



*Bringing choice and
value to customers*

Shippers, Transco and Other interested parties

Our Ref: Net/Cod/Mod/631&632
Direct Dial: 020 7901 7437
Email: mark.feather@ofgem.gov.uk

29 August 2003

Dear Colleague,

Network code modification proposal 0631 “*Removal of INS charge*” and network code modification proposal 0632 “*Revise INS charge to zero*”

Ofgem has carefully considered the issues raised in network code modification proposal 0631 ‘*Removal of INS charge*’ and modification proposal 0632 ‘*Revise INS charge to zero*’.

Ofgem has decided to direct Transco not to implement modification proposal 0631 because we do not believe that this proposal would better facilitate the relevant objectives of Transco’s network code under amended standard condition 9 of Transco’s Gas Transporters (GT) licence.

Ofgem has decided to direct Transco to implement modification proposal 0632 from 1 October 2003 because we consider that the proposal will better facilitate the relevant objectives of Transco’s network code under amended standard condition 9 of Transco’s GT licence.

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

Background to the proposals

The cash out regime

The gas balancing regime provides shippers with incentives to balance demand and supply at the end of the gas day through the cash out mechanism. Shippers who are short (long) gas are cashed out at the highest (lowest) prices at which Transco has bought (sold) gas on

the on-the-day-commodity-market (OCM). These cash out prices are the system marginal buy price (SMP_{buy}) and the system marginal sell price (SMP_{sell}), respectively. On days in which Transco does not take any balancing actions, cash out charges are determined by adding fixed differentials to the system average price (SAP), which is the weighted average price of gas traded on the OCM for that gas day. These fixed differentials reflect the cost of storage.

Under section C 1.2 of the network code, by 13:00 on D-1 (day ahead), shippers must provide Transco with nominations for offtakes at daily metered (DM) sites. By 16:00 on D-1, shippers must provide Transco with input nominations at each entry point. From 17:30 on D-1 until 03:59 on the gas day, shippers can re-nominate their inputs at each entry point and their offtakes at each DM site.

Transco issues forecasts of demand for non-daily metered (NDM) sites in each LDZ for each shipper at 12:00, 15:00, 18:00 and for 21:30 D (within-day), and at 14:00, 19:00 and 02:00 for D-1.

Transco's concerns

Transco approached Ofgem in summer 2000 with concerns about how the existing gas balancing regime was operating. Transco indicated that within-day profiling of gas flows by shippers at entry and exit points could cause it to undertake inefficient balancing actions and to experience within-day operational problems, which could threaten security of supply on the gas network. It also believed that the quality of within-day information regarding shippers' gas flows was deteriorating and compounding the problems associated with within-day profiling. In particular, Transco raised concerns that the informational problems it experienced made it difficult to balance and operate its system efficiently.

Ofgem's response to Transco's concerns

In response to Transco's concerns, in February 2001¹ and 2002², Ofgem published proposals for reform of the gas balancing regime. Ofgem proposed to shorten the period over which companies must balance their inputs and offtakes to the system. This would have introduced more dynamic pricing of gas within-day, and better targeting of the costs of actions taken by Transco to balance the system to those companies that had caused them to be incurred.

The industry did not support Ofgem's proposals as it believed that the costs of implementing such reforms would have outweighed their benefits. In the light of this, Ofgem undertook further work which led to its April 2003³ document. In this paper, Ofgem determined that moving to shorter balancing periods at this time was not warranted as Transco indicated that it was still able to operate its transmission system within safe parameters. However, Ofgem considered that, since system conditions could deteriorate in the future, a set of performance indicators should be introduced to give advance warnings of potential threats to security of supply.

¹ 'The New Gas Trading Arrangements. Further reform of the gas balancing regime. Consultation paper', Ofgem, February 2001.

² 'The New Gas Trading Arrangements. Reform of the gas balancing regime. Revised proposals', Ofgem, February 2002.

