



**Gas Transmission Access Code  
Development:**

**Emerging Views on Detailed Design of  
Access Products, Pricing, Balancing and  
Allocation**

**May 2017**

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## 1 Introduction and Summary

In November 2016, First Gas issued a paper entitled “Gas Transmission Access: Single Code Options Paper<sup>1</sup> (SCOP2)”. Submissions on this paper were invited and analysed by the Gas Industry Company (GIC). In February 2017, we then released a Proposed Decisions and Next Steps paper<sup>2</sup> which was discussed at a workshop held on 28 February 2017. That paper set out our provisional design decisions and indicated where further work may be required during the next steps of the new code’s development.

The Proposed Decisions and Next Steps paper set out the direction for our work on detailed design of the new code (known as the Gas Transmission Access Code or GTAC). Following the workshop discussion on that paper priority in developing the substance of the new code has been given to four work streams:

- Access products
- Pricing
- Balancing and allocation
- Code governance

The first three of those work streams are discussed in this paper. Preliminary code drafts for the relevant sections (along with a proposed Table of Contents for the entire code and relevant definitions) are provided in Appendix A.

The fourth work stream (code governance) is the subject of a report from Concept Consulting, and submissions on that report are due on 12 May 2017. First Gas will consider that report and submissions when preparing an initial draft of the code change provisions in the GTAC.

### Structure of this paper

The following sections of this paper deal with each work stream in turn: Access Products in section 2, Pricing in section 3, and Balancing and Allocation in section 4. Within each section we start by considering a specific set of objectives for the topic which refine and apply the objectives for code development discussed in the papers issued to date.

For each work stream, we briefly summarise the direction we proposed in February 2017 following the submissions on the SCOP2 paper. This helps to ensure that we have focussed on detailed designs that are consistent with the high-level direction set for each work stream, or requires us to acknowledge when our analysis of the detail has taken us in a different direction.

The main part of each section explores the detailed designs available within each work stream, and assesses the merits of different options. We have structured our discussion of detailed designs as a Q&A, to highlight the questions we have considered and how we propose to answer those questions in the GTAC.

We have framed our positions on the detailed design choices described in this paper as “emerging views”. This reflects the fact that we have not yet firmly landed on all of the

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<sup>1</sup> Available at <http://gasindustry.co.nz/dmsdocument/5430>

<sup>2</sup> “Gas Transmission Access: Proposed Decisions and Next Steps” available at <http://gasindustry.co.nz/dmsdocument/5460>

positions put forward. Nevertheless, we consider that by expressing an initial position we can help move the process of developing the new code forward.

In the same spirit, we have also attached preliminary code drafting that reflects our emerging views (along with a Table of Contents for the new code and relevant definitions). The preliminary drafting has not been subject to legal review, and does not necessarily mean we will propose code provisions in the same form when we release an initial draft of the full code (planned for August 2017). Instead, our aim is to help stakeholders provide useful contributions to the process by demonstrating how the concepts and detailed arrangements that we are exploring could be translated into code form. This provides an opportunity to debate what matters can and should be addressed through code provisions, and what matters are best left for First Gas to determine from time to time with the guidance provided by the code.

Throughout this paper, we used capitalised terms to denote terms that are defined in the preliminary draft of the code.

### **What we would like submissions to focus on**

We are providing 6-weeks for submissions on this paper. Submissions are due by 5pm on Friday 23 June 2017 and can be uploaded to the GIC website at [www.gasindustry.co.nz](http://www.gasindustry.co.nz) or sent to [info@gasindustry.co.nz](mailto:info@gasindustry.co.nz). All submissions will be posted on the GIC website (unless any party requests confidentiality over any the material provided).

We believe that this relatively long time-period for submissions is appropriate given the number and range of detailed design choices addressed in this paper.

During the 6-week submission period, we will also be holding a workshop (on 17 May)<sup>3</sup> and would like to meet one-on-one with as many interested stakeholders as possible. Please let us know if you would like to have such a meeting.

We do not expect submissions to express a view on all of the questions posed and answered in this paper. Rather, we would greatly appreciate your thoughts on:

- Whether any questions of detailed design are missing
- Whether any options for addressing a particular design decision are missing
- What your preference is in any area of detailed design
- Whether any additional information is required to support the full draft of the new code.

In relation to the preliminary code drafting that is attached to this paper, we would like submissions to focus on whether the drafting implements the emerging views expressed in this paper. Given the preliminary nature of the draft provisions, we do not consider that editing the words that are used or providing detailed mark-ups would be useful. We will be providing an opportunity for mark-ups and a legal review when the full draft of the code is released.

Further details of the process once we have received submissions on this paper are provided in section 5 of this paper.

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<sup>3</sup> Details for the 17 May workshop can be found at: <http://www.gasindustry.co.nz/about-us/news-and-events/events/gas-transmission-access-code-workshop>

## Summary of emerging views

The detailed designs proposed in this paper are largely consistent with the path we set out in February 2017.

In the **Access Products** section, we are proposing Daily Nominated Capacity (DNC) as the principal product, with an option to make DNC “firm” through the purchase of Priority Rights (PRs) offered through regular auctions. Both DNC and PRs will be linked to Delivery Points, rather than Zones as proposed earlier.

For **Pricing**, we intend to set DNC Charges on a postage stamp basis to recover our regulated revenue in each Year. These fees will be set for each Delivery Zone, and fees will increase further away from the Receipt Zone. There will also be fees for PRs, which will be set by auction on a “pay as bid” basis. The revenue earned from these auctions will be credited against all DNC Charges. Overrun Charges will apply to Delivery Points and be set at a level that encourages accurate nominations.

We are proposing important changes to **Balancing** compared with the current codes. Shippers’ Primary Balancing Obligation will apply across the whole of the transmission system. Where OBA obligations apply at a Receipt or Delivery Point, the Interconnected Party will have the Primary Balancing Obligation. We are not proposing to retain automatic cash outs under the GTAC. Instead, to encourage primary balancing, deviations from a balanced position of gas injections and withdrawals beyond a defined tolerance level (known as Excess Running Mismatch) will attract an incentive charge. First Gas will retain the right to buy and sell Balancing Gas to maintain pipeline line pack and to cash out Shipper and Interconnected Party OBA Running Mismatches when it does so. However, First Gas will have discretion as to whether it cashes out Mismatches in other circumstances. We are also considering a Park and Loan service that will use line pack flexibility to allow Shippers and Interconnected Parties to meet temporary surpluses or shortages of gas, without being exposed to balancing gas costs or incentive charges.

For **Allocation**, changes are proposed to the method of calculating the Initial Allocation for points covered by the Downstream Reconciliation Rules (DRR), which will replace the current D+1 Pilot Agreement. The Interim and Final Allocations made under the DRR will continue and it is proposed that their results will be used for wash-ups (as currently applies).

## 2 Access Products

The “access products” are the means by which Shippers gain access to the services offered by the transmission system. These should be simple to understand, yet flexible enough to meet different needs. In designing them we were aware that while some users would want a flexible daily product that carried no obligation beyond the day it was used, others would like an option that provided them with “firm” capacity rights over a longer period. The combination of Daily Nominated Capacity (DNC) and Priority Rights (PRs) seek to meet both requirements. An initial draft of section 3 of the GTAC, dealing with access products, is attached as Appendix A.

### 2.1 What we want to achieve

The “access products” define the way that Shippers can use the gas transmission system, and are therefore the single most important component of the GTAC. Our principal objectives were to design access products to:

1. Enable the use of gas by:
  - Minimising transactions and simplifying arrangements and processes;
  - Promoting flexibility and increased choice by making access products available that suit different needs; and
  - Removing many of the restrictions inherent in the access products provided under the MPOC and the VTC, including any barriers to short-term trading of gas.
2. Promote competition by:
  - Minimising barriers for new entrants to use the gas transmission system;
  - Making capacity more accessible;
  - Removing preferential rights to capacity unless they are based on different willingness to pay; and
  - Preventing capacity hoarding and contractual scarcity that does not reflect underlying physical conditions on the system.
3. Increase transparency by:
  - Making key information readily available and easily accessible;
  - Adopting as a default position that information should be public unless there is a compelling reason why it shouldn't be; and
  - Publishing the full content of all non-standard transmission agreements and interconnection agreements made under the GTAC.
4. Promote efficient investment by:
  - Making both firm and non-firm capacity available;
  - Providing better price signals and better discovery of the value of access to different parties (willingness to pay);
  - Putting in place mechanisms that better signal future capacity requirements; and

- Promoting the allocation of capacity to parties who value it the most in the event of congestion or scarcity.

As advised previously, First Gas will continue to comply with its obligations under non-standard transmission agreements signed prior to the GTAC.

## 2.2 What we have said previously

After analysing the submissions on our November 2016 paper entitled “Gas Transmission Access: Single Code Options Paper” (“SCOP2”), First Gas and the GIC held a workshop with stakeholders on 28 February 2017.

At that workshop and in a paper entitled “GTAC Decisions and Next Steps”, First Gas outlined the following provisional design decisions for GTAC access products:

1. The standard transmission access product will be Daily Nominated Capacity (“DNC”).
  - DNC will be obtainable only via standard nominations processes
  - DNC will not be transferable or tradeable.
2. Priority Rights (“PRs”) representing a percentage of transmission capacity will be available.
  - PRs will be purchased and allocated via periodic auctions
  - Each PR will make a GJ of DNC “firm” in that it will give priority to the holder’s nomination in the event of congestion
  - PRs will be tradeable within the same delivery zone
  - PRs will expire automatically at the end of their term.

These provisional decisions have focused our detailed work on access products for the GTAC, and our emerging views on this topic are reflected in section 3 of the preliminary GTAC draft attached.

## 2.3 Detailed design choices for access products

To turn the high-level decisions set out above into a preliminary code draft has required numerous detailed decisions to be made for each product.

### Daily Nominated Capacity

#### **AP1: *How is transmission capacity defined?***

Answer: Shippers are familiar with the concept of transmission capacity being defined as the *right* to have gas transported from the point where the Shipper buys or otherwise obtains it (a “Receipt Point”) to the point where the Shipper wishes to take it from the transmission system (a “Delivery Point”). We propose to maintain this definition, rather than focusing on an alternative concept such as *usage* of the transmission system.

Quantitatively, capacity can be conveniently defined in terms of a maximum daily quantity (“MDQ”) and a maximum hourly quantity (“MHQ”).

#### **AP2: *Why “Daily” Nominated Capacity?***

Answer It would be possible to define capacity for any period deemed convenient. For example, Reserved Capacity under the VTC is defined in terms of an MDQ and MHQ for a Year.

The longer the period however, the less flexible the capacity product is to respond to changing user demands on the system. First Gas considers that defining the capacity period as a Day provides the optimum degree of flexibility to Shippers, while also being operationally relevant to First Gas.

It might seem tautological to define daily capacity also in terms of MDQ. However, MDQ is a passable synonym for DNC (as MDQ is used as a synonym for Reserved Capacity), whereas equating DNC to “DQ” would be confusing since that term is used to describe the actual quantity of gas taken at a Delivery Point on a day.

**AP3:      *Why “Nominated” capacity?***

Answer      It is generally agreed that capacity should be obtained via nominations: each Shipper should request quantities of DNC and First Gas should either approve those requests in full or, if it can’t, provide as much of the nominated quantity as it can.

Nominations indicate to First Gas the amounts of gas a Shipper wishes to have transported, and to where.

Nominations will be dealt with in *section 4* of the GTAC, to be released later.

**AP4:      *Should DNC be transferrable?***

Answer      While Reserved Capacity (under the VTC) is transferrable, the reasons for that do not apply when the capacity period is as short as one day (or less, where intra-day nominations are possible).

In addition, capacity is generally not transferrable in a physical sense.

Therefore, First Gas considers that DNC does not need to be, nor should it be transferrable.

**AP5:      *Should DNC be for a Delivery Zone or a Delivery Point?***

Answer      Capacity under both the MPOC and VTC is currently “point to point”. While First Gas still intends to define Delivery Zones (as discussed below) we have concluded that defining DNC for such a zone would be impractical and unhelpful. Factors we considered in making this assessment include:

- Shippers’ customers are located downstream of Delivery Points and, in the case of shared Delivery Points, Shippers must provide data to the Allocation Agent per Delivery Point.
- To lodge a capacity nomination for a Delivery Zone, Shippers would need to aggregate their requirements for all Delivery Points within that zone, i.e. they must know what they need per point.
- A request for capacity in a Delivery Zone would not inform First Gas as to where in that zone the Shipper required the capacity. Capacity for a Delivery Zone could not be used at any of the points within that zone, since the capacity of the constituent Delivery Points might be vastly different.
- While in theory it might be possible to codify rules to enable First Gas to “disaggregate” a capacity nomination made at the Delivery Zone level to the constituent Delivery Points, in practice First Gas considers that would require Shippers to provide specific information as to the distribution of their customers with the zone (which could change more

or less frequently), would be highly complex to administer, inefficient and prone to error.

Therefore, the preliminary drafting defines DNC as being for a Delivery *Point* rather than a Delivery *Zone*.

**AP6:      *How “firm” should DNC be?***

**Answer**      All capacity under the MPOC and VTC is subject to curtailment in the event of an emergency, force majeure event or critical contingency. In such circumstances, it may no longer be physically possible for First Gas to provide the full amount of a Shipper’s contractual capacity.

The same must apply to DNC.

In addition, because First Gas is offering the Priority Right product (discussed below), First Gas believes that DNC should also be curtailable in the event of congestion occurring, to the extent that a Shipper’s DNC is not covered by Priority Rights. The advantage of this approach is that it provides a pre-determined contractual solution to demand for transmission capacity exceeding supply – avoiding the need for what otherwise might result in a critical contingency. This was a key recommendation arising from the PEA work<sup>4</sup>.

**AP7:      *How can DNC be used?***

**Answer**      DNC is an “anonymous” form of capacity. Except where it is used to ship gas a dedicated Delivery Point, DNC is not linked to any specific end-user. In the GTAC we propose that all non-standard forms of capacity will be linked to a specific end-user, as is the case under the VTC currently.

Therefore, a Shipper will not be able to use DNC in conjunction with any form of non-standard capacity (i.e. Supplementary Capacity or Interruptible Capacity).

## Priority Rights

**AP8:      *What is a Priority Right?***

**Answer**      A Priority Right (“PR”) is not a form of capacity, but an “instrument” that increases the “firmness” of DNC: 1 Priority Right corresponds to 1 GJ of DNC.

In the event of congestion, the available capacity will be allocated first to holders of PRs (subject to nominations for DNC, as set out below). Remaining capacity (after DNC subject to PRs has been approved) will be scaled back on a pro-rata basis.

PRs are entirely optional for Shippers. A Shipper may consider (based on the information provided by First Gas from time to time and its own determination) that there is a very low probability of congestion occurring in a particular area. In that case, the Shipper may not seek to obtain any PRs.

On the other hand, some of a Shipper’s customers may place a higher value on certainty of supply and may be willing to pay more for gas where the Shipper holds PRs to cover their daily load requirements.

DNC that is backed by PRs will only be curtailed in the event of an emergency or force majeure event affecting the relevant parts of the transmission system, or a critical contingency.

<sup>4</sup> Available at <http://gasindustry.co.nz/dmsdocument/3163>. See section 6.

**AP9: Should Priority Rights be for a Delivery Zone or a Delivery Point?**

**Answer** Initially, First Gas was thinking of PRs as applying to a Delivery Zone, rather than a Delivery Point. However, we have concluded that it is necessary to define PRs for Delivery Points, rather than Delivery Zones. Factors that we considered include:

- Logically, PRs should align with the definition of DNC (which as above we consider should be linked to Delivery Points). This is because PRs are an option that is exercised through DNC.
- The number of PRs should never exceed the available capacity. If PRs applied at the zone level, different Shippers might obtain PRs with the intention of using them at the same Delivery Point, unbeknownst either to themselves or to First Gas. The result could be that the combined number of PRs might exceed the amount of DNC that First Gas would ever approve at that Delivery Point. The Shippers would find that out if they ever nominated for DNC up to the level of their PRs. The likely loss of confidence in the concept of PRs that would follow their being “dishonoured” make this a situation that must be avoided.
- The process of obtaining PRs is intended to be competitive. However, Shippers must know clearly what they are competing for and, if they “win” any PRs, that they will be usable. Finding out later that some (or even all) of the PRs they had bought were worthless would be unacceptable.
- Delivery Points that are geographically close can have very different capacity limits and supply a completely different mix of end-users: some Delivery Points in a zone may supply just a single end-user. The value that different end-users may place on PRs (i.e. their Shipper’s) resides where the end-users do, i.e. at the Delivery Point level.
- Even if First Gas published the number of Priority Rights available for each Delivery Point in a Delivery Zone, the problem outlined above would still occur unless First Gas somehow scaled back Shipper’s bids for PRs. However, First Gas would have no basis for such scaling unless, as part of the process of obtaining PRs, Shippers were to tell us at which Delivery Point(s) in the zone they intended to use their PRs.
- Issuing “conditional” PRs would defeat their purpose in First Gas’ view. We believe that any PR should be an unconditional option on DNC, subject only to an emergency, force majeure event or critical contingency.

For reasons of efficiency, transparency and the integrity of the PR concept, First Gas considers that PRs should be linked to Delivery Points. The preliminary GTAC drafting reflects this view.

**AP10: How many Priority Rights should be offered?**

**Answer** First Gas has previously mentioned offering PRs up to a percentage of the available capacity. However, any value for “available capacity” is highly conditional. For each Delivery Point it is determined either by the capacity of the Delivery Point itself, or by the capacity of the pipeline(s) leading to the Delivery Point, or by the offtake at other Delivery Points on the same pipeline.

