Modification Report
Reform of the cash out arrangements and the inclusion of costs of OM gas used for end of day balancing purposes using a stack process
Modification Reference Number 0606

Version 1.0

This Modification Report is made pursuant to Rule 8.9 of the Modification Rules and follows the format required under Rule 8.9.3.

1. The Modification Proposal

The current rules used to determine cash out prices would be replaced. Under this proposal, Transco would create an accepted buy (sell) stack in ascending (descending) price order of all balancing actions,. Transco would also calculate an OM unit cost (in p/kWh) and publish these costs in accordance with rules set out in the Network Code. Any OM actions would be included in the buy stack at this OM unit cost and with a quantity associated with the OM transaction.

Where Transco was a net buyer over the day, the volumes of any sells would be used to remove an equivalent volume of the highest priced buys from the buy stack. Where Transco was a net seller over the day, the volume of any buys would be used to remove an equivalent volume of the lowest price sells from the sell stack.

Transco would then use the remaining price stack to determine cash out prices subject to the current differentials between SMP buy and SMP sell. Transco would determine a 'Net System Imbalance' for the Gas Day. This would comprise the difference between aggregate user inputs and offtakes net of any sales/purchases to/from Transco. This volume would then be used to determine the relevant price from either the buy or sell stack to set either SMP buy and/or sell. Where the price from the stack was below (above) the current fixed differentials, cash out prices would continue to be set using these differentials.

Where Transco does not take an action or where Transco's balancing action are in the same direction as the NSI (either the community are "long" and the System has been buying or the community are "short" and the System has been selling) then cash-out prices will be determined as SAP +/- the relevant minimal price differential.

2. Transco's Opinion

Transco does not support implementation of this Modification Proposal.

Transco notes that the intent of the Proposal is to increase the incentive on Users to balance by the incorporation of an estimated unit price of OM gas, when utilised, into a revised cash-out price determination process. However, despite the intention, Transco believes that the consequence of implementation of the Proposal would be to weaken incentives to balance. Transco considers this would have an adverse impact on the economic and efficient operation of the System. Furthermore, Transco does not consider that weakening Users' incentives to balance will better facilitate competition between Users.

The Proposal defines a basis for determining a unit cost associated with OM gas utilisation. This price would then be associated with any OM utilisation and used in the cash-out price determination process. The Proposal defines that any OM utilisation be treated in the same way as any other Market Balancing Action in the revised cash-out price determination process. Thus any balancing trade i.e. any "trade" associated with; OM utilisation, Market Balancing Actions associated with Primary and Secondary Excluded Actions and the Market Balancing Actions associated with National supply/demand balancing, would feed into the revised process for determining daily cash-out prices.

This Proposal advocates a fundamental change to the cash-out price determination process. This would involve the construction of a "Net Stack" which would be used in conjunction with the "Net System Imbalance" associated with all Users on the System. Implementation of this Proposal would define cash-out prices at a price associated with a balancing trade or that derived by applying fixed differentials to the System Average Price (SAP). The rules reflect some of the principles that have applied in the electricity regime cash-out price derivation. However, Transco does not consider that a similar approach would be desirable in the gas regime. Within electricity, for each balancing and settlement period the equivalent of the "Net System Imbalance" must have a magnitude very close to the "Net Stack" of system balancing trades. Within the gas regime this is not the case. Transco does not consider that this approach would be desirable within the gas regime and does not believe that such an approach would improve cost targeting or better facilitate the relevant objectives.

The stack process would involve a “netting” process on days when Transco had traded on both sides of the market. The process would ensure that, where Transco has traded on both sides of the market on a day, the most expensive Market Balancing Actions (or part thereof) taken for system buy purposes would be “netted” against the least expensive Market Balancing Actions (or part thereof) taken for system sell purposes to construct a resultant “Net Stack”. The philosophy of this approach has been interpreted by the NT&T Workstream as deeming the most extreme priced trades as “system actions” taken for within day purposes leaving the rather more benignly priced trades as the “Net Stack”. This "Net Stack" is then used as the determinant of end-of-day “energy balancing” cash-out.

On days when Transco was only active on one side of the market for system balancing purposes, the "Net Stack" would include all of the balancing transactions that occurred on the day.

