Modification Report
Rebalancing System Entry Capacity Charges with respect to Barrow and St Fergus System Entry Points
Modification Reference Number 0459

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

It is proposed that a levy is charged to users delivering gas at Barrow entry point to reflect the dependence which Barrow gas has on St Fergus gas, which allows Barrow gas to be deemed to meet Transco's entry specification.

The revenue from the levy will be paid to St Fergus users, based on actual usage of the

St Fergus system entry point (UDQI's).

The levy should be linked to the ratio of St Fergus gas to Barrow gas deemed necessary by Transco to mix in Transco's NTS at Lupton, in order to allow Barrow gas to be deemed to meet the required entry specification for Transco's pipeline system.

It is proposed that the ratio of St Fergus to Barrow gas required for mixing, be used to derive an adjusted price differential between the two entry points, for each month, using the results from the MSEC auction process. The adjustment will become an additional system entry charge for Barrow users, and will generate revenue which will be passed to St Fergus users, to offset their system entry charges.

The levy would be calculated using the following mechanism:

On days when the required volume of St Fergus mixing gas is equal to or greater than the volume flowing from Barrow, the differential between the system entry charges at Barrow and St Fergus should be zero. Therefore the following mechanism is used to make the nominal system entry charges equal.

Example 1:

MSEC April;

WAP top 50%, Barrow 0.0066 p/kWh, St Fergus 0.2623 p/kWh

hence differential = 0.2623 – 0.0066 = 0.2557 p/kWh.

Assume actual flows:

Barrow UDQI = 500 GWh

St Fergus UDQI = 1350 GWh

And mixing ratio is 1:1 (Barrow : St Fergus)

Price differential should be zero, therefore add to Barrow price 50% of the published MSEC differential:

i.e. 0.2557/2 = 0.1279 p/kWh

hence Barrow attracts a levy of 0.1279 p/kWh.

Applied to Barrow UDQI, 500 GWh generates £639,000 charge.

Smeared to St Fergus UDQI, 1350 GWh, provides 0.047 p/kWh payment to

St Fergus users.

Example 2:

MSEC July;

WAP top 50%, Barrow 0.0066 p/kWh, St Fergus 0.2920 p/kWh

hence differential = 0.2920 – 0.0066 = 0.2854 p/kWh

Assume actual flows:

Barrow UDQI = 100 GWh

St Fergus UDQI = 500 GWh

And mixing ratio is 1 : 3 (Barrow : St Fergus)

Price differential should be zero, therefore add to Barrow price 50% of the published MSEC differential:

i.e. 0.2854/2 = 0.1427 p/kWh

hence Barrow attracts a levy of 0.1427 p/kWh.

Applied to Barrow UDQI, 100 GWh generates £142,700 charge.

Smeared to St Fergus UDQI, 500 GWh, provides 0.0285 p/kWh payment to

St Fergus users.

On days when the requirement for St Fergus mixing gas is less than the volume flowing from Barrow, the differential should be adjusted to reflect the actual mixing ratio:

Example 3:

MSEC April;

WAP top 50%, Barrow 0.0066 p/kWh, St Fergus 0.2623 p/kWh

hence differential = 0.2623 – 0.0066 = 0.2557 p/kWh.

Assume actual flows:

Barrow UDQI = 500 GWh

St Fergus UDQI = 1350 GWh

And mixing ratio is 2:1 (Barrow : St Fergus)

Price differential should be adjusted to reflect 2:1 mixing ratio, therefore add to Barrow price 33% of the published MSEC differential:

i.e. 0.2557/3 = 0.0852 p/kWh

hence Barrow attracts a levy of 0.0852 p/kWh.Applied to Barrow UDQI, 500 GWh generates £426,000 charge.

Smeared to St Fergus UDQI, 1350 GWh, provides 0.032 p/kWh payment to

St Fergus users.

Example 4:

MSEC July;

WAP top 50%, Barrow 0.0066 p/kWh, St Fergus 0.2920 p/kWh

hence differential = 0.2920 – 0.0066 = 0.2854 p/kWh

Assume actual flows:

Barrow UDQI = 100 GWh

St Fergus UDQI = 500 GWh

And mixing ratio is 3:1 (Barrow : St Fergus)

Price differential should be adjusted to reflect 3:1 mixing ratio, therefore add to Barrow price 25% of the published MSEC differential:

i.e. 0.2854/4 = 0.0714 p/kWh

hence Barrow attracts a levy of 0.0714 p/kWh.

Applied to Barrow UDQI, 100 GWh generates £71,400 charge.

Smeared to St Fergus UDQI, 500 GWh, provides 0.0142 p/kWh payment to

St Fergus users. The proposal that the levy is Barrow flow-related ensures that at low Barrow flows there would be a proportionately low additional charge, with low payments to St Fergus users, and vice-versa for high Barrow flows.

Options for assessing the ratio include:

Daily - Transco can assess the mixing ratio required on each day, and the levy can be applied daily on a variable basis, and included in the monthly invoicing cycle, as a charge to Barrow users and a balancing payment to St Fergus users.

Monthly - Transco can assess the mixing ratio required on each day in a month, and the weighted average taken, so that the levy can be applied on a monthly averaged basis. This levy can also be included in the monthly invoicing cycle.

Six monthly - To correspond to the current MSEC auction periods, the daily or monthly process can be applied over a six-monthly period, and the results used for the six months following.

The revenues recovered by Transco in the MSEC auction process are unaffected by this proposal.

Prices set by the MSEC auction processes are unaffected by this proposal.

2. Transco's Opinion

Transco acknowledges the differential in system entry charges that exists between Barrow and St Fergus. Separately, Transco acknowledges that gas delivered at Barrow is usually blended with gas delivered at St. Fergus for gas quality reasons. It also recognises that as a result of this large price differential a comparison has been drawn with the gas mixing that occurs between gas delivered from the two entry points.

In Transco's view, there is no direct linkage between entry charging and gas blending, and the suggestion by the proposer to introduce a dependency on the extent of gas mixing taking place is to address a concern with relative entry capacity charges at St Fergus and Barrow. Indeed the proposer has acknowledged that its primary concern relates to the differential in charges rather than the value to Barrow Users of the mixing of gas from St. Fergus with lower quality gas from Barrow.

It is Transco's view that the issues discussed in the proposal should be separated and that the concern regarding high differential in entry capacity charges should be addressed within the context of wider discussions on NTS entry capacity auctions. Such discussions might seek to take into consideration disparities caused as a consequence of entry capacity auctions in their entirety, rather than in specific cases .

Transco would also emphasise that the blending of gas, which is a purely physical process, is undertaken to maintain the required statutory gas quality levels across the network. It is not undertaken as the proposer suggests, to allow Barrow gas to be deemed to meet Transco's system entry specification. Transco considers that it is inappropriate that this physical process is considered as a remedy for the price differentials between entry capacity charges at St. Fergus and Barrow.

Transco observes that the Modification Proposal addresses the charges for monthly firm capacity only and takes no account of holdings of monthly interruptible capacity and daily firm and interruptible capacity. The proposal to introduce a variable daily adjustment to entry capacity charges at St. Fergus and Barrow may affect shippers' valuations of all capacity products and add additional uncertainty to the capacity charges they are likely to face. Further to this, the knowledge that capacity holders at St Fergus are likely to receive a rebate, the level of which will depend on the mixing ratio, may further influence prices bid for entry capacity at St Fergus. In this context, implementation before October 2001 would result in Users at both Barrow and St. Fergus paying charges for MSEC which differ from those bid in the auctions. This could be regarded as undermining a fundamental feature of the pay as bid MSEC auctions.

In conclusion Transco is not in support of this Modification Proposal. It is of the opinion that a change to Network Code is not the appropriate route to address differentials in entry capacity charges at specific entry points. Transco considers that blending of gas across the whole system is an unrelated process and should be separated from issues regarding the entry capacity auction charging methodology.