Pipeline capacity and the effect of other Delivery Points can only be determined by pipeline simulation. That requires assumptions to be made about the actual use of capacity at numerous other Delivery Points.

First Gas already undertakes a substantial amount of pipeline simulation work for its annual Transmission Asset Management Plan (“AMP”), which canvasses both Delivery Point and pipeline capacity. In determining the latter, the offtake at each Delivery Point is scaled up while the offtake at all other Delivery Points on the same pipeline is held constant. This was illustrated in the heat map presented in SCOP2.

That approach would not be relevant for determining the available (i.e. maximum) capacity at all Delivery Points (on the same pipeline) simultaneously. Additional simulation work would therefore be required and, to avoid the problem of there being an “infinite” number of possible solutions, a scenario-based approach would be required.

The output of such additional simulation work would be hypothetical. Furthermore, there is a great variety amongst the end-users supplied by different Delivery Points. Adopting a “one size fits all” approach, such as setting a uniform percentage availability of PRs for all Delivery Points would be inappropriate.

Accordingly, First Gas considers that a range of more practical and useful criteria should be applied in determining the number of PRs it should offer at each Delivery Point, including:

- Actual throughput of gas in the previous 12 months.
- Information known about any impending increase or decrease in throughput.
- The amount (if any) of any Supplementary Capacity.
- Seasonal variations in demand.
- Load diversity on the relevant part of the transmission system.
- Physical capacity.
- Demand for PRs.

The “quantitative” demand for PRs will not be known to start with, but after the first few allocation rounds a better picture should emerge. The prices paid for PRs on offer will also be an indicator of demand.

Hence, the number of PRs offered will not be static but is likely to change (up or down) over time.

**AP11:      *How should Priority Rights be obtained?***

Answer      In view of what they are intended to be and do, First Gas believes that the only appropriate way to allocate PRs is via auctions.

The key provisions relating to such auctions should be in the Code. However, the auction terms and conditions should sit outside the Code, as they will likely need to be amended from time to time and doing that via a code change process would be unnecessarily onerous and cumbersome.

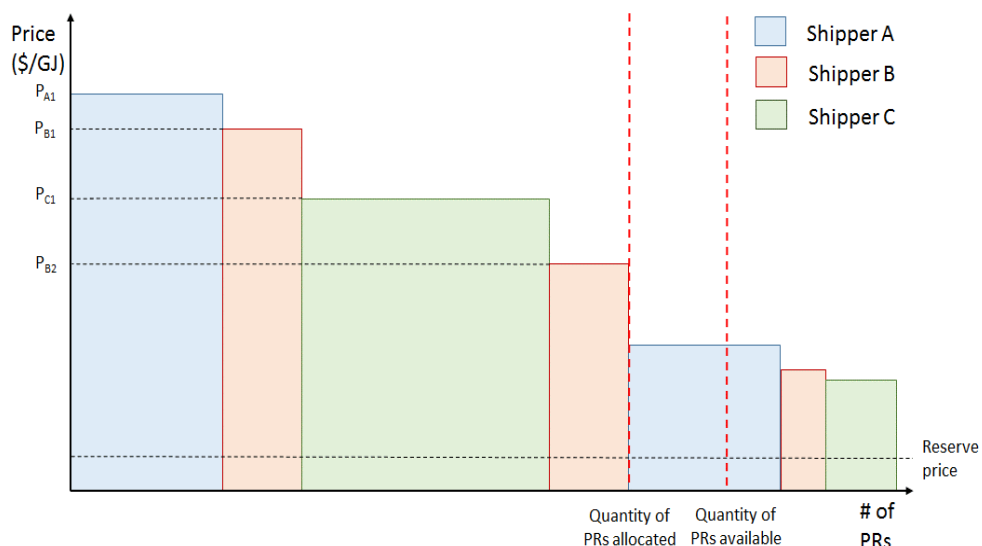
**AP12:      *How should Shipper's be able to bid for Priority Rights?***

**Answer** First Gas' initial thought was to allow for each Shipper to bid (where each bid would be \$ per PR) for a single tranche of the available PRs at a Delivery Point.

On further reflection, Shippers may wish to bid for multiple tranches of PRs at different prices, reflecting the varied nature of their customer base at a location. First Gas proposes to allow for a limited number of bids per Shipper at each location.

Each tranche should be treated as a separate bid which must be able to be totally allocated to be valid. This concept is illustrated in Figure 1 below where three Shippers each bid for multiple tranches of PRs at a given Delivery Point. In this example, Shipper A is allocated its 1<sup>st</sup> tranche at price  $P_{A1}$ , Shipper B is allocated its 1<sup>st</sup> and 2<sup>nd</sup> tranches at  $P_{B1}$  and  $P_{B2}$ , and Shipper C is allocated its 1<sup>st</sup> tranche at  $P_{C1}$ . While all bids are above the reserve price, Shippers A and C do not get their 2<sup>nd</sup> tranches bid and Shipper B does not get its 3<sup>rd</sup> tranche. This is because available PRs have been utilised by higher priced bids and the next priced bid cannot be fully allocated.

**Figure 1: Illustration of Process of Clearing Bids for PRS**



First Gas believes that the number of tranches allowed should be limited (say to 5 per Delivery Point) to prevent an undue amount of “splicing and dicing”.

**AP13: How often should Priority Rights be offered?**

**Answer** First Gas proposes two auctions per year to start with, though the code should allow for the number to be increased in future. These should be held prior to the start of a Year (i.e. in September) for the six months beginning 1 October, and again in March for the six-months beginning on 1 April.

It may be impractical to hold any auction until after the code has commenced. Accordingly, the first auction for the first Year will need to be delayed. It could be held in November or December, based on a 1 October Code commencement date. Alternately it could be skipped altogether.

**AP14:      *How long should a Priority Right last?***

**Answer**      As the concept of auction based PRs is new and untested, First Gas prefers to “keep it simple”, at least to start with. Accordingly, we propose that initially all PRs should have the same term. We propose that this would be six months, i.e. the time between consecutive auctions.

During the 2009-2012 “North Pipeline constraint”, Shippers were reluctant to trade or let go of Reserved Capacity under the VTC. A major objective of the new Code is to prevent capacity being similarly locked up should congestion ever occur again. It seems to First Gas that this objective would be best served by keeping the term of PRs relatively short, and having them all come up for auction regularly.

First Gas also recognises that if “long-term” PRs are available a Shipper who knows that it has new load coming on stream big enough to cause Congestion may buy up PRs while they are cheap, and prevent other Shippers from obtaining the DNC their customers need when the new load does eventuate. The ability to profit from such an information asymmetry would be greatly reduced, or eliminated by keeping the life of PRs short.

While we acknowledge that PRs with a longer term might serve some useful functions (such as providing greater confidence to invest in new gas consuming facilities), on balance we consider that shorter term PRs are preferable – at least initially. As the “market” for PRs becomes established, we could look at PRs with a range of different terms.

PRs will automatically expire at the end of their term. The previous holder will have no preferential right to any PRs at the next auction.

**AP15:      *How should available Priority Rights be allocated?***

**Answer**      In keeping with their purpose, PRs should be allocated to the highest bidder(s). While it is conceivable that PRs could be held by end-users of gas, we propose that only Shippers will be eligible to purchase PRs (since they are parties that access DNC).

First Gas believes that allocating PRs on a “pay as bid” basis would be appropriate, i.e.:

- All valid bids will be stacked in descending order of bid price (with each tranche of PRs bid for being treated as a separate bid as illustrated above).
- The number of PRs allocated to each Shipper would be the lesser of the number bid for and the number on offer.
- The process would continue down the bid stack until either all bids had been filled or all available PRs had been allocated.
- If insufficient PRs remained to satisfy any tranche none would be allocated to that tranche (or any tranche with a lower bid price).

**AP16:      *Should there be a reserve price for Priority Rights?***

**Answer**      Managing PRs will involve some administrative cost, so First Gas believes that a reasonable reserve price to cover such costs is appropriate. We anticipate that the new GTAC transaction management system will keep administration

costs for PR auctions relatively low. The preliminary drafting requires First Gas to notify Shippers of the reserve price prior to any auction.

No bids for PRs less than the reserve price would be valid.

**AP17: *Should Priority Rights be tradeable or transferrable?***

Answer Since PRs are linked to DNC, which will not be transferrable from one Delivery Point to another, it follows that PRs should not be transferrable either.

However, First Gas believes that PRs should be tradeable between Shippers at the same Delivery Point, and the preliminary code drafting allows for that.

We have also considered what details of PR trading should be made available. While transparency over the price of such trading would help to give parties a sense of how the value of PRs has changed, on balance, First Gas believes that the seller and buyer should be free to privately agree whatever price they like in respect of any PRs they trade. As far as First Gas is concerned, only the price of PRs set by the auction at which they were originally allocated to a Shipper will continue to be payable.

**AP18: *What price is payable by a Shipper for Priority Rights?***

Answer The price of PRs allocated to a Shipper will be determined by that Shipper's bid(s). This is discussed more fully in section 3 in relation to pricing.

**AP19: *Should Priority Rights be obtainable between auctions?***

Answer No. First Gas believes that would undermine the auction process and create the opportunity for a Shipper to wait until after an auction to attempt to obtain PRs for a lower price than they might have had to pay at the auction.

**AP20: *How does a Shipper use its Priority Rights?***

Answer Since PRs are not a form of capacity, to use its PRs a Shipper must nominate for DNC. If a Shipper nominates for less DNC than the number of its PRs at a Delivery Point, all the Shipper's DNC will be automatically approved but the PRs more than the approved DNC will be of no use to the Shipper on that Day.

The Priority Rights Charge will still be payable for the unused PRs.

Unused PRs will not reduce the Shipper's liability for Overrun Charges if its Delivery Quantity exceeds its DNC on a Day.

A Shipper may request more DNC at a Delivery Point than the number of its PRs.

**AP21: *What information about Priority Rights should be disclosed?***

Answer First Gas proposes to publish each Shipper's holdings of PRs following each auction, together with any changes of ownership resulting from trading. We would also propose to publish the prices paid for PRs after the auction is complete (but not the price of any subsequent PR trades between Shippers).

**AP22: *Will a Shipper be able to cancel Priority Rights it no longer needs?***

Answer First Gas thinks not, as that would undermine the auction and allocation process. Any Shipper who finds it no longer needs the PRs allocated to it can try to sell them, otherwise they will expire naturally at the end of their term.

**AP23: *Where will Supplementary Capacity rank compared to DNC with Priority Rights?***

**Answer** While it is non-standard capacity, Supplementary Capacity will not necessarily be priced at a discount to DNC. For example, in several existing Supplementary Agreements the transmission fees payable are the same as the corresponding standard fees (i.e. prices are not the sole determinant of “non-standard-ness”). A Shipper could also pay higher than standard transmission fees, if substantial investment was required to provide the capacity it required.

Under the GTAC, we expect that DNC may have an advantage in that transmission charges will be payable only to the extent that the Shipper nominates for DNC. Under a Supplementary Agreement, capacity is normally fixed (though it may be defined by a seasonal profile) and transmission charges must be paid whether the capacity is used or not. This will generally always be the case where First Gas has agreed to construct new assets to be able to provide the Supplementary Capacity, and requires confidence about the recovery of our capital investment.

Since it will only enter into a Supplementary Agreement where it believes that it will be of benefit to Shippers generally (e.g. by sharing costs and/or reducing DNC Fees), First Gas believes it is appropriate that Supplementary Capacity rank equal to DNC covered by PRs in the event Congestion occurs. In other words, both Supplementary Capacity and DNC covered by PRs will normally have the same priority of access to capacity.

A corollary of this is that (as noted above), Supplementary Capacity will be taken into account when determining the number of PRs that are available to be offered at a Delivery Point.

## Receipt and Delivery Zones

**AP24: *What is the proposed Receipt Zone about?***

**Answer** All existing Receipt Points are in Taranaki. All except the Kapuni Gas Treatment Plant (“KGTP”) and Mokoia are located either on the Maui pipeline or the Frankley Road pipeline. Since it is open to the Maui pipeline (and has very large capacity), the Frankley Road pipeline operates as an extension of the Maui pipeline.

Hence, in the Maui pipeline between Oaonui and North Taranaki plus the Frankley Road pipeline, gas can therefore flow freely in either direction, in very large volumes. It makes very little, if any, difference at which point in this area gas enters then transmission system. For simplicity, it therefore seems attractive to define a single Receipt Zone.

At this stage First Gas considers it is feasible to include the KGTP and Mokoia in the Receipt Zone also, because:

- Gas from the KGTP is odorised and therefore may not enter the non-odorised Frankley Road or Maui pipelines. It doesn’t need to however. Any gas from the KGTP that has to flow north can be shipped in the “200” pipeline.
- Receipts at Mokoia are currently very small, and are absorbed by end-users on the southern part of the transmission system.

First Gas does not propose to set a distance-based transmission fee (refer to section 3 on pricing), so there is also no reason to distinguish between individual Receipt Points for that reason.

**AP25:      *What about future changes to Receipt Points?***

Answer      It is always possible that material changes to the points at which gas enters the transmission system may in future require modifications to the Receipt Zone as proposed.

For that reason, the preliminary drafting provides for First Gas to define additional receipt zones should the need arise.

**AP26:      *What about delivery of gas within the Receipt Zone?***

Answer      Transmission within the Receipt Zone will not be free. One or more Delivery Zones will “overlap” the Receipt Zone.

**AP27:      *What is a Delivery Zone?***

Answer      A Delivery Zone is simply a group of one or more Delivery Points.

A Delivery Zone is different to a “notional” Delivery Point, e.g. Greater Auckland, which comprises 5 Delivery Point supplying gas in to the same distribution network.

**AP28:      *What is the significance of Delivery Zones?***

Answer      Having investigated linking DNC and PRs to Delivery Zones and determined that to be impractical, First Gas’ view is that Delivery Zones should be just about transmission price setting.

Transmission pricing is discussed in section 3.

**AP29:      *How many Delivery Zones will there be?***

Answer      First Gas will try to keep the number of Delivery Zones to a minimum. (As a guide, there are currently 15 Delivery Zones on the non-Maui parts of the transmission system.)

The number and extent of Delivery Zones will not be static: the preliminary drafting provides that First Gas may review Delivery Zones, though any changes must be notified in advance of a Year.

### 3 Pricing

Our intention is to propose a pricing methodology that is efficient, fair and simple to understand. The amalgamation of the Maui and non-Maui pipelines, each with its own pricing methodology, suggests some anomalies between transmission charges levied in adjoining areas. We intend to introduce a system where transmission charges are primarily based on use of the transmission system and prices are set for a zone rather than individual points. Our initial draft of section 7 of the GTAC dealing with Transmission Fees and Prices is attached in Appendix A.

#### 3.1 What we want to achieve

Every 5-years the Commerce Commission sets the revenue that First Gas' transmission business can earn. First Gas expects that the GTAC will commence in the second year of the 5-year regulatory period beginning on 1 October 2017.

Our principal objectives in designing a gas transmission pricing methodology ("GTPM") are to:

1. Recover our allowable revenue in a consistent way by:
  - Applying the same GTPM to the "combined" transmission system (i.e. Maui and non-Maui);
  - Complying with regulatory requirements and guidance (such as the pricing principles found in the Gas Transmission Information Disclosure Determination 2012); and
  - Continuing to charge prices in accordance with non-standard agreements signed prior to the GTAC.
2. Avoid "price shock" for our customers by:
  - Taking a pragmatic approach to pricing;
  - Considering existing pricing relativities; and
  - Removing any anomalies in transmission fees where they exist, while minimising step-changes for individual customers.
3. Set efficient prices by:
  - Enabling scarce transmission capacity to go to users who value it the most;
  - Keeping pricing simple so that our customers can make decisions on value/cost trade-offs;
  - Aligning transmission fees with the "access products" available under the GTAC;
  - Having a positive influence on Shipper behaviours;
  - Signalling capacity scarcity to the extent practicable; and
  - Signing new non-standard agreements where such arrangements benefit all users of the transmission system.

#### 3.2 What we have said previously

At the February workshop, First Gas outlined the following provisional design decisions for transmission pricing:

1. A “postage stamp” approach will apply to pricing DNC.
  - There will be a single Receipt Zone
  - DNC Fees will be set for Delivery Zones, with higher DNC Fees in locations furthest away from the Receipt Zone.
2. The prices for Priority Rights (“PRs”) will be set via auctions (with at least 2 auctions per year).
3. An Overrun Charge will apply to incentivise accurate nominations for DNC.
4. High-level principles that underpin the GTPM (but not the GTPM itself) will be in the GTAC, including:
  - The definition of transmission fees
  - How charges are calculated
  - Redetermination and notification provisions
  - Criteria for entering into non-standard agreements (with non-standard prices).

These provisional decisions have informed the preliminary drafting of *section 7* of the GTAC, which is attached.

### 3.3 Detailed design choices for pricing

To turn the high-level decisions set out above into preliminary code drafting has required numerous detailed decisions. This section of the paper outlines the principal questions that First Gas has attempted to resolve.

#### Daily Nominated Capacity Charges

**P1: *What is the significance of DNC Charges?***

**Answer** First Gas’ transmission access regime is founded on the sale of transmission capacity to Shippers. While other fees and charges may apply to our provision of transmission services, DNC Charges are intended to ensure the recovery of First Gas’ allowable revenue.

