Consultation on special allocations to replace initial with D+1 allocation results

1. Introduction

This paper invites submissions from allocation participants on the merits of replacing the initial allocation results produced by the allocation agent under the Gas (Downstream Reconciliation) Rules 2008 (the Rules) with D+1 allocation results produced by Gas Industry Co for the duration of the D+1 trial. The reason for doing the replacement is to permit Vector to use the D+1 allocations to settle the Balancing and Peaking Pool (BPP) and for transmission billing, so that the same allocation results are used for those purposes as Vector shippers have used throughout the month to manage their gas positions. The interim and final allocations will not be affected.

The mechanism to effect this replacement would be the special allocation provision in rule 51 of the Rules. In Gas Industry Co's view, special allocations are warranted because there are material differences between the initial and D+1 allocation results, and Vector using the first set, while shippers are managing to the second, would be patently unfair. Further, Gas Industry Co is not aware of any commercial reasons for retaining the initial allocations that would outweigh the magnitude of the unfairness.

The use of special allocations to replace the initial allocation with D+1 results would commence with the October 2015 consumption month. Gas Industry Co intends to review the D+1 arrangements by June 2016, with a view to developing a statement of proposal for a change to the Rules that incorporates daily allocations. If submissions by stakeholders are supportive of the changes, it is estimated that changes to the Rules could be implemented by the end of 2016, and special allocations to replace the initial would be used until then. Conversely, if the review in the first half of 2016 shows that stakeholders are not happy with the D+1 trial, then Gas Industry Co will consult on discontinuing the trial and work on developing other options.

2. D+1 trial

On 1 October 2015, MDL plans to implement market-based balancing (MBB), a new regime on the Maui pipeline, which will entail daily cash-outs for welded points that are outside an imbalance tolerance limit. The change will almost certainly mean that the transmission pipeline welded points (TPWPs) – those connecting the Vector transmission pipelines with the Maui pipeline – will be cashed out every day, in contrast to the current rate of cash-outs, which is understood to be about once or twice a month. These daily cash-outs will then be passed on to Vector shippers in proportion to their running imbalance positions.

Under current arrangements, Vector shippers do not know their running imbalance positions during the month. It is only after the end of a month, when the initial allocation has been performed and Vector has used the initial allocation results to calculate the BPP results, that shippers know their daily mismatch and running imbalances for the previous month. Under MBB, there will be an additional, potentially unknown, data point: the more frequent daily cash-out volumes allocated to each shipper.

Some shippers have previously expressed to Gas Industry Co the desire to have tools that would enable better daily management of their gas positions. The additional uncertainty from MBB, and the financial risk it entails for Vector shippers, has brought the need for daily imbalance positions into sharper focus.

Daily allocation results calculated the day after consumption – known as D+1 allocation – are an important aspect to enabling shippers to know their opening gas positions on a daily basis and to inform their gas nominations for the current day. D+1 requires a different calculation methodology than the allocation methodology prescribed in the Rules. The Rules require a 'bottom up' approach using retailers' submissions of their customers' consumption, which is based on a mix of both actual meter readings and estimation. But meter readings for most customers occur only monthly or every other month, which means it is not possible for retailers to submit customer consumption data on a daily basis. D+1, then, needs a different, less data-intensive process.

Gas Industry Co has commissioned Concept Consulting to develop a daily allocation methodology.[1] It involves a 'top down' approach that utilises sophisticated multivariate regression modelling and does not rely on receiving information from retailers, though retailers are able to improve the accuracy of their allocations by providing daily consumption data for large customers that have remote access meters.

Gas Industry Co considers it likely that daily allocations will eventually take the place of initial allocations in the Rules, but this can only happen after, and if, the full regulatory process has been observed (consultation on statement of proposal, recommendation to the Minister, appointment of service provider, system development etc). At the moment, we are conducting a trial of the D+1 methodology as a way of testing its usefulness and refining its data collection and calculation processes. The added benefit of the trial is that retailers will have a daily information feed when MBB takes effect in October, while Gas Industry Co follows its normal regulatory process.

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[1] A paper describing the development of the allocation methodology can be found here: http://www.gasindustry.co.nz/work-programmes/downstream-reconciliation/daily-allocation/

3. Calculation of shipper positions on a daily basis

The move to D+1 will enable Vector to use those daily allocations to provide each shipper with its share, if any, of the previous day's cash-out(s) and its opening position for the current day. That information, together with a shipper's forecast of its customers' demand, should give shippers the information they need to manage their positions through the month and to reduce their exposure to the costs of cash-outs. Gas Industry Co is aware that Vector is developing the software and procedures that it will need to calculate shipper positions on a daily basis.

