The \$15m of incentive charges invoiced in year 1 of the regulatory period would be credited throughout the year, so the net incentive charges (circled in red) are zero. The second part of the table shows monthly incentives and rebates. For example in the peak charge month of August, the incentive charges of \$4m are rebated.

Table 25 – Table from Rebate Memo illustrating GTAC ss11.12-11.13 approach to rebates

| | Regulatory Year | | | | |
|---------------------------------|-----------------|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 |
| Supplementary capacity charges | 20 | 20 | 20 | 20 | 20 |
| Standard capacity charges (DNC) | 100 | 100 | 100 | 100 | 100 |
| Incentive charges | - | - | - | - | - |
| Total revenue | 120 | 120 | 120 | 120 | 120 |

| Incentive charges | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Charged | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 4 | 2 | 2 | 1 | 1 |
| Rebated | -0.5 | -0.5 | -0.5 | -0.5 | -1 | -1 | -1 | -4 | -2 | -2 | -1 | -1 |

The rebates would be pro-rata on DNC charges. The Rebate Memo did not state how much the DNC charges would be in each month but, given that the annual DNC charges were assumed to be \$90m, we can assume it would be around \$10m in the peak month of August. In that case all shippers would receive a discount of 40% on their DNC charges in August, funded by the set of shippers who paid the incentive charges of \$4m that month (this assumes all gas is shipped on standard TSAs for simplicity).

To see how this might affect individual shippers in different circumstances, we develop the example by assuming that the charges fall across two shippers. We initially (in **Table 26** and **Table 27**) assume that each of those shippers face the same demand uncertainty, and therefore incur the same proportionate levels of incentive charge. We then (in **Table 28** and **Table 29**) assume that the larger shipper is better able to estimate its demand, and therefore incurs proportionately less incentive charges.

Table 26 – Example of current approach to rebates with two shippers who are equally able to forecast demand

| | Regulatory Year | | | | |
|----------------------|------------------|-------------------|---------------|---------------|--------------|
| | 1 | | | Future year | |
| | Capacity charges | Incentive charges | Total charges | Carry forward | Net position |
| Shipper A | 90 | 12.3 | 102.3 | -4.1 | 98.2 |
| Shipper B | 20 | 2.7 | 22.7 | -0.9 | 21.8 |
| Total Revenue | 110 | 15 | 125 | -5 | 120 |

Table 27 – Example of GTAC approach to rebates with two shippers who are equally able to forecast demand

| | Regulatory Year | | | |
|----------------------|------------------|-------------------|-------------------|--------------|
| | 1 | | | |
| | Capacity charges | Incentive charges | Incentive rebates | Net position |
| Shipper A | 98.2 | 12.3 | -12.3 | 98.2 |
| Shipper B | 21.8 | 2.7 | -2.7 | 21.8 |
| Total Revenue | 120 | 15 | -15 | 120 |

Table 28 – Example of current approach to rebates with the larger shipper better able to forecast demand

| | Regulatory Year | | | | |
|----------------------|------------------|-------------------|---------------|---------------|--------------|
| | 1 | | | Future year | |
| | Capacity charges | Incentive charges | Total charges | Carry forward | Net position |
| Shipper A | 90 | 11 | 101 | -4.1 | 96.9 |
| Shipper B | 20 | 4 | 24 | -0.9 | 23.1 |
| Total Revenue | 110 | 15 | 125 | -5 | 120 |

Table 29 – Example of GTAC approach to rebates with the larger shipper better able to forecast demand

| | Regulatory Year | | | |
|----------------------|------------------|-------------------|-------------------|--------------|
| | 1 | | | |
| | Capacity charges | Incentive charges | Incentive rebates | Net position |
| Shipper A | 98.2 | 11 | -12.3 | 96.9 |
| Shipper B | 21.8 | 4 | -2.7 | 23.1 |
| Total Revenue | 120 | 15 | -15 | 120 |

Example of how marginal charges compare

The above example shows how aggregate shipper positions compare, but not how a shipper would view its marginal positions. To illustrate the marginal viewpoint, consider a two shipper example where Shipper A has a 90% market share, Shipper B a 10% market share, and there is a posted incentive fee of \$1/GJ.

Both shippers face the same incentive fee of \$1/GJ, but Shipper A would estimate its marginal charge to be \$1 less \$0.90, since it expects to receive 90% of any payment it makes as a rebate. Shipper B would estimate the marginal charge to be \$1 less \$0.10, since it expects 10% of any payment to be rebated to it.

This situation would apply under both the current rebate arrangements and the GTAC rebate arrangements. However, the effect might be more influential under the GTAC arrangements since the rebate is more immediate (in fact simultaneous to the payment).

Conclusion on incentive charge rebates

From the example, we conclude that, under the GTAC rebate arrangement:

There would be no need for First Gas to forecast incentive charges. As shown in **Table 25**, the quantum of incentive charges would not affect the annual revenue.⁴⁵

In contrast, under the current rebate arrangement, the incentive charge revenue significantly affects the overall outcome against the approved regulated revenue. In the **Table 24** example, incentive charge revenue is \$5m higher than estimated in year 1 and, to correct for this, \$5m is carried forward and credited against capacity charges in year 3.

The capacity fees would be higher, because those fees need to generate the full regulated revenue (\$120m in **Table 25**).

Under the current arrangement, the capacity fee calculation includes an allowance for incentive charges, so the capacity fees can be lower (\$110m in **Table 4**).

The capacity fees would be independent of the level of incentive fees. In other words, it doesn't matter how high the incentive fees are set, the capacity fees would be the same (because the incentive charges are fully recycled, regardless of how high or low they are). For example, in **Table 25**, the capacity charges are \$120m, regardless of the level of incentive charges.

Under the current rebate arrangement the capacity fees will be lower if the incentive fees are set higher (because the estimated revenue from incentive charges would be higher). For example, in **Table 24**, the capacity charges are \$110m, because \$10m of estimated incentive charges also contributes to the approved regulated revenue of \$120m.

The rebates could be a significant proportion of DNC charges. The example shows a peak month (August) rebate of 40% of the DNC charges.

Under the current rebate arrangement only the difference between the actual and estimated incentive charges is carried forward to adjust future DNC charges, not the full amount of the incentive charges.

If all shippers are equally good/bad at estimating demand, the average total charges would be the same as under the current rebate arrangements. The relative size of the shipper would not matter (compare final columns in **Table 28** and **Table 29**).

The strength of the marginal cost signal will be in inverse proportion to a shipper's market share. In the example given, the shipper with a 90% market share faces a marginal cost signal of \$0.10/GJ while the shipper with a 10% market share faces a marginal cost signal of \$0.90/GJ. While this is true for both the current and proposed rebate arrangements, the GTAC arrangements make it more visible, immediate and, we would expect, influential.

Although, as discussed in item 6 above, the immediate marginal cost signal is likely to be more influential under the GTAC proposal, the longer-term incentive to perform better than average (i.e. predict demand better than other shippers in order to reduce incentive charges) is actually the same as under the current rebate arrangement. This can be seen by comparing the net positions (the final columns) of **Table 28** and **Table 29**. The reason for this is that both the proposed and current rebate arrangements would fully recycle the incentive charges in proportion to capacity charges. With the current rebate mechanism (**Table 28**) the amount is recycled via the initial estimate of the fees and the subsequent carry forward of the difference between the actual and the estimate. With the proposed rebate mechanism (**Table 29**) the

⁴⁵ The examples assume that there will be no uncertainty about the quantum of each year's capacity charges. However, in practice, First Gas needs to forecast each year's demand in order to set the capacity fees, and there will be capacity charge overs and unders to carry forward regardless of which incentive charge rebate arrangement applies. It is just that the capacity charges are much easier to estimate than the incentive charges, so a significant source of uncertainty would be removed.

amount is recycled via a rebate in the same month the charge is incurred. In both cases the recycling is in proportion to the capacity charges, so the outcome is the same on average.⁴⁶

Response to stakeholder concerns

In relation to the stakeholder concerns, we agree with stakeholders who say that this proposed change to the rebate mechanism would be significant, and has not been intensively discussed. We therefore consider that, if First Gas does adopt the proposed rebate mechanism, there should be a post-implementation review to evaluate its impact.

We do not believe that the proposed rebate mechanism favours larger shippers in the long term. As stated in conclusion 5 above, if shippers are equally good at estimating their demand, their total charges will be the same, regardless of the whether the rebate mechanism is as at present, or as proposed (compare final columns in **Table 28** and **Table 29**). However, as explained in conclusion 7, we accept that in the short term, the marginal incentive on a smaller shipper will be stronger.

Similarly, we agree with the view expressed in some submissions that the rebate mechanism weakens the incentive signal at the margin, relative to a no-rebate model. However, this issue also applies under the status quo. It also remains the case that a shipper who can do better than average at forecasting its demand will have lower incentive charges (this, after all, is the purpose of the incentive charges).

When a shipper is better at forecasting its demand (and so minimising its incentive charges) than the average it will benefit at the expense of shippers who are worse than average. For example, from **Table 29** it is clear that Shipper A, benefits \$1.3m at the expense of Shipper B. The higher the incentive charges are, the higher this wealth transfer will be, so it is very important that, regardless of which rebate mechanism is adopted, the incentive charges are set at an efficient level, i.e. that they reflect real economic costs.

Regarding the concern that rebates may be captured by retailers (shippers) and not passed through to end-users of gas, we think that situation should only arise if the retail market is inefficient. However, we do accept that, since incentive fees (and hence rebates) would be higher than under GTAC, there is more scope for end-users to be misled about the full cost of service if they are not vigilant.

Conclusion on incentive charge rebates

In short, assuming the incentive fees are set at an efficient level and the retail market is efficient, the proposed rebate arrangements should not have the detrimental effects claimed by some stakeholders. But we do have concerns about whether the incentive fees applying in non-congested situations are disproportionately high.

Q21: Do you agree with our analysis of the incentive charge rebates?

⁴⁶ This does assume that the year 3 capacity charges will be in the same proportion to the year 1 capacity charges.