**P2: *What principles should apply to the setting of DNC Charges?***

**Answer** Transmission fees and charges under the MPOC and VTC are completely different. Under the GTAC a single GTPM will apply, which will differ from either of the two existing methodologies.

Whatever the finer points of the GTPM may be, First Gas believes that Shippers will understandably focus on what they will pay compared with what they pay now.

First Gas is strongly of the view that transmission pricing should be pragmatic, rather than theoretically compliant. This is informed by the reality that:

- Our regulated revenue is not linked to any specific assets or groups of assets.
- At its core, the GTPM is primarily about cost allocation.
- The varying degrees of “pricing science” that have been applied over the years have never produced a complete schedule of fees that all customers would be prepared to pay. Departures from the “pure” output of each methodology have always been required. We therefore see no

value in (re)inventing an underlying methodology to justify transmission fees.

- There may opportunities to remove existing anomalies (e.g. where putting the Maui and non-Maui pipeline together has resulted in some prices looking “high”), while preserving existing relativities where appropriate.

Essentially, the GTPM will calculate the total revenue required from DNC Charges by subtracting from our allowable revenue (plus pass-through and recoverable costs) the sum of forecast revenue from Throughput Charges (which we propose to initially set to zero), Overrun Charges and non-standard charges.

We will then develop a schedule of DNC Fees which, consistent with the above principles and based on our forecast of Shippers’ DNC quantities, produces the required total of DNC Charges.

**P3: *How will changes to the regulatory regime affect the TPM?***

**Answer** The key price change for gas transmission under the Default Price-quality Path (DPP) will take effect on 1 October 2017. While we do not yet know the final outcomes of the DPP reset process (the final decision is expected by 31 May 2017), given that the regulatory weighted average cost of capital has fallen from 7.44% to 6.42% we are expecting average transmission prices to decrease. The first year of the next 5-year regulatory period will be subject to the current codes and pricing methodologies.

One of the regulatory changes being introduced on 1 October 2017 is that First Gas will no longer be required to determine transmission fees based on billed quantities from 2-years before the year in which those fees will apply. Instead, we will set prices based on our forecast of billable quantities in the pricing year. Any under or over-recovery of allowed revenue will then be washed up when setting prices for subsequent years.

**P4: *Why set DNC Charges for Delivery Zones?***

**Answer** First Gas does not intend to have a distance-based pricing methodology, i.e. there will no equivalent to the MPOC’s “tariff one” (\$/GJ.km). DNC Fees will have discrete values that vary from location to location.

There are already multiple “transmission pricing zones” on the non-Maui part of the transmission system (see the Overrun Charges section below) and, even where Delivery Points are not in such a zone, capacity fees are often constant across broad stretches of the transmission system.

First Gas therefore believes that it will be convenient for all Delivery Points to be grouped into Delivery Zones (bearing in mind that zones could comprise a single Delivery Point or a number) and that the same DNC Fee should apply to all Delivery Points in the same Delivery Zone.

**P5: *How will DNC Charges be calculated?***

**Answer** Simply by multiplying the Shipper’s DNC at a Delivery Point for a day by the relevant DNC Fee.

The Shipper’s DNC for a day will be established by the nominations processes set out in the GTAC.

**P6:        *How does the Receipt Zone affect the calculation of DNC Charges?***

Answer     Since we are proposing a Receipt Zone, the precise location of the Shipper's Receipt Point(s) will not figure in the calculation of DNC Charges.

Where a Shipper sources its gas from a particular Receipt Point that is very close to the Delivery Point at which it takes that gas, a bypass opportunity may exist. First Gas' preference is to deal with any such situation via a non-standard agreement, rather than distort DNC Fees.

Likewise, with a (single) Receipt Zone it will not be necessary to speak of capacity in terms of "from A, to B".

Only if First Gas needs to define an additional receipt zone (see question A26 in the earlier "Access Products" section for a discussion of this matter) will it be necessary to specifically identify the relevant Receipt Point or Receipt Zone when talking of capacity.

**Throughput Charges****P7:        *Should there be a Throughput Fee?***

Answer     First Gas does not consider that the case for a Throughput Charge (i.e. based on GJ delivered) is very compelling. The throughput fee on the non-Maui system and tariff two on the Maui pipeline are both very small.

Nevertheless, First Gas proposes to allow for a Throughput Fee to be payable under the GTAC, which we propose be set at zero initially and which could also vary by Delivery Zone. At the very least that would avoid the necessity for a Change Request to introduce any such fee in the future if it was deemed useful.

**P8:        *How will Throughput Charges be calculated?***

Answer     Simply as GJ delivered multiplied by the applicable Throughput Fee.

**P9:        *How will wash-ups apply?***

Answer     At each shared Delivery Point, Throughput Charges for a month will continue to be determined based on Shippers' initial allocated quantities.

Wash-ups under the Downstream Reconciliation Rules will also continue to apply at most shared Delivery Points, i.e.:

- The Allocation Agent will continue to undertake interim and final allocations, which will potentially change a Shipper's delivery quantities and therefore its liability for Throughput Charges.
- Each month, adjustments resulting from interim and final allocations for the relevant prior months will continue to be shown as a debit or credit on the Shipper's transmission invoice.

Wash-ups will not arise at dedicated Delivery Points used by a single Shipper, since the Shipper's delivery quantities will be the metered quantities (which, other than as the result of metering error, will not change) or at Delivery Points where there is an Allocation Agreement or Operational Balancing Agreement.

**Priority Rights Charges****P10:      *How are Priority Rights Charges calculated?***

**Answer** Since Shippers are likely to bid different amounts for PRs, including for different tranches of PRs, the cost of PRs will vary from Shipper to Shipper.

In addition, if a Shipper buys PRs from another Shipper between auctions, it will become liable for the cost of those PRs from the day the sale becomes effective.

A Shipper will be liable to pay its Priority Rights Charges whether it uses its PRs or not (see below).

No transmission charges or any other fees will attach to PRs.

**P11: *What should First Gas do with the proceeds of selling Priority Rights?***

**Answer** The revenue that will accrue to First Gas from the sale of PRs is unknown, and outside our control. Since First Gas' transmission business operates under a revenue cap, variations in such revenue has the potential to cause volatility in DNC Fees.

To manage this problem, First Gas proposes to credit Shippers the total amount of Priority Rights Charges it receives, monthly in arrears.

First Gas proposes that each Shipper's credit should be that Shipper's pro-rata share of total DNC charges for the relevant month. First Gas considers that including transmission charges unrelated to DNC in the calculation of any Shipper's monthly credit could undermine the basis for determining the cost of DNC. For example, Supplementary Capacity may enjoy a priority on a par with "DNC plus PRs" without the Shipper having to obtain PRs; alternately the Shipper may benefit from discounted fees under a Supplementary Agreement.

A consequence of this formula is that a Shipper with no PRs will still receive a credit, as will each Shipper who pays Priority Rights Charges. First Gas believes this is appropriate to avoid distorting the value of PRs and undermining the price signal that the value of PRs gives.

The credit will appear on each Shipper's monthly invoice for transmission charges.

## **Overrun Charges**

**P12: *Why have Overrun Charges?***

**Answer** First Gas expects to ensure the recovery of its allowable revenue via DNC Charges. Shippers will obtain DNC via nominations. For any nominations-based system to work properly there must be an incentive for Shippers to nominate accurately.

**P13: *Should Overrun Charges apply to Delivery Zones or Delivery Points?***

**Answer** Currently (on the non-Maui parts of the transmission system), there are 15 "transmission pricing zones", comprising a total of 52 Delivery Points. In each of these zones, a Shipper's overrun charges are calculated with reference to its aggregate Reserved Capacity and aggregate deliveries within the zone.

At the other 78 Delivery Points on the (non-Maui) transmission system, Overrun Charges are calculated separately based on Reserved Capacity and deliveries at each point.

Transmission pricing zones were not part of the original open access regime. Because Reserved Capacity came to be seen as inflexible in a competitive retailing environment (it must be booked for a year and paid for whether used or

not), transmission pricing zones were introduced to help Shippers optimise their capacity bookings and to soften the impact of Overrun Charges.

The need for capacity optimisation is implicit in the existing non-Maui pricing regime, i.e. that a Shipper will optimise its Reserved Capacity bookings such that its savings in capacity fees will just balance the overrun charges it incurs from booking less than its peak capacity requirements.

Under the GTAC the conditions that require such optimisation will not exist. Shippers will be able to request the capacity (i.e. DNC) they require, when and where they want it.

Since DNC and PRs are both linked to Delivery Points, First Gas considers that Overrun Charges should be determined at the Delivery Point level also.

When it comes to sources of transmission revenue, it's a "zero sum game". As with revenue from all other transmission charges, that from Overrun Charges comes under First Gas' revenue cap: Overrun Charges are not some "extra" charge. To avoid diluting the incentive on Shippers to nominate accurately, First Gas sees no reason to calculate Overrun Charges in a "pooled" manner across multiple Delivery Points.

Accordingly, the preliminary drafting shows Overrun Charges being determined at Delivery Points, not across Delivery Zones.

**P14: *How will Overrun Charges be calculated?***

Answer Any part of a Shipper's delivery quantity (i.e. the GJ it takes at a Delivery Point on a day, where such GJ are shipped using DNC) that exceeds its DNC will be the Shipper's "Overrun Quantity".

The Shipper's Overrun Charge will be its Overrun Quantity multiplied by the applicable Overrun Fee.

NB: A Shipper may be liable for an Hourly Overrun Charge, as discussed below.

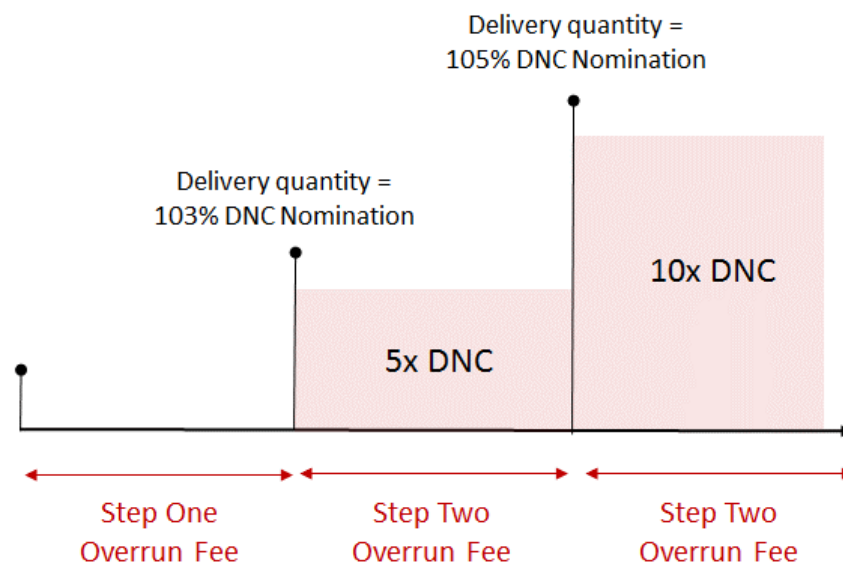
**P15: *What will the Overrun Fee be?***

Answer Under the existing regime the overrun fee is 10 times the daily capacity fee, and applies to any overrun quantity, big or small.

For the GTAC, First Gas proposes a "3-step" Overrun Fee. The fee would be zero for the 1<sup>st</sup> step, 5 times the DNC Fee for the 2<sup>nd</sup> step and 10 times the DNC Fee for the 3<sup>rd</sup> step.

The steps would be defined by percentages of the Shipper's DNC on the day. First Gas is thinking of  $\leq 3\%$  for the 1<sup>st</sup> step,  $3\%$  to  $\leq 5\%$  for the second step and  $> 5\%$  for the 3<sup>rd</sup> step.

This is illustrated in Figure 2.

**Figure 2: Illustration of Proposed Approach to Overrun Charges****P16: Why have an Hourly Overrun Charge?**

**Answer** DNC (like all non-standard forms of transmission capacity) is defined by MHQ as well as MDQ.

MHQ is a key design parameter for sizing Receipt Points, Delivery Points and compressors in particular, but also other transmission assets. (MDQ is practically irrelevant in that regard). Consequently, if a Shipper exceeds its allowable MHQ there may be a significant negative impact on the transmission system.

At shared Delivery Points, it is not possible to determine whether any individual Shipper is exceeding its allowable MHQ, because the Allocation Agent (i.e. under the DRR) does not provide allocated hourly quantities.

However, there are 31 “dedicated” Delivery Points on the non-Maui part of the transmission system (i.e. where gas is taken by a single end-user). Currently, at each such point the end-user is supplied by a single Shipper, so that the Shipper’s hourly quantities are simply the metered hourly quantities.

As there is no reason why an end-user at a dedicated Delivery Point should not be able to buy gas from more than one Shipper, First Gas intends to ensure that a requirement of any future Allocation Agreement and Operational Balancing Agreement is that such agreement must provide Shippers and First Gas with hourly quantities at any shared Delivery Point.

**P17: How will Hourly Overrun Charges be calculated?**

**Answer** Any part of a Shipper’s hourly delivery quantity (i.e. the GJ it takes at a Delivery Point in an hour, where such GJ are shipped using DNC) will be the Shipper’s “Hourly Overrun Quantity”.

The Shipper’s Hourly Overrun Charge will be its Hourly Overrun Quantity multiplied by the applicable Hourly Overrun Fee.

Overrun Charges (i.e. for exceeding MDQ) will also apply.

**P18: What will the Hourly Overrun Fee be?**

Answer Hourly Overrun Charges will apply only at dedicated Delivery Points. At such points the end-user has direct control over, and can “see” the quantities of gas it is taking.

First Gas considers that at such Delivery Points there is no reason for exceeding MHQ. Accordingly, the Hourly Overrun Fee should apply at the maximum rate to each Hourly Overrun Quantity.

**P19: What about liability for the effects of any overrun?**

Answer As noted above, it is possible that a significant overrun (daily or hourly) could cause a problem on the transmission system, such a breach of First Gas’ Security Standard or preventing another Shipper from being able to fully utilise its capacity.

Under both the MPOC and the VTC, a Shipper whose overrun has such an effect may, where First Gas suffers a loss in consequence, be liable for that loss. First Gas proposes that this continue to be the case under the GTAC.

**P20: How will wash-ups apply?**

Answer At each shared Delivery Point, Overrun Charges for a month will continue to be determined based on Shippers’ initial allocated quantities.

Wash-ups under the DRR will also continue to apply, i.e.:

- The Allocation Agent will continue to undertake interim and final allocations, which will potentially change a Shipper’s delivery quantities and therefore its liability for Overrun Charges.
- Each month, adjustments resulting from interim and final allocations for the relevant prior months will continue to be shown as a debit or credit on the Shipper’s transmission invoice.

Wash-ups will not arise at dedicated Delivery Points used by a single Shipper, since the Shipper’s delivery quantities will be the metered quantities (which, other than as the result of metering error, will not change) or at Delivery Points where there is an Allocation Agreement or Operational Balancing Agreement.

**General****P21: How frequently should transmission fees be re-determined?**

Answer First Gas thinks that re-determining transmission fees annually as at present is appropriate (excluding PR Charges which are determined at auction).

**P22: What notice is required?**

Answer First Gas proposes that transmission fees for a year (i.e. commencing on 1 October) should be notified to Shippers not later than 1 September, as under the VTC.

**P23: Should Shippers be able to dispute the GTPM?**

Answer While Shippers should have the right to dispute a transmission invoice if they consider that First Gas has made an error in the calculation of their charges, there should be no right to dispute the underlying GTPM.

## 4 Balancing and Allocation

Primary (and Secondary) balancing procedures must provide for maintenance of pipeline line pack within acceptable levels, as well as incentives for pipeline users to manage their primary balancing obligations. With the amalgamation of both transmission pipeline systems, we have been able to take broad view of Shippers' balancing obligations by assessing them on a system wide basis.

As previously advised, we are considering a Park and Loan service and made provision for it in the attached sections of the initial GTAC draft. These include initial drafts of GTAC section 5 "Energy Allocations" and section 9 "Balancing".

### 4.1 What we want to achieve

#### Balancing

1. Maintain line pack within defined operational limits which also facilitate primary and secondary balancing.
2. Cost effective outcomes for balancing the pipeline. Note that the rules (input methodologies) for the gas transmission revenue path set by the Commerce Commission mean that First Gas does not gain or lose income from maintaining line pack through balancing transactions. The amounts spent or earned by First Gas on balancing gas must be returned to transmission system users through prices.
3. Incentives to encourage primary balancing. The gas transmission system should not be used as a buyer and seller of last resort.
4. Allocate costs of secondary balancing actions to identified causers on a fair and consistent basis. Balancing cost allocation should not adversely affect competition.

#### Park & Loan

5. Utilise the flexibility of the pipeline to provide a park and loan service, at a level which does not adversely affect our provision of transmission services and which also allows for reasonable "tolerances" to assist primary balancing.

#### Allocations

6. Allocate gas flows through injection and delivery points to identified parties in a timely, accurate and consistent fashion while not restricting gas trading and retail competition.

### 4.2 What we have said previously

At the February workshop, First Gas signalled a high-level direction for balancing and allocation that helps to inform further decisions on detailed design. These have subsequently been fleshed out and extended as set out below.

#### Balancing

1. Balancing will apply across the transmission system as a whole: the current multiple "balancing pools" will go.
2. Shippers will continue to have an obligation to match gas receipts to deliveries ("primary balancing").

3. Where OBAs apply, the interconnected party will have an obligation to match injection/offtake to nominations. OBAs will be available at receipt points and at dedicated (single end user) delivery points.
4. First Gas will be responsible for its own mismatch (e.g. the difference between gas purchased, and used, for fuel/own use and UFG).
5. First Gas will be transparent in relation to its sales and purchases of gas to manage line pack.
6. First Gas will maintain line pack within reasonable operational limits, by:
  - Setting (and publishing) upper and lower line pack limits from time to time
  - Moving gas from one part of the transmission system to another
  - Buying or selling gas to correct for the impact of the aggregate of Shippers' mismatches
  - Buying or selling gas to provide for (or increase the provision of) transmission services
7. There is a need to have separate incentives for accurate nominations
8. Arrangements that incorporate daily incentives to encourage primary balancing (control Running Mismatch) and pass through line pack management costs/credits to causers align well with the operational requirements of the transmission system.
9. Costs and credits from the purchase or sale of balancing gas should be recovered from, or reimbursed to Shippers and interconnected parties with OBAs:
  - Shipper and interconnected party Running Mismatch should be the determinant of that party's share of any cost or credit from a balancing gas transaction.
  - The amount and quantity of balancing gas bought or sold in excess of aggregate Shipper and interconnected party Running Mismatch will be allocated to First Gas and its Running Mismatch.

**Park & Loan**

10. First Gas will explore the possibility of offering a park and loan service. This would primarily be intended for the use of a party who knows that it will not be able to meet its primary balancing obligation for a period. Providing access to a park and loan service for a defined amount and period could benefit First Gas through gaining a greater understanding of Shipper positions. A park and loan service would however reduce the amount of line pack available to provide mismatch "tolerances".

**Allocations**

11. GTAC must provide effective and efficient title tracking.
12. Existing MPOC and VTC receipt point arrangements will continue to be available.
13. OBAs will be available for receipt points and at dedicated (single end user) delivery points.
14. Downstream Reconciliation Rules (DRR) (and the "D+1 Agreement", as amended, replaced or incorporated within the DRR) will be the default at all shared delivery points where no OBA applies.
15. Where an OBA or the DRRs do not apply, an acceptable allocation algorithm must be defined and applied (probably within an Allocation Agreement).

### 4.3 Detailed design choices for balancing and allocation

To turn the high-level decisions set out above into preliminary code drafting has required numerous decisions about detail to be made. This section of the paper outlines the principal questions that First Gas asked in making such decisions.

#### Balancing

**BA1: *What balancing obligation will Shippers and Interconnected parties have?***

**Answer** Shippers and holders of OBAs will be required to manage their balancing position (Running Mismatch) towards zero over time. This “primary balancing obligation” is similar to the current obligations under the VTC and MPOC.

Shippers Mismatches will be assessed across the entire transmission system.

OBA holders’ Mismatches will be assessed at their respective connection points.

**BA2: *Will First Gas have a balancing obligation?***

**Answer** Yes, First Gas will be responsible for purchasing gas to make up for gas used as fuel gas and UFG.

**BA3: *How will performance against the balancing obligation be measured?***

**Answer** First Gas has chosen ‘Running Mismatch’ as the term in the preliminary code drafting that will be used to assess a party’s balancing measure.

The Running Mismatch for each party will be:

- First Gas Running Mismatch =
  - Gas Purchased for Fuel Gas & UFG; less
  - Gas used for Fuel Gas & UFG
- Shipper Running Mismatch =
  - Receipt nominations from injection points with OBAs; plus
  - Allocated receipts from other injection points; less
  - Delivery nominations at delivery points with OBAs; less
  - Allocated deliveries at delivery points without OBAs
- Receipt point Interconnected Party (with OBA) Running Mismatch =
  - Injected quantity; less
  - Total receipt nominations
- Delivery point Interconnected Party (with OBA) Running Mismatch =
  - Total delivery nominations; less
  - Delivery quantity

**BA4: *What balancing incentives will there be?***

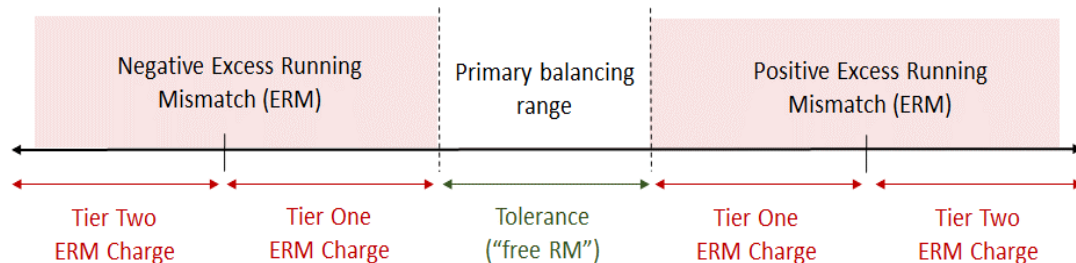
**Answer** An incentive charge will apply when a party’s Running Mismatch passes a defined tolerance and a Cash-out if/when First Gas engages in a balancing transaction.

A tolerance incentive will exist for each holder of Running Mismatch.

- Running Mismatch will be assessed for the net of a party's TSAs and ICAs with OBAs
- When a party's Running Mismatch goes past a defined limit ("Excess Running Mismatch"), that party will incur an incentive charge
- This incentivises the Primary Balancing obligation
- This is not like the current Cash-out: First Gas will not automatically take ownership of Running Mismatch through the incentive charge
- Tolerance incentives will apply whether the Running Mismatch is positive or negative or which direction it is in relative to the system-wide position
- Tolerance incentive will encourage parties to minimise their Running Mismatch.

Pricing for Mismatch in excess of the tolerance levels will be tiered. Greater levels of Mismatch will attract a greater unit charge. This is illustrated in Figure 3.

**Figure 3: Illustration of Proposed Approach to Balancing Incentive Charges**



**BA5: How will balancing costs be passed through?**

Answer First Gas' balancing gas costs/credits for maintaining line pack will be passed through:

- For normal operations, First Gas will only buy or sell gas to restore line pack where there is no indication that that is occurring through parties managing their Running Mismatch
- Costs and GJ will be allocated to parties with Running Mismatch in the same direction as the transmission system imbalance and in proportion to those parties' Running Mismatches.

First Gas believes that this combination provides a good mix for incentivising the balancing obligations.

**BA6: What will the tolerances for each party be?**

Answer For each OBA holder, the tolerance will be  $\pm\%$  of the nominations for each day.

For each Shipper, the tolerances will be  $\pm\%$  of their deliveries (at non-OBA delivery points) plus their nominations to OBA delivery points for each day.

Tolerances will be subject to the amount of line pack (or space) that First Gas can make available for the purpose from time to time. As a general principle, First Gas is not looking to make balancing requirements tighter than they are currently under the MPOC and VTC.

**BA7: What will the incentive prices be?**

Answer First Gas will set an incentive price ahead of time but will reserve the right to change it as required.

**BA8: Why have an incentive price instead of a title transfer?**

Answer This is to avoid the current problem of First Gas having to take ownership of gas that it does not need or want, while encouraging the party with Running Mismatch to reduce that position.

**Park & Loan****BA9: What is Park & Loan?**

Answer Park & Loan is a right and obligation to hold a defined Running Mismatch position for a defined period.

The holder of that Running Mismatch has either under taken from/over injected into (*Park*) or over taken from/under injected into (*Loan*) the transmission system.

At the end of the defined period, the holder will remove that Running Mismatch.

**BA10: What is the benefit of Park & Loan?**

Answer Park & Loan is an option for Interconnected Parties and Shippers to utilise the line pack or storage space that First Gas may be able to provide to meet temporary shortfalls or surpluses of gas. This has specific benefit for:

- Injection points that are going through a planned or unplanned shutdown
- Delivery points that require large quantities of gas at short notice but are unable to find a supplier
- Shippers that have an imbalance in their gas portfolio that they are unable to resolve in the short term

For First Gas the benefit lies in learning about potential large swings in injections or offtakes ahead of time. First Gas can then plan for the pipeline operations to accommodate these large swings. Otherwise, First Gas may only see large swings when they occur and not have insight into why they are happening.

**BA11: How will a Park & Loan service be priced?**

Answer If a party uses a Park & Loan service, then it is seeking to avoid the costs of balancing incentives and any loss of title involved with Cash-outs. The alternative to a Park & Loan service is trading on a gas market. In asking First Gas for a Park & Loan service a party is either unwilling or unable to obtain the same service via the market. This could be due to the quantity of gas involved being far larger than what could be traded on the gas market, the party considers the prices on the market to be unacceptable or the party simply not wanting to use the market.

Any price for a Park & Loan service would need to consider the price spreads in the gas markets, the change in the flexibility of the transmission system and the potential balancing incentive charges that are being avoided. Given this, the price will likely need to be set via a formula using market prices and the pipeline conditions or be set ahead of time at a rate that First Gas believes will cover any price variances in the market and any effect due to line pack variations.

**BA12:     *How will a Park & Loan service be accessed?***

Answer     On request to First Gas. First Gas will then assess the pipeline situation to accommodate the request.

**Allocation**

**BA13:     *Where and when will allocations be required?***

Answer     Allocations will be required on a day in arrears basis for every receipt point and delivery point on the transmission system, for the calculation of transmission charges. This also aligns with daily balancing requirements.

Note that the TP Welded Points will no longer be relevant for balancing incentives or transmission charges.

**BA14:     *Will D+1 and the DRRs be required?***

Answer     The DRR is the default at shared delivery points. Currently the D+1 process provides initial allocations on a business day in arrears basis. This will continue unless and until suitable replacements are developed.

The Interim and Final Allocation of the DRRs will be required if Shippers believe they should be included for wash-ups under the GTAC.

**BA15:     *What could replace D+1?***

Answer     Any allocation methodology that can produce an allocation amongst Shippers for shared delivery points currently allocated by D+1.

First Gas notes that the OATIS replacement systems investigated to date have all included provision for external allocations to be uploaded, but have also offered inbuilt allocation algorithms.

Inbuilt allocation algorithms tend to be based on nominations. They can be purely proportional, include 'swing' Shippers, have set proportions etc.

First Gas believes that using an inbuilt allocation algorithm based on DNC nominations to determine Shippers' initial allocations would allow D+1 to be replaced, with the following benefits:

- Reduced Cost –
  - The D+1 allocation is a cost which Shippers are paying for
  - An algorithm contained in the OATIS replacement will remove the need and cost of the D+1 allocation
- Reliability –
  - By being contained in the OATIS replacement the information transfer to and from the D+1 allocation is no longer required

- This significantly reduces the chances of delays and interruptions
- Timeliness –
  - A preloaded algorithm can begin as soon as the meter data is available
  - This reduces the time between meter data being produced and the allocation being available

Interim and Final Allocations under the DRR would still occur.

**BA16: What allocations will/could be used at points not covered by the DRRs?**

Answer First Gas has no preference if the allocation method chosen, provided that it:

- Allocates the actual metered quantity amongst Shippers and/or the OBA holder
- Cannot be used as a barrier to impede either an end-user from buying gas from whom it wants, or a Shipper buying gas from a producer
- Is performed within the required timeframes (e.g. by a defined time on a day in arrears basis)

The allocation method chosen will need to be defined in the associated OBA or Allocation Agreement. The intent of the definition of Allocation Agreement and clause 5.17 in the preliminary code in Appendix A is to ensure that an existing Shipper cannot exclude another Shipper by refusing to agree to a method of allocation.

**BA17: Will there be 'default' allocation methods that can be used for points?**

Answer Yes, all the OATIS replacements viewed so far have preloaded allocation methods.

The method described on Q3 is an example of a potential default allocation method.

**BA18: What title will Shippers have to gas?**

Answer Each Shipper will have good title to:

- The quantity allocated to that Shipper at each receipt point (*Receipt Quantity*), at the time that gas injected into the Transmission System
  - For a receipt point that has an OBA, the Receipt Quantity will be the approved nomination for that Shipper at that receipt point
  - For a receipt point that does not have an OBA, the Receipt Quantity will be the quantity allocated to that Shipper at that receipt point
- The quantity allocated to that Shipper at each delivery point (*Delivery Quantity*), at the time that gas is taken from the transmission system
  - For a delivery point that has an OBA, the Delivery Quantity will be the DNC for that Shipper at that delivery point
  - For a delivery point that does not have an OBA, the Delivery Quantity will be the quantity allocated to that Shipper at that delivery point
- Gas transferred/traded to from another Shipper

## 5 Process Update

In February 2017, we announced that we were dividing the process of developing and implementing the GTAC into ten work streams, most of which are proceeding in parallel. The schedule envisaged for each of these work streams is set out in the diagram on the following page, with changes from the plan released in February 2017 highlighted in red.

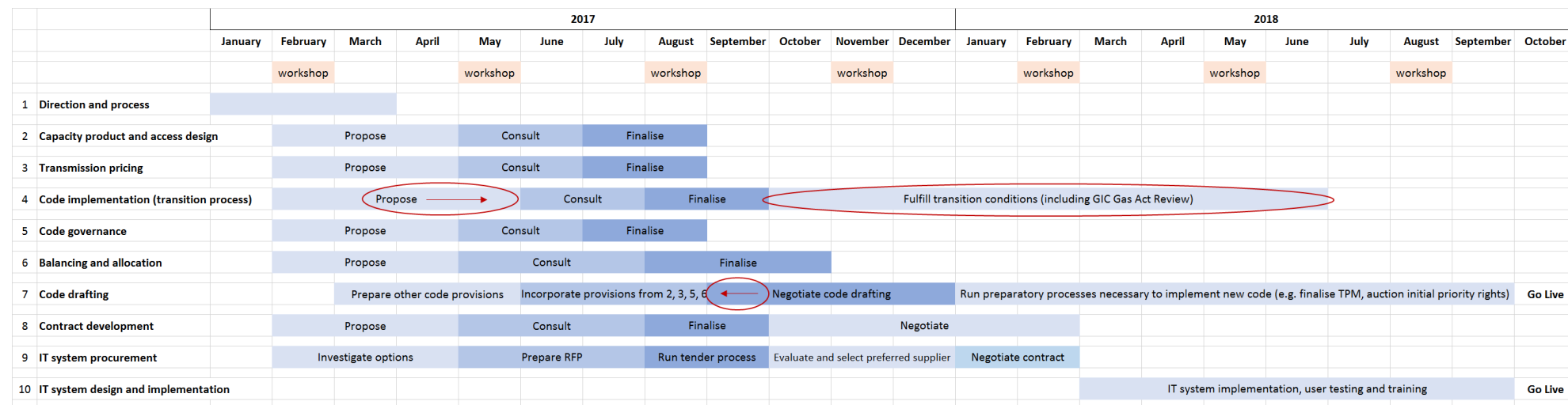
We also provide the following process updates on each of the work streams:

1. **Determine direction and process (completed).** This work stream explored the possible forms that the new GTAC could take. We consulted on the general direction for the new code through the SCOP2 and Decisions and Next Steps papers. Completed March 2017.
2. **Capacity product and access design (in progress – see section 2).** Using the outputs of work stream 1, this work stream is undertaking detailed design of the access products, including the auctions required to price and allocate priority rights and the definition of receipt and delivery zones. Proposed completion August 2017.
3. **Transmission pricing (in progress – see section 3).** In conjunction with the capacity and access product design, a GTPM will be developed to efficiently recover regulated revenue. This will involve designing the standard pricing structure, as well as the methodology to determine actual prices. Proposed completion August 2017.
4. **Code implementation (delayed).** This work stream will determine the transition process to adopt the new code, which we expect will involve changes to existing codes to terminate them once the new code has been finalised. This work stream has been delayed as we focus resources on the substance of the new code, but will need to be resolved prior to the current expiry date for the VTC of 30 September 2017. We have added an additional phase to this work stream that recognises that certain conditions will need to be fulfilled for the existing contracts to expire (we consider that one condition will be the outcome of a GIC review of the GTAC against the Gas Act objectives). Proposed completion June 2018.
5. **Code governance (code change process and dispute resolution – see Concept Consulting paper).** GIC engaged Concept Consulting to examine how the new code should be able to be amended. Submissions on Concept's paper are due on 12 May 2017. First Gas will consider the Concept paper and submissions in drafting code change provisions for the draft GTAC. Proposed completion August 2017.
6. **Balancing and allocation (in progress – see section 4).** Arrangements and incentives to balance gas injections and offtakes (allowing for any tolerances) are practically independent of the capacity and access product design. However, given that these provisions can have important impacts on shippers and interconnected parties, we have provided our current thinking on these provisions in this paper. Proposed completion August 2017.
7. **Code drafting (in progress).** The key purpose of this work stream is to draft the GTAC and pave the way for its adoption and implementation in 2018. We have started this work stream early (as suggested by the GIC in its analysis of SCOP2 submissions). We propose to release a full draft of the GTAC for review and comment in August 2017,

which is one month earlier than we had previously signalled. Proposed completion December 2017 (with subsequent preparatory actions such as drafting the GTPM to take place during 2018).

8. **Contract development.** Once the code is largely developed, other related agreements (ICAs, supplementary agreements, etc.) will need to be developed and negotiated as required. Proposed completion March 2018.
9. **IT system procurement.** We have begun exploring options for a new transaction management system to accompany the new code (replacing OATIS). We are keen to involve system users (Shippers and other interested parties) in the process to ensure that the benefits of a new IT system are widely understood. Once the core elements of the new code are well-defined, a tender process to procure an IT system to implement the code will begin. We have started work on a summary of the requirements of the new system. The final contract will be signed once the detailed GTAC provisions have been finalised. Proposed completion December 2017.
10. **IT system design and implementation.** The successful IT system provide with design and implement the new system during 2018 to enable a “go live” date of 1 October 2018. The system will be developed with user input and significant user training. Proposed completion June 2018.

**Figure 4: Overview of process for developing and implementing GTAC**



## **Appendix A: Preliminary Code Drafting**

# Gas Transmission Access Code

Preliminary Drafting:

sections 3, 5, 7 and 9, plus relevant defined terms

12 MAY 2017

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## 1 DEFINITIONS AND CONSTRUCTION

### Defined Terms

- 1.1 *Acceptable Line Pack Limits* means the upper and lower operating limits for Line Pack determined by First Gas for parts of the Transmission System from time to time and published on [OATIS];

*Allocation Agent* means the person referred to as such in the DRR or Allocation Agreement;

*Allocation Agreement* means, for a Delivery Point used by more than one Shipper at which Delivery Quantities are not allocated under either the DRR or an OBA, an agreement which sets out, among other things, the methodology to be used by the Allocation Agent to apportion the total metered quantity of Gas amongst those Shippers into Delivery Quantities;

*Allocation Result* means:

- (a) for Delivery Points used by more than one Shipper at which Gas is not allocated under the DRR, the Delivery Quantities determined under the relevant Allocation Agreement; and
- (b) for Delivery Points at which Gas is allocated under the DRR, the same as that term in the DRR;

*Approved Nominated Quantity* has the meaning in *section 4.22*;

*Available Operational Capacity* means the amount of Operational Capacity that First Gas determines from time to time it can make available as DNC without breaching its Security Standard;

*Balancing Gas* means any Gas bought or sold by First Gas in accordance with *section 9.7*;

*Balancing Gas Charge* has the meaning set out in *section 9.9*;

*Balancing Gas Credit* has the meaning set out in *section 9.10*;

*Bi-directional Point* means a station which, at different times, may operate either as a Receipt Point or as a Delivery Point;

*Business Day* means any day (other than a Saturday, Sunday or a public holiday) on which registered banks are open for business in New Plymouth and Wellington;

*CCM Regulations* means the Gas Governance (Critical Contingency Management) Regulations 2008;

*Changed Provisional Nomination* has the meaning set out in *section 4.14*;

*Code* means this Gas Transmission Access Code;

*Commencement Date* means the commencement date specified in *clause 2* of Part A of the relevant TSA;

*Congestion* has the meaning set out in *section 11.1*;

*Confidential Information* is information that the relevant parties both agree is such, in accordance with *sections 20.3 to 20.5*;

*Critical Contingency* has the meaning set out in the CCM Regulations;

*Daily Nominated Capacity* or *DNC* has the meaning set out in *section 3.2*;

*Daily Nominated Capacity Fee* or *DNC Fee* means the fee payable by a Shipper for DNC;

*Daily Nominated Capacity Charge* means the charge payable for DNC calculated in accordance with *section 7.2*;

*Day* means a period of 24 consecutive hours, beginning at 0000 hours (New Zealand standard time) and *Daily* shall be construed accordingly;

*Dedicated Delivery Point* means a Delivery Point at which a Shipper (or more than one) takes (or may take) Gas for supply to a single end-user;

*Delivery Point* means a station or connection at which a Shipper's takes (or may take) Gas from the Transmission System or, in the case of an Existing Supplementary Agreement, the point on the transmission system named as such in that agreement;

*Delivery Quantity* means the GJ of Gas taken by a Shipper at a Delivery Point on a Day or in an Hour (as the context requires), determined in accordance with *section 5*;

*Delivery Zone* means a group of one or more Delivery Points each with the same Transmission Fees, as defined by First Gas from time to time and published on [OATIS];

*Distribution System* means any pipeline operating at a pressure of less than 20 bar gauge which conveys Gas taken at a Delivery Point to one or more end-users;

*Downstream Reconciliation Rules* or *DRR* means the Gas (Downstream Reconciliation) Rules 2008;

*Emergency* means a situation, or an event or circumstance that gives rise to that situation, which First Gas reasonably determines to be an emergency, irrespective of the cause of the emergency and whether First Gas or any other person may have caused or contributed to the emergency. Such a situation may exist:

- (a) by reason of any actual or potential failure of, or damage to, any part of the Transmission System;
- (b) where in First Gas' reasonable opinion the safety of the Transmission System or the safe transportation of Gas is significantly at risk, including as a result of circumstances upstream or downstream of the Transmission System;
- (c) due to an interruption or disruption to the operations of a pipeline;
- (d) where Gas is at such a pressure or of such a quality as to constitute a hazard to persons, property or the environment; or

gas transmission access code

- (e) where First Gas' ability to maintain safe pressures within a pipeline is affected or threatened by:
  - (i) an insufficiency of injections of Gas into a pipeline;
  - (ii) any off-take of Gas from a pipeline which exceeds the relevant Maximum Design Flow Rate or exceeds the quantity or offtake rate specified in an Operational Flow Order;

*Excess Running Mismatch* or *ERM* means that amount of a party's Running Mismatch that exceeds that party's Running Mismatch Tolerance;

*Existing Supplementary Agreement* means a valid and binding supplementary agreement with a commencement date earlier than the Commencement Date;

*Expiry Date* means the date specified in *clause 3* of Part A of the relevant TSA;

*First Gas* means First Gas Limited at New Plymouth;

*FM Loss* has the meaning set out in *section 7.6(c)*;

*Force Majeure Event* means an event or circumstance beyond the reasonable control of a Party which results in or causes a failure or inability by such Party in the performance of any obligations imposed on it by its TSA and/or (in the case of a Shipper) an inability of that Shipper to inject or take Gas pursuant to that Shipper's TSA notwithstanding the exercise by such Party of reasonable care and, subject to the foregoing, shall include any such event or circumstance which causes a Critical Contingency to be determined and/or any action or inaction of a Party necessary to comply with the CCM Regulations which causes a failure or inability of the kind described above;

*Gas* means gas that complies with the Gas Specification;

*Gas Market* means a reputable and open electronic market platform controlled and operated by:

- (a) a party other than First Gas for the purposes of trading Gas; and/or
- (b) First Gas, exclusively for the purposes of buying and selling Balancing Gas;

*Gas Specification* means the New Zealand Standard NZS 5442:2008: Specification for Reticulated Natural Gas;

*Gas Transfer Agent* means First Gas in its capacity as a gas transfer agent or a person approved by First Gas pursuant to *section 5.7* and named as a gas transfer agent in the relevant GTA;

*Gas Transfer Agreement* or *GTA* means a valid and binding agreement between a transferor and transferee of Gas (who may be the same person) and the Gas Transfer Agent, which complies with the requirements of Schedule Three;

*Gas Transmission Pricing Methodology* or *GTPM* has the meaning set out in *section 7.8*;

*GJ* or *Gigajoule* means the energy equivalent, on a "gross calorific value" basis, of a quantity of Gas;

*GST* and *GST Amount* mean, respectively, Goods and Services Tax payable pursuant to the Goods and Services Tax Act 1985 and the amount of such tax;

*Hour* means a period of 60 consecutive minutes beginning on the hour and *Hourly* shall be construed accordingly;

*Hourly Overrun Quantity* has the meaning set out in *section 7.6(b)*;

*Interconnected Party* means a party whose gas producing or gas processing facility, pipeline, Distribution System or gas consuming facility is physically connected to the Transmission System, irrespective of whether there is an ICA at such point;

*Interconnection Agreement* or *ICA* means an agreement complying with the requirements of *sections 6.9* and *6.10* between First Gas and an Interconnected Party which sets out the terms and conditions applicable to that party's connection to the Transmission System at a Receipt Point, Delivery Point or Bi-directional Point (or more than one);

*Interconnection Point* means a point identified by First Gas at which the Transmission System is physically connected to an Interconnected Party's gas producing or gas processing facility, pipeline, Distribution System or gas consuming facility;

*Interruptible Agreement* means a valid and binding agreement between First Gas and a Shipper that supplements and amends that Shipper's underlying TSA in accordance with *sections 6.14* and *6.15* for the purposes of the transmission of Gas to a Delivery Point for supply to a specific end-user or site and where such transmission of Gas is interruptible at First Gas' sole discretion for any reason at any time;

*Interruptible Capacity* means transmission capacity First Gas makes available to a Shipper under an Interruptible Agreement;

*Intra-Day Cycle* means a nomination cycle that occurs after the Changed Provisional Cycle, as described in *sections 4.14* to *4.16* inclusive.

*Intra-Day Nomination* means a requested amendment to an Approved Nomination or a new Nominated Quantity requested by a Shipper during an Intra-Day Cycle.

*Intra-Day Nomination Deadline* means the deadline for a Shipper to make an Intra-Day Nomination during each Intra-Day Cycle, as posted on the [OATIS].

*Line Pack* means the total quantity of Gas contained in the Transmission System (or a defined part thereof) at any time;

*Maximum Daily Quantity* or *MDQ* means, in respect of a Day, the maximum GJ of Gas that First Gas is required to receive from a Shipper within a Receipt Zone (or at an individual Receipt Point, as the case may be) and simultaneously make available for that Shipper to take at a Delivery Point where, in respect of:

- (a) a TSA, such MDQ shall equal the amount of DNC approved or allocated by First Gas;

- (b) a Supplementary Agreement, such MDQ shall be as set out in that agreement; and
- (a) an Interruptible Agreement, such MDQ shall be the Interruptible Capacity determined in accordance with that agreement;

*Maximum Design Flow Rate* means the maximum flow rate of Gas that the relevant Receipt Point, Delivery Point, Bi-directional Point or Metering is designed to have flow through it and, in the case of Metering, Accurately measure;

*Maximum Hourly Quantity* or *MHQ* means, in respect of an Hour, the maximum GJ of Gas that First Gas is required to receive from a Shipper within a Receipt Zone (or at an individual Receipt Point, as the case may be) and simultaneously make available for that Shipper to take at a Delivery Point where, in respect of:

- (a) DNC, such MHQ shall be 1/16<sup>th</sup> of the relevant MDQ unless First Gas specifies otherwise;
- (b) Supplementary Capacity, such MHQ shall be as set out in the relevant Supplementary Agreement; and
- (c) Interruptible Capacity, such MHQ shall be as set out in the relevant Interruptible Agreement;

*Metering* means the equipment, complying with the Metering Requirements, installed at or near a Receipt Point, Delivery Point or Bi-directional Point which measures the quantities of Gas injected into or taken from the Transmission System at such point;

*Metering Owner* means the party who owns the Metering;

*Metering Requirements* means the document entitled "Metering Requirements for Receipt Points and Delivery Points" published [on OATIS] from time to time;

*Minimum Design Flow Rate* means the minimum flow rate of Gas that the relevant Receipt Point, Delivery Point, Bi-directional Point or Metering is designed to have flow through it and, in the case of the Metering, Accurately measure;

*Mismatch* means, in relation to a Day and:

- (a) a Shipper, the aggregate of that Shipper's Receipt Quantities minus the aggregate of its Delivery Quantities, where:
  - (i) aggregate receipts greater than aggregate deliveries is Positive Mismatch; and
  - (ii) aggregate receipts less than aggregate deliveries is Negative Mismatch;
- (b) an OBA Party, the difference between the Scheduled Quantity and (as the case may be) the Receipt Quantity or Delivery Quantity, where:
  - (i) under-injection or over-take relative to the Scheduled Quantity are each a Negative Mismatch; and

- (ii) over-injection or under-take relative to the Scheduled Quantity are each a Positive Mismatch; and
- (c) First Gas, the aggregate of Gas purchased by First Gas for operational purposes minus the aggregate of Gas used by First Gas for operational purposes, where "operational purposes" excludes Balancing Gas or Gas purchased to correct for UFG, and
  - (i) aggregate purchases greater than aggregate usage is Positive Mismatch; and
  - (ii) aggregate purchases less than aggregate usage is Negative Mismatch;

*Month* means the period beginning at 0000 hours on the first Day of a calendar month and ending at 0000 hours on the first Day of the next calendar month, and *Monthly* shall be read accordingly;

*Nominated Quantity* means:

- (a) for a Receipt Point, the quantity of Gas a Shipper wishes First Gas to receive into the Transmission System; and
- (b) for a Delivery Point, the amount of DNC a Shipper wishes First Gas to provide to it;

*Non-standard Transmission Charges* means the transmission charges payable under any Existing Supplementary Agreement, Supplementary Agreement or Interruptible Agreement;

*[OATIS]* means the internet-based open access transmission information system, whose homepage is located at [<http://www.oatis.co.nz>] (or such other homepages as First Gas may notify to the Shipper in writing from time to time), when accessed using a username provided by First Gas and the relevant password (if any), or any replacement system;

*OBA Party* means the Interconnected Party at a Receipt Point or Delivery Point where an OBA applies;

*Operational Balancing Agreement* or *OBA* means an agreement at a Receipt Point or a Delivery Point complying with Schedule Four under which:

- (a) a Shipper's allocation of Gas is equal its Approved Nominated Quantity;
- (b) any Mismatch at the point is allocated to the Interconnected Party; and
- (c) to the extent that it has Running Mismatch, the Interconnected Party will take steps to move that Running Mismatch towards zero in the shortest practicable time;

*Operational Capacity* means, in relation to a Delivery Point, the total transmission capacity that First Gas reasonably determines from time to time that it can provide without breaching its Security Standard;

*Operational Flow Order* means a notice issued pursuant to *section 10.5*;

*Overrun Charge* means the sum of the charges payable pursuant to *section 7.6*;

*Overrun Quantity* has the meaning set out in *section 7.6(a)*;

*Party* means each of First Gas and the other party to the relevant TSA and *Parties* means both of them collectively;

*Primary Balancing Obligation* has the meaning set out in *section 9*;

*Priority Right* or *PR* has the meaning set out in *section 3.4*;

*Priority Rights Charge* means the charge payable by a Shipper for the Priority Rights it holds (if any) in respect of a Delivery Point, calculated in accordance with *sections 7.4* and *7.5*;

*Proposed Scheduled Quantity* has the meaning set out in *section 4.18*;

*PR Allocation Day* has the meaning set out in *section 3.7*;

*PR Auction* has the meaning set out in *section 3.6*;

*PR Term* has the meaning set out in *section 3.7*;

*Provisional Nomination* has the meaning set out in *section 4.13*;

*Reasonable and Prudent Operator* means, in relation to the performance of obligations under a TSA:

- (a) for First Gas, an operator of a high pressure gas transmission system whose standard of performance is equal to or better than good high pressure gas transmission system operating practice as determined by reference to proper and prudent practices recognised internationally as applying to the operation of such systems; and
- (b) for a Shipper, a shipper of gas whose standard of performance is equal to or better than good gas shipping practice as determined by reference to proper and prudent practice recognised internationally as applying to shippers of gas;

*Receipt Point* means a station or connection at which a Shipper's Gas is (or may be) injected into the Transmission System;

*Receipt Quantity* means, in respect of a Day and a Shipper, the GJ of Gas received by First Gas at a Receipt Point, as determined in accordance with *section 5*;

*Receipt Zone* has the meaning set out in *section 3.14*;

*Reserve Price* means the price (in \$/Priority Right) to recover its reasonable costs in administering auctions for Priority Rights which First Gas sets from time to time;

*Running Mismatch* means, in relation to a Day and:

- (a) a Shipper:

gas transmission access code

- (i) the aggregate of the Shipper's Mismatch on that and each previous Day (as calculated at the end of that Day); plus
  - (ii) any quantity of Gas purchased by the Shipper on any previous Day, including from First Gas pursuant to *section 9.9(b)* and/or *9.16(a)*; minus
  - (iii) any quantity of Gas sold by the Shipper on any previous Day, including to First Gas pursuant to *section 9.10(b)* and/or *9.16(b)*;
- (b) an OBA Party:
  - (i) the aggregate of that OBA Party's Mismatch on that and each previous Day (as calculated at the end of Day); plus
  - (ii) any quantity of Gas purchased by that OBA Party on any previous Day, including from First Gas pursuant to *section 9.9(b)* and/or *9.16(a)*; minus
  - (iii) any quantity of Gas sold by that OBA Party on any previous Day, including to First Gas pursuant to *section 9.10(b)* and/or *9.16(b)*; and
- (c) First Gas:
  - (i) the aggregate of First Gas' Mismatch on that and each previous Day (as calculated at the end of that Day); plus
  - (ii) any quantity of Gas purchased by First Gas on any previous Day, including from a Shipper or OBA Party pursuant to *sections 9.10(b)* and/or *9.16(b)*; minus
  - (iii) any quantity of Gas sold by First Gas on any previous Day, including to a Shipper or OBA Party pursuant to *sections 9.9(b)* or *9.16(a)*,

where, as with Mismatch, Running Mismatch may be either Positive or Negative;

*Running Mismatch Tolerance* means:

- (a) for each Shipper and a Day, an amount that is the lesser of:
  - (i)  $P_S \times \Sigma DQ_S$ ; and
  - (ii)  $RM_S \div RM_{ALL} \times T_R$ ,

where:

$P_S$  is a percentage that applies to either Positive or Negative Running Mismatch (as the case may be) determined by First Gas from time to time and notified [on OATIS];

$\Sigma DQ_S$  is the aggregate of the Shipper's Delivery Quantities;

$RM_S$  is the Shipper's Positive or Negative Running Mismatch at 2400 on that Day;

$RM_{ALL}$  is the aggregate of all parties' Positive Running Mismatches or Negative Running Mismatches at 2400 on that Day; and

$T_R$  is an amount of Gas (GJ), which may be different for the aggregate of all parties' Positive and Negative Running Mismatches, determined and notified [on OATIS] by First Gas from time to time;

(b) for each OBA Party and a Day, an amount that is the lesser of:

(i)  $P_I \times SQ$ ; and

(ii)  $RM_I \div RM_{ALL} \times T_R$ ,

where:

$P_I$  is a percentage that applies to either Positive or Negative Running Mismatch (as the case may be) determined by First Gas from time to time and notified [on OATIS];

$SQ$  is the Scheduled Quantity;

$RM_I$  is the OBA Party's Positive or Negative Running Mismatch at 2400 on that Day;

$RM_{ALL}$  and  $T_R$  each has the meaning set out in (a) above; and

(c) for First Gas and a Day, an amount that is the lesser of:

(i)  $P_F \times Use$ ; and

(ii)  $RM_F \div RM_{ALL} \times T_R$ ,

where:

$P_F$  is the percentage referred in (a) above that applies to either Positive or Negative Running Mismatch (as the case may be);

$Use$  is the First Gas' aggregate operational gas usage (including fuel and UFG);

$RM_F$  is First Gas' Positive or Negative Running Mismatch at 2400 on that Day;  
and

$RM_{ALL}$  and  $T_R$  each has the meaning set out in (a) above;

*Scheduled Quantity* has the meaning set out in *section 4.18*;

*Security Standard Criteria* means physical parameters defined by First Gas from time to time to indicate that Operational Capacity may be about to be, or has been, exceeded, including minimum permissible pressure in a pipeline ( $P_{MIN}$ ) and the projected minimum time to reach such a pressure ( $T_{MIN}$ );

*Shipper* means a person named as a shipper in a TSA with First Gas, including a TSA which has been supplemented and amended by a Supplementary Agreement or Existing Supplementary Agreement;

*Supplementary Agreement* means a valid and binding agreement between First Gas and a Shipper that supplements and amends that Shipper's underlying TSA in accordance with sections 6.5 to 6.6 for the purposes of the transmission of Gas to a specific Delivery Point for supply to a specific end-user or site;

*Supplementary Capacity* means the transmission capacity First Gas makes available under a Supplementary Agreement;

*Tax* has the meaning set out in section 7.19;

*Throughput Charge* means the charge calculated in accordance with section 7.3;

*Transmission Charges* means each of the Daily Nominated Capacity Charge, Throughput Charge and Overrun Charge;

*Transmission Fees* means each of the Daily Nominated Capacity Fee, Throughput Fee and Overrun Fee;

*Transmission Services Agreement* or *TSA* means a valid and binding transmission services agreement:

- (a) in the form set out in Schedule One (including as such agreement may be supplemented and amended by a Supplementary Agreement) that is duly completed and executed by First Gas and the shipper named in that agreement, which incorporates this Code and has a Commencement Date on or after the date of this Code; or
- (b) which is deemed to apply between First Gas and a shipper by virtue of an Existing Supplementary Agreement;

*Transmission System* means the pipeline system for the transmission of Gas owned and operated by First Gas, generally operating at pressures greater than 20 bar g but also including those parts of Delivery Points and other stations operating at lower pressures;

*Unaccounted-For-Gas* or *UFG* means, in respect of a defined part of the Transmission System (including the entire Transmission System) and period of time the quantity of Gas equal to:

$$\text{Receipts} - \text{Deliveries} + \text{Line Pack}_{\text{start}} - \text{Line Pack}_{\text{end}} - \text{Fuel} - \text{Gas Vented}$$

where:

*Receipts* means the aggregate of all relevant Receipt Quantities;

*Deliveries* means the aggregate of all relevant Delivery Quantities;

*Line Pack<sub>start</sub>* means the Line Pack at the start of the period;

*Line Pack<sub>end</sub>* means the Line Pack at the end of the period;

*Fuel* means the aggregate quantity of Gas used by First Gas' equipment; and

*Gas Vented* means the aggregate quantity of Gas estimated to have been vented (deliberately or otherwise), if any;

*Wash-up* means a revised Delivery Quantity, determined by the Allocation Agent in accordance with the Downstream Reconciliation Rules, and includes "interim allocations" and "final Allocations" (as such terms are defined in the DRR); and

*Year* means a period of 365 (or 366 in a leap Year) consecutive Days commencing at 0000 hours on the 1<sup>st</sup> day of October in each Year and ending at 2400 hours on the 30<sup>th</sup> day of September in the following Year provided that the first Year shall be the broken period from 0000 hours on the Commencement Date (if not 1 October) to 2400 hours on 30<sup>th</sup> September immediately following the Commencement Date.

### **Construction**

1.2 In this Code and each TSA, unless the context otherwise requires:

- (a) "take" includes to cause or allow Gas to flow from the Transmission System at a Delivery Point, either for use or for transfer to another Shipper, and other grammatical forms of "take" shall be construed accordingly;
- (b) "inject" includes to cause or allow Gas to flow into the Transmission System at a Receipt Point, and other grammatical forms of "inject" shall be construed accordingly;
- (c) a reference to any enactment, regulation, New Zealand Standard or any section of the Code, is a reference to that enactment, regulation, New Zealand Standard or section as amended or substituted from time to time;
- (d) references to a document includes all amendments of, supplements to or replacements of such document;
- (e) *sections 1* (excluding the definition of Non-Specification Gas), *2 to 11*, *13 to 20* and the schedules of the relevant TSA apply to Non-Specification Gas as if it were Gas;
- (f) headings appear as a matter of convenience and do not affect the interpretation of this Code;
- (g) all of the annexed schedules form part of this Code;
- (h) a reference to a section is to a section of this Code, a reference to Part A is to Part A of the relevant TSA, a reference to a schedule is to a schedule attached to this Code, a reference to a clause is to a clause in Part A of a TSA, and a reference in any schedule to a paragraph is a reference to a paragraph in that schedule;
- (i) the singular includes the plural and vice versa;
- (j) in interpreting any provision of this Code, each TSA shall be deemed to be between First Gas and the Shipper named in that TSA;

- (k) nothing in this Code shall apply to, amend or be deemed to amend an Existing Supplementary Agreement unless, and only to the extent that such Existing Supplementary Agreement provides for such application or amendment;
- (l) for the purposes of interpreting a TSA, unless the context requires otherwise, any reference to a Shipper shall be the shipper stated in that TSA;
- (m) references to a Party or a Shipper includes its respective successors and permitted assignees;
- (n) references to persons shall be deemed to include references to individuals, companies, corporations, firms, partnerships, joint ventures, associations, organisations, trusts, states or agencies of state, government departments and local and municipal authorities in each case whether or not having separate legal personality;
- (o) any reference to a prohibition against doing something is to be regarded as including a reference to not permitting, suffering or causing that thing to be done;
- (p) the rule of construction known as the contra proferentem rule does not apply to this Code;
- (q) any reference to the word "including" means "including without limitation", and "include" and "includes" shall be construed accordingly;
- (r) any reference to a "quantity of Gas" is a reference to GJ unless otherwise stated;
- (s) any reference to a "customer" in connection with a Shipper is a reference to an end-user supplied by that Shipper, where "end-user" refers to a person who uses Gas;
- (t) any reference to a range of sections is inclusive of the first and last sections referenced;
- (u) all references to any time of the day shall, unless expressly referring to New Zealand standard time (that is, GMT + 1200 hours), be references to New Zealand statutory time (that is, including adjustments for New Zealand daylight savings time);
- (v) any reference to "law" includes all statutes, regulations, codes of practice and local authority rules; and
- (w) all references to monetary values shall refer to New Zealand currency.

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## 2 **PARTIES OBLIGATIONS**

### 3 TRANSMISSION PRODUCTS AND ZONES

#### **Daily Nominated Capacity**

- 3.1 DNC is First Gas' standard capacity product and is intended to be the principal means by which Shippers gain access to transmission capacity.
- 3.2 DNC is a Shipper's right, in respect of a specific Delivery Point, to MDQ and MHQ, subject to the terms of this Code.
- 3.3 DNC is:
- (a) obtainable only via the nomination processes set out in *section 4*;
  - (b) not transferable or tradeable;
  - (c) curtailable by First Gas in the circumstances described in *sections 10* and *section 11* (subject to Priority Rights, if any); and
  - (d) not able to be linked to a specific end-user (except at a Dedicated Delivery Point) and hence cannot be used in conjunction with Supplementary Capacity or Interruptible Capacity.

#### **Priority Rights**

- 3.4 Each Priority Right gives the holder priority of access to one GJ of DNC in the event that DNC is curtailed for any reason other than in an Emergency, Force Majeure Event or Critical Contingency.
- 3.5 First Gas will use reasonable endeavours to offer Priority Rights up to the amount of Available Operational Capacity, having regard to:
- (a) the throughput of gas in the previous 12 Months, adjusted (where relevant) for any changes in throughput of which First Gas is aware;
  - (b) Operational Capacity;
  - (c) Supplementary Capacity (if any);
  - (d) the relationship between capacity at different Delivery Points, including where use of capacity at one Delivery Point would decrease available capacity in another;
  - (e) the demand for Priority Rights; and
  - (f) the capacity of each Delivery Point.
- 3.6 First Gas will allocate Priority Rights exclusively via auction (each a *PR Auction*), where:
- (a) First Gas will notify Shippers not later than 10 Business Days prior to each PR Auction of:
    - (i) the PRs on offer at each Delivery Point;
    - (ii) the Reserve Price for each Delivery Point, below which any bid for PRs will be invalid and automatically excluded;

- (b) only Shippers may participate in a PR Auction;
  - (c) a Shipper may lodge bids (expressed in \$ per Priority Right) for a maximum of five tranches of Priority Rights at the same Delivery Point, provided that:
    - (i) the bid price for each tranche must be different; and
    - (ii) if the aggregate number of Priority Rights bid for by the Shipper exceeds the number of Priority Rights on offer all the Shipper's bids in respect of that Delivery Point will be invalid and automatically excluded from the PR Auction; and
  - (d) PR Auction terms and conditions will be those reasonably determined by First Gas from time to time and published [on OATIS] not less than 30 days before any PR Auction.
- 3.7 The life of each Priority Right (*PR Term*) will be the period from 0000 on the Day First Gas allocates it (*PR Allocation Day*) until 2400 on the Day prior to the PR Allocation Date for the immediately following PR Auction (inclusive). All Priority Rights will expire automatically at the end of the PR Term.
- 3.8 First Gas will hold not less than two PR Auctions for a Year ( $Year_N$ ), on:
- (a) the second Monday in September in  $Year_{N-1}$ , for which the PR Allocation Day will be 1 October in  $Year_N$ ; and
  - (b) one or more dates at intervals during  $Year_N$  as First Gas reasonably determines, where in each case the PR Allocation Day will be the first day of the month following the month in which the PR Auction is held,
- provided that:
- (c) if this Code commences:
    - (i) on 1 October in a Year, two PR Auctions will be held in that Year, starting on 1 November and 1 April respectively; or
    - (ii) later than 31 January in a Year, only one PR Auction will be held in that Year, starting on 1 April;
  - (d) for the Year after the Year in which this Code commences (the *2<sup>nd</sup> Year*) there will be two PR Auctions, to be held on:
    - (i) the second Monday in September in the Year before the *2<sup>nd</sup> Year*, for which the PR Allocation Day will be 1 October in the *2<sup>nd</sup> Year*; and
    - (ii) the second Monday in March in the *2<sup>nd</sup> Year*, for which the PR Allocation Day will be 1 April in the *2<sup>nd</sup> Year*; and
  - (e) for each subsequent Year, unless and until First Gas increases the number of PR Auctions the PR Auction dates and corresponding PR Allocation Days will be as set out in part (d) of this *section 3.8*.
- 3.9 Following each PR Auction, First Gas will rank all valid bids in descending order of bid price for each Delivery Point, treating bids for different tranches of Priority Rights as separate bids. First Gas will then allocate:

- (a) to the highest price bidder the number of Priority Rights equal to the lesser of the number requested by that bidder and the number on offer; and
- (b) remaining Priority Rights to bidders in descending order of bid price until either all Priority Rights on offer have been allocated or all bidders' requests have been satisfied,

provided that:

- (c) equal price bids will be ranked equally; and
- (d) if the number of PRs remaining is less than the number bid for in the next lowest priced tranche no PRs will be allocated to that, or any other tranche.

3.10 On the PR Allocation Day following each PR Auction, First Gas will publicly disclose [on OATIS] the number and prices of all PRs allocated (if any) to each Shipper at a Delivery Point, and will update such information following any trade of PRs pursuant to *section 3.11*.

3.11 A Shipper may trade Priority Rights with another Shipper at any time during the PR Term, at the same Delivery Point only, using the trading functionality provided by First Gas for the purpose, provided that:

- (a) no Shipper may sell more than five tranches of Priority Rights between any two consecutive PR Auctions;
- (b) no Shipper may buy more than five tranches of Priority Rights between any two consecutive PR Auctions; and
- (c) no Priority Right may be transferred from one Delivery Point to any other.

3.12 A Shipper will pay for the Priority Rights it holds via Priority Rights Charges in accordance with *section 7.4* and/or *section 7.5*.

3.13 A Shipper may nominate for DNC greater than or less than the amount of its Priority Rights, provided that in all circumstances the Shipper must pay the Priority Rights Charge for the full amount of its Priority Rights. Where a Shipper nominates for less DNC than its holding of Priority Rights at a Delivery Point, the "unused" Priority Rights will not be available to that Shipper.

#### **Receipt Zone**

3.14 As at the date of this Code, First Gas has defined a zone comprising all existing Receipt Points on the Transmission System between the Oaonui Receipt Point, Mokoia Receipt Point and the Turangi Mixing Station, inclusive (the *Receipt Zone*). Any further receipt points built on this part of the transmission system in future will also be included in the Receipt Zone, provided that First Gas reserves the right to define additional receipt zones, or exclude a Receipt Point from the Receipt Zone on reasonable grounds, including where:

- (a) Gas injected at a Receipt Point is odorised and cannot be allowed to flow into an unodorised pipeline;
- (b) First Gas requires to commence operating parts of the Receipt Zone at a different pressure;

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- (c) Gas is no longer able to flow freely between different Receipt Points in the Receipt Zone; or
- (d) the location of any Receipt Points within the Receipt Zone starts to have a material effect on the amount of Available Operational Capacity.

**Delivery Zones**

3.15 First Gas will review the number and composition of Delivery Zones from time to time and notify all Shippers of any changes to apply in any Year not later than the earlier of:

- (a) 30 days prior to the start of that Year; or
- (b) 10 Days prior to the first PR Auction for that Year,

provided that First Gas may add any Delivery Point commissioned during a Year to a Delivery Zone.

**Other Transmission Capacity**

3.16 In addition to DNC, First Gas may provide transmission capacity to a Shipper under:

- (a) an Existing Supplementary Agreement;
- (b) a Supplementary Agreement; or
- (c) an Interruptible Agreement.

3.17 Transmission capacity provided under agreements of the kind referred to in *section 3.16* is distinct from, and may not be combined with, DNC, nor do Priority Rights apply to any capacity made available under agreements of the kind referred to in *section 3.16*.

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## 4 **NOMINATIONS**

### 4.1

## 5 ENERGY ALLOCATIONS

### **Receipt Quantities under an Operational Balancing Agreement**

- 5.1 At any Receipt Point where an operational balancing agreement existed prior to this Code, the Interconnected Party shall be entitled to an OBA at such point.
- 5.2 An OBA may be adopted at any Receipt Point where there has never previously been such an agreement if the Interconnected Party so elects.
- 5.3 Each Shipper's Receipt Quantity will be its Approved Nominated Quantity at the Receipt Point each Day, in accordance with the OBA.

### **Receipt Quantities under a Gas Transfer Agreement**

- 5.4 At any Receipt Point where an OBA does not apply, each Shipper's Receipt Quantities will be calculated by the Gas Transfer Agent in accordance with the relevant Gas Transfer Agreement.
- 5.5 Subject to *sections 5.9 and 5.10*, under any Gas Transfer Agreement the aggregate of all Shippers' Receipt Quantities at a Receipt Point must equal the metered quantity of Gas at that point on that Day, provided that the Interconnected Party shall have the right to determine the rules the Gas Transfer Agent will use to determine the primary allocation of the metered quantity on a Day to Shippers.
- 5.6 Each Shipper and (where it is not the Gas Transfer Agent) First Gas, shall ensure that each Gas Transfer Agreement to which it is a party includes a commitment by the Gas Transfer Agent to use reasonable endeavours to notify First Gas in writing of each Shipper's Receipt Quantities within the timeframes posted by First Gas [on OATIS]. First Gas must give Shippers at least 10 days' notice of any change to such timeframes.
- 5.7 First Gas will be the Gas Transfer Agent unless all Shippers agree to appoint a replacement and First Gas, acting reasonably, considers any such replacement to be suitable to fulfil the Gas Transfer Agent's role. To be considered suitable a person must agree to the terms applicable to a Gas Transfer Agent set out in Schedule Three. If a replacement Gas Transfer Agent is appointed in accordance with this *section 5.7*, that person will retain that role unless all Shippers and First Gas further agree in writing to appoint another replacement in accordance with this *section 5.7*. Any Shipper wishing to use a Receipt Point where an existing Gas Transfer Agreement is in place agree that it will recognise and accept that Gas Transfer Agent at that Receipt Point.
- 5.8 Where First Gas is the Gas Transfer Agent, it:
  - (a) shall agree to and execute a Gas Transfer Agreement if it is in the form set out in Schedule Three; and
  - (b) may, acting reasonably, agree to a Gas Transfer Agreement other than in the form set out in Schedule Seven.