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

In its representation following the Draft Modification Report, the proposer suggests that the modification better meets the relevant objective by seeking to promote effective competition between relevant shippers, pursuant to Condition 7 (1) (9).

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

a) implications for the operation of the System:

Transco could be required to substantially increase the monitoring of gas quality levels at the relevant points on the system and determine the gas mixing ratios on a regular basis within the gas day.

b) development and capital cost and operating cost implications:

Development costs are estimated to be significant. Implementation of the Modification Proposal would involve increased daily monitoring and calculation of mixing ratios, thus increasing operating costs. However as Transco is recommending rejection of the Modification Proposal no detailed analysis has been carried out.

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:

Costs of system development would be met from allowed revenues for such purposes.

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

Any implementation may require a change to Transco's charging methodology, in accordance with Standard Condition 3 of Transco's PGT Licence.

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

The monitoring and determination of mixing ratios would require the introduction of an off-line system which therefore may increase the likelihood of administrative errors.

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

System changes to support the modification are understood to involve complex reprogramming in respect of the introduction and administration of two new charge types, one of these charges being based on apportioning revenue. It is viewed that the introduction of variable daily charges and a revenue smearing mechanism would necessitate manual daily processes by Transco.

7. The implications of implementing the Modification Proposal for Users

Implementation of the Modification Proposal would require User system changes to accommodate the new charge types. Users may not have the benefit of having advanced notice of their entry capacity prices at these terminals.

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

A respondent to the Draft Modification Report suggests that the proposed mechanism will alter the assessment of risk experienced by these various parties and their subsequent actions, particularly as after the day cost variations would be introduced.

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

Consideration would need to be given to any potential breaches of commercial confidentiality clauses that may arise from the provision of supporting data associated with the relevant invoices.

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

Advantages :-
- adjust Barrow entry charges to reflect the value of dependence upon St Fergus gas.

Disadvantages :-
- undermines the use of capacity auctions to determine entry capacity charges at these entry points.
- the introduction of two new charge types and changes to billing systems
- increased complexity due to the daily monitoring and calculation of mixing ratios.
- apportionment of capacity charges via neutrality charges may benefit Users buying capacity outside the MSEC auction process.

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

Representations have been received from 11 respondents.

3 respondents express support for the Modification Proposal. These are :-

Amerada Hess	(AH)
Powergen	(PH)
Chevron	(Ch)

7 respondents do not express support for the Proposal. These are :-

Northern Electric & Gas Limited	(NEGL)
Aquila	(Aq)
British Gas Trading	(BGT)
TotalFinaElf Gas & Power Ltd	(TFE)
Kerr-McGee Northern Sea Limited	(KM)
Scottish and Southern Energy plc	(SSE)
TXU Europe Energy Trading Limited	(TXU)

1 respondent, Shell Gas Direct (SGD), does not provide an overriding view on the Proposal.

Proposed Linkage Between Entry Capacity Differentials and Blending

TXU observes that it is unclear whether the proposal is trying to address concerns about the capacity price differential or the charge for gas blending activities. NEGL considers it inappropriate to implement a change that causes an inextricable link between the cost of a gas blending activity to differentials in capacity charges at St Fergus and Barrow. NEGL suggests that the proposal discriminates against holders of daily firm, monthly interruptible and daily capacity in favour of monthly firm holders. Aq concurs with this view adding that entry capacity charges need to be determined by a suitable market based approach. BGT states that there is no link between Entry charges and blending. BGT considers the Modification Proposal to be obscure and incapable of implementation. It adds that the proposal raises a number of issues affecting several aspects of the current regime, but targets just one element in a discriminatory manner. PG regards the process of higher price St Fergus gas for mixing subsidising the lower price inferior gas at Barrow as discriminatory.