Implementation of the Proposal would utilise the "Net Stack" as a key component of the cash-out price determination process. The process would consider the Net System Imbalance which is the aggregate imbalance associated with all Users. A set of rules would define, depending on the relative magnitudes of the "Net Stack" and the "Net System Imbalance" and their direction (buy/sell, long/short), the cash-out prices. These calculations would ensure that where the "Net Stack" is positive (i.e. Transco has been a net purchaser of gas for the day) that the SMP Buy price would always be set at, or (in many situations), below the highest price in the "Net Stack". Similarly where the "Net Stack" is negative (i.e. Transco has been a net seller of gas for the day) then the SMP Sell price would always be set at, or (in many situations) above the lowest price in the "Net Stack".

The suggested changes would, therefore, fundamentally alter the basis of cash-out price determination and hence affect cash-out prices on many days, not solely on days of OM usage. Whilst it is conceivable that the Proposal might deliver stronger balancing incentives on occasions when Transco uses OM (or takes balancing actions for locational reasons) it must be recognised that such events are rare and that even should they occur, there is a significant risk that the prices with such actions would be excluded from the "Net Stack" because of the netting process. The NT&T Workstream have noted that in all circumstances, other than when OM or locational actions are taken implementation of the Proposal would not strengthen incentives to balance, and indeed in most circumstances would reduce such incentives. Transco therefore concludes that such a change would be undesirable at present, particularly given the concerns about the weaknesses of the gas-balancing regime with respect to within day performance.

Whilst daily cash-out differentials might be expected to be reduced, Transco recognises that it would not be possible to define cash-out prices until some time after the end of the gas day. Within-day, Users would only be aware of the potential for the marginal trade prices to influence cash-out prices. However, Transco believes that many players would soon develop an understanding of the reduction in cash-out price differentials that would normally arise, thereby weakening the current balancing incentives. Transco believes that any reduction in cash-out price differentials would be likely to increase the propensity for Users to change their intended imbalance positions late in the day with the risk of generating further instability generated by flow rate changes on the System.

Transco also believes that implementation of the Modification Proposal could significantly reduce the incentive on Users to deliver against their balancing trades. Implementation of the Proposal would result in a User benefiting from not delivering against a balancing trade, if the trade price were more extreme than the resultant daily cash-out price. This might be particularly unfortunate should within day linepack variations increase to such an extent that actions on both sides of the market on a day became more frequent. Implementation of this Proposal might afford significant potential for balancing cost escalation if flows onto the System imply a need for Transco to be regularly trading on both sides of the market. This might create unwarranted and inappropriate redistribution of monies within the regime that might be detrimental to competition between Users.

Implementation of the Proposal could lead to stronger incentives to balance on either days of OM usage or other previously excluded actions, but these events are rare and in an efficient regime would expect to remain so. On days when OM or other previously excluded actions are not used, the incentives to balance would be likely to be reduced. Therefore on the majority of days, implementation of this Proposal would not be considered to promote gas flows that might better facilitate the economic and efficient operation of the System.

The effects of OM usage, or primary and secondary excluded actions, are likely to be infrequent. Therefore, given the risk that the Proposal might act to the detriment of User balancing performance and might decrease the incentives to deliver on 'balancing trades', Transco does not consider that implementation of the Proposal would better facilitate the relevant objectives.

Transco has considered the possible interactions between the gas and electricity regimes and has concluded that there would be no material impact on the electricity regime if this

Modification Proposal were implemented.

3. Extent to which the proposed modification would better facilitate the relevant objectives

The Proposer states that this Modification Proposal would better facilitate the relevant objectives of the efficient discharge by Transco of its obligations under its Licence in respect of the economic and efficient operation of the pipeline system. The Proposer also envisages that it would facilitate competition between Shippers and Suppliers by reducing the potential for cross subsidies. By improving cost reflectivity, particularly on peak days, the Proposal would better facilitate the objective of providing reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards (within the meaning of paragraph 4 of Standard Condition 32A (Security of Supply " Domestic Customers) of the Standard Conditions of Gas Suppliers" licences) are satisfied as respects the availability of gas to their domestic customers.

4. The implications for Transco of implementing the Modification Proposal , including

a) implications for the operation of the System:

Decreasing the incentive on Users to attain an end-of-day balance might lead to greater within-day mismatches between NTS input and offtake flow rates. This in turn could lead to greater flow and linepack variation which might act to the detriment of the economic and efficient operation of the System

b) development and capital cost and operating cost implications:

Changes to Transco's existing systems might be considered essential to implement this Proposal. Provisional estimates of the costs of IT changes estimate costs in the range £100-500k. Modest increases in operating costs due to the complexity of the cash-out calculation and the resulting reporting issues would be expected.

c) extent to which it is appropriate for Transco to recover the costs, and proposal for the most appropriate way for Transco to recover the costs:

Any additional System Operator costs would be shared with Users as defined within the internal cost incentive scheme defined in the GT licence.

d) analysis of the consequences (if any) this proposal would have on price regulation:

Transco is not aware of any consequences that this Proposal would have on price regulation.