### **Secondary Trading of Gas**

- 5.9 Any Shipper who receives a primary allocation of Gas at a Receipt Point pursuant to *section 5.5* who wishes to transfer any amount of such Gas at that Receipt Point may do so by means of a Gas Transfer Agreement or a Gas Market, provided that the recipient of such Gas must also be a Shipper.

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- 5.10 Pursuant to *section 5.9*, the transferor and the transferee of Gas will determine the rules to be applied by the Gas Transfer Agent to determine the transferred quantities of Gas.

**Delivery Quantities under an Operational Balancing Agreement**

- 5.11 At any Delivery Point where an operational balancing agreement existed prior to this Code, the Interconnected Party shall be entitled to an OBA at such point.
- 5.12 An OBA may be adopted at any Delivery Point where there has never previously been such an agreement if the Interconnected Party so elects.
- 5.13 Each Shipper's Delivery Quantity will be its Approved Nominated Quantity at the Delivery Point each Day, in accordance with the OBA.
- 5.14 An OBA can only apply to a Delivery Point supplying a single end-user of Gas.

**Delivery Quantities under the Downstream Reconciliation Rules or an Allocation Agreement**

- 5.15 A Shipper's Delivery Quantity at:
- (a) a Delivery Point used by only one Shipper will be the metered quantity; and
  - (b) a Delivery Point used by more than one Shipper will be the Allocation Result.
- 5.16 At any Delivery Point used by more than one Shipper and where the Downstream Reconciliation Rules apply, First Gas will determine each Shipper's "initial allocation" (where such term has the meaning set out in the DRR) for each Day as the quantity of Gas equal to:

$$MQ \times DNC_{SHIPPER} \div DNC_{TOTAL}$$

where, for the Day:

MQ is the metered quantity;

$DNC_{SHIPPER}$  is the Shipper's DNC determined by First Gas; and

$DNC_{TOTAL}$  is the aggregate DNC of all Shippers determined by First Gas for the Delivery Point.

- 5.17 Each Allocation Agreement must ensure that:
- (a) the allocation methodology is acceptable to the Interconnected Party;
  - (b) not later than 17:00 on the second Business Day after the Day on which the Allocation Agent receives the necessary input information from First Gas, the Allocation Agent notifies First Gas [via OATIS] of each Shipper's Delivery Quantities (including, in the case of a Dedicated Delivery Point, Hourly Quantities); and
  - (c) no incumbent Shipper is able to unreasonably delay or frustrate another Shipper from becoming a party to the Allocation Agreement where the Interconnected Party wishes to take Gas from that Shipper.

**Finality of Allocation Results and Delivery Quantities**

- 5.18 Subject to *section 5.19*, except to the extent of any corrections to energy quantities due to metering problems, or manifest error by First Gas in determining any Delivery Quantity, First Gas shall be entitled to rely on the Allocation Result and shall not be obliged to check or correct any Delivery Quantity.
- 5.19 At any Delivery Point used by more than one Shipper and where the Downstream Reconciliation Rules apply, First Gas' determination of Shippers' Delivery Quantities pursuant to *section 5.16* shall be subject to Wash-ups.

**Title to Gas and Risk**

- 5.20 Each Shipper warrants that it shall have good title (either in its own right or when acting as an agent) to:
- (a) each Receipt Quantity at the time that First Gas receives such Gas into the Transmission System;
  - (b) each Delivery Quantity at the time that such Gas is taken at a Delivery Point; and/or
  - (c) each quantity of Gas it transfers to another Shipper in accordance with the terms of this Code,

free of any lien, charge, encumbrance or adverse claim (as to title or otherwise).

- 5.21 First Gas shall have the right to co-mingle a Shipper's Gas with other Gas in the Transmission System and shall be under no obligation whatsoever to deliver the same Gas it receives from a Shipper at a Receipt Point to that Shipper at any Delivery Point.
- 5.22 The control and possession of, and risk in, Gas shall pass from a Shipper to First Gas at a Receipt Point and shall be held by First Gas until an equivalent quantity of Gas is delivered to that Shipper at a Delivery Point (or more than one) in accordance with *section 5.23*, at which time the control and possession of, and risk in, such Gas shall revert to that Shipper.
- 5.23 First Gas will be deemed to have delivered a Shipper's Gas to that Shipper when the Shipper takes an equivalent quantity of Gas at a Delivery Point (or more than one) in accordance with the terms of its TSA.

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## **6      ADDITIONAL ARRANGEMENTS**

### **6.1**

## 7 FEES AND CHARGES

### Transmission and Related Charges

7.1 As applicable, each Shipper shall pay to First Gas Monthly in arrears:

- (a) each of the charges set out in this *section 7*; and
- (b) the Non-standard Transmission Charges (if any).

### Daily Nominated Capacity Charges

7.2 Each Shipper shall pay a Daily Nominated Capacity Charge for each Day in respect of each Delivery Point for which it has DNC, equal to:

$$DNC_{FEE} \times DNC$$

where:

$DNC_{FEE}$  is the applicable fee for Daily Nominated Capacity (\$/GJ of DNC) (subject to *section 7.8*); and

$DNC$  is the Shipper's Daily Nominated Capacity (GJ).

### Throughput Charges

7.3 Each Shipper shall pay a Throughput Charge for each Day and Delivery Point at which it takes Gas, equal to:

$$TPF \times DQ_{DNC}$$

where:

$TPF$  is the applicable Throughput Fee for the Delivery Point (\$/GJ) (subject to *section 7.8*); and

$DQ_{DNC}$  is that part of the Shipper's Delivery Quantity (GJ) shipped using DNC.

### Priority Rights Charges

7.4 In respect of the PRs allocated to it (if any) pursuant to *section 3.9*, a Shipper shall pay a Priority Rights Charge for each Day it continues to hold such PRs, equal to:

$$\Sigma(B_{A1} \times N_{A1} + B_{A2} \times N_{A2} + \dots B_{A5} \times N_{A5})$$

where:

$B_{A1}$  to  $B_{A5}$  refer to the Shipper's bid price (\$/PR) for each tranche of PRs allocated to it; and

$N_{A1}$  to  $N_{A5}$  refer to the number of PRs in each tranche of PRs allocated to the Shipper.

The Shipper's liability to pay Priority Rights Charges in accordance with this *section 7.4* will commence on the PR Allocation Day.

7.5 In respect of any PRs it purchases from another Shipper (if any) pursuant to *section 3.11*, a Shipper shall pay a Priority Rights Charge for each Day it holds such PRs, equal to:

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$$\Sigma(P_{P1} \times N_{P1} + P_{P2} \times N_{P2} + \dots P_{P5} \times N_{P5})$$

where:

$P_{P1}$  to  $P_{P5}$  refer to the seller's bid price (\$/PR) for each parcel of PRs purchased by the Shipper; and

$N_{P1}$  to  $N_{P5}$  refer to the number of PRs in each parcel of PRs purchased by the Shipper.

The Shipper's liability to pay Priority Rights Charges in accordance with this *section 7.5* will commence on the Day any such purchase of PRs is completed.

### **Overrun Charges**

7.6 Each Shipper shall pay an Overrun Charge equal to:

(a) for each Delivery Point and Day:

$$OQ \times DNC_{FEE} \times F$$

where:

OQ is the Shipper's Overrun Quantity and is equal to the greater of:

(i)  $DQ_{DNC} - DNC$ ; and

(ii) zero,

where:

$DQ_{DNC}$  has the meaning referred to in *section 7.3*;

DNC is the Shipper's Daily Nominated Capacity;

$DNC_{FEE}$  has the meaning referred to in *section 7.2*; and

F is a whole number, equal to:

(i) 0, where  $OQ \leq DNC \times P_1$ ;

(ii) 5, where  $DNC \times P_1 < OQ < DNC \times P_2$ ; and

(iii) 10, where  $OQ \geq DNC \times P_2$ ,

where  $P_1$  and  $P_2$  are, respectively 3% and 5%,

provided that First Gas may, on expiry of not less than [six] months' notice to all Shippers, change any one or more of the values of  $P_1$ ,  $P_2$  and F (up to a maximum value of 10); plus

(b) for each Dedicated Delivery Point and Hour:

$$HOQ \times DNC_{FEE} \times 20$$

where:

HOQ is the Shipper's Hourly Overrun Quantity and is equal to the greater of:

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- (i)  $HQ_{DNC}$  - MHQ; and
- (ii) zero,

where:

$HQ_{DNC}$  is that part of the Shipper's Delivery Quantity, shipped using DNC only, that is taken at the Dedicated Delivery Point in an Hour;

MHQ has the meaning (in relation to the Shipper's DNC only) set out in *section 1*; and

$DNC_{FEE}$  has the meaning referred to in *section 7.2*; plus

- (c) an amount equal to the aggregate of any fixed charges (being charges not determined by the delivery of any quantity of Gas) of which a Shipper is relieved of its obligation to pay as a result of a Force Majeure Event (*FM Loss*), to the extent that the Shipper's Overrun Quantity and/or Hourly Overrun Quantity directly caused or directly contributed to the Force Majeure Event to which First Gas' FM Loss relates, up to the Capped Amounts, and without prejudice to any other rights or remedies available to First Gas in such circumstances (provided that First Gas shall use reasonable endeavours in the circumstances to mitigate the FM Loss).

#### **Credit for Priority Rights Charges**

- 7.7 Each Month, First Gas will credit each Shipper a share of the total Priority Rights Charges payable by all Shippers in respect of the previous Month, equal to:

$$PRC_{TOTAL} \times DNCC_{SHIPPER} \div DNCC_{TOTAL}$$

where, for the Month preceding the prior Month:

$PRC_{TOTAL}$  is the total of Priority Rights Charges payable by all Shippers;

$DNCC_{SHIPPER}$  is the total of DNC Charges payable by the Shipper; and

$DNCC_{TOTAL}$  is the total of DNC Charges payable by all Shippers.

#### **Redetermination and Adjustment of Transmission Fees**

- 7.8 First Gas will determine Transmission Fees annually using its then current Gas Transmission Pricing Methodology (*GTPM*), in compliance with the then current default price path set by the Commerce Commission and, as far as practicable, the Commission's "Pricing Principles".
- 7.9 First Gas will notify Shippers by 1 September in each Year of the Transmission Fees to be used in the calculation of the Transmission Charges in the following Year. First Gas will also publish such Transmission Fees [on OATIS].
- 7.10 Each Shipper agrees that First Gas' statutory information disclosures are sufficient to establish First Gas' compliance with the requirements referred to in *section 7.9* and that neither the GTPM nor the setting of Transmission Fees will be subject to any dispute under this Code.
- 7.11 First Gas will adjust non-standard transmission fees as set out in the relevant agreements.

**Transmission Services Invoice**

- 7.12 On or before the 10<sup>th</sup> Day of each Month (or as soon thereafter as reasonably practicable), First Gas shall invoice each Shipper for the Transmission Charges and Non-standard Transmission Charges (if any) payable by that Shipper in respect of the previous (and any prior) Month.

**Balancing Gas Charges**

- 7.13 For each Month, each Shipper and OBA Party shall pay to First Gas all amounts payable by it pursuant to, and determined by First Gas in accordance with, *section 9*.

**Balancing Gas Invoice**

- 7.14 Subject to *section 7.15*, on or before the 14<sup>th</sup> day of each Month (or as soon thereafter as is reasonably practicable), First Gas shall invoice each Shipper and OBA Party for the net cost of Balancing Gas allocated to that party in respect of the previous (and any prior) Month.
- 7.15 Where the Balancing Gas Charges allocated to a party for a Month are less than the Balancing Gas Credits allocated to that party for the same Month, First Gas will credit the difference against any Balancing Gas Charges payable the following month.

**Contents of Transmission Service Invoice**

- 7.16 To support any invoice to a Shipper under *section 7.12*, First Gas shall include the following information:
- (a) all Delivery Quantities in the previous Month;
  - (b) each Transmission Charge and Non-standard Transmission Charge payable for each Day of the previous Month;
  - (c) any credit or debit of Transmission Charges for a prior Month required due to a Wash-up;
  - (d) any credit of Priority Rights Charges;
  - (e) any charges outstanding in respect of any prior Month; and
  - (f) the GST Amount, if any.

**Contents of Balancing Gas Invoice**

- 7.17 To support any invoice to a Shipper or OBA Party under *section 7.14*, First Gas shall include the following information in respect of each Day and in aggregate for the Month:
- (a) any Balancing Gas Charges payable and/or Balancing Gas Credits receivable;
  - (b) the party's Mismatch;
  - (c) the party's Running Mismatch;
  - (d) the aggregate Running Mismatch of all parties with Negative Running Mismatch;
  - (e) the aggregate Running Mismatch of all parties with Positive Running Mismatch;
  - (f) the quantity of Balancing Gas First Gas purchased and/or sold, together with the prices paid for and/or received for such Gas;

- (g) all parties' aggregate allocations of Balancing Gas Charges and Credits;
- (h) the party's allocation of Balancing Gas debits and/or credits (in GJ);
- (i) the party's Excess Running Mismatch and charges for Excess Running Mismatch;
- (j) the aggregate quantities of Gas sold to, or purchased from all parties to settle Excess Running Mismatch;
- (k) the quantity of Gas sold to, or purchased from the party to settle its Excess Running Mismatch;
- (l) any credit or debit of Balancing Gas Charges for a prior Month required due to a Wash-up;
- (m) any credit or debit of Excess Running Mismatch Charges for a prior Month required due to a Wash-up;
- (n) any charges or credits outstanding in respect of any prior Month; and
- (o) the GST Amount.

#### **Goods and Services Tax**

- 7.18 All amounts payable under a TSA are expressed before the calculation of GST, which shall be due and payable at the same time as the payment to which it relates is due (*GST Amount*). Any invoices provided to the Shipper under *sections 7.12* and *7.14* shall specify the GST Amount and shall comply with the "tax invoice" requirements in the Goods and Services Tax Act 1985.

#### **Other Taxes**

- 7.19 In addition to the fees, charges and GST payable pursuant to this *section 7*, each Shipper shall pay to First Gas an amount equal to any new or increased tax, duty, impost, levy or charge (but excluding income tax and rates) (each a *Tax*) from time to time directly or indirectly imposed by the Government or any other regulatory authority that directly relates to First Gas' provision of transmission services under that Shipper's TSA (including First Gas' sale and purchase of Balancing Gas), or in respect of any goods or services provided pursuant to the relevant TSA and this Code (including without limitation, any increase of any such Tax). First Gas agrees that any decrease of any such Tax will be passed on to the relevant Shippers.

#### **Issuing of Invoices**

- 7.20 First Gas may issue any invoice (together with any supporting information) under *section 7.12* or *7.14* by:

- (a) e-mailing to a Shipper's e-mail address most recently (and specifically) notified in writing to First Gas; and/or
- (b) posting the invoice as one or more PDF files [on OATIS].

#### **Payment by a Shipper**

- 7.21 Subject to *sections 7.22*, *7.23* and *7.24*, and to receiving invoices under *sections 7.12* and/or *7.14*, each Shipper shall pay to First Gas the aggregate amount stated on each such invoice by direct credit to First Gas' bank account stated on that invoice (or to such other bank account notified by First Gas in writing from time to time) by the later of:

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- (a) the 20<sup>th</sup> day of the month in which the invoice is issued; and
- (b) 10 Business Days after such invoice is issued.

Each Shipper shall immediately notify First Gas of the invoice numbers and the respective amounts to which any payment by the Shipper relates.

**Disputed Invoices**

- 7.22 Subject to *section 7.23*, if a Shipper disputes any invoiced amount under *section 7.12 (Invoice Dispute)*, that Shipper shall, within 10 days from the date it received the invoice, notify First Gas in writing identifying the amount in dispute and giving full reasons for the dispute (*Invoice Dispute Notice*). The disputing Shipper shall pay the undisputed portion of the invoice. If the Invoice Dispute has not been resolved by negotiation between the Parties within 10 Business Days of First Gas receiving the Invoice Dispute Notice, *section 18* will apply.
- 7.23 In respect of any invoice issued under *section 7.14*, in the absence of any manifest error a Shipper must not dispute any such invoice and shall pay the invoiced amount in full in accordance with *section 7.21* without any deduction or set-off of any kind. The Shipper hereby waives all rights to withhold, dispute or otherwise make any claim in relation to any such amount it may have under this Code or otherwise.

**Incorrect Invoices**

- 7.24 If it is found at any time that a Shipper has been overcharged or undercharged under its TSA then, within 30 days after such error has been discovered and the correct amount has been agreed by the Parties or determined pursuant to *section 18*, First Gas shall issue a credit note or debit note (as appropriate) in accordance with the Goods and Services Tax Act 1985. If the Shipper has actually paid the invoice(s) containing such overcharge or undercharge First Gas will refund or pay that Shipper the amount of any such overcharge or undercharge, as appropriate, as a correction on its next invoice to the Shipper, provided that there shall be no right to re-open invoices if more than 18 months has elapsed since the date of the invoice.

**Default Interest**

- 7.25 Where a Shipper or First Gas defaults without reasonable excuse in the payment on the due date of any money payable under a TSA or this Code, then interest shall be payable on the amount unpaid from the due date for payment until the date payment is made, at a rate equal to the Bill Rate plus 5% per annum, calculated on a Daily basis (compounded monthly).

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## 8 **ENERGY QUANTITY DETERMINATION**

### 8.1

## 9 **BALANCING**

### **Balancing Pool**

9.1 Subject to *section 9.2*, the provisions of this Code relating to “balancing” apply in respect of the entire Transmission System, irrespective of:

- (a) in the case of each Shipper, the number or location of Receipt and Delivery Points used by that Shipper; and
- (b) the location of any Receipt Point or Delivery Point subject to an OBA.