An issue arises in respect of the trial because the Vector Transmission Code (VTC) requires the use of the allocation results produced by the allocation agent pursuant to the Rules – the bottom-up approach mentioned above – as an input to its own reconciliation and billing processes. But using the initial allocation to calculate shipper positions at the end of the month, when shippers have been managing their positions during the month using D+1 results, would obviate the benefits the daily allocations were trying to provide in the first place. If shippers are still getting cashed out on the basis of running positions that are calculated after month's end, then there is no value to the daily allocations. Shippers would be no better off than they are now.

The solution lies in using the D+1 allocation results instead of the initial allocation for Vector's reconciliation and billing processes. In this way, the allocations that shippers use during the month to manage their positions are the same as the ones Vector uses for its end of month billing.

4. Proposal: special allocations to replace the initial

Gas Industry Co proposes to use the special allocation provision of the Rules to direct the allocation agent to replace the initial allocation with the D+1 allocated quantities. On this basis, the special allocation results could be used by Vector without it having to amend the VTC or reach a side agreement with its shippers.

Rule 51 states that '[a]t any time during the period after an initial allocation has been performed […Gas Industry Co] may require the allocation agent to perform a special allocation for the relevant consumption period…replacing an initial allocation'. Before doing so, Gas Industry Co must be 'of the opinion that the current…allocation results are sufficiently unfair that it is not appropriate to wait until the [interim allocation – eg. 4 months later]'. Gas Industry Co must also balance the unfairness against any commercial reasons for keeping the initial allocation results. Subject to the above, Gas Industry Co may determine any specific procedures that will apply to a special allocation.

Analysis of unfairness

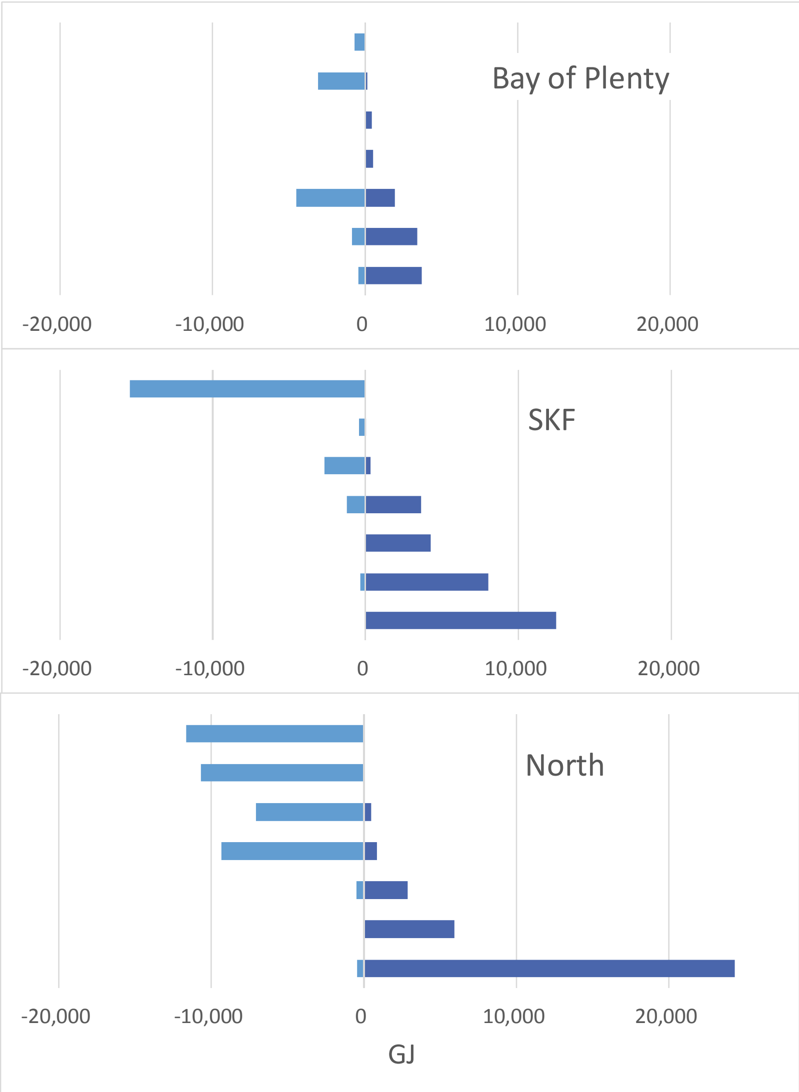
The Rules emphasise fairness in deciding whether or not to hold a special allocation, but they do not define what an unfair outcome is. Gas Industry Co has previously consulted on this issue, and the resulting guideline note[2] outlines a number of factors that Gas Industry Co considers when making a special allocation decision. Among the factors are volume thresholds: a change in a retailer's allocated quantity at a gas gate of more than 1,000 GJ, or a change in a retailer's total allocated quantities across all gas gates of more than 2,000 GJ are generally considered to be material and therefore it would potentially be unfair not to allow the change to go ahead.[3]

It is not possible to know in advance the amount of change from the initial allocation results to the D+1 results. But as the D+1 trial commenced at the beginning of July, those results can be compared to the July initial allocation to give a guide for the magnitude of the differences that may result after MBB is implemented. Note that the D+1 trial produced allocations to the pool, rather than to the gas gate. In the chart below, daily allocations minus D+1 allocations were calculated by pool and by shipper, and then positive and negative differences were summed separately.

[2] Guideline note for rules 44, 46A and 51 – correction of allocations by allocation agent, correction of an annual UFG factor and special allocations, version 2.0, published 1 June 2013. Available at http://www.gasindustry.co.nz/work-programmes/downstream-reconciliation/operations/#guideline-notes/

[3] The volume thresholds are normally applied in the context of determining whether a correction, say from a metering error, would result in a materially different allocation. In the present case there is no expectation that the D+1 result would be more 'correct', that is, closer to the interim or final result, than the initial allocation. The issue being addressed is that the initial allocation results produced at the end of the month are a departure from the numbers being used throughout the month, so the volume test remains relevant.

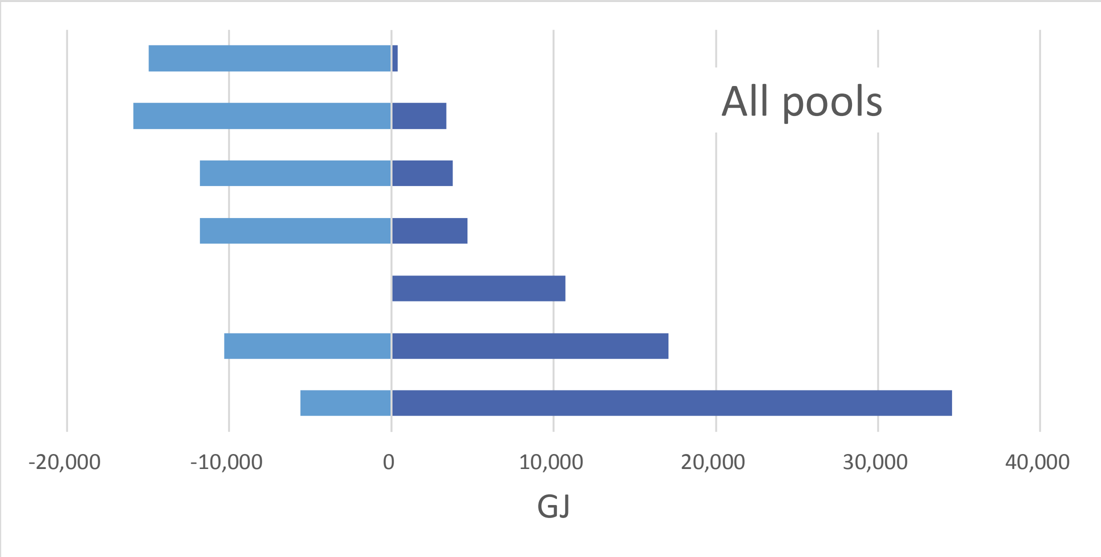
Figure 1 Difference between initial and D+1 allocation by pool



All of the shippers on the North system, most of the SKF shippers, and half of the shippers on the Bay of Plenty line had differences of more than 1,000 GJ between the initial allocations as calculated by the allocation agent and the D+1 trial allocations. The magnitude of these differences is not surprising: although the D+1 methodology strives to produce results that are similar to those produced under the Rules, it operates with an entirely different methodology and with much less data. Under these circumstances, it is likely that there will always be significant differences between initial allocations and D+1 allocations.

The chart below uses the same data but aggregates the pool-level differences by retailer.

Figure 2 Difference between initial and D+1 allocation



This chart shows that the second limb of the quantitative guideline – whether there is a change of more than 2,000 GJ for a retailer across all gas gates – is satisfied many times over by every shipper.

