

**Draft 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 Draft Modification Report is made pursuant to Rule 7.3 of the Modification Rules and follows the format required under Rule 8.9.3.

## **1. The Modification Proposal**

This Modification Proposal (and the related Modification Proposal 0607) has been raised by AEP following discussions in Workstream meetings and the development of Business Rules for Modification Proposal 0575: "Revisions to cash out pricing and the methodology for recovery of OM costs".

The Proposal states:

"The two modifications represent two distinct approaches, arising from the Modification Proposal 0575 development process. Modification Proposal 0575 proposed that Transco use the full costs of any OM gas utilisation (reflecting storage space, gas, injection and withdrawal costs) to derive a unit cost that might feed into the cash out price determination process where Transco has used OM gas for end of day balancing purposes. Following Workstream discussions, it was agreed that the development process had led to two different approaches that were sufficiently different from the original proposal to merit consideration as two separate Modification Proposals. Detailed business rules have been produced by the Workstream as part of the Modification Proposal 0575 development process for each alternative proposal.

Under the current Code rules and transportation charging methodology, OM storage capacity costs are recovered through the SO commodity charge. All other OM costs are recovered either via the Daily Margins Recovery Amount used in the determination of Balancing Neutrality Charges or via the Closing Margins Adjustment Charge. As a result, all OM costs are recovered from the whole market with no targeting of the costs to different users who cause them to be incurred.

Such a treatment of the costs would be reasonable and cost-reflective if all OM holdings and all use of OM were for "system" purposes to the benefit of all system users equally. In Transco's OM report, published each year, Transco states that it holds OM against the following events:

- beach supply failure;
- late within day change in forecast demand;
- NTS compressor failure; and
- NTS pipeline failure.

Costs associated with using OM gas for the first two categories should, where it is practical to do so, be targeted to the users who cause them to be incurred. Where OMs are used for end of day balancing purposes, then both the size and an estimate of the unit price of such action should contribute to the determination of cash-out prices.

Recovering costs from all users may lead to a significant cross-subsidy between shippers who are in balance (or long) and those shippers who are short on peak days. The current arrangements may also send inappropriate price signals of the risk and costs imposed on the system by shippers who are short on peak days. The current arrangements could also artificially dampen imbalance prices on peak days where OM gas is used to correct an end of day imbalance.

This proposal would lead to changes in the way that cash out prices are determined, even on non-peak days. The proposal could lead to a greater use of default cash out prices compared with the current rules.

This proposal could also lead to significantly higher cash out prices on peak days where OM gas is used for end of day balancing purposes than under the current rules. The proposal would not, however, place any restriction or cap on cash out prices. Where Transco took other balancing actions in addition to OM usage at higher prices, these higher priced market actions would still be used to determine cash out prices.

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."

The detailed business rules developed as part of the Modification Proposal 0575 process and subsequent workstream discussions of this Proposal are attached to this Draft Modification Proposal.

## **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 the 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 is likely to 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 for the purposes of cash-out price determination. Thus 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 stack process for determining daily cash-out prices.

This Proposal advocates a fundamental change to the cash-out price determination process. The proposed process 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. Rules would be defined to set 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 would welcome views as to whether this approach would be desirable within the gas regime and, specifically, the extent to which respondents believe that such an approach would improve cost targeting and better facilitate the relevant objectives.

The stack process would involve a "netting" process where 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 those transactions as "system actions" taken for within day purposes leaving the "Net Stack" 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 balancing transactions 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 signage, the cash-out prices. These calculations would ensure that where the "Net Stack" is positive (ie 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 (ie 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 imbalance positions late in the day with the risk of generating further instability 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.

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 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 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. However, respondents' views on any potential interactions would be welcomed.

### **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. Additionally, 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. Resulting cash-out prices might be considered 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)**

Representations are now invited.

**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 Modification Proposal**

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. Text**

*Representations are now sought in respect of this Draft Report and prior to Transco finalising the Report*

Signed for and on behalf of Transco.

Signature:

**Tim Davis**  
**Head of Regulation NT&T**

Date: