Reconciliation of Downstream Gas Quantities

Powerco's submission on the Decision Paper to Gas Industry Company February 2007

1. Introduction

1.1 In seeking submissions the Gas Industry company's (GIC's) expressed the view that it is premature to address upstream processes and issues, largely due to legacy gas considerations and further work may be required on transmission balancing.

The GIC's initiatives to address the downstream reconciliation difficulties have little no prospect of success unless changes to Allocation and Reconciliation processes encompasses both the upstream and downstream components. It is important that the GIC is seen to be even-handed in addressing Reconciliation and Allocation issues notwithstanding apparent sensitivity of the impacts that might arise in respect to the Government's Legacy gas commercial arrangements and other upstream considerations. The objective must lie fundamentally with addressing the reticulation market issues resulting from/accentuated by the changes in upstream market arrangements.

1.2 The Gas industry reconciliation situation has deteriorated as the direct result of the new gas supply contract structures that combine limited peak delivery flexibility with a large fixed cost component payable irrespective of actual off take. This contracting structure is incompatible with the established needs of the reticulated gas market but nevertheless arrangements of this character have been approved by the Government under section 41 of the Crown Minerals Act. The new arrangements are increasing retailers reticulated market costs; inevitably consumers will incur costs that are otherwise avoidable under a more appropriate supply structure.

1.3 Without formal standards for the Allocation and Reconciliation process volume variances are occurring as reconciliation reported monthly volumes are increasingly aligned with upstream supply positions to mitigate imbalances. Powerco has observed monthly reconciliation variances as high as 40 percent on small volume gate station delivery points and up to 10 percent on its larger gates.

1.4 The GIC should consider placing a much higher work priority on overcoming the issues surrounding current Allocation & Reconciliation practices given the seriousness of the issues. The reconciliation difficulties have the likelihood of impacting financially most on smaller retailers.

2 Executive summary

Executive Summary

- The GIC should consider placing a much higher work priority on overcoming the issues surrounding current Allocation & Reconciliation practices given the seriousness of the issues
- The Regulatory objective is not correctly positioned and needs to be restated to encompass all elements of Allocation and Reconciliation – including upstream and Transmission.
- A range structural improvements are required to improve the accuracy of the Allocation and Reconciliation processes:
  - The introduction of an integrated one file format covering both Allocation and Reconciliation requirements, documenting individual retailer imbalance positions.
  - A standardized normalisation methodology to be applied by all retailers, based on actual read data (applying preceding year actual data where required).
  - A standardised projection methodology to apply to all unread ICP's, both seasonally and regionally adjusted.
  - Allocation processes directly interfaced by Network with Transmission as part of the Reconciliation activity performed by Networks.
- The introduction of transparent reporting is important in assisting in restoring confidence in the reliability and accuracy of allocation and reconciliation processing. Reporting should encompass both Transmission and Network data.
- Compliance Regime – a pan industry rules governance structure is preferred, but compliance thereto supported by regulation.
- Compliance should be based on auditing of the application of Allocation and Reconciliation standards and of Retailer data accuracy.
- Cost/benefit assessment – scope and analysis should be progressed and completed within a GIC administered stakeholder workshop forum environment.

Response to GIC Discussion Paper Questions

Set out below is Powerco's response to the discussion paper questions.

Definitions – Q 1

2.1 "UFG" - Network losses/shrinkage needs to be distinguished from Unaccounted For Gas which is the volume based variance attributable to a retailer, being the difference between its ICP reported aggregated volume and its gate station allocation, adjusted by the network loss allowance = "UFG". [UFG is also referred to in this submission as an imbalance].

3 Regulatory Objective – Q 2

3.1 We strongly disagree that the regulatory objective has been correctly positioned, being limited to downstream reconciliation.

To be able to reconcile downstream to an acceptable standard of accuracy, given the changed upstream supply environment, it is imperative that a vertically integrated Allocation and Reconciliation process is implemented, linking volumes delivered at the gate station to both network sales and gas delivered into transmission for delivery to networks.

In the absence of standardised normalisation and estimation methodologies (and accompanying compliance obligations) over and under reporting of retailer monthly network sales volumes for Allocation and Reconciliation purposes will continue. The Allocation process assigns unaccounted for volume and generates imbalances and costs for retailers they would not incur under a robust, well developed and fully integrated Allocation and Reconciliation process. Large variances of this nature can have significant impacts on small retailers and/or larger retailers with relatively small trading positions on a particular gate station. Similarly relatively small percentage variances on large gates have an equivalent effect on retailers with comparatively small trading volumes[1].

3.2 Charges made to network billings resulting from the reconciliation process also need to flow through to corresponding adjustments for both gas purchases and transmission services[2] so that individual retailers are not competitively or unnecessarily financially disadvantaged. Each retailer should incur costs attributable only their own trading imbalance (UFG) position and not be allocated imbalance attributable to others.

There are substantial process and methodology weaknesses that to be adequately overcome require the integration of the entire transaction chain – upstream and downstream. It is Powerco's view that the already unsatisfactory position will deteriorate further given the escalating upstream trading difficulties, possibly to the extent that retailers will

[1] Quantum of volume variances: Paragraph 1.3 also refers.

[2] Transmission charge adjustments – these are largely aligned to network reconciled quantities..

curtail trading activity on gates/networks where imbalance cost burdens become unacceptable.

4 Standardised file Formats – Q3

4.1 Powerco supports the use of GIEP protocols which we currently use for receiving retailers consumption data. We understand also that some retailers and network companies are supplying data in accordance with these protocols.

4.2 We recommend GIEP format should be adopted by the industry. Powerco (at a recent forum) received agreement in principle from all retailers trading on its networks to provide data in accordance with GIEP.

4.3 Powerco supports the creation of a Standing Data Formats Group to develop and review the current protocols in existence. Like the electricity SDFG, a requirement should be for the group to create a conceptual framework so that all formats are created with due regard to the subject, purpose, broad content and qualifying characteristics of protocols.

4.4 We also hope that the SDFG be cognisant of cost benefit implications before recommending making changes to formats which are currently in use and will have cost implications for participants who have built existing systems.

4.5 In relation to creating standard files agreement on the following is required.:

- ***One file format for Allocation and Reconciliation*** – A single file covering upstream and network data, including fields for recording and tracking imbalance positions. An outline of the suggested content of the file is attached.
- ***Normalised & Estimation methodology standardisation*** – the application of standard normalisation and estimation methodologies. The estimation methodology will need to incorporate both regionalised and seasonal characteristics to afford an acceptable level of accuracy, integrity and stakeholder confidence.
- ***Transparency standards/reporting*** – Monthly network reporting of aggregated gate station and individual retailer[3] positions, including imbalances[4].
- ***Standardised network loss/shrinkage allowance*** – Prior to the advent of multiple retailer trading network losses/shrinkage was generally recognised to be around +/- 0.005%, including metering accuracy effects. Networks standards of operation have not altered in the intervening

[3] Variance Reporting: - limited to retailers trading on the network.
[4] Scope of Reporting - Reporting would be for current month, first wash-up result (4 month GIC proposal) & final wash –up).

time and it is proposed to standardise this factor for all Powerco networks[5]

- ***Altitude & wobbie adjustment methodology standardisation*** – Introduction of accuracy standards for ICP altitude and of volume weighted energy content (wobbie) correction factors.
- ***Scaling of UFG*** – Standardised methodology for scaling imbalance variances[6]. It is Powerco's view that TOU sites should continue to be excluded from any allocation scaling[7].

4.6 TOU sites should not be scaled, but have a share of the network loss /shrinkage allowance applied. TOU devices provide precise volume measurements for the reporting period and have equipment accuracy consistent with non TOU installations. Powerco is willing to undertake a investigation of TOU equipment accuracy and publish the results; it would need the cooperation of all network and meter owners however to perform this work. If the study shows a higher loss/shrinkage allowance should be applied to this group, then Powerco would apply it.

4.7 In Powerco's experience, inaccuracies in TOU data have largely been attributable to data management issues, not equipment inaccuracy. This is supported by two studies conducted in North America (see attached).

4.8 Processing under the one file format proposal would be performed by network with allocation and Transmission data transferred directly to Transmission owner/operator for its operations.

5 Estimation Accuracy – Q4

5.1 One of the major causes of the allocation and reconciliation issues[8] stem from the absence of standard, industry-wide, methodologies for normalisation and estimation activities. These need to be developed to generate as accurate as possible results for the reasons explained earlier in this response. Both seasonal and regional estimation adjustments are essential elements for process accuracy. Heating loads generate material regional and seasonal consumption changes[9]. The absence of standardises correction factors *applicable to all retailers* will result in a continuance of the current issues surrounding retailer imbalances.

5.2 We note the GIC's preference to using normalised data, there are pros and cons which should be thoroughly explored. Certainly main advantage over say "as billed" is that it aligns with a calendar month, however there are certain issues which need to be addressed:

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[5] Standard network shrinkage allowance – For Powerco's Wellington network this would follow the completion of its network upgrade project, scheduled for later this year.

[6] Scaling UFG – with the adoption of standardise methodologies for normalising data and applying projections, imbalance and scaling would be retailer specific calculations.

[7] TOU site scaling – these sites would however be subject to the standard network loss/shrinkage allowance.

[8] Allocation & reconciliation inaccuracies – The other major cause is the lack of vertical integration with upstream transactions.

[9] Seasonal consumption changes – Winter consumption is generally 60% higher than annual average consumption. Powerco networks regional consumption differences indicate regional difference up to 19%./yr.

- Under the current structures adopted by retailers normalised data has been shown not to be auditable where as “as billed” data can be vouched directly to a customer bill. Our experience in looking at retailers normalisation processes highlights that it was near impossible to reconcile normalised volumes back to an actual bill.

- Normalisation of data requires a more stringent business processes.

- From a retailer perspective, normalised data does not get as greater attention as “as billed data” and therefore presently not as much time is not invested in identifying and rectifying data errors.

- There is a perception that normalised and as billed data will converge over time. This is not correct due to the methodologies being used by retailers. Whilst theoretically it should occur, it is our experience that we there is not enough convergence to suggest that the normalisation process is as robust as thought.

- From a compliance standpoint, not all retailers will be able to provide normalised data where as “as billed data” is currently available.

Our preference would be that the GIC give serious consideration to these issues and whether normalised data significantly improve data accuracy.

5.3 Powerco requires **the same consumption data** to be supplied to us in the same format as supplied to the allocation agent and hence we receive some as billed and some normalised data, (as does the Allocation Agent). All data submitted to the Allocation Agent should be provided in either all normalised or all in “As billed” format. If normalised data is used estimations must be mad in accordance with the prescribed standards. This issue will be elevated if our approach under s7 is adopted.

6 Meter reading – Q5

Groups 5 & 6

6.1 With standardised estimation methodologies in place two monthly reading of Group 5 and 6 meters will not be such an acute consideration, particularly for small users – ICP’s having consumptions of < 10 GJ/yr. Having also regard to cost/benefit considerations Powerco proposes:

- All retailer dual fuel accounts - ICP’s in Groups 5 & 6 and single [gas] account sites with >10 GJ/yr consumption - 95% read every two months, with all read at least every four months, and

- Group five & 6 gas only accounts with consumption of less than 10 GJ/yr: 95% every four months, 100% within eight months[10].

Groups 1 & 2

6.2 Lowering the 10 TJ/yr threshold becomes a consideration if the measures proposed herein to correct allocation and reconciliation

[10] One actual read for small consumers each 8 months will provide data for final,13 moth wash-up .

accuracy problems are not implemented. Powerco would nevertheless like to see the TOU threshold reduced to 5 TJ/yr. as an accuracy improvement measure.

6.3 Powerco places any ICP irrespective of consumption in is TOU Group if TOU devices are installed. The exclusion of TOU ICP's from scaling encourages more consumers to voluntarily install TOU equipment, thereby assisting improvement in allocation and reconciliation accuracy.

7 Calculation & publication of loss factors – Q7

7.1 UFG as defined herein is Retailer specific and will vary month to month in reflection of the accuracy of data management and trading activity. It is important that no aggregated gate station UFG factor be applied to all retailers for the reasons already discussed in this submission.

7.2 The Allocation will equal the total of groups 1-6 with 5-6 normalised and estimated where necessary (in accordance with the standardised estimation methodology). To this aggregated volume will be added the standard network loss/shrinkage allowance to derive the allocation quantity. The allocation volume will be compared with the retailers network delivery nomination and the variance will constitute the retailers UFG (imbalance). A standardised retailer specific UFG factor, for the year ahead is desirable for reasons of administrative ease; this factor calculated on the retailer's preceding 12 month imbalance performance, would be applied to the retailer each month in the following twelve months. There should be the provision to adjust the UFG factor during the year to reflect a material improvement or deterioration in a retailer's current performance (a threshold criteria would be applied).

7.3 As a network owner Powerco does not see UFG factors and associated scaling as a revenue generating activity but rather a required mechanism to secure and maintain its network revenue in a business environment where networks processes rather than generate volume data. Data accuracy is essentially a retailer responsibility[11]. The rewards of accurate data or conversely, the financial consequences of mismanagement, accrue to the retailer. Equally Powerco is concerned to ensure to the fullest extent that can be reasonably achieved, a competitively neutral business environment in respect to the Allocation and Reconciliation process is restored and maintained.

7.4 These above proposals are based on comprehensive analysis and experience of problems associated with current allocation / reconciliation practices. As network owner under of contractual arrangements with retailers, we undertook a review of UFG over an extended period. Despite best endeavours we were unable to resolve data accuracy issues and hence we were unable to adjust our loss factors on an equitable basis. In fact, comparing our calculations and data with the Allocation Agent highlighted two important issues; that network companies were receiving different data than the Allocation Agent and

[11] Data accuracy a retailer responsibity - Retailers have contract relationships with meter providers and networks to ensure acceptable standards of operation are maintained.

that comparison of Allocation Agent UFG% did not materially align on any network for any period with our own internal analysis. This emphasises the need the changes in allocation as proposed here.

7.5 We fundamentally disagree that the GIC should review and publish UFG allowances as the GIC is not in a position to calculate them.

8 Reporting timeframes – Q8

8.1 The recommended inclusion of upstream data may give rise to changed timeframes; the trade-off between timeliness and accuracy is an important consideration that on assessment may result in changes in data submission and billing timeframes. More work is needed on process development before timeframes can be finalised, the trade-off being between timeliness and accuracy. The proposal that allocation be performed by networks as part of their reconciliation activities should assist timeframes.

9 Central registry – transitional provisions – Q9

9.1 Essentially this is a retailer issue; Powerco is aware that delayed switching is an issue where losing retailer is required to initiate a customer switch. On Powerco networks switching is initiated by the losing retailer, Powerco retains the right to decline a switch if the winning retailer does not have a valid network services agreement and in limited number of other specified circumstances. Retailer switching practices are not currently a major contributor to accuracy issues on Powerco Networks as Powerco has a website for facilitating accurate switching.

10 Submission of accurate data : mandatory – Q10

10.1 Powerco supports the GIC's proposal for accurate data.

11 Wash- up regime –Q11

11.1 The suggested four and thirteen month wash-up periods seem appropriate but implementation will entail negotiation with retailers as the GIC proposals are at variance with Powerco's network service agreements as would commercial terms pertaining to scaling, invoicing including use-of money adjustments, etc.