Gas Industry Co must consider whether the unfairness of an allocation result is such that it would not be appropriate to wait until the next scheduled allocation is performed (in this case, the interim allocation). But interim allocations are performed four months after the consumption period, whereas under the VTC, Vector calculates BPP charges in the month after consumption month. It would therefore not be appropriate to wait for the interim allocation, because the results would not be available for Vector's billing process.

Commercial reasons for retaining initial

The Rules stipulate that Gas Industry Co must balance the unfairness of the allocation result against any commercial reasons for retaining the allocation result. Gas Industry Co is not aware of any commercial reason that would make us – or any allocation participant – prefer the initial allocation over the D+1 allocation. There is no cost to performing special allocations, as it is covered under the existing contract with the allocation agent. Further, the results can, where required, be produced in the same format, and within a similar timeframe, to the current allocation results, so there is no impact on the operation of the wider reconciliation arrangements, including Vector's billing process.

General analysis

More generally, Gas Industry Co considers that the efficiency and reliability of the downstream reconciliation arrangements set out in the Rules are maintained by keeping those arrangements in harmony with the wider governance and commercial operation of the gas market. The introduction of MBB means there may be a requirement to consider a more fundamental change to the Rules in order to accommodate daily allocations. Part of the rationale for the D+1 trial is to test the methodology ahead of putting regulatory requirements in place. In order to maintain a reasonable level of harmony between the post-MBB transmission system and the Rules in the short term, and so as not to introduce inefficiency and uncertainty to Vector and its shippers, Gas Industry Co is working toward a pragmatic solution for the trial period.

The first element of that solution is the publication of the D+1 allocations on a daily basis, so that shippers can use those allocations to better manage their positions throughout the consumption period. Giving shippers access to this information should increase the efficiency and reliability of delivered gas in the pipeline. This element does not require any change to the Rules or the VTC: it is simply a case of providing additional information.

The second element is the replacement of the current initial allocation with an allocation that uses the D+1 results (so that the basis of the allocation is consistent with the basis on which shippers have managed their balance). Gas Industry Co considers that basing BPP charges on initial allocation results, when shippers have been managing their positions during the month based on D+1 allocation results, would be manifestly unfair. It would also undermine the D+1 trial itself, since there would be no point in shippers using the D+1 numbers to manage their positions if those numbers provided no information about their balancing and peaking pool charges.

Although this may be considered a substantial departure from the current allocation methodology in the Rules, Gas Industry Co emphasises the following factors in support of the proposal:

- **The D+1 results will replace the initial allocation only**. The initial allocation is widely acknowledged to be an inaccurate allocation, as it is based on forward estimates for the majority of ICPs (where meter reads don't span the consumption period). This is demonstrated by the high frequency of breaches of rule 37, which introduces a percentage threshold for the maximum permissible difference between submissions for the initial and final allocation.

- **The allocation methodology in the Rules already recognises the trade-off between timeliness and accuracy of results**. The staged approach whereby the initial allocation is routinely replaced by the interim and final allocation – which increase in accuracy as submissions based on actual meter reads tend towards 100% – will not change. Replacing the initial with D+1 results preserves (and enhances) this approach.

- **Gas Industry Co is empowered to address situations where participants may be unduly disadvantaged by the normal application of the Rules**. Both the special allocation provisions and the exemption provisions empower Gas Industry Co to take action to ensure that the purpose of the Rules is met in situations where the normal application of the Rules may result in negative outcomes. This power has been exercised previously to provide alternative allocation arrangements for a transitional period while a formal rule change process was progressed[4]. Rule 51 allows Gas Industry Co to determine "any specific procedures" that may apply to a special allocation.

5. Implementing the special allocations

Subject to the submissions we receive during the consultation period, Gas Industry Co intends to inform allocation participants and the allocation agent that, commencing with the October 2015 consumption month, initial allocations will be replaced with special allocations for the duration of the D+1 trial. This would be implemented as follows:

- The initial allocation processes will continue as per the requirements under the Rules: retailers and transmission system owners will provide data to the allocation agent by the required deadline and it will run the allocation and publish all allocation reports in accordance with its obligations under the Rules.

- After the initial allocation results are published, the allocation agent will provide the D+1 allocation results as a special allocation to replace the initial allocation.

- Under the Rules, any special allocation becomes the 'allocation result' under both the Rules and the VTC. A special allocation would therefore be subject to the VTC's balancing and peaking clause (clause 8) and the recovery of MPOC indemnity costs clause under cl 8.12, among other pertinent clauses.

The purpose of the special allocation is primarily so that the D+1 results can be used by Vector under the terms of the VTC. Gas Industry Co is therefore working with Vector to ensure that the allocation agent will be able to provide a report of D+1 results that satisfies the requirements of the GAR130 report – the report that the allocation agent currently provides to transmission system owners.

