

Modification Report
Facilitation of Substitutability Between Capacity and Locational Energy Actions
Modification Reference Number 0009(0733)

Version 3.0

This Modification Report is made pursuant to Rule 8.9 of the Modification Rules and follows the format required under Rule 9.6.

1. The Modification Proposal

In order to align the Network Code with the Licence it is necessary to modify the triggers for both capacity and locational energy actions. This means that Transco would have the choice to take either capacity actions or locational energy actions to resolve a locational issue.

The modified triggers would introduce the ability for Transco to:

- Sell gas locationally upstream of a Transportation Constraint.
- Scale back interruptible entry capacity where there is no Entry Capacity Shortfall.
- Buy back firm entry capacity where there is no Entry Capacity Shortfall.

It is also necessary to ensure that cashout excludes all locational actions. This would be achieved by modifying the current arrangements (Primary and Secondary Excluded Actions) so that all actions taken in resolving a Transportation Constraint are excluded.

2. Extent to which implementation of the proposed modification would better facilitate the relevant objectives

Transco's Gas Transporter (GT) Licence ('the Licence') was modified on 1st April 2004 in relation to, amongst other things, the treatment of "locational actions" in its System Operator incentive schemes. More specifically, the costs and revenues associated with "locational actions" were included in Transco's Entry Capacity Buy Back Incentive rather than in its Residual Gas Balancing Incentive. This treatment was also applied to all Physical Renomination Incentive (PRI) Charges.

The Licence states that "locational actions" are "any action taken by [Transco] where the action was taken in respect of a specific location and would therefore be coded with a locational reason code on the OCM." For the purposes of clarity, it is important to note that not all Transco actions taken on the OCM "Locational" market fall within this definition.

As a result of the Licence changes, Transco raised Modification Proposal 0687 "Alignment with Transco Licence Changes Relating to the Treatment of the Costs of Locational Actions in Transco's SO Incentive Schemes" in March 2004 which sought to change the cashflows associated with locational actions (and all PRI Charges) so that they fed into Capacity Neutrality rather than into Balancing Neutrality. Modification Proposal 0687 was implemented on 1st September 2004.

In its explanatory notes accompanying the April 2004 modifications to the Licence, Ofgem stated that "... the locational OCM and entry capacity buy backs can both be used with similar purposes in mind." This introduced the concept of substitutability between capacity and locational energy actions.

In particular, Ofgem considered the scenario of a supply surplus in one location and a corresponding supply deficit in a different location, which could occur, for example, either side of a Transportation Constraint. Ofgem identified two possible means of resolving this situation. The first approach, using capacity management tools, would be to buy back firm entry capacity to restrict gas flows into the area with the supply surplus, which would in turn redirect gas downstream of the Transportation Constraint, simultaneously resolving the supply deficit. In interpreting this scenario, Transco has assumed that scaling any interruptible entry capacity would have taken place prior to the buy-back of firm entry capacity. The second approach identified by Ofgem would be to sell gas locationally to limit the gas flows into the area with the supply surplus and then buy locationally in the area with the supply deficit.

The Network Code allows the use of such mechanisms only in certain circumstances. The triggers for these are:

1. Scale back interruptible entry capacity where there is an Entry Capability Shortfall (Code section B2.9).
2. Buy back firm entry capacity where there is an Entry Capacity Shortfall (Code section B2.10).
3. Buy gas locationally in order to resolve a Localised Transportation Deficit (Code section D1.5).

Transco has analysed a number of scenarios and identified that the triggers described above do not allow for full substitutability between capacity and locational energy actions. For example it is not possible under the Network Code to sell gas at a specific location to resolve a supply surplus at that location. Similarly, it is not possible to take capacity actions at a specific location to resolve a supply deficit elsewhere.

Transco considers, therefore, that the Network Code is not consistent with the Licence as it does not allow Transco the operational flexibility to choose between capacity and locational energy actions in all circumstances. In order to allow full substitutability as the Licence envisages, Transco believes it is necessary to modify the Network Code.