³ 'The Gas Trading Arrangements, Reform of the gas balancing regime. Next steps', Ofgem, April 2003

Network code modification proposal 0479 “Incentivised Nomination Scheme”

Modification 0479 “Incentivised Nomination Scheme” was implemented in October 2002 with the purpose of encouraging shippers to provide Transco with more accurate within-day information on their end of day imbalance positions. It was believed that better information regarding intended gas flows would enable Transco to make more efficient balancing decisions thereby reducing balancing costs as Transco would have more confidence that shippers would flow gas to meet their nominations. In this respect, the modification was intended to encourage shippers to take responsibility for changing their imbalance positions later in the day by introducing a financial penalty on those shippers who did so.

Under the incentivised nomination scheme (INS), shippers nominate their end of the day imbalance positions at 02:00 D-1, 12:00 D, 18:00 D and 22:00 D. In the event that a shipper’s nominated imbalance differs from its allocated end of day imbalance at each of these pre-determined times of the day, the shipper incurs a charge. This charge is only incurred on days in which Transco has taken a balancing action. The INS charge for each of the four charging times is the difference between SAP and the relevant system marginal price multiplied by 0.25⁴. Any revenue raised from the charges is redistributed back to shippers through the balancing neutrality mechanism.

Shippers’ obligations under the licence

Shippers have an obligation under standard condition 3(3) of the gas shippers licence not to:

“...knowingly or recklessly act in a manner likely to give false impression to a relevant transporter as to the amount of gas to be delivered by the licensee on a particular day to that transporters pipeline system or as to the amount of gas to be comprised in its offtakes.”

Shippers have a further obligation under sub-paragraph 4 of standard condition 3 to use reasonable endeavours to make arrangements with others, such as terminal operators and other shippers, at each delivery point it uses on Transco’s pipe-line system, to ensure that prompt and accurate information is provided to Transco in respect of that shipper’s gas deliveries each day at the delivery point in question.

Electricity arrangements

Under section T.4.3 of the Balancing and Settlement Code, market participants are subject to an information imbalance charge which is calculated by multiplying the imbalance price by the imbalance volume. The imbalance volume is given by the difference between the final physical notification⁵ (adding the sum of accepted bids and offers) and the actual metered volume. Currently, the imbalance price is set to zero. In addition, under their licences, suppliers and generators have an obligation not to provide inaccurate information to the transmission operator.

⁴ If a shipper’s nominated imbalance position is greater (lower) than its end of day balance, the system is long (short) and the charge would be based on the difference between the SAP and SMPsell (SMPbuy).

⁵ The final physical notification is the last notification of expected metered volumes (i.e. input and output for each BM unit for each half hour) prior to the relevant settlement period.

The proposals

Network code modification proposal 0631 “Removal of INS Charge”

It is proposed by Shell Gas Direct Ltd that the INS charge introduced through network code modification 0479 be removed.

Network code modification proposal 0632 “Revise INS charge to zero”

It is proposed by Shell Gas Direct Ltd that the INS charge introduced through network code modification 0479 be amended so that the charge is set to zero.

Respondents’ views

Network code modification proposal 0631 “Removal of INS Charge”

There were 15 responses to the proposal. The majority of respondents supported the proposal. A number of respondents supported both proposal 0631 and 0632.

The respondents against modification proposal 0631 maintained that INS had not been in place for sufficient time to make an adequate assessment of its effectiveness. These respondents stated that there was a need for further analysis and debate on this issue. A respondent believed that although INS was not a perfect scheme, it was necessary to provide stronger balancing incentives. Another respondent stated that there had been some improvement in balancing performance since the introduction of INS.

Most of the respondents stated that the rationale for introducing INS was to encourage shippers to provide Transco with better information about their intended end-of-day imbalances, thus helping improve the efficiency of Transco’s balancing decisions. In this respect, the majority of respondents stated that there was no evidence that INS had provided the expected benefits to the operation of Transco’s transmission system. However, one respondent believed that a number of improvements in balancing performance, including a reduction in the volume of Transco’s balancing actions, have been recently demonstrated.

Several respondents noted that shippers are inputting zero INS nominations throughout the day regardless of their projected imbalance position, as they aimed at being in balance by the end of the day. For this reason, some respondents stated that the main effect of INS has been to provide additional end-of-day cash-out incentives. One respondent stated that changing the cash-out arrangements in this manner has had an effect on the traded market.

A respondent maintained that shippers always intend to flow against their nomination to comply with their licence obligation. Therefore, wider commercial incentives on shippers to provide accurate data would be ineffective.

Some respondents commented that although Transco had reduced the size of its balancing actions, it was unclear whether this could be attributed to INS and whether it demonstrated any improvement in balancing performance. Some respondents also commented that the observed decrease in system balancing volumes could be explained either by the effect of

INS or by other factors such as a relative mild winter and the removal of the NDM forecast tolerance from October 2002⁶.

Some respondents stated that INS charges are redistributed through neutrality, creating artificial winners and losers and increasing the financial risks faced by shippers. These financial costs could ultimately be passed onto customers through higher prices. Furthermore, respondents stated that the risk of exposure to INS charges could increase volatility in prices and uncertainty.

Some respondents stated that the level of INS charges were not reflective of the costs to Transco of inaccurate end-of-day imbalance nominations. A few respondents believed that the INS could potentially reduce liquidity in the market, with one respondent stating that this could occur towards the end of the day.

Some respondents felt that the scheme discriminates against shippers who provide Transco with accurate nominations throughout the day, but due to a last minute “mishap”, they end the day out of balance. Respondents also commented that they are often constrained by the activities of the offshore producers and do not always have control over flows onto the system.

One respondent stated that INS increases unnecessary business costs through the need to input expected imbalances even when these are most likely to be zero.

Finally, one respondent suggested that Transco should look at Claim Validation Agency data against UK-link nominations to track down persistent offenders who provide inaccurate information. This respondent also stated that Transco should look at the discrepancies between metered flows and DFNs on an hourly basis and manage profiling through tolerances on offtake profile notifications and DFNs.

Network code modification proposal 0632 “Revise INS charge to zero”

There were 15 responses to the proposal. A slight majority of respondents expressed support for the proposal.

Most of the respondents supporting this modification did so for reasons similar to those expressed for modification proposal 0631. Generally, they believed that INS had not achieved its aims of providing more accurate information to Transco and of helping improve the efficiency of Transco’s balancing decisions. Similarly, most of the respondents opposed to the modification proposal claimed that it was too early to draw firm conclusions on the effects of INS on energy balancing performance and a further assessment was required before implementing any changes to the scheme.

There were some comments in addition to those expressed for modification proposal 0631. Several respondents supported both proposals; however some respondents stated that at present the implementation of modification proposal 0632 would be more advisable as it would keep the INS in place whilst a review of the scheme is undertaken. Shippers would also be able to continue making their nominations but without incurring a financial penalty. Furthermore, a respondent maintained that, by setting the INS charge to zero, shippers

⁶ Modification 0511 ‘Removal of NDM Forecast Deviation from Imbalance Calculations’ was approved by Ofgem on 1 May 2002 with an implementation date of 1 October 2002.

would not be encouraged to nominate zero imbalances, but would be more likely to specify their actual imbalance position.

Some respondents believed that setting the INS charge equal to zero would undermine the scheme, since there would be no financial incentives to attain imbalances close to INS nominations. Some respondents noted that a similar information scheme with a zero charge is adopted in the electricity sector.

One respondent suggested implementation of modification 0632 but with a fixed tolerance within which INS charges would not apply. This tolerance should be sufficiently large not to penalise shippers with small deviations from their nominations, but to capture only those shippers who have caused balancing actions by having sizeable discrepancies between their actual and nominated imbalances.

Transco's view

Network code modification proposal 0631 "Removal of INS Charge"

Transco did not support modification proposal 0631. Transco stated that INS was implemented

- to help it manage the transmission system by giving shippers financial incentives to provide better information on their intended end-of-day gas flows;
- to encourage shippers to be closer to their end-of-day positions earlier in the day; and
- to discourage within-day changes to shippers' end-of-day imbalance positions.

