Direct Dial: 020-7932-5927

21 September 2000

BG Transco, Shippers and Other Interested Parties

Your Ref:
Our Ref : Net/Cod/Mod/0420

Dear Colleague,

Modification Proposal 0420 'Change to System Prices'

Ofgem has carefully considered the issues raised in Modification Proposal 0420 '*Change to System Prices'*. Ofgem has decided not to direct BG Transco to implement the modification, because we do not believe that this proposal will better facilitate the relevant objectives of BG Transco's Network Code.

In this letter, we explain the background to the modification proposal and give the reasons for making our decision.

Background to the proposal

The current gas balancing regime is designed to provide shippers with commercial incentives to balance their inputs and offtakes on to BG Transco's pipeline system on a daily basis through the application of the cash-out mechanism for any imbalances at the end of the gas day. If a shipper is out of balance at the end of the day, any imbalance volume is cashed-out at prices determined in the On-the-Day Commodity Market (OCM).

Any shipper's imbalance within the sum of balancing tolerances[1] is cashed out at System Average Price (SAP) while any imbalance exceeding the sum of tolerances is cashed out at System Marginal (SMP). Long imbalances, where a shipper's gas inputs exceed gas offtakes, are cashed out at SMP sell while short imbalances, offtakes exceeding inputs, are cashed out at SMP buy.

System Average Price is calculated as the weighted average of all trades on the OCM in a day while System Marginal Price Buy (Sell) is calculated as the highest (lowest) BG Transco bid (offer) for gas on the day. If BG Transco does not take any bids (offers), SMP buy (sell) is set equal to SAP.

Reduction to balancing tolerances

The implementation of Modification 313 *'Development of the Energy Balancing Regime to Facilitate implementation of the on-the-day commodity market '*reduced shipper imbalance tolerances by 25% from 1 October 1999. Ofgem subsequently directed Transco to implement Modification 0415 *'Phased reduction in Shipper tolerances'*, on 22 August 2000, which will further reduce shipper balancing tolerances by 50% on 1 October 2000 followed by

[1] Shippers currently enjoy Imbalance Tolerance Quantity (ITQ), the Absolute Tolerance Quantity (ATQ), Cumulative Imbalance Tolerance Quantity (CITQ), and the Forecast Deviation Quantity.

their complete removal from 1 April 2001. In our decision on this modification[2], Ofgem noted that, despite the 1 October 1999 reduction, the actual level of shipper imbalances had increased significantly over the last year. Ofgem also expressed its concern that certain shippers are using tolerances for commercial purposes to avoid trading out imbalances. By delivering into tolerances and being cashed-out, this has reduced OCM / gas market liquidity, increased spreads and may be causing higher balancing costs leading to greater volatility and higher forward prices than would otherwise be the case.

The current cash-out regime

Ofgem has consistently argued that the cash-out regime was in need of reform throughout the BC99 and RGTA process. Ofgem's proposals for the reform of the cash-out regime were not implemented in October 1999 as Ofgem accepted that the relevant information needed to set cash-out on the basis of a commodity and flexibility charge was not available at that time.

Ofgem believes that the method of setting cash-out prices and the use of imbalance tolerances by shippers may have contributed to recent high gas prices. As reported in our July 2000 review document, gas prices have been high and volatile since the end of March 2000. Ofgem argued that the current cash-out regime could be encouraging shippers to take imbalance positions. If BG Transco takes a balancing action early in the day and sets an SMP on one-side of the market, shippers will have an incentive to maintain an imbalance position on the other side of the market and be 'cashed out' at SAP. To trade out the imbalance position at any lower price in the market would reduce SAP and thereby reduce the price at which imbalances within tolerances are settled. This behaviour may be putting upward pressure on prompt gas prices. This may also feed through in to forward gas prices.

BG Transco has also reported that recently it has seen greater within day profiling of gas deliveries by shippers and producers than has historically been the case. As reported in our July 2000 document, BG Transco had only set cash-out prices on two-sides of the market on 4% of days since October 1999. Shippers can therefore be relatively certain that any imbalances on the other side of the market will be cashed out at SAP, providing little incentive to trade out their imbalances.

Ofgem has made clear its view that the current cash out rules combined with the current tolerance regime clearly do not provide adequate incentives for shippers to balance their position at the end of the gas day. Ofgem has also increasingly called into question whether measuring imbalances at the end of the gas day remains appropriate in view of the greater convergence of gas and electricity (which will be based on a half-hourly balance post-NETA) and the significant within day profiling that is now being seen.

Ofgem has also made clear that we believe that the taking of significant imbalance positions by shippers, by influencing cash-out prices and spot gas prices, may be contributing to the recent price volatility in gas markets and influencing the forward curve.