Appendix B Key GTAC documents and workshops

Below we list the dates of each key documents and workshop to show how the GTAC development process has unfolded. To keep the table readable we have not listed the "submissions due" dates, or which stakeholders made submissions, but all of the documents listed and all submissions made on them are available from the Gas Industry Co website.

| Key communication | Author | date |
|---|---------|-------------------|
| <i>Memorandum on Single Code Development Process</i> | FG | 12 August 2016 |
| Stakeholder workshop #1 | | 24 August 2016 |
| <i>Single Code Options Paper (SCOP1)</i> | GIC | 13 September 2016 |
| Stakeholder workshop #2 | | 20 September 2016 |
| Stakeholder workshop #3 | | 9 November 2016 |
| <i>SCOP1 Analysis of Submissions</i> | GIC | 23 November 2016 |
| <i>Single Code Options Paper (SCOP2)</i> | FG | 28 November 2016 |
| Stakeholder workshop #4 | | 5 December 2016 |
| <i>SCOP2 Analysis of Submissions</i> | GIC | 27 January 2017 |
| <i>GTAC Development: Proposed Decisions and Next Steps</i> | FG | 17 February 2017 |
| Stakeholder workshop #5 | | 28 February 2017 |
| <i>GTAC Governance Options</i> | Concept | 20 April 2017 |
| <i>Emerging Views on Detailed Design (EV Paper)</i> | FG | 12 May 2017 |
| Stakeholder workshop #6 | | 17 May 2017 |
| <i>Initial Summary of GTAC IT Risks</i> | FG | 7 June 2017 |
| <i>Preliminary Draft Code Changes (Transition Paper)</i> | FG | 12 June 2017 |
| <i>GTAC Governance Options Final Advice to GIC</i> | Concept | 12 June 2017 |
| Stakeholder workshop #7 | | 22 June 2017 |
| <i>EV Paper Analysis of Submissions</i> | GIC | 13 July 2017 |
| <i>MPOC Transition Change Request (TCR)</i> | FG | 14 July 2017 |
| Stakeholder workshop #8 | | 19 July 2017 |
| <i>GIC proposed approach to GTAC assessment (Assessment Note)</i> | GIC | 4 August 2017 |
| <i>Complete Draft GTAC released for negotiation</i> | FG | 11 August 2017 |
| <i>Stakeholder Submissions on Assessment Note</i> | | 16 August 2017 |
| Stakeholder workshop #9 | | 17 August 2017 |
| Stakeholder workshop #10 | | 24 August 2017 |

| Key communication | Author | date |
|---|-----------|-------------------|
| Stakeholder workshop #11 | | 25 August 2017 |
| <i>GTAC: Acquisition of Transaction Management Software</i> | FG | 29 August 2017 |
| <i>Proposed alteration to MPOC TCR</i> | FG | 30 August 2017 |
| Stakeholder workshop (teleconference) #12 | | 31 August 2017 |
| <i>Stakeholder submissions on MPOC TCR</i> | | 7 September 2017 |
| <i>Report on how GIC would perform GTAC Change Request Role</i> | GIC | 8 September 2017 |
| <i>Revised Draft GTAC released for mark-ups</i> | FG | 11 September 2017 |
| Stakeholder workshop #13 | | 15 September 2017 |
| Stakeholder workshop #14 | | 21 September 2017 |
| <i>Draft Recommendation on MPOC TCR</i> | GIC | 22 September 2017 |
| <i>Stakeholder submissions on GTAC Change Request Role</i> | | 22 September 2017 |
| Stakeholder workshop #15 | | 28 September 2017 |
| <i>Stakeholder mark-ups & submissions on 11 September GTAC</i> | | 9 October 2017 |
| <i>Stakeholder Submissions on MPOC TCR Draft Recommendation</i> | | 16 October 2017 |
| <i>Final Recommendation on MPOC TCR</i> | GIC | 31 September 2017 |
| <i>Second Revised Draft GTAC released for mark-ups</i> | FG | 3 November 2017 |
| <i>Presentation of Second Revised Draft GTAC</i> | FG | 9 November 2017 |
| Stakeholder workshop #16 | | 10 November 2017 |
| Stakeholder workshop #17 | | 17 November 2017 |
| <i>Memo on proposed amendments to Liability provisions</i> | FG | 30 November 2017 |
| <i>Memo on proposed amendments to Hourly Profiles provisions</i> | FG | 1 December 2017 |
| <i>Memo on proposed amendments to ERM and Overrun/Underrun Charges</i> | FG | 1 December 2017 |
| <i>Memo on proposed amendments to ICA/GTAC interactions</i> | FG | 4 December 2017 |
| <i>Memo on proposed amendments to Allocations re D+1</i> | FG | 4 December 2017 |
| <i>Final GTAC released to Gas Industry Co for assessment</i> | FG | 8 December 2017 |
| <i>Presentation of Final GTAC</i> <i>Presentation on GTAC Assessment Process</i> | FG GIC | 12 December 2017 |

Appendix C MPOC s22.16

TSP [Transmission Service Provider ie First Gas] may terminate every ICA and TSA simultaneously with effect at 0:00 hours on the New Code Date provided that it has published the functional specifications and data interface of the information technology system selected to implement the New Code not later than 120 Business Days before the New Code Date and provided that the following conditions have been satisfied not later than 40 Business Days before the New Code Date:

- (a) TSP has published the New Code on the TSP IX which provides for the following:
 - (i) all Shippers using the Maui Pipeline, and VTC Shippers using the Transmission Pipelines governed by the VTC, may continue to transport gas through those pipelines; and
 - (ii) all Welded Parties may continue to connect their respective Pipelines to the Maui Pipeline, on and after the New Code Date;
 - (b) following an appropriate consultation process which includes GIC publishing a draft determination and asking each Shipper and Welded Party whether it supports the New Code, GIC has published a final determination that the New Code is materially better than the current terms and conditions for access to and use of gas transmission pipelines having regard to the objectives in section 43ZN of the Gas Act 1992 and any objectives and outcomes the Minister has set in accordance with section 43ZO of the Gas Act 1992;
 - (c) the VTC and all transmission services agreements incorporating the VTC shall terminate on the New Code Date;
 - (d) TSP has published the New Code Date on the TSP IX;
 - (e) TSP certifies that the information technology systems required to implement the New Code are fit for purpose and ready to be put into production on the New Code Date;
- and
- (f) TSP has delivered an executable contract to:
 - (i) Each Shipper and VTC Shipper for it to continue to transport Gas through the Maui Pipeline and the Transmission Pipelines covered by the VTC;
 - (ii) Each Welded Party for it to continue to connect its Pipeline(s) to the Maui Pipeline; and
 - (iii) emsTradepoint to allow the Trading Platform to continue functioning, on and after the New Code Date.

(GTAC Assessment Condition) (MPOC s22.16)

Appendix D First Gas discretion

This Appendix provides list of matters in the GTAC in relation to which First Gas has discretion and compares that discretion to the MPOC and the VTC