5. The consequence of implementing the Modification Proposal on the level of contractual risk to Transco under the Network Code as modified by the Modification Proposal

No such consequences are anticipated.

6. The development implications and other implications for computer systems of Transco and related computer systems of Users

Transco has estimated that implementation of the Proposal might incur IT development and implementation costs as high as £500k. Transco would welcome views as to the potential implications for related computer systems of Users.

7. The implications of implementing the Modification Proposal for Users

Implementing this Proposal would result in a changed level of risk to Users due to the uncertainty surrounding exposure to cash-out prices.

8. The implications of implementing the Modification Proposal for Terminal Operators,Consumers, Connected System Operators, Suppliers, producers and, any Non-Network Code Party

Transco believes that there would be no direct effect on the above parties.

9. Consequences on the legislative and regulatory obligations and contractual relationships of Transco and each User and Non-Network Code Party of implementing the Modification Proposal

No changes to contractual relationships are anticipated.

10. Analysis of any advantages or disadvantages of implementation of the Modification Proposal

Advantages

Prices of OM gas and locational actions may influence cash-out price determination.
Some may consider the resulting cash-out prices to be more cost reflective.
Automatic determination as to whether prices associated with OM usage or locational actions might set cash-out prices.

Disadvantages

Increased uncertainty regarding cash-out prices.
Users' incentive to balance may be considered to be weakened.
Users' incentive to deliver against Transco balancing actions weakened.

11. Summary of the Representations (to the extent that the import of those representations are not reflected elsewhere in the Modification Report)

<u>Parties responding;</u>

Entergy-Koch Trading Limited	(EKTL)	Against
TXU		Against
Innogy		Against
ConocoPhillips (U.K.) Ltd	(CP)	Against
Powergen plc (PG)		Qualified Support

LE Group (LEG)	Against
EnMo Ltd	Against
British Gas Trading (BGT)	Against
TotalFinaElf Gas and Power Ltd (TFE)	Against
Scottish Power (SP)	Against
Shell Gas Direct (SGD)	Against

General

All parties were against the proposal other than Powergen who offered qualified support.

Appropriateness of the 'Stack' mechanism

Seven respondents (EKT, TXU, Innogy, CP, EnMo, TFE, SP) do not believe that this modification proposal is appropriate as it represents a fundamental change to the existing cash-out arrangements for no, or only a very marginal, improvement.The stack process is a surrogate for defining system (within-day) as opposed to end-of-day balancing usage and Innogy are not convinced that this is necessarily a valid approach. TFE are not convinced that it is possible to neatly attribute OM usage to either a "system" or "energy" balancing action.

Transco's Response

The 'stack' mechanism appears to be based on the assumption of Transco taking, or having taken, a sell action to counter the energy effects of a buy action when OM is used for system rather than energy purposes. This will not always be the case as the NTS may have sufficient LP flexibility to absorb the effects of an OM or other 'system' action without taking a sell action even if Users in aggregate come into balance by the end of the day. Transco considers that whilst such an approach has found favour in the electricity regime, the fundamental differences between the two regimes suggest that such an approach is not appropriate within the gas balancing regime.

Cost Reflectivity

A number of respondents commented on the appropriateness of the modification in regard to cost reflectivity.

EKT consider that it is valuable to include all of the relevant costs in the calculation of cash-out, however there are some larger policy issues yet to emerge and there may be a need to consider the inclusion of other costs beyond operating margins gas.

Transco's Response

Transco are unaware of any other relevant costs that could be considered for inclusion in a revised cash-out mechanism at this time. Transco does not consider that the 'stack' process affords any benefit in respect of improving the cost reflectivity of cash-out price determination.

Cost Targeting

A number of respondents commented on the appropriateness of the modification in regard to cost targeting.

Transco's analysis has shown that no operating margins gas was used for end of day gas balancing purposes over the last three winters. Three respondents (EKT, TXU, CP) commented that this indicated that costs are already being well targeted. SGD do not agree that there are, or are likely to be, "significant cross-subsidies" and believe that it is unlikely that OM usage could lead to cross-subsidies of such significance that changing the regime to ensure targeting would be efficient for the industry.

