



Submission by New Zealand Steel Limited on Transmission Balancing Options

by

**New Zealand Steel Limited
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Introduction

New Zealand Steel Limited operates a fully integrated steel mill at Glenbrook, South Auckland, producing a large range of steel products for the local and export markets. It is a wholly owned subsidiary of BlueScope Steel Limited of Australia. New Zealand Steel wishes to make a submission on the Gas Industry Company Limited's December 2008 issue paper "Transmission Balancing Options Paper"

Company Profile

New Zealand Steel began production in 1968 and major expansions completed in 1987 created an integrated steel mill. The company is located in Glenbrook, South Auckland on 1400 hectares of farm land, on the southern shores of the Manukau Harbour.

Using locally sourced ironsand, lime and coal, New Zealand Steel produces around 600,000 tonnes of steel per year.

The company produces a range of flat steel products for both domestic and export markets. Slabs are rolled into hot and cold rolled products, which are then on-sold or further-processed into products such as hollow sections, galvanised steel, ZINCALUME® steel and COLORSTEEL® steel.

Background:

Natural gas is consumed at the New Zealand Steel Glenbrook site in a variety of processes associated with iron and steelmaking, and steel rolling and finishing operations. Site consumption ranges from 1.8PJ to 2.2PJ per year. The predominant use of natural gas is in the Hot Strip Mill Slab Reheat Furnace, which consumes approximately 50% of the gas delivered to site, or 1PJ per year. Other uses are of considerably less volume and distributed widely across site.

While the predominant use of natural gas at New Zealand Steel is as an energy source, natural gas is also used for specialist purposes such as a coolant in the steelmaking process, and for influencing the ironmaking chemical process if required.

Submission:

New Zealand Steel has reviewed the Transmission Balancing Options Paper (TBOP) published in December 2008 and is in agreement with the majority of the positions held by the Gas Industry Company (GIC) over the concerns with the current balancing regime.

Following the changes to the Maui Pipeline Operating Code (MPOC) when they came into effect on the 12th December 2008, it has been clearly apparent that the mechanics and outcomes of pipeline balancing are misaligned with the primary goals as defined by the GIC in the TBOP as criteria for assessment of balancing options.

These are:

- the relevant service standard is that pipeline pressures should be maintained within an appropriate band, both for safety and so that transmission services are not interrupted; and
- the relevant aspect of 'economic efficiency' is that balancing is achieved at least cost.

This submission attempts to address the issues necessary for consideration in order to improve balancing in accordance with the TBOP layout.

1. Problem definition

While it is clearly understood by most users, when any gas is transported via a pipeline network there is a requirement for a balancing mechanism to avoid undesired pressure variation. However, the mechanics of the balancing action by all users and TSOs is not as clear as would be suggested by the current framework for balancing actions across the transmission networks supplying natural gas from the various natural gas fields in the North Island of New Zealand.

While there is a requirement to be in balance at a certain node in the pipeline it is unclear how transparent this relationship of controlling linepack, as reflected by the pipeline pressure and the running operational imbalance at that node. For example it has been noted that the slope of the pressure chart at Taranaki, at times, does not reflect how balanced the pipeline is as denoted by the running operational imbalance at that node.

Although it may have been the intention for the MPOC changes, which came into effect on the 12th December 2008, to exert some pressure on natural gas users to ensure their responsibility for managing their balancing transactions from the natural gas pipeline networks improved, it is apparent that the rules do not sufficiently encourage this.

As end users, we at NZ Steel, see the fundamental problem being that there is a 2 day period to “wash up” any mismatch or discrepancy between nominated gas consumption and actual gas consumption. Currently, with this “wash up” period there is no incentive for pipeline users to favourably control pipeline dynamics and therefore the intervention of a balancing agent is required. While it is acknowledged that intervention by a balancing agent has decreased since the change there is still a significant number of interventions which have been required to restore balance. Further evidence of the problem is manifest by the swings in scheduled quantity versus hourly flow at a welded point.

If there were more stringent rules on end users resulting in a better balanced network there would be less of a need for intervention by the balancing agent and therefore reduced associated costs.

As a result of the 2 day “wash up” period, the associated costs with the balancing action are not normally attributed to the causer via a cash-out, and the costs are destined to be “socialised” across all users, responsible and otherwise alike. This is not considered as an incentive to increase a users’ responsibility to balance their transactions by any stretch of the imagination.

NZ Steel agrees with the GIC’s statement that “...balancing is really the ‘business’ of the community of pipeline users”

In the context of the current 2 day “wash up” period, the significant difference in the magnitude of negative versus positive cash-outs is considered irrelevant because it is simple to avoid any liability providing that a party is fully aware of its consumption.

In addition we consider that balancing actions need to be more transparent, particularly as these will be socialised. Currently, we are not aware, if it is possible to determine the costs of balancing actions at a welded point, but if this can be done and cost projections were made, for example, to specifically define the socialised cost to all users of their potential liability and when they would be liable for the charge, then this may be a further incentive for end users to balance their nominations versus their use and avoid the additional socialised costs.

In summary, we believe a financial instrument, alone, is ineffective, whereby if bound by a tighter timeframe for corrective actions would improve line pack balancing substantially. Hence we consider the “do-nothing” option should be discounted and an on the day balancing regime be adopted as soon as practicable.

2. Objectives

Q1. Do you consider that the objectives identified in Section 2 are appropriate for the analysis of balancing options? If not, what other objectives would you propose?

New Zealand Steel agrees with the GIC’s 2 key principles

- “balancing arrangements should aim to achieve balancing at least cost, where ‘cost’ includes transaction costs for users; and
- users should be able to manage risks associated with balancing charges, including having good knowledge of their balance positions and having an ability to hedge price risk.”

We believe balancing costs should be attributed to the causer of the line imbalance and not be “socialised”. We acknowledge, however, as an end user with time of use (TOU) metering and having user access to the Open Access Transmission Information System (OATIS) that for end users without such information that they may be poorly placed to easily balance their pipeline transactions and thereby manage their risks.

As indicated in the previous section we believe the time frame for completing a user’s balancing actions following the issue of an Imbalance Limit Overrun Notice (ILON) should be decreased. We believe the aim should be to have same day balancing which would increase self balancing actions by gas users, and reduce the number of balancing actions required by a balancing agent. Ideally the number of balancing actions by a balancing agent should reduce to a level approaching actions performed for safety reasons to ensure security of supply.

In association with this we believe that scrutiny be given to the tolerances at each welded point. We acknowledge that this has been scrutinised in the past but believe from our observations that the tolerances provides a degree of flexibility which if adjusted accordingly may further serve as an incentive to balance one’s pipeline transactions.

We believe that given that end users are protected to a fair degree by the size of the shipper's daily quantity, this provides what may be seen as an unfair advantage for large retailers. As a smaller, less flexible portfolio of a small retailer cannot offer similar protection against exposure to potential breaching of a specified tolerance at a welded point this, therefore, may become an entry barrier for new smaller retailers and effectively stifle competition. This issue is deserved of further consideration.

We are in agreement with the GIC's view that consideration of the European Regulator's Group for Electricity and Gas (ERGEG) principles may prove useful in assessment of options.

3. Necessary Developments

Q2: Do you agree that it is necessary to review of tolerances as described in Section 3.1?

Yes. The tolerance at a welded point should reflect a level at which balancing actions via the intervention of a balancing agent are no longer necessary, but provide sufficient flexibility to allow for variation as required by users providing line pack is not adversely compromised. It has been noted that at some welded points there is significant flexibility to avoid a cash-out occurring once an ILON has been issued hence the causer does not incur any attributable balancing cost.

It should be noted that this viewpoint hinges on a number of premises derived from the current balancing framework which are intertwined, and that by changing tolerances without consideration of other factors such as the timing and number of nomination cycles a less than satisfactory outcome is possible.

Q3: Do you agree that it is necessary to consider MPOC changes as described in Section 3.2?

We are in agreement over the discussion that costs may not be recovered due to the slowness of the ILON process and a causer may have corrected their position. This is undesirable. We believe that costs should directly reflect the cost of balancing as best as possible. The degree of transparency in passed on costs becomes difficult if "socialised". We believe that some clear rules are required to ensure "transparency".

We are in agreement that a 'damages regime' may be considered for over pressure situations. It is interesting to note that while the development of balancing rules and penalties were initially created following actual overpressure incidents only an incentive pool claim debit was created for a negative imbalance and ironically nothing to cover positive imbalance situations which had actually occurred.

4. Core Design Features

Q4: Do you agree that the primary balancing obligation should remain with pipeline users?

Yes as discussed elsewhere.

Q5: Do you agree that there should be a single independent balancing agent?

Yes, we believe to control, as with any pressure control system, reducing the number of influences improves one's ability to control. We believe the role would have to be clearly defined. The role of any future spot market as a balancing tool also needs to be carefully considered including who can partake.

The effect of introducing an independent balancing agent on the overall price of natural gas is of great concern to New Zealand Steel. Currently, costs associated with balancing actions are embedded in the price of natural gas. We believe that pricing and costs need to be transparent. Therefore, should an independent balancing agent be introduced, the current balancing costs need to be seamlessly replaced with the costs relating to that of the independent balancing agent i.e. theoretically there should be no net increase apart from initial establishment costs. This requires careful attention.

6. Design features under Review

We are in agreement, should a spot market be adopted as an additional balancing tool, with the GIC that "it will be in the interests of consumers for the rules governing the operations of the Balancing Agent to promote:

- the balancing market being open to all credible providers of flexibility;
- dispatch of the lowest cost flexibility option first;
- market prices reflecting the value of additional flexibility, thus providing the right price signal for investment in flexible capacity; and
- users being able to hedge the risk associated with uncertain charges for residual balancing by participating in the balancing market themselves."

While NZ Steel is aware of its gas consumption and therefore it's balance position it is cognizant of the issues raised in the discussion on daily allocation options. Its preference, as decisions could affect the gross balancing regime, is for the focus to encourage adoption of TOU metering for large to medium scale users, and depending on the outcome of various other balancing tools such as decreasing the time to correct imbalance or further scrutiny of tolerances then consider allocation methodologies.

7. Preliminary assessment of design features under review

No comment

Q6: Do you agree with the section 7.1 preliminary assessment of balancing procurement options?

Q7: Do you agree with the section 7.2 preliminary assessment of daily allocation options?

Q8: Do you agree with the section 7.3 preliminary assessment of the extended nominations options?

8. Gas Industry Co's proposal

Q9: Do you agree with the hybrid approach proposed?

Unsure. We consider that incremental improvements need to occur as previously suggested with further tools reviewed and adopted if required.

Q10: Do you agree with the proposed work programme?

Once again we believe the work should be staged according to its physical impact on pipeline balancing.