We note in the submission that Genesis would prefer a six month wash-up. Therefore, if Genesis is not seeing data quality improvements until after four months has elapsed then we suggest that that the four month revision is too soon and that the first revision should occur occurs six months from initial invoice.

The wash-up regime cannot be implemented without the accompanying commercial terms being settled with retailers. Notwithstanding this, any data supplied by a retailer for wash-up needs to be provided to the network owner also. Our experience shows that the link between data provided to the Allocation Agent and network companies has been missing resulting in UFG allocations which do not agree.

11.2 The introduction of interim and final allocation regime will not in itself overcome the structural data inaccuracy issues and in that regard is not a material consideration.

12 Manifest error – Q12

12.1 Powerco supports the one day limit for manifest error correction.

13 Gas Gate published data – Q 13

13.1 Powerco supports the publication of Gate station deliveries, aggregated and individual retailer UFG factors and imbalance information[12].

14 Adoption of One Month Global method – Q14

14.1 It appears the GIC has not fully understood the issues that are causing Allocation and Reconciliation data inaccuracy. The one month Global proposal would only seriously exasperate an already difficult situation. At the GIC's 25 January workshop the GIC received the views of stakeholders, most of whom strongly opposed the proposal as it does not remedy the fundamental flaws with the existing allocation/reconciliation arrangements; global prorata's imbalances to all retailers based on market share rather than allocating to those contributing.

14.2 Powerco has declined to introduce the methodology change both on contractual grounds and because the inequities associated with it in the current circumstances. In is impetrative that causes of data inaccuracy[13] are successfully addressed before consideration is given to the introduction of Global methodology.

14.3 Powerco agrees that the "difference" method of Allocation should be replaced as soon as practicable by the methodology changes proposed herein.

15 Allocations Services: reduction – Q15

15.1 Powerco agrees that is unlikely that the two identified services will be needed in the immediate future but sees little merit in expressly excluding their availability for the future.

16 Appointment of Allocation Agent by GIC – Q16

16.1 The adoption of the methodology changes proposed herein, in particular the adoption of a standardised one file format, with normalisation and estimations performed by retailers in accordance with standardised arrangements will render the need for a separate allocation activity unnecessary. A direct interface been Transmission owner/operator and Network owner/operator would facilitate a more responsive and accurate Allocation and Reconciliation operation, reinforcing the transparency of data, reporting of individual retailer imbalances, etc. In addition compliance would be simplified and overall industry costs associated with these activities would seem likely to decline.

17 Governance – Q17

[12] Publication of Retailer UFG – Refer to paragraph 8: Retailer UFG would normally be fixed for 12 months and be retailer specific. Standardised normalised and projection methodology are a perquisite for individual retailer UFG/scale factors. Upstream data reconciliation would required to ensure imbalance adjustments are fully transparent and equitable.

[13] Overcoming dData inaccuracy – refer to paragraph 5 of this submission.

17.1 Powerco supports a pan–industry governance structure for Allocation and Reconciliation, generally with the attributes and decision making processes aligned to those of the MARIA arrangement, in particular for the decision making and rule change processes. This would allow wide representation and participation in the decisions to be taken.

18 Reconciliation charges – Q18

18.1 The charges regime should include Allocation costs as well. A monthly ICP based charge[14] payable by retailers seems the most equitable arrangement.

19 Audit arrangements – Q19 & Q20

19.1 A two tier audit structure seems to better suit compliance needs:

Methodology and process compliance
This is a specialised activity that should be managed under GIC overview and should consist of a regular and ongoing compliance monitoring/enforcement program. A two yearly rotational cycle of all retailers and networks and auditors should be contemplated. Reconciliation and Allocation adjustments (including time-of-use interest) for any material methodology and/or process variances should result and audit reports should be published.

The cost these audits could be partly based on ICP count but other factors will also influence audit costs and it would appear that a fixed element would also be appropriate.