Table 30 - Matters where First Gas has discretion

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|---|--|
| 1. Approve a Shipper's NQ, having regard to certain matters [GTAC s1.1 "Approved NQ" and s 4.14] | Approve a Shipper's Nominated Quantity and post on the TSP IX [MPOC s8.12 and s1.1 "Approved Nomination"] | Appropriate discretion for system operator |
| 2. The amount of Operational Capacity available as DNC [GTAC s1.1 "Available Operational Capacity"] | First Gas calculates the total capacity of the Maui pipeline for providing Transmission Services under the Operating Code for any day. TSPs calculation is subject to Taranaki Target Pressure and disclosure of the basis on which it calculates capacity on request [MPOC s8.5] | Appropriate discretion for system operator |
| 3. Publish on OATIS the time by which a Shipper must notify its Changed Provisional NQs on the day before the day to which those NQs relate [GTAC s1.1 "Changed Provisional Nominations Deadline"] | Timeframe for Shipper to change its Provisional Nominations for each Welded Point for the following day is 4pm on the day before the Transmission Day [MPOC s 8.11] | Appropriate discretion for system operator |
| 4. Whether to initiate a measure to alleviate Congestion (as described in GTAC s10 [GTAC s1.1 "Congestion Management"] | No equivalent provision | Appropriate discretion for system owner/operator |
| 5. If the consumer price index published by Statistics New Zealand ceases to be published or the basis for it changes significantly, identify another price index that most closely | If the producer price index published by Statistics New Zealand ceases to be published or the basis for its calculation changes significantly, identify another price index that most closely | Only relevant to liability caps. Uncontroversial |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|---|--|---|
| approximates the purpose and composition of the CPI [GTAC s1.1 "CPI Index"] | <p>approximates the purpose and composition of the PPI. Any substitute index will, to the extent reasonable possible, have the same economic effect as would have been the case had the PPI continued to be published on the basis it was published for the quarter ending 30 June 2005 [MPOC s28.4]</p> <p>If the producer price index published by Statistics New Zealand ceases to be published or the basis for it changes significantly, identify such other price index and First Gas, acting reasonably, considers most closely approximates the purpose and composition of the PPI and the date from which that substitute index shall apply. Any replacement index and the date for its application will, to the extent reasonably possible, have the same economic effect as would have been the case had the PPI continued to be published on the basis it was published for the quarter ending 30 June 2007.</p> | |
| 6. Determine an event to be an "Emergency" [GTAC s1.1 "Emergency"] | <p>Determine, acting as a Reasonable and Prudent Operator, an event or state of affairs to be an "Emergency" [MPOC s1.1 "Emergency"]</p> <p>Determine, acting as a Reasonable and Prudent Operator, an event, circumstance or state of affairs to be an "Emergency" [VTC s1.1 "Emergency"]</p> | Appropriate discretion for system operator |
| 7. Publish metering requirements [GTAC s1.1 "Metering Requirements". | <p>Metering shall comply with Schedule 1 of the MPOC [MPOC s16.3]</p> <p>Publish Metering Requirements on OATIS [VTC s1.1]</p> | We think this is an area where there could be further control on First Gas' discretion. The publication of metering requirements is not a daily operational decision that must be made at short notice. Shippers and interconnected parties have a legitimate |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|---|---|
| | | interest in the content of the metering requirements. We think that is recognised by the inclusion of the metering requirements as a schedule to the MPOC. While it may not be necessary to include metering requirements in the GTAC, in our view, there should be an appropriate level of control on the development of those requirements. |
| 8. The total transmission capacity that First Gas determines that it can provide without with either exceeding the capacity of the DP or breaching any Security Standard Criteria [GTAC s1.1 "Operational Capacity"] | The forecast, made in good faith, of expected Maui Pipeline capacity for the next 12 month period, including total capacity (as defined by First Gas from time to time) [MPOC s1.1 "Rolling Capacity Forecast"] | Appropriate discretion for system operator |
| 9. Determine and publish the Physical MHQ (being the Hourly Delivery Quantity in GJ corresponding to the Maximum Design Flow Rate of a DP) [GTAC s1.1 "Physical MHQ"] | No equivalent provision. | Appropriate discretion for system operator |
| 10. Publish on OATIS the time on the last business day of week by which a Shipper must notify First Gas of its Provisional NQs [GTAC s1.1 "Provisional Nominations Deadline"] | The day on which the provisional nominations process for the following Week takes place is the last Business Day of each week. [MPOC s1.1 "Nomination Day"] | Appropriate discretion for system operator |
| 11. Set the price (in \$/Priority Right) to recover reasonable direct costs incurred in administering a PR Auction, below which any bid for PRs at that PR Auction will be excluded [GTAC s1.1 "Reserve Price"] | No equivalent provision. | Appropriate discretion for system operator |
| 12. Periodically determine and publish on OATIS the quantity of Line Pack to provide for Shippers' or OBA Parties' Running Mismatches [GTAC s1.1 "Running Mismatch Tolerance"] | First Gas uses its best endeavours to publish on OATIS update Line Pack hourly in arrears [MPOC s 4.1]. | We consider that GTAC s8.5 provides some control on First Gas' discretion. This provision does not provide any more |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|---|---|---|
| | First Gas uses reasonable endeavours to publish Flow Line Pack on the OATIS within 2 hours after each Intra-Day Nomination Deadline [MPOC s4.4]. | discretion than the MPOC. More clarity is required as to whether Park and Loan revenue is outside First Gas' overall revenue cap. |
| 13. Publish the Security Standard to indicate that Operational Capacity may be about to be exceeded, including minimum permissible pressures at various points on the Transmission System [GTAC s1.1 "Security Standard Criteria"] | No equivalent provision. | Appropriate discretion for system operator |
| 14. Determine and publish on OATIS the ratio of Hourly Delivery Quantity to Daily Delivery Quantity for a Dedicated DP liable for Hourly Overrun Charges having regard to striking a reasonable balance between the adverse effect of offtake with a higher Hourly to Daily ratio on Operational Capacity and the typical demand profile of the End-user [GTAC s1.1 "Specific HDQ/DDQ"] | No equivalent provision. | Appropriate discretion for system operator |
| 15. Verify that energy quantity data is accurate [GTAC s1.1 "Validated"] | Acting as a Reasonable and Prudent Operator, verify that data is accurate taking into account the time available and the information reasonably available at that time [VTC s1.1 "Validated"] | Appropriate discretion for system operator |
| 16. In the absence of a Wash-Up Agreement, determine the effect of any adjustment to any previously determined Daily Delivery Quantities or Receipt Quantity [GTAC s1.1 "Wash-up"] | No equivalent provision. | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|---|--|
| 17. Operate the Transmission System in the manner as it may determine in order to provide transmission capacity up to the prevailing Operational Capacity [GTAC s2.2] | Acting as a Reasonable and Prudent Operator, use reasonable endeavours to provide Maui Pipeline capacity consistent with its Rolling Capacity Forecast [MPOC s2.5(e)] | Appropriate discretion for system operator |
| <p>18. Discontinue transmission services at a DP, or disestablish an uneconomic or unused DP, in the following circumstances:</p> <p>(a) DNC Charges for the preceding 12 Months are less than First Gas' reasonable estimate of the future average annual operating and maintenance costs of that DP (which First Gas shall include with its notice). For the purposes of this section, DNC Charges for those 12 Months will be the aggregate DNC Charges for the relevant Delivery Zone multiplied by the metered quantity of that DP and divided by the aggregate metered quantity of the Delivery Zone.</p> <p>(b) In the circumstances described in the preceding paragraph, or where no Gas is taken at a DP for a continuous period of 12 months, First Gas will consult the Interconnected Party to determine whether it considers there is any reasonable likelihood of demand for transmission services being sufficient to generate DNC Charges at least equal to First Gas' reasonable estimate of the future average annual operating and maintenance costs of that DP (<i>Ongoing DP Cost</i>). If the Interconnected Party is unaware of any such future demand, and either does not require the DP to be kept open or is unwilling to pay the fee determined by First Gas to cover the Ongoing DP Cost, First Gas may notify</p> | <p>Discontinue providing transmission services to any DP in the following circumstances:</p> <p>(a) On 12 months' written notice if First Gas' revenue for providing transmission services over the preceding 12 months was less than \$10,000.</p> <p>(b) where no Shipper reserves capacity to a DP at the start of any Year (except in the case of a DP where offtake of Gas is seasonal and First Gas reasonably considers that such reservation is unnecessary) and First Gas' revenue for providing transmission services to that DP over the preceding 12 months was less than \$5,000, First Gas may discontinue provision of transmission services to such DP immediately and will give notice of discontinuation in respect of that DP to Shippers by posting a notice on OATIS as soon as reasonably practicable thereafter [VTC s2.5 and 2.6]</p> | <p>The GTAC gives First Gas slightly more discretion than the VTC. Linking disestablishment of a DP to operating and maintenance costs is sound in principle. However, we think that transparency regarding operating and maintenance costs would be beneficial.</p> |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|--|--|
| Shippers of its intention to disestablish that DP with effect from the date that is 20 Business Days from the date of such notification [GTAC s2.9 and s2.10] | | |
| 19. Curtail Daily Nominated Capacity in certain circumstances (see adverse events, maintenance, OFO, critical contingency and congestion in GTAC ss9 and 10) [GTAC s3.1] | Curtail Approved Nominations and association Scheduled Quantities at any relevant Welded Point for any period in which First Gas' opinion it is necessary to prevent certain events [MPOC s 15.1] | Appropriate discretion for system operator |
| 20. Publish Receipt Points and Receipt Zones [GTAC s3.2 and s1.1 "Receipt Zone"] | Listed in the MPOC as Schedule 8. Requirement to make available on OATIS [VTC s3.3 and Schedule 5] | Appropriate discretion for system owner/operator |
| 21. Determine whether investment, Interruptible Capacity or PRs should occur at a DP [GTAC s3.4] | First Gas will always endeavour to offer a Transmission Service on the Maui Pipeline even it involves development of new capacity [MPOC s2.11(a) An Interruptible Agreement is interruptible at First Gas' sole discretion [VTC s 1.1 "Interruptible Agreement" and 2.7(e)(viii)] | Appropriate discretion for system owner/operator |
| 22. The Delivery Zones to apply at the start of the following year. Such determination will have regard to certain matters [GTAC s3.9] | No equivalent provision. | Appropriate discretion for system owner/operator |
| 23. The amount of Interruptible Capacity that should be offered [GTAC s3.5] | No equivalent provision. | Appropriate discretion for system operator |
| 24. Whether an End-user could provide suitable Interruptible Load [GTAC s3.7] | No equivalent provision. | Appropriate discretion for system operator |
| 25. Eligibility criteria that an End-user willing to provide Interruptible Load must meet [GTAC s3.8] | No equivalent provision. | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|---|---|--|
| 26. Terminate an Interruptible Agreement if the End-user fails to comply with a Curtailment Notice [GTAC s3.12] | No equivalent provision. | Appropriate discretion for system operator |
| 27. Define PRs as being applicable to a group of Congested DPs [GTAC s3.16] | No equivalent provision. | Appropriate discretion for system operator |
| 28. Cancel any Scheduled PR Auction where it considers that the DP is no longer affected by congestion [GTAC s3.17] | No equivalent provision. | Appropriate discretion for system operator |
| 29. The DPs for which PRs are offered, the effective date of the PRs and the term, the estimated Available Operational Capacity during the PR Term, the number of PRs on offer, the reserve price [GTAC s 3.19] | No equivalent provision. | Appropriate discretion for system operator |
| 30. Hold a PR Auction (subject to 15 business days' notice) for a DP that is expected to experience, or experiences Congestion during a year that was not foreseen prior to the year [GTAC s3.24] | No equivalent provision. | Appropriate discretion for system operator |
| 31. Determine that a DP ceases to be affected by congestion [GTAC s3.25] | No equivalent provision. | Appropriate discretion for system operator |
| 32. Curtail any previously approved AHP where it determines that it is necessary to avoid breaching an Acceptable Line Pack Limit or having to curtail DNC or Supplementary Capacity [GTAC s3.33] | No equivalent provision. | Appropriate discretion for system operator |
| 33. Curtail flow at a Receipt Point in certain circumstances (adverse events, maintenance, OFO, critical contingency as outlined in GTAC s9) [GTAC s4.2] | Interrupt or reduce transmission from any Welded Point for any period in which First Gas' opinion it is necessary to prevent certain events [MPOC s 15.1] | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|--|---|
| | Curtail of shutdown the receipt of gas at a Receipt Point for any period that First Gas determines necessary in certain circumstances [VTC s10.1] | |
| 34. The number of Intra-Day Cycles and the times of those cycles provided that there are not less than four and that any change is subject to consultation and 60 Business Days' notice [GTAC s4.11] | A minimum of 4 Intra-Day Cycles, the deadlines for which are as posted on OATIS [MPOC s1.1 "Intra-Day Nomination Deadline" and s8.14] | Appropriate discretion for system operator |
| 35. Determine whether it is practicable to provide one or more additional Intra-Day cycles for use in the event of an unforeseeable change or First Gas' technical problems. | No equivalent provision. | Discretion is limited to whether it is "practicable". Appropriate discretion for system operator. |
| 36. Determine that metering is not required for a DP where installation would be impractical or uneconomic and may require a Shipper using the DP to provide its Delivery Quantities at the end of the month [GTAC s5.2] | Gas quantities injected into or delivered from the Maui Pipeline at a Physical Welded Point shall be determined with Metering from the Metering Owner [MPOC s16.1]. All gas that flows through any Receipt Point or any DP shall be measured by Metering [VTC s 11.1] | Appropriate discretion for system operator |
| 37. Enter into a Supplementary Agreement that varies certain terms and conditions [GTAC s7.1] | Enter into or amend a Supplementary Agreement that supplements or amends certain terms and conditions [VTC s2.7(e)] | Appropriate discretion for system owner/operator |
| 38. Enter into an Interruptible Agreement [GTAC s7.7] | Enter into or amend a Supplementary Agreement (which includes an Interruptible Agreement) that supplements or amends certain terms and conditions [VTC s2.7(e)] | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|---|--|---|
| 39. Determines the lower and upper Line Pack Limits [GTAC s8.5] | <p>First Gas determines the Low Line Pack Threshold [MPOC s1.1 “Low Line Pack Threshold”, “Flow Line Pack” and “Contingency Threshold”]</p> <p>Acceptable Operational Limits shall be set by First Gas at levels that are sufficient to enable First Gas to comply with VTC ss2.2 and 2.3 (to receive and deliver gas) [VTC s 8.3].</p> | We consider that GTAC s8.5 provides some control on First Gas’ discretion. This provision does not provide any more discretion than the MPOC. |
| 40. Determine what action is taken in the event that a breach of the Acceptable Line Pack Limit is likely without preventative action (except in the event of a CC, FM or Emergency) [GTAC s8.6] | <p>Undertake Balancing Actions with the objective of maintaining Line Pack on the Maui Pipeline with operational limits or returning them towards the operating range within those limits [MPOC s3.1]</p> <p>If the Line Pack reaches or is outside the relevant Acceptable Operational Limit, First Gas will take steps to ensure that the Line Pack is returned within the relevant Acceptable Operational Limits [VTC s8.4]</p> | Appropriate discretion for system operator. The drafting of section 8.6 of the GTAC effectively limits discretion by preferring the issue of a Low or High Line Pack Notice ahead of buying or selling gas to manage Line Pack. |
| 41. Increase (by less than \$1.00/GJ) or reduce ERM charges on not less than five business days’ notice where it reasonably believes these fees are not providing an appropriate incentive to remove ERM [GTAC s8.14] | The Negative Mismatch Price and the Positive Mismatch price shall reflect the Marginal Buy Price and the Marginal Sell Price respectively [MPOC s11.10]. The Marginal Buy Price and the Marginal Sell Price shall reflect the highest and lowest transaction price for purchasing or selling Balancing Gas [MPOC s 12.12 (b) and (c)] | Appropriate discretion for system operator. The \$1.00/GJ cap provides a limit on First Gas’ discretion. |
| 42. Whether a park and loan service is offered and the aggregate quantities [GTAC s8.16 and 8.17] | First Gas may not enter into any contract to allow gas to be stored for any specific Shipper or Welded Party in the Maui Pipeline [MPOC s2.8]. | Our assessment of First Gas’ discretion in relation to Park and Loan is influenced by the treatment of Park and Loan fees under First Gas’ revenue cap. |
| 43. Publish on OATIS the procedures for the park and loan service which may include deadlines by which applications must be lodged and approved [GTAC s8.18] | No equivalent provision. | |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|---|---|--|
| 44. Introduce procedures to allocate quantities of Parked Gas and/or Loaned Gas if the published aggregate quantities that may be accumulated or withdrawn are exceeded [GTAC s8.19(a)] | No equivalent provision. | |
| 45. Determine and notify on OATIS the prices payable to store Parked Gas and take Loaned Gas [GTAC s8.21] | No equivalent provision. | |
| 46. Curtail the injection of gas at a Receipt Point, the flow of gas through the Transmission System or the taking of gas at a DP to the extent that it determines to be necessary in certain prescribed circumstances [GTAC s 9.1] | <p>Give a Welded Party notice of an OFO to curtail or shutdown the transfer of Gas to or from the Maui Pipeline for any period in which First Gas' opinion it is necessary to prevent certain events [MPOC s15.1].</p> <p>Curtail or shutdown the receipt of gas at a Receipt Point, transmission of gas through a Pipeline, or the quantity of gas made available at a DP to the extent that First Gas, acting as a Reasonable and Prudent Operator, determines is necessary in certain prescribed circumstances [VTC s10.1]</p> | Appropriate discretion for system operator |
| 47. Undertaking of scheduled Maintenance on not less than 20 Business Days' prior notice and delay any scheduled Maintenance [GTAC s9.2] | <p>Undertaking of Scheduled Maintenance provided that that notice has been provided as soon as practicable, and in any event, not less than 30 Days before a Maintenance Day [MPOC s18.11].</p> <p>Revise the nature, timing and duration of any Maintenance Day notified to a Shipper or Welded Party as a result of circumstances that a Reasonable and Prudent Operator would not have foreseen, provided that First Gas gives a reasonable period of notice [MPOC s18.12].</p> <p>Where curtailment or shutdown is for Scheduled Maintenance, give at least 30 days' notice of such Maintenance and the likely times [VTC s10.1(i)]</p> | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|---|--|
| 48. Undertake unscheduled Maintenance by providing as much notice as is reasonably practicable [GTAC s9.3] | <p>Carry out any additional unscheduled Maintenance on the Maui Pipeline that First Gas may consider to be necessary, subject to First Gas giving each Shipper and Welded Party as much notice as is reasonably practicable [MPOC s18.15].</p> <p>Where the curtailment or shutdown is not for Scheduled Maintenance give each Shipper as much notice as is reasonably possible [VTC s 10.1 (c) and (h)].</p> | Appropriate discretion for system operator |
| 49. Issue an OFO to a Shipper (or Interconnected Party) to reduce that Shipper's (or Interconnected Party's) offtake of gas subject to specific events occurring [GTAC s9.5 and 9.7] | <p>Give a Welded Party notice of an Operational Flow Order to curtail or shutdown the transfer of gas to or from the Maui Pipeline, provided that it is reasonably necessary in specific circumstances [MPOC s15.1(b)]</p> <p>Give a Shipper an Operational Flow Order to require a Shipper to ensure that its offtake of gas at a DP is curtailed and/or that its Nominated Quantities are reduced at a Receipt Point if specified events occur [VTC s 10.2]</p> | Appropriate discretion for system operator |
| 50. Notify a Shipper or Interconnected Party of the proportionate reduction in their offtake of gas after an OFO is issued [GTAC s9.7 and 9.9] | During each Intra-Day Cycle, if First Gas is required to curtail Shippers' Intra-Day Nominations or Approved Nominations as a result of an OFO then capacity shall be allocated as set out in MPOC s8.27 [MPOC s 8.28(c)]. | Appropriate discretion for system operator. First Gas' discretion only applies to Dedicated DPs. |
| 51. Curtail a Shipper's offtake if a Shipper fails to comply with an OFO [GTAC s9.12] | Suspend injections or offtake at a Welded Point if a Welded Party is in breach of an Operational Flow Order provided that First Gas, acting as a Reasonable and Prudent Operator, considers that such action is necessary to protect the | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|---|--|
| | operational integrity of the Maui Pipeline or the wider gas pipeline system [MPOC s2.23]. | |
| 52. Curtail requests for capacity where Congestion would result from aggregate NQs (subject to Priority Rights); or issue an OFO or curtail capacity (subject to Priority Rights) if Congestion is in effect [GTAC s10.3] | Reduce Shippers' nominated quantities at a Welded Point in accordance with a specific priority if the First Gas' Proposed Scheduled Quantity is more than the Welded Party's Scheduled Quantity [MPOC ss8.17 to 8.19]. | Appropriate discretion for system operator |
| 53. Change the multiplier that applies to Daily Overrun and Daily Underrun charges if the current multiplier is not providing Shippers with an appropriate incentive to maximise the accuracy of their NQs (but not sooner than 60 business days after the date of the notification of its intention to change) [GTAC s11.4] | No equivalent provision. | Appropriate discretion for system operator |
| 54. Change the multiplier that applies to Hourly Overrun if the current multiplier is not providing Shippers with an appropriate incentive to avoid exceeding the HQ (but not sooner than 60 business days after the date of the notification of its intention to change) [GTAC s11.5] | No equivalent provision. | Appropriate discretion for system operator |
| 55. Determine standard transmission fees annually in accordance with the transmission pricing methodology, the price-quality path set by the Commerce Commission and the Commerce Commission's pricing principles [GTAC s11.15] | Review and/or change tariffs in accordance with the tariff principles set out in Schedule 10 with 60 Days' prior written notice, but no more than once in any 12 month period [MPOC s 19.9] Notify each Shipper by 1 June in each year of the provisional fees to be used in the calculation of Transmission Charges for the following year [VTC s15.6]. | Appropriate discretion for system owner/operator |
| 56. Cease odorising Gas in a pipeline upon the expiry of 18 months' written notice to all Shippers [GTAC s13.5] | Cease to odorise gas in an odorised Pipeline upon 12 months' written notice to each of the Shippers using that Pipeline [VTC s13.3]. | Appropriate discretion for system operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|--|---|--|
| 57. In respect of the requirement for a Shipper to hold an acceptable credit rating, accept a credit rating equivalent to the prescribed ratings or other reference from a reputable person which is acceptable to First Gas [GTAC s 14.2] | <p>In respect of the requirement for a Shipper or Welded Party to hold an acceptable credit rating, accept some other reference from a reputable person [MPOC s 20.3]</p> <p>In respect of the requirement for a Shipper or Welded Party to hold an acceptable credit rating, accept such other equivalent credit rating other reference from a reputable person [VTC s 14.3]</p> | Appropriate discretion for system owner/operator |
| 58. Require a Shipper or a third party Credit Support provider to provide evidence of the existence of an acceptable credit rating [GTAC s 14.3] | Require a Shipper, Welded Party or third party security provider (as the case may be) to provide such evidence of the acceptable credit rating as First Gas may reasonably require [MPOC s20.5]. | Appropriate discretion for system owner/operator |
| 59. Make a claim under any Credit Support or require a change or increase to Credit Support if a Shipper fails to pay First Gas the amount set out in any invoice [GTAC s14.6] | Make a claim under any Credit Support to the extent payment is due or require an increase to the level of Credit Support held for the Shipper [VTC s14.9]. | Appropriate discretion for system owner/operator |
| 60. Decline to approve a recommended Change Request on the basis that the Change Request would breach the RPO obligation, require expenditure that could not be recovered, or affect current or future transmission services [GTAC s17.14] | <p>Withhold consent for a Change Request where it would require First Gas to incur capital expenditure or operating expenses that could not reasonably be recovered, materially adversely impact First Gas' Maui Pipeline business or tariffs or a TP Welded Party's Pipeline business or the compatibility of the open access regimes [MPOC s 29.4(b)].</p> <p>Withhold consent for a Change Request if First Gas considers that a Shipper has not participated in the change process in good faith or if First Gas' consent is reasonably withheld. [VTC s 25.24]</p> | Appropriate discretion for system owner/operator |