Given the way in which D+1 is calculated, it is not possible to replicate all the reports that are normally associated with an allocation. For example, unaccounted-for gas (UFG) is not explicitly calculated in the D+1 methodology, but UFG is reported in a number of standard allocation agent reports. Likewise, D+1 allocations are not conducted by allocation group, but some allocation reports break down allocated quantities this way. Further, as the D+1 results will not be generated by the current allocation system, it will not be possible to replicate all the reports that the allocation system generally provides.

[4] Refer to the Minor and Technical Rule Amendments (2009) and Rules Review Phase I (2011-2013) documentation on the Gas Industry Co website

The following table shows how Gas Industry Co intends to manage allocation reports associated with the initial allocation during the trial:

Report	Publish for initial?	Publish for special?
GAR010 Daily retailer allocation and UFG	Yes	No: will not have UFG or allocation by allocation group. Can provide report of daily allocated quantities during the month to each shipper if required
GAR020 Monthly retailer allocation and UFG	Yes	No: will not have UFG or allocation by allocation group.
GAR030 Annual retailer allocation and UFG	Yes	No: will not have UFG or allocation by allocation group.
GAR040 Gas gate residual profile	Yes. Retailers use this report to shape subsequent consumption submissions	No
GAR050 Initial versus Final comparison	Still published at final	No: it is a report that is published after the final allocation stage
GAR060 Seasonal adjustment daily shape values	Yes	No
GAR070 Summary UFG and retailer allocation	Yes	No: will not have UFG percentage or volumes, 12 month running totals will not be calculable
GAR080 Billed versus submission quantities comparison	Yes	No
GAR110 Percentage of historical estimates	Yes	No
GAR130 Allocation information to transmission system owners	Yes – but could be suppressed to eliminate confusion between initial and special allocations	Yes
GAR160 Allocated quantities summary	Yes	No
GAR170 Submissions summary	Yes	No

Gas Industry Co is satisfied that the ability for it to determine specific procedures under rule 51 includes directing the allocation agent to publish only a limited set of the usual allocation reports[5] – in this case just the GAR130. However we invite feedback on whether any further

[5] The allocation agent will have already complied with its obligations to produce the required reports for the initial allocation by the time the special allocation is directed, so there is no possibility of any non-compliance with respect to the allocation agent's mandatory reporting requirements.

reports may be useful to participants, and how these might be constructed given the limitations mentioned above.

The GAR050 report (comparing initial and final retailer submissions for allocation groups 3 to 6) will still be produced at the final allocation stage. This report will not change during the D+1 trial: once final allocations of D+1 trial months are performed, beginning in November 2016, the GAR050 report will still incorporate the volumes submitted for the initial allocation. A comparison with D+1 would not be possible, since retailers will not have provided any data for the D+1 allocation that could be used as a comparison to final submissions.

Rule 37 requires retailers' initial allocation submissions for allocation groups 3 to 6 to be within an accuracy threshold of their final submissions. Currently a wash-up process is run every 12 months that attempts to address the harm that the inaccuracy of retailers' initial submissions causes due to misallocation of BPP charges. Final allocations for consumption periods up to September 2015 (which will be published in the months up to October 2016) will likely require settlement under the current methodology.

Beginning in November 2016, when the first final allocation of a D+1 trial consumption month is performed, the treatment of rule 37 breaches is likely to change. Under D+1, there would be no harm from inaccurate initial allocation submissions, as it would be the D+1 allocations that were used to calculate BPP charges. Further, any differences between the D+1 result and the final allocation would be due to the calculation methodology and lack of data on the day after gas flow, rather than a retailer's estimation accuracy. Changes to rule 37 will therefore be considered in any regulatory process that seeks to implement D+1 on a permanent basis.

Gas Industry Co intends to review the D+1 arrangements by June 2016, with a view to developing a statement of proposal for a change to the Rules that incorporates daily allocations. If submissions by stakeholders are supportive of the changes, it is estimated that changes to the Rules could be implemented by the end of 2016, and special allocations to replace the initial would be used until then. Conversely, if the review in the first half of 2016 shows that stakeholders are not happy with the D+1 trial, then Gas Industry Co will consult on discontinuing the trial and work on developing other options.

6. Consultation

Gas Industry Co invites submissions on this paper by **Wednesday, 16 September 2015.**

Once we have considered submissions, we will publish a decision paper on the Gas Industry Co website and email a copy to individuals on our Stakeholder email list.