A number of shippers have also raised concerns about the current cash-out regime on days where Transco does not take any actions and there is no differential between SAP and SMP. In response to these concerns, V-is-On raised the following proposed modification to BG Transco's network code.

[2] See also '*The New Gas Trading Arrangements: A review of the new arrangements and further development of the regime; A review and decision document'*, Ofgem, July 2000

The modification proposal

In order to ensure that marginal cash-out prices are set on two-sides of the market with greater frequency, it is proposed that the System Marginal Buy Price shall be equal to the greater of:

- the System Average Price (SAP), which is the weighted volume average of all trades in the OCM;
- the average of the seven preceding days System Marginal Buy Price; and
- the highest Market Offer Price in relation to a market balancing action taken for that day.

Similarly, the System Marginal Sell Price shall be equal to the lower of:

- the SAP, which is the weighted volume average of all trades in the OCM;
- the average of the seven preceding days System Marginal Sell Price; and
- the lowest Market Offer Price in relation to a market balancing action taken for that day.

On days when BG Transco takes no market balancing actions, then SAP shall be set equal to the average of the seven preceding days SAP (SAP is defined as the weighted volume average of all trades in the OCM). The rules on System Marginal Prices, as outlined above, would also stand.

It was also suggested at industry workstream meetings that alternatives to the rolling seven-day SMP averages should be considered in response to this modification. The alternatives that were suggested were to set SMPs as either the higher (lower) of the price of BG Transco's marginal balancing action or:

- a fixed differential from SAP, either in absolute terms (pence per kWh differential) or in terms of a percentage amount;
- a differential from SAP determined as the average of the previous seven days SAP-SMP differential; and
- the average price of the top (system buy) and bottom (system sell) x% of all trades on the OCM.

Respondents' views

Although a small majority of respondents were in support of this modification, some respondents commented that the proposal's objectives would be better met using an alternative approach. Most respondents in favour of the proposal recognised that a permanent differential between SAP and SMP is likely to improve incentives on shippers to balance their end of day position. However, some respondents argued that a better explanation of the alternative approaches was required.

Arguments of those respondents that opposed the modification proposal included concerns:

- that modifications are being proposed and implemented before the industry has had the opportunity fully to review the impact of previous reforms, namely the reduction of balancing tolerances and the implementation of NETA.

- that those shippers with the ability to profile are unlikely to change their behaviour as a result of this modification, whilst greater costs could be imposed on smaller players without significant levels of within-day flexibility.

- that forcing a spread between buy and sell prices is not reflective of the supply and demand fundamentals, hence it is unlikely to improve cost targeting. Some opponents remarked that it would be inappropriate to put in place a regime where high prices on a particular day could result in inefficiently high prices for each day in the following week, regardless of whether or not the system is under stress.

In addition, one respondent who opposed the modification suggested that a fundamental obligation to balance (as opposed to commercial incentives to balance) should be added to shippers license conditions.

Ofgem summarises respondents' views on the alternative proposals in the following table:

Alternative methodology	**Respondents views**
Fixed differential to daily SAP – absolute or percentage terms	Supporters argued this is simple to implement and it provides stronger balancing incentives on days when the system is under stress.
Average of previous seven-day SAP – SMP differential applied to daily SAP	Supporters of this alternative proposal believe that it could provide the greatest incentive on shipper to balance. Some respondent commented that volatility-based statistics are complex to define and they may result in cash-out price instability and overstatement of the SMP – SAP spread.
System Weighted Average Marginal Price (SWAMP) approach, according to which SMP buy (sell) would be set equal to a weighted average price for the most (less) expensive x% of traded gas.	Respondents believe that SWAMP, by damping prices down through an averaging of the top (bottom) x% accepted bids, would fail to provide shippers with sufficient incentive to balance when the system is under stress.

Ofgem's View

Although the alternative proposals were commented on by a number of respondents, Ofgem is concerned that the alternatives have not all been fully discussed or coherently explained and therefore all respondents could not be expected to reasonably comment. Although alternatives to the proposal were discussed, the modification proposal is based on the seven-day rolling average and Ofgem's decision only relates to this specific proposal.

As discussed previously, Ofgem has fundamental concerns about the current cash-out regime based around an end-of-day gas balance particularly with the likely impact of increasing convergence between the wholesale gas and electricity markets and the likely impact of NETA. Ofgem is shortly to publish its views on why reform is needed, its proposals for reform and a timetable for consultation.

As any more fundamental reform is likely to take some time to develop, consult on and implement, Ofgem believes that the existing cash-out regime is in need of reform in the shorter term. The existing incentives on shippers to balance at the end of the day need to be further strengthened, although Ofgem recognises that this will not fully address the current within-day profiling problem. The cash-out regime needs to provide a strong commercial incentive on shippers to balance their inputs and offtakes and target the costs of system

imbalances back to those that are causing the imbalance. In order to fulfil these roles, Ofgem believes that cash-out prices should reflect the pattern of supply and demand throughout the day and reflect the cost to BG Transco of managing any imbalance.

If cash-out prices do not reflect the supply and demand patterns on a day, then shippers will have perverse incentives to flow gas that could increase the imbalances on the system. For instance, on days when the system is long (inputs exceed off-takes), cash-out prices for sales to the system should be low to reflect the surplus supply of gas and to discourage further gas being brought on to the system. If cash-out prices for sales to the system were to remain high on such a gas day, shippers would have the perverse incentive of continuing to deliver gas to the system. This would worsen the imbalance on the system and require BG Transco to take larger and more costly balancing actions.

Cash-out prices should also be successful in targeting the costs of system imbalances to those users of the system that are responsible for the system imbalances. Such cost targeting is necessary for providing the correct incentives on shippers to balance, and as such, cash-out prices should reflect the costs to the system of that imbalance. If cash-out prices do not reflect the cost to the system of the imbalance, the shipper does not bear the cost of their action and these costs would be born by all participants.

Ofgem believes that to encourage shippers to balance their portfolios, it is desirable for differential cash-out prices to be set on both sides of the market. Failure to do so on a consistent basis could result in an expectation by shippers that they will not be discouraged, once a marginal price is set, from taking large imbalance positions on the other side of the market. As a result, shippers may be able to deliver long or short onto the system and not be encouraged to trade these imbalance positions out. The failure to trade imbalance positions out may reduce gas market liquidity and thereby increase the prices paid for NBP gas. Ofgem is therefore sympathetic to the aims of this proposal to ensure a differential between SAP and SMP prices to strengthen the incentive on shippers to balance.

While Ofgem agrees with the aim of the proposal, Ofgem believes that cash out prices should continue to reflect market conditions as far as possible, consistent with providing shippers with an incentive to balance. Ofgem is concerned that differentials that are arbitrarily high or non-market reflective could result in significant risks to shippers and could discourage trading of gas on the day. This could potentially penalise some market participants for small imbalances and favour shippers with the greatest flexibility. They could also distort trading in the OCM and OTC markets.

The modification proposal – Rolling 7-day average SMPs

In Ofgem's view, the modification has what appears to be an unintended flaw that it could lead to "inverted" prices where SMP sell (buy) prices were higher (lower) than SAP. This would have created perverse incentives for shippers to move further out of balance. As agreed with the proposer, the modification proposal was changed to correct for this deficiency by ensuring that price inversion could not occur (by ensuring SMP sell (buy) could not exceed (go below) SAP). Although this change has solved one problem, it did mean that the proposed cash-out derivation was less transparent and as one respondent pointed out, would not create any SAP – SMP differentials on around 20% of the days.

However, the change to the modification has not addressed the fundamental weakness of the proposal of deriving cash-out prices that are not market reflective. In being a seven-day average, the proposal means that any severe cash-out prices will persist into cash-out prices.

For example, a day characterised by a severe supply outage (e.g. 16 December 1999) could see an SMP buy price set at an extremely high level (e.g. 50 p/therm). This extreme price would then be used to derive cash-out prices on all subsequent days, regardless of whether it was required by the underlying supply and demand position of the system.

On these subsequent days, shippers with an imbalance position could be exposed to relatively high cash-out prices that do not reflect underlying market conditions. Furthermore, the effects of these high prices would persist indefinitely into the future due to the presence of the "greater of" rule. As a result, the proposal would result in persistently high (or low) SMPs. This would be likely to have knock-on effects through arbitrage on prompt prices and forward prices and distort prices in the wholesale market.

Ofgem therefore believes that the modification proposal in its current form would create significant distortions in the gas market and could distort competition between shippers and suppliers by setting non-market reflective cash-out prices for shippers out of balance.

Ofgem's Decision

Taking all the above considerations into account, we have decided not to consent to this modification, as we believe that it does not better fulfil the relevant objectives of the Network Code. In particular, we believe that the proposal, when compared with the current regime, does not better facilitate the relevant objectives of ensuring the efficient and economic operation by the Transco of its pipeline system or the securing of effective competition between relevant shippers and between relevant suppliers.

Ofgem remains convinced of the need to consider reform of the cash-out regime in the short term and believes that BG Transco and the industry should continue to consider the alternative proposals that were discussed but did not form part of this particular modification proposal.

If you have any queries in relation to the issues raised in this letter, please feel free to contact me on the above number.

Yours sincerely,

Steve Smith
Director, Trading Arrangements