| GTAC provision | Equivalent provision in MPOC/VTC | Comment |
|---|---|---|
| <p>61. Ability to make a temporary change to the Code if it believes that such change is necessary to respond to unforeseen circumstance which threatens the integrity of, or the proper commercial operation of the Transmission System [GTAC s17.19]</p> | <p>Make changes to the MPOC immediately and without prior consultation or notice if the changes are required by law, including any applicable regulation or the order of a Court, except where there is sufficient time for the completion of the change process in MPOC s29.4 [MPOC s29.3].</p> <p>Request that the timeframes for consultation or voting on a Change Request are reduced, provided that First Gas and all Shippers must consent to the reduced timeframe, not to be unreasonably withheld or delayed [VTC s25.15].</p> | <p>Appropriate discretion for system owner/operator</p> |
| <p>62. Suspend transmission services if FG becomes aware that a Shipper is in breach of the Code (for the duration of the non-compliance) if, in First Gas' opinion, that action is reasonably necessary to protect other Shippers or their use of the transmission system [GTAC s19.5]</p> | <p>Suspend any Transmission Services provided to a Shipper that is in breach of any material terms and conditions on which the Shipper has the use of any Receipt Point or DP for the duration of the non-compliance and to the extent necessary to protect the use of the Maui Pipeline by other Shippers [MPOC s2.22]</p> <p>Suspend any transmission services on the Transmission System provided to a Shipper that breaches any material term or condition of that Shipper's TSA for the duration of the non-compliance and to the extent necessary to protect other Shippers or the Transmission System [VTC s20.4].</p> | <p>Appropriate discretion for system operator</p> |

Conclusion on First Gas' discretion

In our view, the table demonstrates that First Gas' discretion has not materially increased when compared to the discretion under the MPOC and the VTC. Where the GTAC introduces new discretion, with the exception of First Gas' discretion in relation to Park and Loan in relation to which further information is required, that discretion is generally appropriate for an operator of a transmission system. However, we would like to receive stakeholder views on this aspect of our preliminary assessment.

Q22: Do you agree with our analysis of First Gas' discretion?

Appendix E Information to be published

This Appendix compares the information that the GTAC, MPOC and VTC require to be publicly disclosed by.

We consider information transparency is key to facilitating efficiency in the gas transport and energy markets. Equitable and timely access to operational and market information improves decision making by reducing uncertainty and information asymmetries. This is why information transparency is a central plank of both the US and EU gas markets.

Many of First Gas' disclosures are mandated by the Information Disclosure requirements set by the Commerce Commission under Part 4 of the Commerce Act. However, each code – GTAC, MPOC and VTC – provides for further disclosures that are more specific to the particular regime. The items specifically made public (ie "published") by those codes are tabulated below.

There are a number of places where the GTAC refers to information being published on OATIS. Similarly, GTAC Schedule 2 lists "information to be published". We have asked First Gas if this means that such information would be available to any interested party. First Gas has confirmed that this is the case, the information would be publicly available.

In other places, the GTAC refers to information being available to, or notice being given to, shippers, or to shippers and interconnected parties. We have asked First Gas if this means that such information would only be available to those parties, and not generally available to another interested party. First Gas has confirmed that this would be the situation.

Conclusion on public information

Summarising the **Table 31** comparisons:

System pressures

Only the MPOC commits to publishing the TTP once a day.

Line Pack

The MPOC commits to providing the most comprehensive information: Line Pack updated hourly in arrears, as well as regular updates of Flow Line Pack and Contingency Volume. The GTAC only commits to "periodically" notifying Line Pack available for Running Mismatch Tolerances, what the upper and lower Line Pack limits are and, if practical, when those limits are being rapidly approached.

System operation

The GTAC provides the most comprehensive commitments, including to publish: its Critical Contingency management plan, RP and DP maintenance schedules, shipper reported FMs, First Gas reports on FM events.

Capacity

The GTAC provides the most comprehensive commitments to capacity disclosure, including: likely congested points, notification of insufficient interruptible load, notification of PR auctions, etc. But only the MPOC commits to monthly publication of rolling capacity forecasts.

Peaking

The GTAC commits to nothing, while the MPOC commits to publishing the peaking arrangements it has agreed to.

Nominations

The GTAC and the MPOC both commit to publishing the intra-day nomination deadlines.

Balancing

The GTAC does not commit to disclosing any balancing related information. The MPOC commits to providing the most comprehensive information, including operational imbalances, and ROIs, ROI trades and cash-outs.

Energy Quantities

The GTAC and VTC commit to publishing DDRs and HDRs. However, the VTC goes further by committing to publish reconciled DDRs for each shipper, and a re Report showing, for each shipper at each DP, its Reserved Capacity and Authorised Overrun Quantities. It also commits to publishing UFGs.

Contracts and other documents

All codes commit to making transport contracts publicly available. The GTAC and MPOC also commit to making interconnection agreements public (the VTC does not address interconnected parties, and their interconnection contracts are not publicly available).

Prices

All codes commit to making prices publicly available.

We conclude that, on the basis of the information that GTAC sch 2 commits to disclose publicly, the GTAC is not significantly more open than the MPOC and VTC.

Q23: Do you agree with our analysis of public information disclosure?

Table 31 – Information each code commits to make publicly available

| GTAC | | MPOC | | VTC | |
|------|-----------|------|-----------|------|-----------|
| Item | Frequency | Item | Frequency | Item | Frequency |

System pressures

| | | | | | |
|--|--|---|--|--|--|
| | | TTP at the time all Approved Nominations are confirmed. | By 5.00 pm on the previous Day. | | |
| | | Maximum Allowable Operating Pressure (MAOP). | Updated as required by MPOC. | | |

Line Pack

| | | | | | |
|--|---|--------------------------|---|--|---|
| Low Line Pack Notice; High Line Pack Notice (GTAC s8.6 & sch2). | Where practical, if Line Pack is decreasing or increasing excessively fast. | Low Line Pack Threshold. | Within 2 hours after each Intra-Day Nomination Deadline. | Notice that Line Pack has reached or is outside of the Acceptable Operational Limits (VTC s8.4). | As soon as reasonably practicable. |
| Acceptable Line Pack Limits (upper and lower) (GTAC s1.1 & sch2). | As required for operational purposes. | | | The Acceptable Operational Limits (VTC s1.1). | At the Commencement Date and as soon as reasonably practicable following amendment. |
| Line Pack to provide Running Mismatch Tolerance for Shippers and First Gas (GTAC s1.1 & sch2). | Periodically. | | | | |
| Line Pack to provide Running Mismatch Tolerance for Shippers and OBA Parties (GTAC s1.1 & sch2). | Periodically. | | | | |

| GTAC | | MPOC | | VTC | |
|------|--|---|---|-----|--|
| | | Indicative capacity available for Transmission Services each Day. | By 6pm on the Day before. | | |
| | | Line Pack. | Updated Hourly in arrears. | | |
| | | Flow Line Pack. | Within 2 hours after each Intra-Day Nomination Deadline. | | |
| | | Time equivalent of Contingency Volume for each Day. | Hourly in arrears in accordance with changes to Line Pack. | | |
| | | Contingency Volume that First Gas aims to have available for each Day. | By 5.00 pm on the previous Day. | | |
| | | Contingency Volume that First Gas has available from time to time. | Hourly in arrears in accordance with changes to Line Pack. | | |
| | | Nominated date for restoration of Contingency Volume pursuant to MPOC s15.10. | In accordance with MPOC s15.10. | | |

System operation: maintenance, Force Majeure (FM), critical contingency and Operational Flow Orders (OFOs)

| | | | | | |
|---|--|--|--|-----------------------------------|--|
| Critical Contingency Management Plan (GTAC s1.1 & sch2). | As required (e.g. after any change). | | | | |
| Notice of scheduled Maintenance that affects receipt or delivery of Gas (GTAC s9.2 & sch2). | Not less than 20 Days' notice (to the affected parties). | | | | |
| First Gas declares a Force Majeure Event (GTAC s15.3 & sch2). | As soon as practicable after the event. | | | Force Majeure Notice (VTC s22.3). | As soon as reasonably practicable after Vector gives notice under VTC s22.3. |

| GTAC | | MPOC | | VTC | |
|--|---|------|--|---------------------------------------|---|
| Shipper Report on Force Majeure Event (GTAC s15.7 & sch2). | As soon as practicable after report received. | | | | |
| First Gas report on Force Majeure Event (GTAC s15.9). | As soon as practicable. | | | | |
| | | | | Scheduled Maintenance (VTC s10.1(i)). | At least 30 days before the date on which the Scheduled Maintenance is expected to occur. |
| | | | | Operational Flow Order (VTC s10.2). | As soon as reasonably practicable after Vector gives notice under VTC s10.2. |

Capacity

| | | | | | |
|--|--|--|--|--|---|
| | | AQ Volumes available to be allocated by First Gas in each AQ Zone. | As posted by First Gas from time to time. | | |
| | | Rolling Capacity Forecast | Updated monthly, within 6 Business Days of receipt of all Shippers' Rolling Forecasts. | | |
| | | Mismatches available for trading. | As posted by Shippers from time to time. | | |
| | | Operational Imbalances available for trading. | As posted by Welded Parties from time to time. | | |
| | | AQ available for trading. | As posted by Shippers from time to time. | | |
| | | | | Alternative Transmission Service (ATS) Notice (VTC s1.1 & 2.21). | As soon as reasonably practicable where transmission services are curtailed or shutdown |

| GTAC | | MPOC | | VTC | |
|--|--|------|--|--|--|
| | | | | | under VTC s10.1(a) or (c). At the same time as a 30 Day notice is published under VTC s10.1(i) for Scheduled Maintenance. |
| | | | | Tracking Table showing the Receipt Point, DPt, Reserved Capacity and Authorised Overrun Quantity for each Receipt Point and DP (VTC s4). | Prior to the third Friday in September each Year and as soon as reasonably practicable following any change to a Receipt Point, DP, Reserved Capacity and/or Authorised Overrun Quantity in accordance with a TSA. |
| Receipt Zones (GTAC s3.2 & sch2) | Annually or as required | | | | |
| Delivery Zones (GTAC s3.3 and sch 2). | Annually, by 30 June | | | | |
| Need for Interruptible Load; amount of Interruptible Load required (GTAC s3.5 and sch2). | As required | | | | |
| Criteria for Interruptible Load (GTAC s3.8 and sch2). | As required | | | | |
| First Gas' direct request for Interruptible Load (GTAC s3.10). | As required | | | | |
| PR Auction Terms and Conditions: Number of PRs on offer; PR Term; Reserve | Minimum 10 Business Days before a PR Auction | | | | |

| GTAC | | MPOC | | VTC | |
|---|--|------|--|-----|--|
| Price for PRs (GTAC s3.19 & sch2). | | | | | |
| Publication of the number of PRs allocated to each Shipper after a PR Auction (GTAC s3.20 & sch2). | After each PR auction and before the relevant PR Allocation Day. | | | | |
| Publication of the number of PRs traded by Shippers and the PR sale price; Amendment of Shipper PR holdings following any trade (GTAC s3.21 & sch2). | Promptly following any trade. | | | | |
| Notification of Congestion arising during a year; Confirmation of a PR Auction date; Exclusion of Congested DP from a Delivery Zone (GTAC s3.24 & sch2). | As required | | | | |
| Notification that Congestion no longer exists: Update Shippers' holdings of PRs on OATIS for any PRs cancelled; Notify the Delivery Zone in which the former Congested DP will be included (GTAC s3.25 & sch2). | As required | | | | |

Peaking

| | | | | | |
|--|--|---|---|--|--|
| | | Peaking arrangements agreed in accordance with MPOC s13.2 | Promptly after First Gas agrees to arrangement. | | |
|--|--|---|---|--|--|

| GTAC | | MPOC | | VTC | |
|------|--|------|--|---|------------------------------------|
| | | | | Each response from MDL to a notification given to MDL of Peaking Limit under VTC s13.2 (VTC s8.22). | As soon as reasonably practicable |
| | | | | Notice that Peaking Limit may be exceeded (VTC s8.23). | As soon as reasonably practicable. |

Nominations

| | | | | | |
|--|--|---------------------------------|---|--|--|
| Intra-Day Cycle times, including deadlines for NQs and First Gas approval (GTAC s4.11 & sch2). | As required | | | | |
| Intra-Day Nominations Deadlines (GTAC s1.1 & sch2). | As required (e.g. after any change to the number of cycles). | Intra-Day Nomination Deadlines. | Updated from time to time on 30 Days' notice. | | |