Transco welcomed a further review of the INS as it believed that the scheme had not been assessed for a sufficient amount of time. Transco considered that this review could lead to either an evolution of the scheme or the development of an alternative mechanism to assist system balancing.

Transco stated that, since the introduction of INS, system balancing volumes have decreased and Transco has been taking smaller balancing actions. At the same time, OCM trading activity has increased and Transco's market share of the OCM has fallen to single percentage figures. According to Transco, INS has encouraged shippers to achieve imbalances close to their nominations and, as such, has provided Transco with better information about expected end-of-day imbalance positions. Transco considered that INS might also have delivered improved cost attribution by removing the ability of shippers to change their imbalance positions within-day without financial consequence. Transco stated that by contributing to an avoidance of wasteful actions, INS has therefore reduced the level of misallocation of costs.

Transco considered that, in its current formulation, INS reinforces the existing balancing incentives by encouraging an end-of-day balance before the last INS charging time. Transco also commented that the current cash-out arrangements are relatively benign.

Transco stated that its concerns with within-day linepack variations have not been resolved, and that the unprecedented requirement for summer interruptions indicated some deterioration in regime performance. Transco also recognised the difficulty of assessing the true impact of INS, especially in light of the coincident removal of the NDM forecast tolerance.

Transco stated that the removal of INS would reduce shipper balancing performance and eliminate the incentive to achieve close to the nominated imbalance. As such, Transco stated that user imbalances may increase and that Transco would lose an important source of information which would act to the detriment of efficient system operation.

Further, Transco stated that the removal or revision of INS may significantly impact upon the performance of the regime and Transco's ability to manage the gas system particularly on days where the system is under stress. As such, Transco stated that it would be imprudent to remove INS without considering its refinement or alternative regime evolution.

Network code modification proposal 0632 "Revise INS charge to zero"

Transco did not support implementation of this modification proposal. Transco's reasons for not supporting it are aligned with the views already expressed with respect to modification proposal 0631.

Specifically, with regard to modification proposal 0632, Transco commented that if the INS charge were to be set equal to zero, there would be no incentives on shippers to provide accurate information about their expected end-of-day imbalance positions. Transco noted that the implementation of modification proposal 0632 may still preserve the flow of information to Transco but the removal of the financial incentive would reduce the accuracy and, therefore, the value of such information.

Ofgem's view

On the basis that both modification proposals 0631 and 0632 are designed to address the same concerns with regards to INS, Ofgem has considered which one, if any, would better facilitate the relevant objectives of Transco's network code under amended standard condition 9 of Transco's GT licence.

In its April 2003 document, Ofgem asked Transco to review the first six months of operations of INS as soon as feasible. Since this time, Transco has presented information on the operation of INS at industry workstream meetings. In addition, Transco has presented some analysis of the performance of INS in the final modification reports for these proposals. Ofgem has carefully considered Transco's analysis in reaching its decision on these proposals.

The principal aim of INS was to encourage shippers to provide more accurate information to Transco about their intended end-of-day imbalances, thus helping improve the effectiveness of Transco's balancing actions. This was intended to address some of Transco's concerns, as residual gas balancer, about managing within-day uncertainty regarding the likely end of day system balance position.

Although Transco has indicated that last winter was characterised by smaller imbalance volumes and smaller balancing actions, it has also recognised the difficulties of assessing the actual impact of INS on regime performance. The coincident removal of the NDM forecast deviation tolerance from 1 October 2002 and the relatively mild winter could have been factors determining the observed changes in balancing performance. Ofgem also notes that Transco stated that within day linepack variations have not improved and a risk of further deterioration might be possible.

Overall, Ofgem considers that there is little evidence that INS has benefited the operation of the transmission system or competition between shippers to date. At the same time, INS costs have been the most significant component of balancing neutrality cash-flow for winter 2002-03, corresponding to about 50 per cent.

As regards balancing actions, Ofgem has observed a year on year increase in the number of days in which Transco has taken actions on both sides of the market⁷. Ofgem considers that if INS incentives were effective, the number of instances where Transco had to undo a buy (sell) action earlier in the day by selling (buying) hours later on the same day would be likely to decrease. There is no evidence to suggest that this is the case.