Proposed Blending Levy

PG suggests that there should be a levy linked to the ratio of St Fergus mixing gas to Barrow gas and that this requires further debate. It suggests that clarification is needed in respect of how the mixing ratios would be calculated and over what period of time so that it does not overburden Transco.

TFE states that whilst it does not believe that the proposed levy represents a cost reflective charge for the blending activity, it does consider that the methodology illustrates the scale of the advantage bestowed upon Barrow by the auction process, reserve prices and lack of competition for its entry capacity.

KM raises concerns that the Modification proposes the introduction of a 'tariff' for users of the Barrow entry point and has not been included in current business plans for Barrow users. It explains that one of the advantages that the UK currently has over other regions is relative stability in the fiscal and cost environment. KM expresses serious concerns over the signal sent to investors about stability of the UK environment if the proposed modification was implemented. It highlights that its investors are still reeling from the results of the recent entry capacity auctions, causing serious questions to be asked about the reliability of investment in the UK.

NEGL notes that one of the principles of the current gas trading arrangements is cost-targeting and that it is supportive of strengthening this objective via the timely introduction of a mechanism to address any associated costs with gas quality being targeted to those shippers requiring the activity.

SSE notes that blending is currently the subject of Ofgem's deliberations as part of its recent consultation into the gas balancing regime and assumes that any proposals would need to be taken forward via a transportation pricing consultation.

Distortion and Influence on Shipper Behaviour

Five respondents (TXU, NEGL, BGT, SSE and Aq) express concern that the rebalancing process proposed could influence shipper behaviour in the forthcoming auctions and may distort shipper valuation of capacity at St Fergus, leading to further inefficiencies in the entry capacity regime. PG does not agree that there will be any distortion in respect of the entry capacity auction. It is of the view that many shippers already bid high for capacity at St Fergus due to their inflexibility in meeting their obligations, and since proposals for rebates of any over-recovery is still uncertain.

SGD recognises that currently the entry capacity rules create distortions that systematically favour particular shippers, particular shipper portfolios, and particular terminals.

Dependency of Barrow Gas Quality on St Fergus Gas

Ch suggests that Barrow could not supply gas into the NTS if St Fergus didn't exist, and that expensive processing facilities may have to be installed at the beach terminal to correct gas quality from Morecambe Bay. AH provides a similar view and explain that should St Fergus gas not be provided to mix in sufficient quantities, Transco would not comply with its statutory gas quality levels in specific areas. PG suggests that constraints at St Fergus are exacerbated as Barrow is completely dependant on St Fergus.

Commenting on the Modification Proposal statement that the gas delivered at Barrow is below specification, BGT highlights that this is not the case, and that the gas delivered at the Barrow terminal meets the entry specifications for that terminal.

PG observes that since the introduction of entry capacity auctions, many shippers have placed a premium on entry capacity at St Fergus, which is a constrained terminal, consequentially generating high system entry charges. BGT adds that it is well understood that the perceived shortage of capacity at St Fergus has caused extreme prices to be paid in the winter period, when in fact all capacity was not sold. It suggests that this situation has since resulted in even higher prices being paid in the summer due to an actual shortage of firm capacity which had been constrained due to maintenance and supply/demand matching. BGT concludes that there is no evidence that the delivery of gas at Barrow has any impact on the price of capacity at St Fergus.

Other Issues

AH comments that blending is undertaken to maintain the statutory gas quality levels across the network, but is not undertaken to allow Barrow gas to be deemed to meet Transco system entry specifications.

SGD agrees with the proposer that it is necessary and appropriate to address blending issues and entry capacity differentials. However it is not confident that the proposed modification of the Network Code is the most appropriate means by which to address existing problems. It further suggests that consideration should be given to seeking a resolution via Transco's charging statement. A number of respondents concur with this view that the proposal requires further debate and that the issues discussed within the proposal should be discussed within the context of MSEC Auctions.

Aq and BGT suggest that the proposal may increase costs and uncertainty due to new charge types and calculating ratios. SSE observes that the solution proposed is complex and administratively intensive. However, AH provides a counter view that it does not accept that development costs are likely to be significant. It adds that the proposal was developed in its existing form in part due to the simplicity of its administration.

NEGL asserts that the proposal fails to acknowledge the inter linkage between gas flow quantities from all 'Northern' terminals. This is a view that is shared by SSE which also argues that there is an interdependency with Teeside and that it too should be eligible to a share of the revenue levy.

Ch also discusses the interrelationship between the 'Northern Triangle' terminals of Barrow, Teeside and St Fergus and how to some extent the capacity can be switched between them. Ch suggests that 'untransferable' capacity is auctioned primarily followed by 'floating capacity' auction that is based on price. This may increase prices for shippers at Barrow and Teeside and act as a restraint on St Fergus prices, however it would allow the market to efficiently apportion a scarce resource.

BGT observes that apportionment of the capacity charges via neutrality may benefit users obtaining capacity outside the MSEC auction and potentially lead to a situation of effective negative charges. AH views Transco's comments on the interaction between the daily and monthly, and the firm and interruptible capacity markets as not appearing to add to the debate of this modification.

AH assert that concerns over the offline systems, that are required to implement this modification would lead to administrative errors, should be disregarded.

Transco's response

Proposed Linkage between Entry Capacity Differentials and Blending

Transco acknowledges the views shared by many respondents, that the issues within the proposal would be better addressed within the wider discussions on entry capacity auctions and that there is no direct linkage between entry charging and gas blending. Many of the views expressed are consistent with Transco's views as described in Section 2 of the Modification Report.

Proposed Blending Levy

Transco shares the concerns expressed by Aq and KM that the proposal may increase volatility and uncertainty within the MSEC auctions and that blending costs and issues may introduce distortions.

Transco acknowledges the view expressed by TFE in respect of the proposed levy but it believes that TFE's comments on the apparent advantage bestowed upon Barrow shippers is better discussed within the context of entry capacity auctions at all terminals.

Transco acknowledges the comments put forward by NEGL and SSE regarding gas quality and shares SSE's view that this area is likely to be discussed as part of Ofgem's considerations on further reform of the gas balancing regime.
In respect of NEGL's comments which suggest a more appropriate targeting of costs associated with gas quality. Transco notes that a 'cost targeting approach' suggested by NEGL would not necessarily achieve a level of charges similar to the level contemplated in the proposal. Indeed the level of costs anticipated under the 'Cost Targeting approach' are likely to be far less significant than those reflected in the proposal.

Distortion and Influence on Shipper Behaviour

Transco shares the concerns put forward by five respondents that the rebalancing process proposed could influence shipper behaviour in the forthcoming auctions and may distort shipper valuation of capacity at St Fergus, particularly where a rebalancing factor is being introduced that is outside of the capacity auction methodology.

Dependency of Barrow Gas Quality on St Fergus Gas

Transco believes that respondents expressing support for the proposal appear to misinterpret the mixing process and the interactions that St Fergus gas has in the process. Transco can reiterate that extra gas is not delivered at St Fergus for the purposes of ensuring gas delivered from Barrow meets the relevant system specification. The gas quantities delivered through St. Fergus are irrespective of the mixing requirements at Lupton. The quality of gas downstream of Lupton is monitored against the acceptable quality level and if gas falls below the acceptable level then a TFA (Terminal Flow Advise) is issued and Barrow terminal is requested to 'turn down' deliveries. Transco would also like to advise that no additional compression is required to accommodate the mixing process.

Other Issues

Transco accepts AH's comment that blending is required to meet statutory gas quality, not for gas delivered at Barrow to meet system entry specifications.

In respect of the impact on operating costs and development costs, Transco has undertaken an initial impact assessment on its systems and would re-iterate that this proposal would have a significant impact on Transco systems and on manual administration. Transco’s computer system would require development of a new charge type with apportionment capability. In respect of administration, Transco has previously acknowledged that some of the information required to carry out the proposed calculations is available. This information, however, relates to Barrow telemetered data only. Calculations and estimates would be required to derive St Fergus quantities and thus the mixing ratios.