In addition to modifying Network Code to provide the appropriate triggers, it is also important to consider the treatment of locational actions in the determination of cashout. Currently, when gas has been bought at a location to resolve a Localised Transportation Deficit (see trigger 3 above), the following is excluded from cashout determination (Code section F1.2.4):

- the locational buy action (Primary Excluded Action); and
- certain associated locational sell actions (Secondary Excluded Actions) depending on:
 - the volume of the secondary action in relation to the primary action; and
 - the time elapsed between taking the primary and secondary actions.

Under the proposals outlined above, locational sell actions taken as ‘primary’ actions would also need to be excluded from cashout, as would ‘secondary’ buy actions. Therefore, Transco believes it is also necessary to modify the Network Code to ensure consistent treatment of all locational actions in cashout. This would mean that all actions taken in resolving a Transportation Constraint would be treated as locational actions.

Locational actions taken by Transco are identified by means of reason codes allocated on the OCM at the time of the action being taken. Currently there are several reason codes relating to national and locational actions including those for Primary and Secondary Excluded Actions. Transco believes that in line with its proposed legal text, the reason codes should be rationalised, and is proposing to retain the following codes only for its actions: NB01 (national buy), NS01 (national sell), LB01 (locational buy) and LS01 (locational sell). NB01 and NS01 codes would be applied to actions where there was no restriction on where the action could be taken, with these being *included* in cashout. Conversely, LB01 and LS01 codes would be applied to actions where there was a restriction on the locations where the action could be taken, with these actions being *excluded* from cashout.

This Modification Proposal does not require any consequential changes to the Procurement Guidelines as capacity management is already identified in Table 1 of the Procurement Guidelines as an anticipated application for energy actions. However, changes may be required to the System Management Principles Statement to clarify the underlying principles that Transco would use in determining whether to use a capacity action or a locational energy action.

The following lists identify the tools that would be available to Transco to manage either a locational deficit or a locational surplus should this Modification Proposal be implemented.

Locational deficit

- Maximise release of firm entry capacity in the deficit area.
- Restrict release of firm entry capacity remote from the deficit.
- Scale back interruptible entry capacity remote from the deficit.
- Buy back firm entry capacity remote from the deficit.
- Buy locationally in the deficit area.

Locational surplus

- Restrict release of firm entry capacity in the surplus area.
- Maximise release of firm entry capacity remote from the surplus.
- Scale back interruptible entry capacity in the surplus area.
- Buy back firm entry capacity in the surplus area.
- Sell locationally in the surplus area.

These lists do not represent the sequence of actions that will be taken by Transco. Indeed, the tools chosen to manage a specific situation may vary depending on its extent and location, the prevailing national balance position and Transco’s experience built up over time of the associated costs and relative operational effectiveness of the different tools available.

Transco intends to propose changes to the System Management Principles Statement based on the above as and when this Proposal is implemented.

Transco recommends implementation of the Proposal.

3. The implications of implementing the Modification Proposal on security of supply, operation of the Total System and industry fragmentation

In its explanatory notes accompanying the section 23 notice referred to in section 2 above, Ofgem considered that the Licence proposals would incentivise Transco to make more efficient decisions when deciding which balancing tool to use, which would in turn allow Transco to more efficiently incur balancing costs. Implementation of this Proposal would make both locational actions and capacity actions available for Transco to use in resolving a Transportation Constraint, thus providing the opportunity to make a choice as to which action to take. It will therefore ensure consistency between the Network Code and the Licence, thereby better facilitating the relevant objective identified in Amended Standard Condition 9(1)(b) of the Licence, i.e. Transco will establish transportation arrangements that are consistent with the efficient discharge of the Licence.

4. The implications for Transporters and each Transporter of implementing the Modification Proposal, including

a) implications for operation of the System:

It is not considered that implementation of the Proposal would have any material adverse impact on the operation of the system.

b) development and capital cost and operating cost implications:

No such implications are envisaged.

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

Any costs associated with increased operating expenditure and/or system development would be covered under the internal costs incentive.

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

No such consequences are envisaged.

5. The consequence of implementing the Modification Proposal on the level of contractual risk of each Transporter under the Code as modified by the Modification Proposal

No such consequences are envisaged.