Balancing

| | | | | | |
|--|--|--|--|--|--|
| | | Operational Imbalance for each Welded Point. | Unvalidated: For each Transmission Day by 8.00am the following Day. Validated: For each Transmission Day by 12.00pm on the next Business Day and in accordance with MPOC s12.2 to 12.4. | | |
| | | Running Operational Imbalance for each Welded Point. | Unvalidated: For each Transmission Day by 8.00am on the following Day. | | |

| GTAC | | MPOC | | VTC | |
|------|--|--|---|--|--|
| | | | Validated: For each Transmission Day by 12.00pm on the next Business Day and in accordance with MPOC s12.2 to 12.4. | | |
| | | Quantities of Gas purchased or sold at each Welded Point pursuant to a Cash-Out Transaction. | For each Transmission Day, by 12.00pm on the following Day. | | |
| | | Quantities of Gas traded at each Welded Point via First Gas IX and in accordance with MPOC s12.15. | For each Transmission Day, by 12.00pm on the following Day. | | |
| | | | | Vector Running Imbalance (whether positive or negative) on each Day for each Pipeline. | The day Vector issues invoices to Shippers under VTC s16.2. |
| | | | | Acceptance Notice for each Tender(s) (VTC s8.4). | As soon as reasonably practicable once accepted by Vector. |
| | | | | The BPP Schedule and invoices issued by Vector under VTC s16.1 & 16.2 where Vector elects to provide them via OATIS under VTC s16.12(b). | In respect of invoices issued under s14.1 on or before the 10 th day of each month for the previous Month In respect of invoices issued under s14.3 on or before the 14 th day of each month for the previous Month |

| GTAC | | MPOC | | VTC | |
|---|---|---|--|---|---|
| Energy Quantities and Parameters | | | | | |
| | | | | Reconciled Daily Delivery Reports (DDRs) for each Shipper. | Monthly in arrears, by 0800 hours on the 6 th Business Day of the Month. |
| | | | | Report showing, by Shipper, the Receipt Point, DP, Reserved Capacity and Authorised Overrun Quantity for each Receipt Point and DP. | Quarterly |
| Daily Delivery Reports; Hourly Delivery Reports (GTAC s5.5 & sch2), | For Metering that First Gas monitors by telemetry (including SCADA), as soon as practicable and not later than (on the next Business Day after a Day): Unvalidated data by 1000; and Validated data by 1200 | | | Aggregate DDRs, HDRs and station metering. | As soon as reasonably practicable. |
| Gas composition data (GTAC s5.8 & sch2). | By 1200 each Business Day, data for the most recent Business Day and each Day since that Day (if any). | | | | |
| | | Metering data from each Large Station Welded Point. | Hourly within 30 minutes after the end of each Hour. | | |
| | | Provisional Cycle Scheduled Quantity at each Welded Point pursuant to MPOC s9.4 | Each Nomination Day by 6.00 pm. | | |

| GTAC | | MPOC | | VTC | |
|------|--|--|---|---|--|
| | | Changed Provisional Cycle Scheduled Quantity at each Welded Point pursuant to MPOC s9.7. | For each Transmission Day by 5.00 pm of the Previous Day. | | |
| | | Intra-Day Cycle changes to Scheduled Quantities at each Welded Point. | Within 1 Hour after the Intra-Day Nomination Deadline. | | |
| | | Hourly Scheduled Quantity at each Welded Point. | For each Transmission Day, by 12.00pm on the following Day. | | |
| | | | | UFG – Actual for previous month and daily unvalidated | As soon as practicable after calculation at the start of the following month |

Contracts and other documents

| | | | | | |
|---|--|--|---|--|--|
| Supplementary Agreements (GTAC s7.6 & sch2) | As soon as practicable following execution | | | | |
| Ias (GTAC s7.11 & sch2) | As soon as practicable following execution | | | | |
| Interconnection Agreements (GTAC s7.15 & sch2) | As soon as practicable following execution | | | | |
| Uneconomic / discontinued transmission services (GTAC s2.9 and sch2). | As required | | | | |
| | | The Maui Pipeline Operating Code | Updated as necessary in accordance with MPOC s29. | | |
| | | Special terms and conditions for a particular Shipper or Welded Party. | Updated when amended. | | |
| | | Gas Transfer Code | Updated when amended. | | |

| GTAC | | MPOC | | VTC | |
|------|--|------|--|---|---|
| | | | | Description of Transmission System (VTC s1.1). | Annually, as part of pipeline capacity disclosure. |
| | | | | The Code (Part B of Schedule One). | At the Commencement Date and updated as soon as reasonably practicable following amendment. |
| | | | | Schedule of Shippers including the Receipt Points and DP to which each such shipper's transmission services agreement relates (and other information that Vector may post pursuant to VTC s2.10). | In respect of (a) a transmission services agreement, as soon as reasonably practicable after execution of each such agreement and (b) other information, at Vector's discretion |
| | | | | Each Inter-Pipeline Point (VTC s1.1). | At the Commencement Date and updated as soon as reasonably practicable following amendment. |
| | | | | Metering Requirements for Receipt Points and DP (VTC s1.1). | At the Commencement Date and updated as soon as reasonably practicable following amendment. |
| | | | | Description of Pipelines (VTC s1.1). | At the Commencement Date and updated as soon as reasonably |

| GTAC | | MPOC | | VTC | |
|---|---|------|--|--|--|
| | | | | | practicable following amendment. |
| | | | | Tender Terms (VTC s1.1). | At the Commencement Date and updated following amendment. |
| | | | | Critical Contingency Management Plan (VTC s1.1). | At the Commencement Date and as soon as reasonably practicable following its amendment or replacement. |
| | | | | Supplementary Agreements. | As soon as reasonably practicable. |
| Running Mismatches of Shippers, OBA Parties and First Gas (GTAC s8.15 & sch2). | As soon as practicable after determination. | | | | |
| Parked Gas and/or Loaned Gas quantities (GTAC s8.17 & sch2). | Following their determination | | | | |
| Procedures for parties applying to Park or take Loaned Gas (GTAC s8.19 & sch2). | As required. | | | | |
| Prices payable to Park Gas and take Loaned Gas (GTAC s8.21 & sch2). | As required. | | | | |
| Operational Flow Orders (GTAC s9.5, 9.7 & sch2) | As soon as practicable after issuance. | | | | |

Prices

| | | | | | |
|--|--------------|--|--|--|--|
| Negative ERM fee (F_{NERM}) (GTAC s8.12 and sch2) | As required. | | | | |
| Positive ERM fee (F_{PERM}) (GTAC s8.13 and sch2) | As required. | | | | |

| GTAC | | MPOC | | VTC | |
|---|-----------------------|------------------------------|--|---------------------------------------|--|
| Daily Nominated Capacity Fees (GTAC s11.16) | By 30 June each year. | | | | |
| Specific HDQ/DDQ for all Dedicated DPs (GTAC s1.1 & sch2) | Annually. | | | | |
| Physical MHQ for all Dedicated DPs (GTAC s11.7 and sch2) | Annually. | | | | |
| | | Daily Incentive Price. | For each Transmission Day, by 11.00 am the following Day. Updated subject to changes to the Premium Fuel Value Fee. | | |
| | | Negative Mismatch Price. | From time to time, with effect not less than 1 Day after posting. | | |
| | | Incentives Pool Debit Price. | As soon as reasonably practicable after all Incentives Pool Debits have been calculated and all Incentives Pool Claims have been submitted for that Day. | | |
| | | Positive Mismatch Price. | From time to time with effect not less than 1 Day after posting. | | |
| | | Premium Fuel Value Fee. | Promptly once information becomes available from the electricity market. | | |
| | | Throughput Charges. | In accordance with MPOC s19.9. | | |
| | | | | Capacity Reservation Fee (VTC s15.6). | Annually, with the provisional fee for Year(n+1) by 1 June and |

| GTAC | | MPOC | | VTC | |
|------|--|------|--|-------------------------------------|---|
| | | | | | the confirmed fee for Year(n+1) by 1. |
| | | | | Throughput Fee (VTC s15.6). | Annually, with the provisional fee for Year(n+1) by 1 June and the confirmed fee for Year(n+1) by 1. |
| | | | | Correction Fee (VTC s15.6). | As soon as reasonably practical after being amended in accordance with the Code, but no more than annually. |
| | | | | Transmission Posted Price Schedule. | Annually. |

Gas Quality

| | | | | | |
|---|-------------|--|--|---|---|
| Notification of Non-Specification Gas (GTAC s12.4 & 12.5 & sch2). | As required | | | | |
| Report on Interconnected Party's compliance with Gas Specification (GTAC s12.6 & sch2). | As required | | | | |
| Odourisation spot check results (GTAC s13.4 & sch2). | Monthly | | | | |
| | | | | Defined gas types and certain properties of each gas type for each Business Day at each DP. | By 1200 hours on each Business Day following the Day on which the Shipper takes that gas. |
| | | | | Notice of delivery of Non-Specification Gas (VTC s12). | As soon as reasonably practicable upon |

| GTAC | | MPOC | | VTC | |
|------|--|------|--|-----|--|
| | | | | | detecting or suspecting such occurrence. |