9.2 First Gas reserves the right to, following reasonable consultation with, and not less than [6] months’ notice in writing to all Shippers and OBA Parties, divide the Transmission System into two (or more) “balancing pools”. The Mismatch and Running Mismatch of (respectively) each Shipper, OBA Party and First Gas shall then be determined separately for each such “balancing pool” and each such party’s liability for any charge or entitlement to any credit in accordance with this *section 9* shall apply accordingly.

### **Primary Balancing Obligations**

9.3 Subject to *section 9.23*, each Shipper agrees that:

- (a) it is responsible for ensuring that each Day the aggregate of its Receipt Quantities matches the aggregate of its Delivery Quantities (the Shipper’s *Primary Balancing Obligation*);
- (b) it will use all reasonable endeavours, including by monitoring and where necessary by estimating its Receipt and Delivery Quantities, to determine whether it is complying with its Primary Balancing Obligation; and
- (c) on any Day that it becomes aware it is incurring Mismatch, it will use all reasonable endeavours to adjust its Receipt and/or Delivery Quantities to comply with its Primary Balancing Obligation

9.4 Subject to *section 9.23*, the OBA Party at a Receipt Point or Delivery Point is responsible for ensuring that each Day the aggregate quantity of Gas injected or taken, as the case may be, matches the relevant Scheduled Quantity (the OBA Party’s *Primary Balancing Obligation*).

9.5 First Gas is responsible for ensuring that each Day the aggregate quantity of Gas it uses for operational purposes (including fuel and UFG) matches the quantities of Gas it procures for such purposes (First Gas’ *Primary Balancing Obligation*).

### **Line Pack Management**

9.6 First Gas will use reasonable endeavours to maintain Line Pack between the upper and lower Acceptable Line Pack Limits. First Gas will determine such limits as being those reasonably sufficient for it to comply with its obligations under this Code at that time.

9.7 To the extent that parties do not comply with their Primary Balancing Obligation, Line Pack may be either depleted or inflated. If the Line Pack reaches or breaches the relevant Acceptable Line Pack Limit, First Gas will (except during a Critical Contingency, Force Majeure Event or Emergency) take steps to return Line Pack to within the relevant limits, including by:

- (a) moving Gas from one part of the Transmission System to another where it considers that to be practical; and/or

- (b) buying or selling Gas to manage Line Pack (*Balancing Gas*).

9.8 When buying or selling Balancing Gas, First Gas will (without limiting any of its other obligations under this Code) use reasonable endeavours to undertake any such transaction in a competitive, efficient and transparent manner, including via a Gas Market.

**Allocation of Balancing Gas Costs and Credits**

9.9 If First Gas buys Balancing Gas on a Day ( $Day_n$ ) it will, to each party with Negative Running Mismatch at the end of the previous Day ( $Day_{n-1}$ ):

- (a) allocate a share of the Balancing Gas cost (a *Balancing Gas Charge*) for  $Day_n$  to each such a party equal to:

- (i) for a Shipper: 
$$\frac{\text{Balancing Gas Cost} \times \text{NRM}_{S,n-1}}{\text{NRM}_{ALL,n-1}};$$
- (ii) for an OBA Party: 
$$\frac{\text{Balancing Gas Cost} \times \text{NRM}_{I,n-1}}{\text{NRM}_{ALL,n-1}};$$
- (iii) for First Gas: 
$$\frac{\text{Balancing Gas Cost} \times \text{NRM}_{F,n-1}}{\text{NRM}_{ALL,n-1}};$$

where:

$\text{NRM}_{S,n-1}$ ,  $\text{NRM}_{I,n-1}$  and  $\text{NRM}_{F,n-1}$  are the Negative Running Mismatch of (respectively) a Shipper, an OBA Party and First Gas at 2400 on  $Day_{n-1}$ ; and

$\text{NRM}_{ALL,n-1}$  is the aggregate of all parties' Negative Running Mismatches at 2400 on  $Day_{n-1}$ ; and

- (b) transfer title to a quantity of Gas to each such party at 2400 on  $Day_n$  equal to:

- (i) for a Shipper: 
$$\text{Balancing Gas GJ} \times \frac{\text{NRM}_{S,n-1}}{\text{NRM}_{ALL,n-1}};$$
- (ii) for an OBA Party: 
$$\text{Balancing Gas GJ} \times \frac{\text{NRM}_{I,n-1}}{\text{NRM}_{ALL,n-1}};$$
- (iii) for First Gas: 
$$\text{Balancing Gas GJ} \times \frac{\text{NRM}_{F,n-1}}{\text{NRM}_{ALL,n-1}};$$

where:

$\text{NRM}_{S,n-1}$ ,  $\text{NRM}_{I,n-1}$  and  $\text{NRM}_{F,n-1}$  and  $\text{NRM}_{ALL,n-1}$  each has the meaning set out part (a) of this section 9.9.

9.10 If First Gas sells Balancing Gas on a Day ( $Day_n$ ) it will, to each party with Positive Running Mismatch at the end of the previous Day ( $Day_{n-1}$ ):

- (a) allocate a share of the Balancing Gas sale proceeds (a *Balancing Gas Credit*) for  $Day_n$  to each such party equal to:

- (i) for a Shipper: 
$$\frac{\text{Balancing Gas Proceeds} \times \text{PRM}_{S,n-1}}{\text{PRM}_{ALL,n-1}};$$
- (ii) for an OBA Party: 
$$\frac{\text{Balancing Gas Proceeds} \times \text{PRM}_{I,n-1}}{\text{PRM}_{ALL,n-1}};$$

$$(iii) \quad \text{for First Gas:} \quad \text{Balancing Gas Proceeds} \times \text{PRM}_{F,n-1} \div \text{PRM}_{ALL,n-1},$$

where:

$\text{PRM}_{S,n-1}$ ,  $\text{PRM}_{I,n-1}$  and  $\text{PRM}_{F,n-1}$  are the Positive Running Mismatch of (respectively) a Shipper, an OBA Party and First Gas at 2400 on Day<sub>n-1</sub>; and

$\text{PRM}_{ALL,n-1}$  is the aggregate of all parties' Positive Running Mismatches at 2400 on Day<sub>n-1</sub>; and

(b) take title to a quantity of Gas from each such party at 2400 on Day<sub>n</sub> equal to:

$$(i) \quad \text{for a Shipper:} \quad \text{Balancing Gas GJ} \times \text{PRM}_{S,n-1} \div \text{PRM}_{ALL,n-1};$$

$$(ii) \quad \text{for an OBA Party:} \quad \text{Balancing Gas GJ} \times \text{PRM}_{I,n-1} \div \text{PRM}_{ALL,n-1};$$

$$(iii) \quad \text{for First Gas:} \quad \text{Balancing Gas GJ} \times \text{PRM}_{F,n-1} \div \text{PRM}_{ALL,n-1},$$

where:

$\text{PRM}_{S,n-1}$ ,  $\text{PRM}_{I,n-1}$ ,  $\text{PRM}_{F,n-1}$  and  $\text{PRM}_{ALL,n-1}$  each has the meaning set out part (a) of this *section 9.10*.

9.11 First Gas' determination of Balancing Gas Charges and Balancing Gas Credits are subject to the effect of any Wash-up on a Shipper's Delivery Quantities and hence Running Mismatch. First Gas will apply any changes to Balancing Gas Charges and/or Balancing Gas Credits as prior Month adjustments on its next Balancing Gas invoice following any Wash-up.

#### **Excess Running Mismatch Charges**

9.12 To incentivise each Shipper and OBA Party to comply with its Primary Balancing Obligation, each such party shall pay a charge to First Gas for each Day on which it has Excess Running Mismatch (*ERM*) calculated in accordance with *section 9.13* or *section 9.14*, irrespective of whether First Gas buys or sells Balancing Gas on or in respect of that Day.

9.13 For any Day on which a Shipper or OBA Party has Negative Excess Running Mismatch (*Negative ERM*), such party will pay to First Gas a charge equal to:

$$\text{Negative ERM} \times F_{N\text{ERM}}$$

where:

$F_{N\text{ERM}}$  is [a fee determined and notified by First Gas [on OATIS] from time to time].

9.14 For any Day on which a Shipper or OBA Party has Positive Excess Running Mismatch (*Positive ERM*), such party will pay to First Gas a charge equal to:

$$\text{Positive ERM} \times F_{P\text{ERM}}$$

where:

$F_{P\text{ERM}}$  is [a fee determined and notified by First Gas [on OATIS] from time to time].

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- 9.15 First Gas will use all monies it collects pursuant to *sections 9.13* and *9.14* to defray the cost of any Balancing Gas it purchases.

**First Gas May Sell or Buy Gas Corresponding to ERM**

- 9.16 First Gas will determine at its sole discretion whether in respect of any Day it will:

- (a) sell any Gas to Shippers and/or OBA Parties with Negative ERM; or
- (b) buy any Gas from Shippers and/or OBA Parties with Positive ERM,

and if it decides to do so, such sale or purchase of Gas will be compulsory and in accordance with the balance of this *section 9*.

- 9.17 In respect of any Day, where it elects to sell any Gas pursuant to *section 9.16(a)*, First Gas will:

- (a) determine the total quantity of Gas it will sell (which will be less than or equal to the aggregate amount of Negative ERM); and
- (b) sell a part ( $Q_S$ ) of such total quantity of Gas to each Shipper and/or OBA Party with Negative ERM, where  $Q_S$  will be equal to:

$$Q_{\text{SOLD}} \times \text{Negative ERM}_{\text{BUYER}} \div \text{Negative ERM}_{\text{TOTAL}}$$

where:

$Q_{\text{SOLD}}$  is the total quantity of Gas sold by First Gas;

Negative  $\text{ERM}_{\text{BUYER}}$  is the Negative Excess Running Mismatch of the Shipper or OBA Party; and

Negative  $\text{ERM}_{\text{TOTAL}}$  is the aggregate Negative Excess Running Mismatch of all Shippers and OBA Parties with Negative ERM;

- (c) charge each such Shipper and/or OBA Party an amount equal to:

$$Q_S \times P_{\text{SELL}}$$

where:

$P_{\text{SELL}}$  is the higher of:

- (i) the highest price paid by First Gas for any Balancing Gas on that Day; and
- (ii) the Average Market Price for that Day plus an adjustment;

plus:

- (iii) the Trading Fee,

where:

"Trading Fee", "Average Market Price" and "adjustment" each has the meaning set out in *section 9.19*; and

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- (d) title to all Gas sold will transfer from First Gas to each purchaser, and the Running Mismatch of each such purchaser will be amended accordingly, at the end of the Day on which each such sale is made.

9.18 In respect of any Day, where it elects to buy any Gas pursuant to *section 9.16(b)*, First Gas will:

- (a) determine the total quantity of Gas it will buy (which will be less than or equal to the aggregate amount of Positive ERM); and
- (b) purchase a part ( $Q_P$ ) of such total quantity of Gas from each Shipper and/or OBA Party with Positive ERM, where  $Q_P$  will be equal to:

$$Q_{\Sigma\text{BOUGHT}} \times \text{Positive ERM}_{\text{SELLER}} \div \text{Positive ERM}_{\text{TOTAL}}$$

where:

$Q_{\Sigma\text{BOUGHT}}$  is the total quantity of Gas purchased by First Gas;

Positive ERM<sub>SELLER</sub> is the Positive Excess Running Mismatch of the Shipper or OBA Party; and

Positive ERM<sub>TOTAL</sub> is the aggregate Positive Excess Running Mismatch of all Shippers and OBA Parties with Positive ERM; and

- (c) pay each such Shipper and/or OBA Party an amount equal to:

$$Q_P \times P_{\text{BUY}}$$

where:

$P_{\text{BUY}}$  is the lower of:

- (i) the lowest price received by First Gas for any sale of Balancing Gas on that Day; and
- (ii) the Average Market Price for that Day minus an adjustment;

plus:

- (iii) the Trading Fee,

where:

"Trading Fee", "Average Market Price" and "adjustment" each has the meaning set out in *section 9.19*; and

- (d) title to all Gas purchased by First Gas will transfer from each seller to First Gas, and the Running Mismatch of each such seller will be amended accordingly, at the end of the Day on which each such purchase is made.

9.19 Pursuant to the determination of  $P_{\text{SELL}}$  and  $P_{\text{BUY}}$  as referred to in *sections 9.17* and *9.18* (respectively) for any Day:

- (a) the Average Market Price shall be:

- (i) the GJ-weighted average price of all Gas trades effective on that Day, provided such trades are made on the Day or on the previous Day on a Gas Market; or
    - (ii) the prices determined in accordance with *section 9.20*;
  - (b) the values of the “adjustment” will be those published by First Gas [on OATIS] from time to time (but not less than one Day before they become effective), where:
    - (i) such values may differ depending on whether First Gas is selling or buying Gas; and
    - (ii) each value will be a percentage of the Average Market Price; and
  - (c) the Trading Fee will be equal to the unweighted mean value of all categories of trading fees per GJ posted by all Gas Markets (excluding any such market controlled or operated by First Gas) on their websites (or provided to First Gas) at midday on the Day prior to the Day.
- 9.20 First Gas will determine the prices referred to in *section 9.19(a)(ii)* from time to time and publish them [on OATIS]. First Gas will use such prices where:
- (a) no Gas Market was available or operational on the Day the relevant sale or purchase of Gas was undertaken; or
  - (b) trades effective on that Day (made either on that Day or on the previous Day) were in aggregate less than the GJ amount reasonably determined by First Gas from time to time.

**Publication of Running Mismatches**

- 9.21 The Mismatch and Running Mismatch of any person will not be Confidential Information. Subject to *section 9.22*, First Gas will, as soon as practicable after determining them, publish the Running Mismatch of each Shipper, OBA Party and of First Gas itself [on OATIS].
- 9.22 Subject to the availability of allocated Delivery Quantities, First Gas will display Running Mismatches [on OATIS] for the rolling number of Days it will determine (not being less than [28] Days). First Gas will not be obliged to re-publish Running Mismatches that are subsequently amended by a Wash-up.

**Park or Loan**

- 9.23 First Gas may, but shall be obliged to offer “Park or Loan” services to Shippers and OBA Parties from time to time. Where it elects to do so, such services will comply with the provisions of *sections 9.24 to 9.29*.
- 9.24 First Gas may from time to time determine:
- (a) the aggregate quantity of Gas which Shippers and/or OBA Parties may temporarily accumulate in the Transmission System (*Parked Gas*); and/or
  - (b) the aggregate quantity of Line Pack which Shippers and/or OBA Parties may temporarily draw down (*Loaned Gas*).

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- 9.25 A Shipper or OBA Party must apply to First Gas in advance of any Day to either Park Gas or take Loaned Gas on that Day. First Gas will from time publish [on OATIS] reasonable procedures to be used by:
- (a) any party applying to Park or take Loaned Gas; and
  - (b) First Gas in responding to any such application,
- which may include deadlines by which applications must be lodged and approved.
- 9.26 Applications to Park Gas or take Loaned Gas will be processed on a “first come, first served” basis, provided that First Gas may:
- (a) introduce procedures to allocate quantities of Parked Gas and/or Loaned Gas should requests to Park Gas and/or take Loaned Gas exceed the quantities determined pursuant to *section 9.24*;
  - (b) allow a Shipper or OBA Party to both Park Gas in one period of a Day and take Loaned Gas in another period of the same Day, provided that:
    - (i) such periods do not overlap; and
    - (ii) the party concerned makes separate applications to Park Gas and take Loaned Gas; and
  - (c) link its approval of requests to take Loaned Gas on a Day to requests to Park Gas on that same Day.
- 9.27 To the extent that First Gas approves any application to Park Gas or take Loaned Gas on any Day it will exclude the approved quantity of Parked Gas or Loaned Gas from its calculation of the Shipper’s or Interconnected Party’s Mismatch and Running Mismatch for (only) that Day.
- 9.28 First Gas will from to time determine and notify [on OATIS] the prices payable to Park Gas and take Loaned Gas, which may be different both in magnitude and structure.
- 9.29 Nothing in *sections 9.23 to 9.29* will derogate from First Gas requirement to provide transmission services and maintain Line Pack between Acceptable Operating Limits.

**Gas Trading to Affect Mismatch**

- 9.30 Shippers and OBA Parties may trade Gas for any reason. First Gas encourages parties to trade Gas as a means of addressing their respective Running Mismatches.
- 9.31 No Gas trade will be unwound, nor will any adjustment be made to the Running Mismatch of either party to any Gas trade because of any adjustment to the seller’s Running Mismatch (as such was known at the time the trade occurred) made subsequently, whether as the result of a Wash-up or for any other reason.
- 9.32 In respect of any Gas trade on a Day, the required adjustments to the Running Mismatch of the seller and buyer will be made at the end of such Day.

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- 10     **CURTAILMENT**
- 11     **CONGESTION MANAGEMENT**
- 12     **GAS QUALITY**
- 13     **ODORISATION**
- 14     **PRUDENTIAL REQUIREMENTS**
- 15     **FORCE MAJEURE**
- 16     **LIABILITIES**
- 17     **CODE CHANGES**
- 18     **DISPUTE RESOLUTION**
- 19     **TERM AND TERMINATION**
- 20     **GENERAL AND LEGAL**

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2. **SCHEDULE ONE: TRANSMISSION SERVICES AGREEMENT**
3. **SCHEDULE TWO: INFORMATION TO BE PUBLISHED**
4. **SCHEDULE THREE: GAS TRANSFER AGREEMENTS**
5. **SCHEDULE FOUR: OPERATIONAL BALANCING AGREEMENTS**