6. The high level indication of the areas of the UK Link System likely to be affected, together with the development implications and other implications

for the UK Link Systems and related computer systems of each Transporter and Users

Existing Transco processes implemented for Modification Proposal 0687 already capture data for all locational actions, whether “buys” or “sells”, so there are no additional development implications on Transco systems.

In simplifying the reason codes used on the OCM, Transco understands that minor data changes are required to APX Gas (EnMO) systems, with a lead time of approximately one month. It is understood that this will not affect Users’ systems. Notice of implementation should reflect this requirement.

No other implications are envisaged.

7. The implications of implementing the Modification Proposal for Users, including administrative and operational costs and level of contractual risk

No such implications are envisaged.

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

No such implications are envisaged.

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

No such consequences are envisaged.

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

Advantage:

In its explanatory notes accompanying the section 23 notice referred to in section 2 above, Ofgem considered that the Licence proposals would incentivise Transco to make more efficient decisions when deciding which balancing tool to use, which would in turn allow Transco to more efficiently incur balancing costs.

Disadvantage:

Transco has previously stated that locational actions are not currently used interchangeably with capacity actions. Because this Proposal seeks the introduction of substitutability that currently does not exist in Code, it will be necessary for Transco to monitor the relative operational effectiveness of capacity and locational energy actions.

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

Transco received seven representations to the Proposal from the following:

British Gas Trading	BGT	
EDF Energy plc	EDF	
E.ON UK plc	EON	
Exxonmobil Gas Marketing Europe Ltd		EXO
Shell Gas Direct	SGD	
Statoil (UK) Ltd	STA	
Total Gas and Power Ltd	TGP	

One of the respondents supported the Proposal
Four of the respondents were against the Proposal
Two respondents provided comments / qualified support

Related Concerns Raised by Respondents

- **Substitutability between Capacity and energy Actions**

A number of respondents raised concerns relating to the substitutability of energy and capacity actions and the affect on Transco's incentives. For example, TGP are not persuaded of "the suggested benefits that may be realised from Transco being able to substitute capacity and locational energy actions," EDF are concerned that "it may be difficult in practice for Transco to manage all these tools effectively and efficiently given the short time periods involved in resolving a localised constraint." Also that "by changing the dynamics of the network significantly Transco may resolve the localised constraint but create another elsewhere".

- **Incentive Regime**

BGT made the observation that "the structure of the incentive regime is critical as this should align Transco's incentives upon each of their actions with the minimisation of costs borne by the industry as a whole. This could be wider than simply the costs of balancing. With this increased discretion there could be circumstances, particularly where caps and collars have been reached, where the incentive may not be in line with the most appropriate action."

Transco Opinion

Transco notes the concerns raised by the respondents. However, this Proposal does not seek to justify whether or not it is appropriate for Transco to be able to use capacity and Locational energy actions interchangeably. This aspect of the current regime was the subject of Regulatory consultation which resulted in the Licence changes that this Proposal now seeks to align Network Code with. Therefore this Proposal is solely in relation to whether or not the Network Code should be amended to enable Transco to comply fully with its GT Licence and therefore Transco does not consider that these concerns can be considered to be relevant to proposition put forward within this Proposal.

Breach of Licence

STA stated that “Transco have already made the necessary adjustments to their revenue flows to accommodate the changes to their licence through modification 687. This modification proposal cannot be required to implement licence changes as this would put Transco in breach of their licence at present.”

Transco Opinion

Modification Proposal 0687 "Alignment with the Transco Licence Changes to the Treatment of the Costs of Actions in Transco's SO Incentive Schemes" aligned the revenue streams to accommodate the revenue treatment changes introduced by the licence changes. Modification Proposal 0733 is seeking to align the Network Code with Licence changes that introduced the concept of substitutability between capacity and Locational Energy Actions, thus enabling either capacity actions or location energy actions to be taken to resolve a locational issue. As with many such industry changes it is not always possible to introduce changes to all documents simultaneously. Therefore, whilst Transco's Licence has been changed to require Transco to efficiently arbitrage between capacity and energy actions when resolving Localised Transportation Constraints, the Network Code has yet to facilitate this new licence wording. In line with its Licence obligation set out in Condition 9 Transco is seeking, at the earliest opportunity, having facilitated industry discussion on the best route forward, to bring Network Code into line with the intent of licence text.

Market Balancing Sell Actions not outweighing Market Balancing Buy Actions

STA seeks clarification on “how sell actions in excess of buy actions are to be treated under the new proposals as it is important to ensure that locational actions associated with location buy actions are excluded from the cash out process”

Transco Opinion

This was discussed at the NT&T Workstream on 4th November 2004, where it was clarified that the full size of any locationally tagged trades will be excluded from cashout determination.

Information Release

EDF believed that “better information release concerning network problems and constraints would enable the industry to respond more efficiently to Transco's localised actions, thereby helping Transco manage the system more effectively and economically.” EDF would like some commitment “from Transco and Ofgem that all localised and offshore energy and transportation constraints will be published to the industry within 2 hours of Transco's first knowledge.”

Transco Opinion

Transco notes EDF's comments. With respect to the provision of information, Ofgem has recently issued a consultation document “Offshore Gas Production Information Disclosure Initial Consultation and Draft Impact assessment February 2005.” Transco would encourage EDF to raise their issues on Offshore Information via this mechanism.

With respect to notification of a Locational Action requirement, if Transco were to consider using Locational energy actions to resolve a Transportation Constraint then it would use the active notification system to stimulate market activity prior to taking such actions where it felt this would result in more efficient and economic provision.

Impact on real time calculation of cashout prices

E.on commented on the impact on the real time calculation of cash out prices and state that “Accurate real time pricing signals published on the OCM remains fundamentally important in helping to ensure the market responds appropriately to any Transco balancing actions. Any delayed adjustments to cashout prices distort these signals.” and that “Implementation should be conditional on Transco procuring any necessary software changes to the OCM to ensure continued publication of accurate real-time cash-out prices.”

Transco Opinion

Locational actions taken by Transco are identified by means of reason codes allocated on the OCM at the time of the action being taken. Currently there are several reason codes relating to national and locational actions including those for Primary and Secondary Excluded Actions. Transco believes that in line with its proposed legal text, the reason codes should be rationalised to NB01 (national buy), NS01 (national sell), LB01 (locational buy) and LS01 (locational sell). LB01 and LS01 codes would be applied to actions where there was a restriction on the locations where the action could be taken, with these actions being *excluded* from the derivation of the cashout price. Currently cashout prices involving Secondary Excluded Actions may be delayed until such actions and volumes are identified i.e up to hour bar plus two. The introduction of a simplified reason code list will facilitate easier identification of excluded actions and quicker determination of cashout prices. The system changes have been considered (APX Gas and Transco) and will require a short lead time of approximately a month to implement the changes. This change does not impact the publication of real time cash-out prices.

Capacity Auctions

TGP noted “the probability of interruptible capacity being scaled back is likely to increase with this proposal and consider this may well undermine previous commercial decisions taken within entry capacity auctions, since the likelihood of scale back would certainly influence the bidders optimal mix of firm and interruptible capacity.” STA commented “With the introduction of long term capacity auctions it was understood that greater stability would be required with the transportation regime at entry to underpin the long term commitments that shippers may choose to make. Similarly if a Shipper should choose not to make a commitment and purchase interruptible capacity this had to be based on a risk assessment at the time. Changing Transco’s ability to curtail interruptible capacity at entry will undermine this decision and alter the nature of the capacity product purchased and as a result any decision to participate in the auctions or not.

Transco Opinion

In their explanatory notes accompanying the April 2004 modifications to Transco's Licence, Ofgem stated that "... the locational OCM and entry capacity buy backs can both be used with similar purposes in mind." Therefore, the concept of substitutability between capacity and locational energy actions was introduced through the Licence change.

Transco has raised this Proposal in order to bring Network Code in line with the GT Licence, whilst Transco recognises the respondent's concerns, the Proposal does not seek to justify whether or not it is appropriate for Transco to have the ability to substitute energy for capacity actions. Therefore Transco does not consider that these concerns can be considered to be relevant to this Proposal.

Changes to SMPS

STA asserted, "changes to ancillary documents should be provided with the proposal in order to fully appreciate the impact of the modification."

Transco Opinion

When the Transco System Operator incentive schemes were introduced in 2002, Ofgem required Transco to put in place, amongst other things, a System Management Principles Statement (SMPS). In the event that any of the relevant provisions in the Network Code are modified it may become necessary for Transco to seek an amendment to the Statement in order that it remains consistent with the Network Code. It should be noted that prior to any such amendment the Network Code shall take precedence over the Statement. It is therefore not necessary to introduce simultaneous changes to both Network Code and the SMPS.

Transco would assess whether or not changes to the System Management Principles Statement are required should Ofgem decide to direct Transco to implement.

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

This Proposal is not required to facilitate 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 paragraph 5 of Condition A4 or the statement furnished by each Transporter under paragraph 1 of Condition 4 of the Transporter's Licence

No such requirement exists in respect of this Modification Proposal.

14. Programme for works required as a consequence of implementing the Modification Proposal

Approximately one month's notice is required prior to implementation to allow APX Gas (EnMO) to make the data changes necessary to rationalise the number of OCM reason codes.

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

It is proposed that this Proposal should be implemented on 1st April 2005.

16. Implications of implementing this Modification Proposal upon existing Code Standards of Service

17. Recommendation regarding implementation of this Modification Proposal and the number of votes of the Modification Panel

Transco recommends implementation of the Proposal.

18. Transporter's Proposal

This Modification Report contains the Transporter's proposal to modify the Code and the Transporter now seeks direction from the Gas & Electricity Markets Authority in accordance with this report.

19. Text

Section B

Amend paragraph 2.9.2 to read as follows:-

“Where at any time after 15:00 hours on the Preceding Day Transco determines:

- (a) in relation to any Aggregate System Entry Point that there is or will be an Entry Capacity Shortfall; or
- (b) that there is or will be a Transportation Constraint or a Localised Transportation Deficit which Transco believes may be avoided or remedied by the curtailment of Interruptible System Entry Capacity held by Users at one or more Aggregate System Entry Points (whether or not those Aggregate System Entry Points are affected by the Transportation Constraint or Localised Transportation Deficit);

the Interruptible System Entry Capacity held by Users at that Aggregate System Entry Point ~~will~~ may be curtailed subject to and in accordance with the System Management Principles and the further provisions of this paragraph 2.9.”

Amend paragraph 2.10.7 to read as follows:-

“For each Day (or part of each such Day) in respect of each Aggregate System Entry Point, where Transco determines that:

- (a) there is a Firm Capacity Shortfall at one or more Aggregate System Entry Points; or
- (b) there is or will be a Transportation Constraint or a Localised Transportation Deficit which Transco believes may be avoided or remedied by the surrender of Firm System Entry Capacity held by Users at one or more Aggregate System Entry Points (whether or not those Aggregate System Entry Point are affected by the Transportation Constraint or Localised Transportation Deficit);

Transco ~~will~~ may initiate, not earlier than 13:00 hours on the Preceding Day, a capacity selection period.”

Amend paragraph 2.10.12(a) to read as follows:-

“the **“available surrender rate”** in relation to an Aggregate System Entry Point is the rate (in kWh/hour) calculated as an amount of Firm System Entry Capacity (equal, as appropriate, to the Firm Capacity Shortfall or to the amount of Firm System Entry Capacity Transco believes requires to be surrendered to avoid or remedy the relevant Transportation Constraint or Localised Transportation Deficit), divided by the number of hours remaining in the Day following the capacity selection effective time;”

Section D

Amend paragraph 1.5.1 to read as follows:-

“Where after 24:00 hours on the Preceding Day it appears to Transco that a Localised Transportation Deficit, Transportation Constraint, Entry Capacity Shortfall or Firm Capacity Shortfall is likely to arise or has arisen, Transco ~~will~~ may take (at such times as it judges operationally appropriate) Market Balancing Buy Action(s) and/or Market Balancing Sell Action(s) as required at relevant System Point(s) with a view to gas flow rates at such System Points being increased or (as the case may be) decreased so as to avoid or remedy the Localised Transportation Deficit, Transportation Constraint, Entry Capacity Shortfall or Firm Capacity Shortfall.”