General Notices

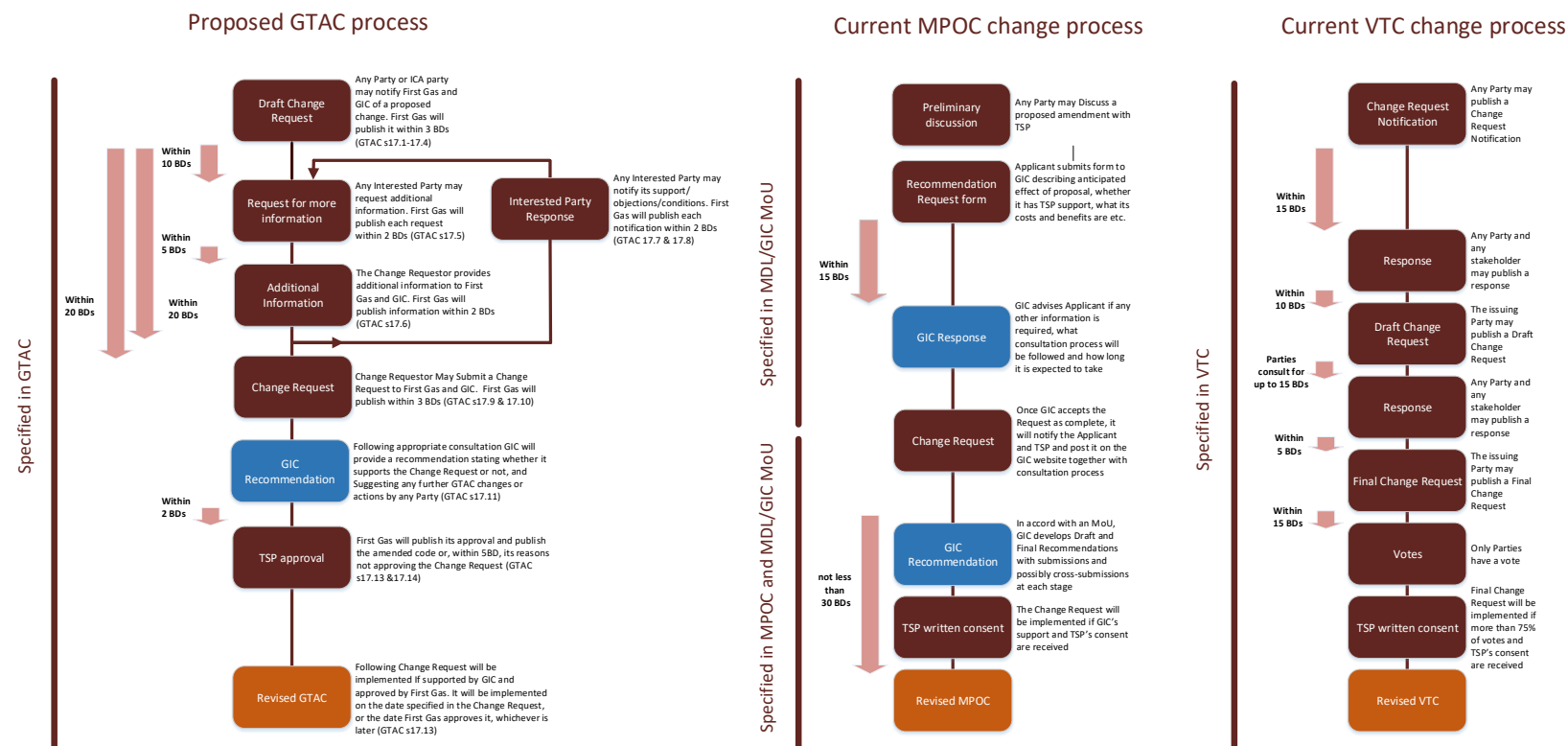
| | | | | | |
|---|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| Adjusted Capped Amounts (GTAC s16.5 & sch2). | Following annual CPI adjustment. | | | | |
| Publication of Draft Change Request (GTAC s17.4 & sch2) | Within 3 business days of receipt. | | | | |
| Publication of questions, responses and views about Draft Change Request (GTAC s17.8 & sch2). | Within 2 business days of receipt. | | | | |
| Publication of Change Request (GTAC s17.10 & sch2). | Within 3 business days of receipt. | | | | |
| First Gas' approval of Change Request approved by GIC (GTAC s17.13 & sch2). | Within 5 business days of GIC decision. | | | | |
| First Gas' decision not to approve a Change Request approved by GIC, with reasons (GTAC s17.14 & sch2). | Within 5 business days of decision. | | | | |
| Publication of notice of objection (GTAC s17.16 & sch2). | As soon as practicable after receipt. | | | | |
| Publication of Code incorporating Correction | As soon as practicable following expiry of objection period. | | | | |

| GTAC | | MPOC | | VTC | |
|--|-------------------------|--|---|---|--|
| Request (GTAC s17.17 & sch2). | | | | | |
| Notification of Urgent Code Change (GTAC s17.20 & sch2). | As soon as practicable. | | | | |
| | | General notices, non-critical notices, and critical notices. | Daily as required. | | |
| | | Maintenance Days for Scheduled Maintenance. | In accordance with MPOC s18.11 & 18.12. | | |
| | | | | Request for Tenders issued in accordance with VTC s8.4. | Issued by Vector as required. |
| | | | | Each Tender for Gas (including the details specified in VTC s8.49c)(ii)). | As soon as reasonably practicable following the period for submitting tenders. |
| | | | | Status of each Shipper's TSA under VTC s2.12. | As required under VTC s2. |
| | | | | Notice that VTC s2.6 may be invoked (VTC s4.2). | As soon as reasonably practicable following the receipt by Vector of the Provisional Reservation Requirements. |
| | | | | List of odorised Pipelines, notice of intention to change the odorisation status of a Pipeline and notice that a change has occurred (VTC s13.1). | At the Commencement Date, at least 12 months prior to the change in odorisation status and as soon as reasonably practicable following any change to the odorisation status of a Pipeline. |

| GTAC | | MPOC | | VTC | |
|------|--|------|--|---|---|
| | | | | Independent Auditors' Report of BPP Account (VTC s8.28 & 8.29). | Annually, as soon as reasonably practicable following receipt by Vector or as otherwise required. |
| | | | | The Posted Terms and Conditions for Displaced Gas Nominations, and any Consent Form – Displaced Gas Nominations (VTC s1.1 and 9.2(a)). | At the Commencement Date and updated following amendment. |
| | | | | Vector exercising its rights to interrupt, accept or not accept nominations or revised nominations in full under a Supplementary Agreement. | Monthly report. |
| | | | | All remaining notices issued to Vector as a Welded Party under the MPOC that Vector determines are relevant to the Shipper. | As soon as reasonably practicable following receipt by Vector. |

Appendix F Code change processes

This Appendix compares the GTAC, MPOC and VTC code change processes.



Appendix G The red arrows - aspects of the GTAC arrangements that are assessed negatively

This Appendix collates each assessment in the Chapter 3 bottom-up analysis that contained a red arrow, and provides a brief explanation of why we assessed that feature as negative. The intention is to coral together all of the features that could be improved.



Table 32 - Reasons for assessing some aspects of the GTAC arrangements negatively

| Aspect | | |
|---|------------|--|
| Criteria under consideration | Assessment | Reason for red arrow |
| Gas transmission products | | |
| Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements) | ↑ and ↓ | Transition to the GTAC regime would involve costs for all participants (for example, in its submission, Vector notes that it anticipates its business would break-even within five year of the GTAC being introduced). |
| Efficiency: Criterion 5 (sustained downward pressure on costs and prices) | ↑ and ↓ | Increased nomination workload costs, particularly on shippers. |
| Reliability: Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently) | ↑ and ↓ | PR auctions may not result in an efficient allocation of risk because if mass market shippers are unable to secure PRs they have no effective means of reducing their demand. |
| Fairness: Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and | ↑ and ↓ | Fairness would be deteriorated by the wide scope for ICA negotiation and the inadequate design of AHP arrangements. |

| Aspect | | |
|---|------------|--|
| Criteria under consideration | Assessment | Reason for red arrow |
| transmission pipelines can be accessed on reasonable terms and conditions) | | |
| Pricing | | |
| Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements) | ↑ and ↓ | Concerns that incentive fees (daily and hourly overrun, daily underrun fees) may be disproportionately high (particularly in non-congested situations), would not apply to SAs or IAs, and that ERM charges are asymmetric. |
| Efficiency: Criterion 3 (reducing barriers to competition) | ↑ and ↓ | Concerns that aggregate incentive revenue will be higher than at present and, because of the rebate mechanism, smaller shippers will effectively face higher marginal incentive charges, and less informed end-users may not get the benefit of any rebates. |
| Efficiency: Criterion 5 (sustained downward pressure on costs and prices) | ↑ and ↓ | As above, in relation to Criterion 3. |
| Efficiency: Criterion 5 (sustained downward pressure on costs and prices) | ↑ and ↓ | As above, in relation to Criterion 3. |
| Efficiency: Criterion 9 (facilitating competition in upstream and downstream markets) | ↑ and ↓ | As above, in relation to Criterion 3. |
| Efficiency: Criterion 10 (full cost of producing and transporting are signalled to consumers) | ↓ | As above, in relation to Criterion 3. |
| Fairness: Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions) | ↑ and ↓ | Hourly overrun charges are only payable by parties shipping to dedicated DPs on standard TSAs, but the monies collected will be rebated to all shippers using DNC. Shippers using SAs or IAs may incur transmission incentive charges, but not qualify for any rebates. |

| Aspect | | |
|---|------------|---|
| Criteria under consideration | Assessment | Reason for red arrow |
| Energy quantity determination | | Criterion 5 (sustained downward pressure on costs and prices): |
| Reliability: Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently) | ↑ and ↓ | The 9 month interval before special tests is worse than under the MPOC (60 days) or VTC (90 days), and the absence of a completed Metering Requirements document, or an appropriate process for development of that document, is a concern. |
| Energy allocation | | |
| Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements) | ↑ and ↓ | Some aspects of the GTAC relating to OBA Parties (but not directly related to energy allocation) may cause Interconnected Parties to avoid choosing OBA as an allocation method. |
| Reliability: Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently) | ↓ | Absence of the Wash-up Agreement. |
| Balancing | | |
| Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements) | ↑ and ↓ | Uncertainties regarding tolerance levels. |
| Curtailement | | |
| Fairness: Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions) | ↓ | Shippers should use their best efforts to comply with OFOs, but it is unreasonable to expect that can always comply. |

| Aspect | | |
|---|------------|---|
| Criteria under consideration | Assessment | Reason for red arrow |
| Congestion Management | | |
| Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements) | ↑ and ↓ | The First Gas discretion to negotiate SAs and IAs could lead to outcomes that undermine the benefits of PRs. Also, where mass market shippers are unable to obtain PRs their risks could be unmanageable. |
| Efficiency: Criterion 3 (reducing barriers to competition) | ↑ and ↓ | The First Gas discretion to negotiate SAs and IAs has the potential to increase barriers to competition. |
| Efficiency: Criterion 5 (sustained downward pressure on costs and prices) | ↑ and ↓ | Prices will increase to reflect added cost of PR auctions. |
| Reliability: Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently) | ↑ and ↓ | Mass market retailers have no practical means of managing their risk if they fail to obtain the PRs. |
| Governance | | |
| Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements) | ↑ and ↓ | The liability arrangements under the GTAC may increase the risk of disputes and incentivise inappropriate behaviour. |
| Reliability: Criteria 1, 2 and 6 (providing reliable and competitive arrangements and allocating risks properly and efficiently) | ↓ | Material changes have been made to the liability arrangements in relation to the injection of Non-Specification Gas. We have concern regarding the enforceability of those arrangements when compared to the current regime under the MPOC and VTC. Accordingly there is a modest negative impact on the proper and efficient management of risks relating to security of supply. |

| Aspect | | |
|---|---|--|
| Criteria under consideration | Assessment | Reason for red arrow |
| Fairness: Criteria 13 and 18 (gas is delivered to existing and new customers in a fair manner, and transmission pipelines can be accessed on reasonable terms and conditions) |  and  | We have concerns regarding the process for enforcing key aspects of the liability framework. We think that aspects of the termination and confidentiality arrangements have a negative impact on Shippers when compared to the MPOC and VTC and are not a reasonable change. |

Glossary

| Term | Description |
|------------------------------|---|
| AHP | Agreed Hourly Profile. A GTAC term for a demand profile requested by a shipper and agreed by First Gas. AHPs apply only at Dedicated DPs. |
| Allocation Agreement | For receipt and/or DPs where gas quantities must be allocated between parties (other than in accordance with the Downstream Reconciliation Rules), an agreement between those parties and an Allocation Agent about how those quantities will be calculated and notified. |
| Available Operation Capacity | A term used in the GTAC to mean the amount of capacity that First Gas determines it can make available as DNC at a DP without exceeding the capacity of that DP or any Security Standard Criteria. |
| Beneficiary DP | A term used in the GTAC to mean a DP where First Gas has entered into an IA for the purposes of Congestion Management. The other users of the DP are the beneficiaries since they benefit from the capacity freed up when such an IA is interrupted. |
| BPP | The Balancing and Peaking Pool, a mechanism in the VTC to ring-fence and allocate MPOC cash-outs among VTC shippers via a trust account. |
| Cash-Out | A forced sale or purchase of a user's gas by First Gas to resolve an outstanding mismatch/imbalance position. |
| Congestion Management | A term used in the GTAC to mean the measures First Gas may take to alleviate congestion. These may include (to the extent necessary) curtailing requests for interruptible, supplementary capacity, NQ not covered by PRs and, as a final resort, NQ covered by PRs. |
| D+1 | D+1 commonly refers to a system for allocating quantities of gas at a shared point among the parties flowing gas through that point, on the day after gas flow. |
| DDR | Daily Delivery Report. |
| DNC | Daily Nominated Capacity, the core product offered under the GTAC. |
| DP | Delivery Point |
| Dedicated DP | A GTAC term for a DP that supplies gas to a single end-user. |
| DRRs | Gas (Downstream Reconciliation) Rules 2008. |
| ERM | Excess Running Mismatch. A GTAC term meaning a party's Running Mismatch in excess of its tolerance. |

| Term | Description |
|-----------------|--|
| GPS | Government Policy Statement on Gas Governance, April 2008 |
| GTA | A Gas Transfer Agreement is an agreement specifying how the quantities of gas transferred between parties at a point will be calculated. The agreement is between those parties and a Gas Transfer Agent, who is responsible for doing the calculations and notifying the results. |
| GTAC | Gas Transmission Access Code the current version is dated 8 December 2017. |
| GTPM | Gas Transmission Pricing Methodology. |
| HDR | Hourly Delivery Report. |
| IA | A term used in the GTAC and VTC to refer to agreements that provide for deliveries to be interrupted at First Gas' discretion. |
| ICA | An Interconnection Agreement is an agreement between First Gas and an interconnected party. |
| Imbalance | Generally this term is used to mean a situation where flows do not match scheduled quantities or receipts do not match deliveries. More specifically, the difference in scheduled flows and actual flows at an interconnection point is referred to as "operational imbalance" in the MPOC, but is known as mismatch in the GTAC. |
| IP | Interconnected Party is a term used in the VTC and GTAC to mean a party whose assets are directly connected to the transmission system, known as a Welded Party in the MPOC. |
| Incentives Pool | Defined by the MPOC as <i>"the pool of money held on trust and administered by the Incentives Pool Trustee, into which all Incentives Pool Debits are to be paid and out of which Incentives Pool Claims are to be paid."</i> The Incentives Pool is essentially a liquidated damages arrangement that permits a Welded Party, who suffers damage as a result of another Welded Party being out of balance, to claim liquidated damages. |
| Individual DPs | Defined in the GTAC as a Dedicated DP that is not part of a Delivery Zone, including any DP at which an OBA applies or a Congested DP. |
| Line Pack | The total quantity of Gas in the Maui Pipeline at any time. |
| MDQ | Maximum Daily Quantity |
| MHQ | Maximum Hourly Quantity |
| MPOC | Maui Pipeline Operating Code, the current version is dated 8 December 2017, and incorporates the TCR amendments. |
| Mismatch | In the MPOC and VTC the term refers to the difference between a shipper's receipts and deliveries. In the GTAC it is also the difference |

| Term | Description |
|-------------------------|---|
| | between an OBA Party's scheduled and metered quantities (all adjusted for any traded quantities). |
| Objectives and Outcomes | The Gas Act and GPS objectives and outcomes. |
| OI | Operational Imbalance is an MPOC term meaning the difference between the actual quantity of gas that flowed through a welded point on a day and the scheduled quantity for that day. |
| OBA | An Operational Balancing Agreement is a way of allocating responsibility for imbalances or mis-matches at specific points between the interconnected party and the shippers using its interconnection point. In the MPOC, OBA is the only method of allocation and it applies at all RPs and DPs. OBA is not a feature of the VTC. In the GTAC, OBA is an optional method of allocation. The OBA principles are that shippers are deemed to have received their approved nominations at the point, while the interconnected party is responsible for the difference between the metered quantity and the aggregate of the approved nominations. |
| OBA Party | A term used in the GTAC to mean an interconnected party at a receipt or DP who has agreed to an OBA, and who is responsible for managing running mismatch at that point. (The equivalent of a Welded Party under the MPOC.) |
| OFO | Operational Flow Order. A term used in the GTAC, MPOC and VTC to mean a notice issued by First Gas instructing a user to reduce or suspend a flow of gas. |
| Park or Loan service | An option service that First Gas may offer under the GTAC, allowing a shipper to store gas as pipeline inventory or borrow gas from that inventory. This is not a service that is currently available in the MPOC/VTC access regime. |
| PR | Priority Right is a term used in the GTAC to mean a right giving priority to have its NQ approved ahead of shippers without a PR. PRs may be used in any nominations cycle. |
| Published | In this document, we use the term "published" to mean that the relevant information is publically available for any party to view, at no cost. |
| RP | Receipt Point |
| | |
| RPO | Reasonable and Prudent Operator is a term, defined somewhat differently in the GTAC, MPOC and VTC, but generally referring to a standard for performance equal to or better than good industry operating practice. |
| Running Mismatch | In the MPOC and VTC the term refers to the cumulative difference between a shipper's receipts and deliveries. In the GTAC it is also the |

| Term | Description |
|----------------------------|--|
| | cumulative difference between an OBA Party's scheduled and metered quantities. All adjusted for any traded quantities. |
| ROI | Running Operational Imbalance. An MPOC term for the cumulative difference between a welded party's scheduled quantities and its metered quantities (and therefore represents the total gas parked or loaned from the pipeline at that point). In the GTAC world the welded party is known as an OBA party, and ROI is known as Running Mismatch. |
| SA | A Supplementary Agreement is an agreement that varies some terms of a standard transmission contract. SAs are not available under the MPOC, but under the VTC or GTAC SAs are available, at the TSAs discretion, that would incorporate the terms of the relevant code but also contain one or more unique terms. |
| Security Standard Criteria | A term used in the GTAC to mean the physical parameters set out in First Gas' Security Standard (as published on OATIS) indicating, for example, that minimum pressures could be breached. |
| Shipper | A party, commonly a gas wholesaler or retailer, who contracts First Gas to transport its gas across the transmission system. |
| SOP | Standard Operating Procedure. A procedure used internally by First Gas to manage some aspect of its operation such as pipeline balancing. |
| TCR | The MPOC Transition Change Request proposed by First Gas on 14 July 2017 and supported by Gas Industry Co's Final Recommendation dated 31 October 2017. In essence the TCR enables contracts which incorporate the MPOC to be terminated when certain conditions are met. |
| TPA | Transmission Pricing Agreement. A GTAC term for an agreement between First Gas and an end-user. |
| TTP | The Target Taranaki Pressure, a term used in the MPOC and GTAC to refer to the pressure between 42 and 48 bar gauge at or near the Bertrand Road Offtake on the Maui pipeline. |
| First Gas | The Transmission Service Provider is the party responsible for providing transmission services, now First Gas Limited. |
| TPWP | Transmission Pipeline Welded Point. An MPOC term for the interconnection point between the Maui pipeline and a non-Maui transmission pipeline. |
| TSA | A Transmission Service Agreement is a contract between a shipper and First Gas, incorporating the terms of the relevant code. |
| VTC | Vector Transmission Code, the current version is dated 1 October 2017. |
| VRI | Vector Running Imbalance. A VTC term for the running differences between the receipts and deliveries of gas used for operations on the pipeline (including fuel/vented gas, balancing gas and UFG). |

| Term | Description |
|------|--|
| WP | Welded Party is defined by the MPOC as ' <i>...the person named as a welded party in a valid and subsisting ICA</i> 'It is equivalent to the "Interconnected Party" term used in the VTC and GTAC. |

Questions

Preliminary Assessment of Gas Transmission Access Code (GTAC)

Submission prepared by: <company name and contact>

| QUESTION | | COMMENT |
|----------|--|---------|
| Q1: | Do you have any comment on our approach to the analysis? | |
| Q2: | Do you agree with our assessment of the GTAC gas transmission products? | |
| Q3: | Do you agree with our assessment of the GTAC pricing arrangements? | |
| Q4: | Do you agree with our assessment of the GTAC energy quantity determination? | |
| Q5: | Do you agree with our assessment of the GTAC energy allocation arrangements? | |
| Q6: | Do you agree with our assessment of the GTAC balancing arrangements? | |

| QUESTION | | COMMENT |
|-------------------------|---|---------|
| Q7: | Do you agree with our assessment of the GTAC curtailment arrangements? | |
| Q8: | Do you agree with our assessment of the GTAC congestion management arrangements? | |
| Q9: | Do you agree with our assessment of the GTAC gas quality and odourisation arrangements? | |
| Q10: | Do you agree with our assessment of the GTAC governance arrangements? | |
| Q11: | Do you agree with our top-down analysis? | |
| Q12: | Do you agree with our overall assessment? | |
| Questions in Appendices | | |
| Q13: | Do you agree that with our analysis of ICAs? | |
| Q14: | Do you agree with our analysis of SAs? | |
| Q15: | Do you agree with our analysis of nominations? | |

| QUESTION | | COMMENT |
|----------|---|---------|
| Q17: | Do you agree with our analysis of hourly quantities? | |
| Q18: | Do you agree with our analysis of liabilities? In particular, do you have any particular comments on whether the proposed liability arrangements in relation to the injection of Non-Specification Gas better meet the efficiency, reliability and fairness objectives when compared to the MPOC and the VTC? | |
| Q19: | Given that the current, tighter, drafting in the MPOC still results in excursions outside of the 42-48 bar gauge range, what is your view of the revised drafting under the GTAC? | |
| Q20: | Do you agree that comparing the ERM charges with bid/ask spreads is a sound method for testing the appropriateness of the quantum of those ERM charges? If not, what would be a more appropriate comparator? | |

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'.

SUBMISSIONS CLOSE:
19 March 2018

SUBMIT TO:
www.gasindustry.co.nz

ENQUIRIES:
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