In respect of the comments on the inter-linkages between the 'Northern' terminals, Transco supports the observation put forward by two shippers that any apportioning of the proposed levy may need to take into account the flows from Teeside in correctly modelling the interaction.

Regarding the comments put forward on any effect on holders of other forms of capacity, Transco views the issue of potential interaction with all forms of capacity as significant, since shippers flowing gas through St Fergus may be holders of other forms of capacity.

Transco notes that a number of the respondents provide comments regarding perceived shortcomings in auctions that arguably apply to all terminals, such as the creation of distortions that favour certain situations and whether account should be taken of broader gas quality issues and inter-linkages. Transco views these comments as being outside of the scope of this proposal but it has noted the views and suggests that they be discussed at workstream meetings.

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

Transco is unaware of any such requirement.

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 is unaware of any such requirement.

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

Transco is not in support of this Modification Proposal and therefore has not developed such a programme of works.

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

Transco does not recommend implementation and therefore has not proposed an implementation timetable.

16. Recommendation concerning the implementation of the Modification Proposal

Transco recommends rejection of this 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

19. Text

Signed for and on behalf of Transco.

Signature:

Tim Davis
Manager, Network Code

Date:

Gas and Electricity Markets Authority Response:

In accordance with Condition 9 of the Standard Conditions of the Gas Transporters' Licences dated 21st February 1996 I hereby direct Transco that the above proposal (as contained in Modification Report Reference **0459**, version **1.0** dated **20/07/2001**) be made as a modification to the Network Code.

Signed for and on Behalf of the Gas and Electricity Markets Authority.

Signature:

The Network Code is hereby modified with effect from, in accordance with the proposal as set out in this Modification Report, version **1.0**.

Signature:

Process Manager - Network Code

Transco

Date:

Annex

1. Any provision contained in this Agreement or in any arrangement of which this Agreement forms part by virtue of which The Restrictive Trade Practices Act 1976 ("the RTPA"), had it not been repealed, would apply to this Agreement or such arrangement shall not come into effect:

   (i) if a copy of the Agreement is not provided to the Gas and Electricity Markets Authority ("the Authority") within 28 days of the date on which the Agreement is made; or

   (ii) if, within 28 days of the provision of the copy, the Authority gives notice in writing, to the party providing it, that he does not approve the Agreement because it does not satisfy the criterion specified in paragraphs 1(6) or 2(3) of the Schedule to The Restrictive Trade Practices (Gas Conveyance and Storage) Order 1996 ("the Order") as appropriate

   provided that if the Authority does not so approve the Agreement then Clause 3 shall apply.

2. If the Authority does so approve this Agreement in accordance with the terms of the Order <u>(whether such approval is actual or deemed by effluxion of time)</u> any provision contained in this Agreement or in any arrangement of which this Agreement forms part by virtue of which the RTPA, had it not been repealed, would apply this Agreement or such arrangement shall come into full force and effect on the date of such approval.

3. If the Authority does not approve this Agreement in accordance with the terms of the Order the parties agree to use their best endeavours to discuss with Ofgem any provision (or provisions) contained in this Agreement by virtue of which the RTPA, <u>had it not been repealed, would</u> apply to this Agreement or any arrangement of which this Agreement forms part with a view to modifying such provision (or provisions) as may be necessary to ensure that the Authority would not exercise his right to give notice pursuant to paragraph 1(5)(d)(ii) <u>or 2(2)(b)(ii)</u> of the Order in respect of the Agreement as amended. Such modification having been made, the parties shall provide a copy of the Agreement as modified to the Authority pursuant to Clause 1(i) above for approval in accordance with the terms of the Order.

4. For the purposes of this Clause, "Agreement" includes a variation of or an amendment to an agreement to which any provision of paragraphs 1(1) to (4) in the Schedule to the Order applies.