Data accuracy
Retailers' auditors should report half yearly of the accuracy of submitted data. A standard report format should be adopted, again published. Adverse reporting could at the GIC's discretion result in further investigations and adjustments (as above). Audits need to be preformed in accordance with generally accepted accounting and auditing practice/standards; the audit work will largely already be formed for most retailers as part of internal reporting requirements so additional costs should be minimal. This audit report would be the benefit of other retailers, networks and the GIC. This may require regulatory support.

Data accuracy audit reporting would be confined to retailers; retailers generate the source data used for Allocation and Reconciliation. There may be a requirement for audit reporting of data submitted by Transmission owner/operators.

We do not believe that with the foregoing structure that additional ad hoc audits would be required. A three year retrospective adjustment period is long and there needs to be a much more timely and expeditious approach to compliance management. If the period for adjustments extends retrospectively for more than 18 months it will require negotiation between retailers, networks and transmission owners (possibly also gas suppliers), due to existing contractual limitations for reopening invoicing.

[14] Charging for Allocation & reconciliation services - Monthly data file ICP count applied.

The forgoing auditing structure targets the maintenance of independence and integrity through the application of arms-length objective standards of performance.

20 Arrangements for Allocation Agent compliance & liability cap – Q21

20.1 With the structural process changes proposed herein to the Allocation and Reconciliation processes the existing role of the Allocation Agent is superseded by the activities and reporting that would be performed directly between Network and Transmission owners/operators. Networks and Transmission owner/operators liabilities are already governed by contract with retailers (and vice versa) and these would require modification to accommodate the GIC's proposals. [The double jeopardy or penalty element would need to be addressed].

20.2 There are some major differences in compliance needs between Allocation and Reconciliation and Registry and Switching. It is unlikely that one regime can reasonably encompass both activities.. The later is predominately behaviour based monitoring whereas for Allocation and Reconciliation the primary compliance needs are factual in character, centring on data management and accuracy.

21 Compliance Reporting – Q's 22 – 25

21.1 Powerco generally supports the GIC's proposals. In respect to Question 23 in terms of the proposals herein, the responsibility of reporting would rest with Network and Transmission owner/operators.

22 Compliance Regime – Q's 26 & 27

22.1 The proposed regime fails to recognise and accommodate the predominate accounting character of Allocation and Reconciliation processes. There is a need to reflect the position and importance of audit reporting to maintain data accuracy and process integrity. While not opposed to the outlined compliance structure in concept as presently proposed, it needs revision to address adverse audit reporting outcomes.

22.2 Powerco agrees with the proposal for special allocations but only if directed by the Market administrator and Rulings Panel which should operate separate from the GIC.

23 Establishment of Rules – Q 28

23.1 The proposal in this submission would modify a number the proposals contain in the rules outline (Appendix D). In the context of Powerco's proposals being adopted Powerco supports the differentiation between rules and regulation based compliance.

24 Commerce Commission Approval – Q 29

24.1 Powerco concurs Commerce Commission approval will be required.

25 Pan Industry agreement – Q 30

25.1 Powerco supports a Pan Industry solution with compliance being supported by regulation.

26 Cost/Benefit analysis – CBA Q's 1 – 8

26.1 We suggest the proposals as presented be further developed and discussed with stakeholders in a workshop forum environment to gain consensus.

Outline of content of gas allocation and reconciliation data file

Part A

Retailer gas supply nominations

- Daily(final)
- Month total (aggregate)

Part B

Retailer gate station allocation

- Daily
- Month total

Part C

Retailer ICP data file (by group)

GROUP	Billed	ICP Count	Normalised	ICP Count
1				
2				
3				
4				
5				
6				
Total				

Part D

Reconciliation and unaccounted for gas

- Retailer gate station allocation= Retailer normalised file total + Network loss factor

- Uncounted for Gas = Retailer gate station allocation - Network loss factor - Retailer normalised file total