Amend paragraph 1.5.2 to read as follows:-

"In paragraph 1.3 references to Operational Balancing shall be construed as including the taking of Market Balancing Buy Actions or Market Balancing Sell Actions by Transco under paragraph 1.5.1 ~~in respect of a Localised Transportation Deficit or anticipated Localised Transportation Deficit~~ and Market Balancing Sell Actions or Market Balancing Buy Actions taken as a consequence with a view to maintaining an Operational Balance and references to Operational Balancing Steps and Operational Balancing Requirements will be construed accordingly."

Section F

Amend paragraph 1.2.3 to read as follows:-

"For the purposes of paragraph 1.2.1(a), (b) and (c) ~~Primary Excluded Actions and Secondary Excluded~~ Locational Actions will be excluded in determining the System Marginal Sell Price, System Marginal Buy Price and the System Average Price."

Amend paragraph 1.2.4 to read as follows:-

"For the purposes of paragraph 1.2.3, :

- (a) an "**Primary Excluded Locational Action**" is a Market Balancing Buy Action or a Market Balancing Sell Action taken pursuant to Section D1.5 for the purposes of increasing or decreasing gas flows at a System Point for the purposes of avoiding or remedying a Localised Transportation Deficit, Transportation Constraint, Entry Capability Shortfall or Firm Capacity Shortfall;
- (b) ~~"Secondary Excluded Actions" are the Market Balancing Sell Actions which are excluded, in relation to any Relevant Primary Excluded Actions, in accordance with the following rules, which shall be applied in the chronological order in which Relevant Primary Excluded Actions were accepted:~~
 - (i) ~~all Relevant Sell Actions shall be ranked in order of Market Offer Price (the lowest ranked first, and bids of equal Market Offer Price ranked in chronological order of acceptance);~~
 - (ii) ~~such Relevant Sell Actions shall be excluded (in the order ranked) until:~~
 - (1) ~~the aggregate of the Market Balancing Action Quantities under the actions so excluded is equal to or first exceeds the Market Balancing Action Quantity(ies) under the Relevant Primary Excluded Actions (the amount of any such excess, the "relevant deficit excess"), or~~
 - (2) ~~all such Relevant Sell Actions have been excluded, if the aggregate of the Market Balancing Action Quantities thereunder does not exceed the Market Balancing Action Quantity(ies) under the Relevant Primary Excluded Actions;~~
 - (iii) ~~where there is a relevant deficit excess, the last Relevant Sell Action to be excluded under paragraph (ii)(1) shall be deemed, for the purposes of the further application of this paragraph 1.2.4, to be two Relevant Sell Actions, one (which shall not be treated as so excluded) for an Eligible Balancing Action Quantity equal to the relevant shortfall excess, and one (which shall be treated as so excluded) for a Market Balancing Action Quantity equal to the balance of the whole Market Balancing Action Quantity;~~
 - (iv) ~~for the purposes of this paragraph (b), in relation to any Relevant Primary Excluded Actions, a "Relevant Sell Action" is a Market Balancing Sell Action which:~~

- (1) ~~was taken by Transco pursuant to a Market Transaction other than a Locational Market Transaction effected in respect of the System Point in respect of which the Primary Excluded Action was taken;~~
- (2) ~~was taken during the period commencing with the taking of the Relevant Primary Excluded Actions and expiring on the expiry of the first full hour (ending on the hour) to expire thereafter, and~~
- (3) ~~was not excluded pursuant to paragraph (b) in relation to any earlier accepted Relevant Excluded Primary Actions;~~
- (c) ~~"**Relevant Primary Excluded Actions**" means one Primary Excluded Action or several Primary Excluded Actions which were accepted at the same time;~~
- (d) ~~"**Excluded Balancing Actions**" are Primary Excluded Actions and Secondary Excluded Actions."~~

Subject Matter Expert sign off:

I confirm that I have prepared this modification report in accordance with the Modification Rules.

Signature:

Date :

Signed for and on behalf of Relevant Gas Transporters:

Richard Court
Commercial Frameworks Manager

Signature:

Date :