Under the INS scheme, an average of more than 80 per cent of shippers have been providing zero nominations indicating that they intend to be in balance by the end of the day, thus responding to their cash-out incentives. In the light of this, Ofgem considers that INS appears to have introduced an additional end-of-day imbalance exposure in addition to the standard cash-out charges. This may explain the increase in within-day trading experienced in recent months. Ofgem considers that an effective supplement to cash-out charges of this nature is likely to have distortionary effects upon competition between shippers seeking to trade out their imbalance positions to the extent that it may be setting an artificially or arbitrarily high cash-out charge that is not efficiently targeting the costs of imbalances.

Ofgem notes that Transco stated that INS has improved shipper balancing performance and has provided Transco with better information about expected end-of-day imbalance positions. However, Ofgem believes that this mainly results from shippers treating INS as a de facto cash-out charge by inputting zero INS nominations and then seeking to achieve a balanced position by the end of the day that minimises both exposure to cash-out and the additional INS charges. Therefore, the only information that INS appears to provide to Transco is that shippers are more likely to be in balance at the end of the day given the risk of exposure to cash-out and INS charges.

In this respect, Ofgem does not believe that INS is an appropriate channel to sharpen cash-out incentives. Instead, any reforms to cash-out charges should focus on the cash-out arrangements themselves as these are specifically intended to provide incentives on shippers to balance at the end of the day. In this context, Ofgem notes Transco's view that the current cash-out regime may be lenient or benign under some circumstances. Ofgem considers that if Transco has concerns regarding the present cash-out arrangements then it is able to propose modifications to these arrangements.

In this respect, Ofgem would reiterate its view that it would be appropriate to reassess the present fixed cash-out price differentials on the basis that they are based on outdated figures for storage prices

In summary, Ofgem believes that INS has introduced an additional risk on existing shippers and potential new entrants without producing the expected benefits. It has also operated as a hybrid mechanism overlapping with imbalance incentives and, as such, interacting with these incentives in a way that is likely to distort competition between shippers.

⁷ Between October 2002 and July 2003 Transco has taken balancing actions on both sides of the market on 18 days, whilst between October 2001 and July 2002 this occurred only on 8 days.

Nonetheless, Ofgem is reluctant to remove the scheme from Transco's network code particularly in view of the concerns expressed by Transco regarding the continued uncertainties it is experiencing in receiving information regarding end of day imbalances and positions. In this respect, Ofgem considers that by setting the INS charge to zero, the industry would have an opportunity to further assess the operation of the current arrangements, and propose incremental reforms where necessary, potentially making use of the structure already provided by the existing INS. For example, if Transco were to consider that system conditions were worsening following the removal of the INS charge then it would be open to Transco to initiate proposals to re-introduce the charge.

Further, Ofgem considers that by setting the charge to zero, Transco will still be able to review INS nominations before taking its balancing decisions. In this respect, Ofgem would remind shippers of their licence obligations not to provide Transco with misleading information about their intended gas flows. As such, shippers should use their best endeavours to provide accurate nominations through INS. Ofgem would also recommend that Transco review shippers' performance under the INS regularly.

Ofgem's decision

For the reasons outlined above, Ofgem has decided to approve modification 0632 for implementation on 1 October 2003 and to reject modification proposal 0631, as we believe that only modification 0632 better facilitates the achievement of the relevant objectives as outlined under amended standard condition 9 of Transco's GT licence. In particular, Ofgem believes that modification proposal 0632 will facilitate competition between the relevant shippers and suppliers by removing a charge that potentially distorts cash-out incentives and therefore competition between shippers and suppliers. Further, when compared with modification proposal 0631, proposal 0632 will enable Transco to secure INS based information to assist it in making balancing decisions without any of the distortionary impacts upon competition associated with the INS charge.

If you have any queries in relation to the issues raised in this letter, please feel free to contact me on the number above or Samanta Padalino on extension 7033.

Yours sincerely,



Mark Feather
Head of Gas Trading Arrangements