SGD consider that OM use by Transco is key to the safety of the system and it is reasonable to have this cost as an insurance cost. Two respondents (SGD, LEG) note that it is not necessarily the case that all shippers that are short when there is a beach failure will have a relationship with the terminal where the failure occurred. SGD comment that this would create the risk of high costs to shippers who are short on any day, making it more likely that shippers will try to be wrong to avoid this risk and that this will not improve balancing but distort it.

TFE note that the 0513 industry gas balancing review group concluded that it would not be sensible to make significant changes or investments to better attribute costs unless the level of such otherwise untargeted costs was very much greater than the costs of achieving the targeting.

Transco's Response
Transco agree that implementation of the Proposal will not better target costs directly. The prevailing OM cost recovery mechanisms will remain in place but the neutrality mechanisms will redistribute costs.

Information timing and market liquidity
While shippers may not know that an early Transco action will necessarily set an SMP, it is EKT's view that parts of the market may react as though this is the case. With an end of day calculation it may be more difficult for shippers to assess where the market is trading and form a view on the expected level of cash-out prices. This could result in a lower level of actions by some shippers in the early part of the gas day making Transco's residual gas balancing role more difficult.

PG comment that the modification will result in EnMO being unable to calculate SMP buy and SMP sell prices on a real time basis. EnMo themselves comment that the "after the day" nature of this modification does not make for a timely decision making process. Traders taking within day action (whether on EnMO's systems or not) need to know the prevailing imbalance cash-out prices (SMP) at the time of their action. Arguably, it is true that these figures are only confirmed at the end of the balancing period, but that is a matter considered by the trader at the time of the action with due regard to the risk involved. Modification 606 only serves to increase that level of risk.

Transco's Response
Transco is concerned that the "after the day" nature of the proposal will weaken balancing incentives and will also incentivise Users to leave their balancing decisions until later in the gas day hence exacerbating the within-day balancing and linepack variation problems.

Balancing Incentive

Five respondents (EKT, TXU, Innogy, LEG, SP) commented that by replacing the current daily cash-out price derivation with the stack process, the overall effect will be to reduce the strength of signals to balance provided by the weaker cash-out prices on many of the days when OM is not used. Innogy add that a collateral effect of weakening Shipper balancing incentives would be to increase Transco's residual balancing role, which, in their view, is a retrograde step. Two respondents (PG and TFE) commented that if there is a delay to the calculation of SMP sell and SMP buy prices the incentive properties within the gas cash-out regime will be much reduced.

Transco's Response

Transco believe that implementation of the Proposal will lead to weaker end-of-day balancing incentives on many days. Occurrences of OM usage, or locational actions, are so infrequent that Transco does not consider that the low likelihood of such trade prices influencing cash-out prices on those days might maintain even the current weak incentives to balance. This may lead to greater within-day balancing problems which would exacerbate the system linepack depletion problem.

12. The extent to which the implementation is required to enable Transco to facilitate compliance with safety or other legislation

Implementation is not required to enable compliance with safety or other legislation.

13. The extent to which the implementation is required having regard to any proposed change in the methodology established under Standard Condition 4(5) or the statement furnished by Transco under Standard Condition 4(1) of the Licence

Transco does not believe that this Modification Proposal is required in respect of any proposed change in the methodology established under Standard Condition 4(5) of the statement furnished by Transco under Standard Condition 4(1) of the Licence.

14. Programme of works required as a consequence of implementing the ModificationProposal

A programme of works would need to be developed to implement the Modification Proposal.

15. Proposed implementation timetable (including timetable for any necessary information systems changes)

A timetable is not proposed as Transco does not support implementation of the Proposal.

16. Recommendation concerning the implementation of the Modification Proposal

Transco does not support implementation of the Modification Proposal.

17. Restrictive Trade Practices Act

If implemented this proposal will constitute an amendment to the Network Code. Accordingly the proposal is subject to the Suspense Clause set out in the attached Annex.

18. Transco's Proposal

This Modification Report contains Transco's recommendation to implement the alternative proposal to amend the Network Code and accordingly Transco now seeks agreement from the Gas & Electricity Markets Authority in accordance with this report.

19. Text

Signed for and on behalf of Transco.

Signature:

Nigel Sisman
Development Manager - Gas Balancing
NT & T

Date: